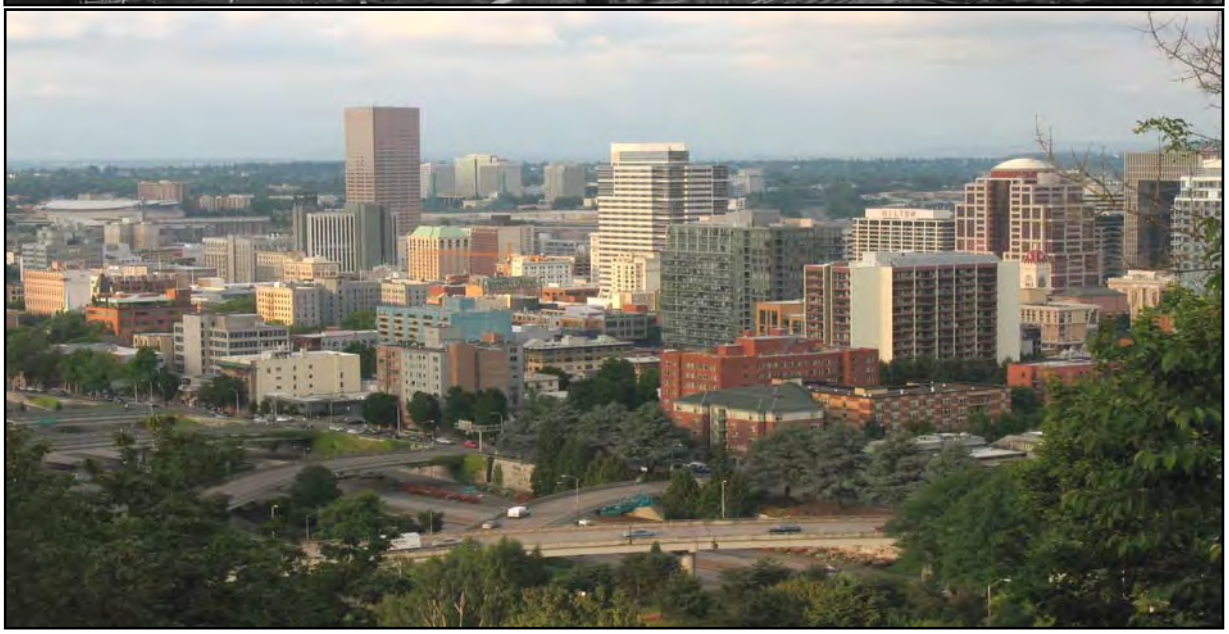
# URBANIZING FLORA OF PORTLAND, OREGON, 1806-2008



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Occasional Paper 3 of the Native Plant Society of Oregon
2009

**Recommended citation:** Christy, J.A., A. Kimpo, V. Marttala, P.K. Gaddis & N.L. Christy. 2009. Urbanizing flora of Portland, Oregon, 1806-2008. Native Plant Society of Oregon Occasional Paper 3: 1-319.

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Second printing with corrections and additions, December 2009
ISSN: 1523-8520

Design and layout: John A. Christy and Diane Bland. Printing by Lazerquick.

# Dedication

This Occasional Paper is dedicated to the memory of Scott D. Sundberg, whose vision and perseverance in launching the Oregon Flora Project made our job immensely easier to complete. It is also dedicated to Martin W. Gorman, who compiled the first list of Portland's flora in 1916 and who inspired us to do it again 90 years later.

# Acknowledgments

We wish to acknowledge all the botanists, past and present, who have collected in the Portland-Vancouver area and provided us the foundation for our study. We salute them and thank them for their efforts.

We extend heartfelt thanks to the many people who helped make this project possible. Rhoda Love and the board of directors of the Native Plant Society of Oregon (NPSO) exhibited infinite patience over the 5-year life of this project. Rhoda Love (NPSO) secured the funds needed to print this Occasional Paper. Katy Weil (Metro) and Deborah Lev (City of Portland) obtained funding for a draft printing for their agencies in June 2009. Kenton Chambers, Richard Halse, Mike Houck, Eliza Lindsay, Aaron Liston, Rhoda Love, and Charlene Simpson provided much-needed edits and improvements to the manuscript. Diane Bland provided design advice and Cliff Alton solved critical layout problems.

We are grateful for ready access to herbarium collections, databases, and botanical expertise granted to us by a host of individuals and institutions. Our work would have been impossible without the Oregon Flora Project (Linda Hardison, Thea Cook, Katie Mitchell), the databases of the Burke Museum (University of Washington) and Marion Ownby Herbarium (Washington State University). The Carex Working Group (Barbara Wilson, Bruce Newhouse, Dick Brainerd), Oregon State University (Aaron Liston, Richard Halse, Ken Chambers), the University of Washington (Peter Zika), Portland State University (Mark Fishbein, Diane Bland, Vic Marquardt), Reed College (Keith Karoly, Bert Brehm), and Linfield College (Kareen Sturgeon, John Syring) all provided information on herbarium collections past and present. Ed Alverson provided important information on specimens and historical publications. Bonnie Brunkow, Virginia Maffitt, Bruce Newhouse, Mary Pfauth, Lona Pierce, Jack Poff, Barbara Wilson, and Peter Zika provided species lists and personal collection data. Michael Baynes, Ken Chambers, Mart Hughes, Aaron Liston, Rhoda Love, Bob Meinke, Beth Myers-Shenai, Nancy Turner, Sue Vrilakas, and Carol Wilson provided innumerable technical details. Claire Johnson provided research material on E.P. Sheldon, and Rhoda Love provided transcripts of correspondence between W.N. Suksdorf and J.C. Nelson found at Washington State University. Mark Bosworth (Metro) and John Bauer (The Wetlands Conservancy) created several maps. The Oregon Historical Society and Multnomah County Library provided access to their collections of rare books, photos, and manuscripts. We are also grateful to staff who provided access to a variety of sources at Mazamas (Jeff Thomas, photo archives), Oregon State University (papers of the Oregon Horticultural Society, early student theses), Portland State University's Millar Library (archives of Vanport Extension Center), Reed College (early student theses), the University of Oregon's Knight Library (papers of M.W. Gorman, L.F. Henderson, A.R. Sweetser, J.C. Nelson, and early student theses), and the University of Washington's Allen Library (papers of A.A. Heller).
Photo credits are on page 319.

# Urbanizing Flora of Portland, Oregon, 1806-2008

## Table of Contents


**Summary** ..... 2
**Introduction** ..... 3
Study area ..... 4
Climate ..... 5
**Compilation of Species Catalog** ..... 6
**Portland-area Plant Collectors and Their Herbaria** ..... 14
Plant Specimens and Herbaria ..... 14
Plant Collectors ..... 16
Chronology of Botanical Collecting ..... 17
Principal Collectors, 1825-1925 ..... 21
**Changing Habitats, Changing Flora** ..... 30
Vegetation between 1806 and 1870 ..... 30
Urban Expansion after 1870 ..... 31
Changing Habitats ..... 36
Coniferous and mixed coniferous-deciduous forest ..... 37
Prairie, savanna, and oak woodland ..... 39
Cliffs, Rock Outcrops, and Rocky Oak Woodland ..... 43
Rivers, streams, lakes, and wetlands ..... 45
Roads and Railroads ..... 52
Dredge Spoils and Ballast ..... 52
Analysis of a Changing Flora ..... 55
Rare species, common species ..... 55
Exotic species and periods of introduction ..... 57
Comparison with other urban floras ..... 61
**Conclusion** ..... 62
**Catalog of vascular plants in the Portland-Vancouver area** ..... 64
Excluded taxa ..... 248
**Literature Cited** ..... 254
**Appendix A. Gazetteer—old and new place names** ..... 270
**Appendix B. Gormania—champion trees, farmers, and the "idle Sunday rabble"** ..... 283
**Appendix C. Ballast plants from Portland area.** ..... 291
**Appendix D. Rare native plants in Portland area.** ..... 294
**Appendix E. Rare exotic plants in the Portland area.** ..... 299
**Index** ..... 302
**Photo Credits** ..... 319

# Summary

The vascular flora of the Portland-Vancouver area is documented by herbarium specimens and publications dating back to 1806. Urbanization has had inevitable and predictable effects on the region's vegetation. Wetlands have declined locally by 97 percent, coniferous forest by 92 percent, prairie and savanna by 90 percent, riparian and wetland forest by 58 percent, and oak communities of any sort by 40 percent. Open water features declined 49 percent. Old literature and specimens document the floristic composition of some of these vanished habitats.

A total of 1,553 taxa have been reported or documented from our area, representing 126 plant families. Of these, 58 percent are native and 42 percent are exotic. Native species still outnumber the exotics by 16 percent, but the native flora is much less robust than it was in 1925 because a greater proportion of it is composed of rare species. Today there are about half as many common native taxa as there were in 1925, and the number of rare native species has increased twelve-fold. Since 1925 the number of common exotic taxa has nearly tripled. Sixty-five percent (580 taxa) of our native species are now rare, and 44 percent of these (256 taxa) have not been reported since 1980 or earlier. Forty-seven percent (312 taxa) of our exotic flora are now rare, many of them having originated as species from warmer climates that established temporarily on shipping ballast or in rail yards, but failed to survive our cold, wet winters. These "temporary" taxa are hereafter called "waif" species.

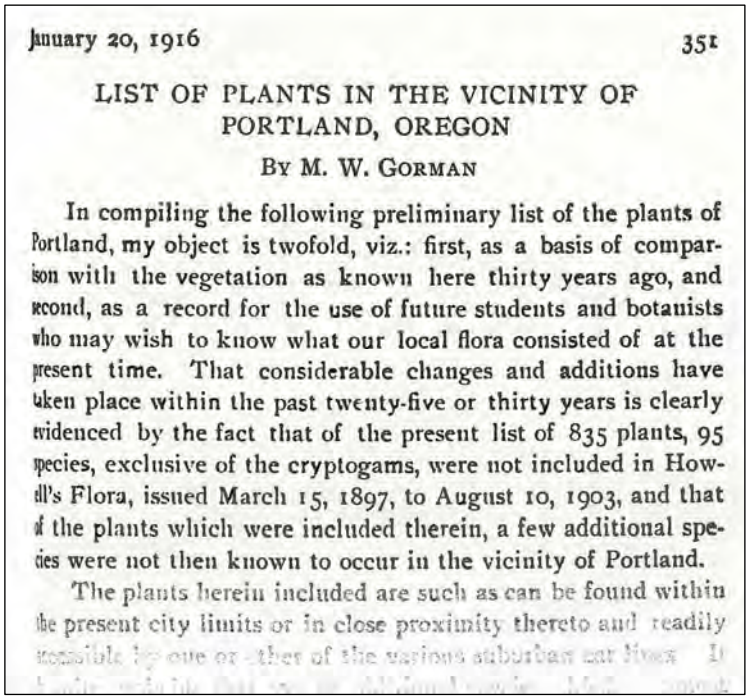
The Orchidaceae, Boraginaceae, Apiaceae, Fabaceae, Asteraceae, and Saxifragaceae respectively have the highest percentages of rare native species. Families with the greatest percentage of rare exotic species are dominated by the Cyperaceae, Chenopodiaceae, Brassicaceae, Caryophyllaceae, and Poaceae. In contrast to native species that are rare primarily because of habitat loss, rare exotics were mostly waif species, unsuccessful in Portland even though they may be aggressive colonizers elsewhere in the world.

Twenty-four exotic taxa have been present in our area since the earliest years of Fort Vancouver. Although exact dates of introduction are lacking, the rate of introduction between 1875 and 1924 is thought to have averaged somewhere between 4.1 and 9.3 species per year. This coincided with the well documented growth in population, commerce, and urbanization that occurred during this period. Approximate dates for introductions between 1925 and 1999 are much better documented than those of earlier decades, and reflect an average of about 47 new species every 25 years, or an average of 1.9 species per year.

Primary historical avenues for migration of plants into our area were rivers, railroads, and shipping ballast. River-associated taxa were primarily native, mostly restricted to wetlands, and about a quarter came from east of the Cascades. The railroad group, though undersampled, was mostly exotic, and had many taxa from east of the Cascades. The ballast group was overwhelmingly exotic, and about half of them came from warmer climates. This latter group could include species that might respond favorably to climate change. Since 1930, the use of water for ballast has reduced the importation of exotic plants, but the growth of the nursery industry has offset this loss by a growing number of exotic ornamental species that have naturalized in our area.

# Introduction

Portland is one of only a few cities in North America fortunate enough to have an extensive record of its flora prior to 1925. This record is based largely on a series of publications and unpublished manuscripts written between 1904 and 1925 by Martin W. Gorman and James C. Nelson. Gorman and Nelson's work, supplemented with earlier and later literature and online herbarium databases, provided us with a rare opportunity to compare the historical flora of the Portland area with that of today.



January 20, 1916 351

LIST OF PLANTS IN THE VICINITY OF PORTLAND, OREGON

By M. W. Gorman

In compiling the following preliminary list of the plants of Portland, my object is twofold, viz.: first, as a basis of comparison with the vegetation as known here thirty years ago, and second, as a record for the use of future students and botanists who may wish to know what our local flora consisted of at the present time. That considerable changes and additions have taken place within the past twenty-five or thirty years is clearly evidenced by the fact that of the present list of 835 plants, 95 species, exclusive of the cryptogams, were not included in Howell's Flora, issued March 15, 1897, to August 10, 1903, and that of the plants which were included therein, a few additional species were not then known to occur in the vicinity of Portland.

The plants herein included are such as can be found within the present city limits or in close proximity thereto and readily accessible by one or other of the various suburban car lines. It

**Figure 1. Title page of Gorman's paper in botanical journal *Muhlenbergia*, 1916-1917.**

Among the papers of Martin Gorman at the University of Oregon's Knight Library is an undated, 160-page handwritten manuscript entitled *List of Plants in the Vicinity of Portland, Oregon*. Several lines of evidence indicated that Gorman wrote it between 1905 and 1915, and subsequent research revealed that three-quarters of it was published in 1916 and 1917 in the botanical journal *Muhlenbergia* (Figure 1; page 10). Sadly, the last quarter of the manuscript—over 200 species catalogued by Gorman—never saw the light of day because the journal suddenly ceased publication before the volume was completed. Distribution of the final installments of *Muhlenbergia* was fragmentary, and most subscribers never received them and possibly never even knew that they existed in the first place. Our paper completes the job left unfinished by the untimely demise of *Muhlenbergia*, and builds on Gorman's pioneering work by supplementing it with the work of Nelson and other botanists. It realizes Gorman's wish (Gorman 1916-1917) that someone would take this opportunity to compare the historical and current floras.

Gorman botanized in the Portland area between 1885 and 1925, and his *List of Plants* is the foundation of our comparison with the city's current flora. Gorman based his own work on Thomas Howell's *Flora of Northwest America* (Howell 1897-1903), which he knew well from many hours of editing and proofreading for Howell (Lange 1958; Thatcher 1980; Lodewick and Lodewick 1993). In compiling his *List of Plants* Gorman combined his own botanical observations with those of a cadre of local botanists who had been collecting in the region since about 1875. He knew all of these collectors personally and was in a unique position to pool their knowledge in documenting the flora around Portland and to a lesser extent Vancouver, Washington.

Working independently from Gorman, Nelson published a series of papers between 1916 and 1923 that added many new and rare species to the area's flora. Nelson's work in Portland focused mostly on the weeds of ballast grounds at Linnton and along the shores of the Willamette and Columbia rivers.

The work of Gorman and Nelson is supported by an extensive legacy of botanical specimens in regional herbaria that document most of the records cited in their publications. After 1925, the area's flora continued to be documented in a variety of academic papers, monographs, theses, and herbarium specimens.

Working with all these sources, we have compiled an annotated catalog of the vascular flora of Portland and vicinity. It contains 1,553 taxa in 126 families, and compares the historical flora with changes that have occurred since 1925. Sources included additional publications, the herbarium record, and the botanical observations of the authors and contributors. We review the history of botanical collecting in the Portland-Vancouver area, describe historical habitats and their original flora, and describe the current condition of these habitats. We describe and analyze changes that have occurred in the region's flora and what these changes might indicate. The species catalog is followed by a gazetteer of place names mentioned in the text (Appendix A), botanical miscellanea recorded by Gorman and others that were too good to ignore (Appendix B), taxa collected on ballast (Appendix C), rare native taxa (Appendix D), rare exotic taxa (Appendix E), and an index to species and synonyms listed in the catalog.

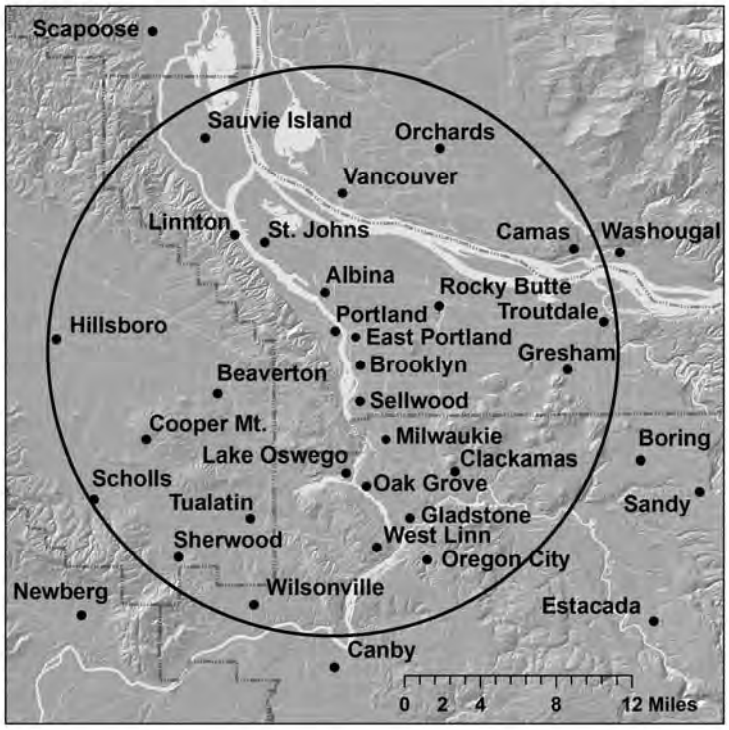



**Figure 2. Our study area as defined in 1916 by Martin Gorman. The four counties within the circle are (clockwise from top): N of Columbia River—Clark; Central, S of Columbia River—Multnomah; SE—Clackamas; W—Washington.**

Catalogs such as this one are never complete. Species new to our area and those buried in the historical record continue to be found, and nomenclature continues to change almost daily as species concepts continue to ferment. We welcome any additions and corrections and will update the catalog as needed.

## Study area

We followed Gorman's lead and limited our study area to a radius of about 15 miles from downtown Portland, encompassing approximately 707 square miles ranging from Vancouver, Washington, south to Oregon City, east to the Sandy River, and west to Hillsboro (Figure 2). The area includes adjoining parts of Multnomah, Clackamas, Clark, and Washington counties. Gorman occasionally cited localities as far away as Multnomah Falls or Dundee, but indicated that these were beyond what he considered to be the metro area. Similarly, we consider recent botanical reports from the north end of Sauvie Island, Scappoose Bay, Oxbow Park, Dodge Park, and the Ridgefield National Wildlife Refuge to be slightly beyond our study area.

The Portland-Vancouver area occurs at the northern end of the Willamette Valley in a topographic depression between the Cascade Range and the Coast Range. The Columbia and Willamette rivers run through the center of the area and meet at the tip of the Portland Peninsula. Historically, these rivers formed sometimes extensive floodplains, particularly along the Columbia. Many sites adjacent to these rivers were scoured by the recurring and catastrophic Bretz Floods (also called the Missoula Floods) during the Pleistocene, leaving distinctive erosional and depositional landscapes such as the Vancouver Plains, Rocky Butte, Willamette Narrows, and the Tonquin Scablands (Allen et al. 1986). The Tualatin and Clackamas rivers drain into the Willamette near West Linn and Oregon City, respectively, and the Sandy River drains into the Columbia near Troutdale. The Tualatin Valley forms a large and nearly level depression on the west side of our area, while the Clackamas Valley to the southeast is considerably narrower. The Tualatin Mountains, an extension of the Coast Range, bisect the northwestern part of the area and form the divide between the Tualatin and lower Willamette and Columbia River drainages. Hills and the isolated buttes of the Boring lava field dominate the southern and eastern parts of the area. Elevations throughout the region range from about 10 feet at the confluence of the Columbia and Willamette rivers to about 1,100 feet in the Tualatin Mountains.

## Climate

The Portland-Vancouver area has a local climate intermediate between coastal and interior continental conditions, featuring a Mediterranean climate of long rainy winters and short dry summers (Johnson 1987; Hatton 2005). In winter the Coast Range partially protects Portland from the prevailing westerly flow of North Pacific storms by intercepting and reducing rainfall, but in summer it blocks the cool marine air and causes higher temperatures in Portland. The Cascade Range to some extent protects Portland from extremes in heat and cold characteristic of continental weather in the Columbia Basin and farther east.

The Columbia River Gorge—a gap in the protective barrier of the Cascade Range—influences weather in the metro area in several ways. It allows air to drain from the interior into Portland whenever contintental atmospheric pressure overcomes the prevailing westerly flow of marine air. The resulting easterly "Gorge winds" account for Portland's episodes of extreme cold in winter and extreme heat in summer. Gorge winds may occur at any time of year but are more common in winter and may last for a few days to a few weeks. During the winter they periodically cause ice storms that ravage trees near the Gorge and sometimes in the city, the most recent severe episodes occurring in 1979 and 1980. Conifers with crowns pruned or "flagged" by Gorge winds, first described from the Columbia Gorge by Lawrence (1939), also occur in summit passes or "wind gaps" in the West Hills along Cornell Road, Barnes Road (West Burnside), and Canyon Road. During periods of temperature inversions when air circulation is restricted, there is still enough flow through the Gorge in either direction to reduce the incidence of fog in the Portland-Vancouver area, in contrast to areas of the Tualatin and Willamette valleys where fog may persist for several days.

High winds associated with North Pacific storms periodically sweep the region. The most notorious of those on record occurred in January 1880 and October 1962, the latter reporting wind speeds in Portland between 79 and 100 mph. Severe winds occurred most recently in 2007. Heavy rains associated with some of these storms cause flooding and landslides, with recent severe episodes in 1996 and 2006. Aside from damage to the built environment, the effect of these periodic storms on local forests can be enormous, felling thousands of trees (Hatton 2005).

Daytime relative humidity in the metro area typically exceeds 80 percent in winter but is significantly less during summer or when easterly Gorge winds are blowing, but it seldom falls below 25 percent at any time of year. About 50 storms each year deliver 37-55 inches of precipitation, depending on elevation or proximity to hills. In general, the amount of precipitation is inversely proportional to the distance from hills and is directly proportional to elevation. About 97 percent of annual precipitation occurs between September and June, and only 3 percent occurs during July and August (Johnson 1987). Snow occurs an average of 5 days per year and rarely accumulates at lower elevations but may persist for several days each year above 800-1,000 feet. The wettest places in our area (up to 54 inches annually) are in the Chehalem Mountains, the Tualatin Mountains, the West Hills, Petes Mountain, and in the Cascade foothills east of our area, while the driest (ca. 38 inches) are in the Tualatin Valley between Beaverton and Hillsboro, and along the Columbia River between Vancouver Lake and the Portland airport (Johnson 1987; Hatton 2005).

Average winter temperatures in Portland range between 32°F and 46°F at low elevations and average 5 degrees cooler at higher elevations. Easterly Gorge winds in the winter may drop temperatures into the teens and twenties. Summer highs range between 55°F and 75°F and may extend into the nineties each year but such high temperatures rarely persist for more than a few days. Yearly extremes of temperature range from -8° to 107°F but these are rare (Johnson 1987; Oregon Climate Service data from 1971-2000).

Depending mostly on the frequency and seasonal distribution of easterly Gorge winds and their associated freezing temperatures, the growing season in Portland begins between February and March and lasts into mid to late October. Although there is no clear evidence for a consistent long-term heating or cooling trend in the Portland area, continuous temperature records from the 1960s to the present indicate that the number of frost-free days during the growing season has increased from about 200 days to as much as 240 days in recent years.

Local climate, tracked informally at Fort Vancouver since 1825, with improvements in 1849, and more or less reliably since 1871, has varied widely over the years (Mote 2003; Hatton 2005). The Columbia River froze over bank to bank ten times between 1847 and 1909 in the waning years of what has been called the "Little Ice Age." Annual precipitation peaked at 71.8 inches in 1883 and diminished to around 40 inches in the 1920s and early 1930s before rising to nearly 50 inches in the early 1970s. It declined again in the 1980s and 1990s. Paleoclimatic evidence from tree rings, pollen cores, lake levels, and glaciers indicates that regional climate has varied enormously over the last 15,000 years and to a much greater degree than what has been observed locally since 1825. Trends over the last century and projections for the future indicate that regional temperature and precipitation are increasing (Mote 2003).

## Compilation of Species Catalog

Compilation of the species catalog required review of literature, herbarium records, and archival material dating back to Meriwether Lewis' stop at the mouth of the Sandy River in 1806 . We also had to track 200 years of changes in botanical nomenclature and rely on the skills of many botanists and other observers.

## Sources of Information

### Published and unpublished reports

We did not include all of Gorman's (1916-1917) text because some of it, in particular his longer passages on ethnobotany, were beyond the scope of our project. We also omitted his notes on flower color and perennial vs. annual growth form because this information is readily available in modern floras. Curious readers should consult his original work as published, incompletely, in *Muhlenbergia*. We did include Gorman's notes on flowering period that eventually may be useful for detecting potential effects of climate change on local phenology. His notes on "champion" specimens, uses of species in pioneer days and in his own lifetime, weed lore, and acerbic commentary on the wildflower-ravaging public are included in Appendix B. From today's perspective these miscellaneous comments, coupled with his documentation of local species distributions, are unquestionably the most valuable part of Gorman's work. In many cases they are the only historical record we have of particular species in the Portland area.

To provide as complete a portrait as possible of the area's historical flora, we combined Gorman's and Nelson's sources with earlier records made by Meriwether Lewis, David Douglas, John Scouler, Meredith Gairdner, William Tolmie, Thomas Nuttall, the Hudson Bay Company, and others between 1825 and 1860, as documented in Hooker (1829-1840), Nuttall (1841), Coues (1898), Meehan (1898), and Taylor (1992). Cardwell (1906), Adams (2004), and others reported when agricultural and ornamental species first became available commercially in the western United States. One of Adams' sources was a 1912 catalog from the Portland nursery of J.B. Pilkington.

Aside from herbarium records and a scattering of papers published since those of Gorman and Nelson, we gathered information about the current distribution of species in the region from numerous reports, online sources, and the collective field experience of those cited in the acknowledgements and bibliography.

The Portland Plant List, first adopted by the Portland City Council in 1991 and with several subsequent revisions, was a seminal document that helped local governments and citizens focus on the use of native plants in landscaping and restoration activities (City of Portland 2004). In addition to listing over 450 native and exotic species known or thought to occur in our area, it promoted concepts of native plant communities, nuisance plants, and broke new ground by specifically prohibiting the use of certain pest species. The list of native species was updated in 2004 to include several plants from oak communities and prairies that were available from commercial seed sources. The list of weeds was revised and expanded by the interagency Cooperative Weed Management Area (CWMA 2004) of Clark, Clackamas, Multnomah, and Washington counties, which included earlier compilations by the Pacific Northwest Exotic Pest Plant Council (1997) and the Native Plant Society of Oregon's Emerald Chapter (NPSO Emerald Chapter 2002). CWMA listed 247 taxa and used a ranking system to describe the distribution and threat of each species.

The Metro Regional Parks and Greenspaces program supplied extensive information on rare plants in properties acquired with funding from the natural areas bond measures of 1995 and 2006. These sites are crucial for the preservation of rare species and ecosystems in the metro area. A number of these tracts contain prairie and oak habitats where many of the rare species documented by Gorman persist today. Regional vegetation inventories completed as part of scoping, acquisition, and planning processes for the bond measures provided specific information about the distribution of these species.

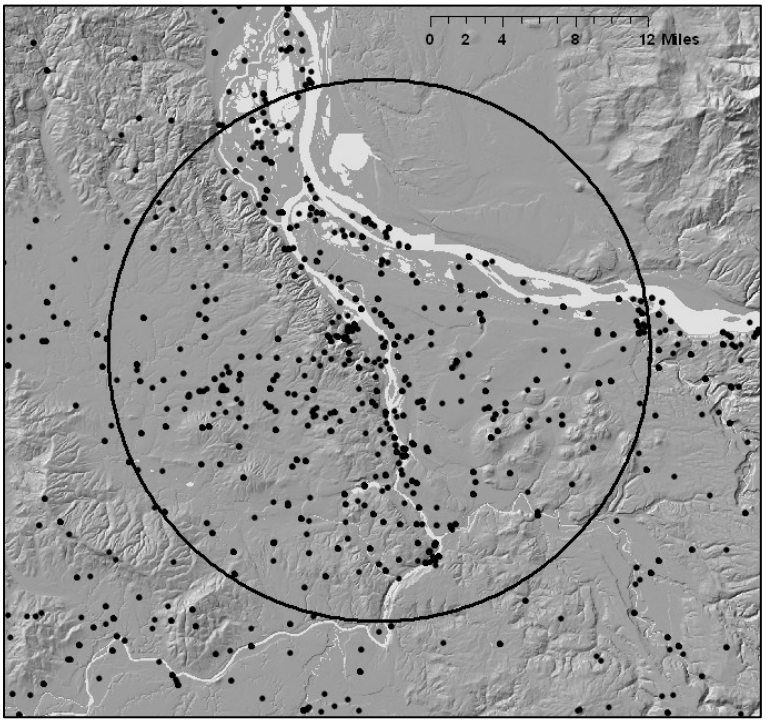



**Figure 3. Collecting sites in and around Portland, 1869-2006. The circle is our study area delineated in Figure 2. Collection data for Washington not available. Points represent about 7,000 database records. Source: Oregon Flora Project.**

Between 2001 and 2004, Portland Parks and Recreation completed a comprehensive survey of 7,000 acres of natural areas under their jurisdiction (PPR 2004; Hughes and Lev 2004), the goal of which was to assess the ecological health of the city's parks. During the survey, vegetation was sampled in plots located in each representative habitat unit, resulting in a range of unit sizes from 0.5 to 100 acres. The average unit size sampled was 9 acres in Forest Park and 5 acres in all other Portland parks. Researchers documented all "significant" taxa in the plots, including invasive, indicator, dominant, and rare or unique species. While the survey did not produce comprehensive species lists for each natural area, the database and spatial data compiled from the project are extremely useful in describing the overall distribution of rare and uncommon species in the parks.

Information about species abundance and occurrence in our area also was obtained from the Watershed Revegetation Program database of the City of Portland's Bureau of Environmental Services. The database contains annual monitoring and site maintenance data for approximately 400 project sites, covering more than 1,500 acres of both public and private lands, primarily within the city of Portland. The data are used to direct maintenance and track species presence or absence on project sites. Comprehensive data is collected in the forb layer and includes any species with more than 15 percent cover, as well as other notable species.

Information on exotic aquatic plants was provided by Portland State University's Center for Lakes and Reservoirs. Sytsma et al. (2004) included an extensive literature review and sampled 134 locations along the Columbia River from Bonneville Dam to the Pacific Ocean.

In addition to these sources of published and unpublished materials, numerous botanists cited in the acknowledgements generously provided their own records and species lists to round out our often skeletal knowledge of the current distribution and abundance of plants in our urbanizing area.

## Herbarium collections

Compilation of this catalog would have taken several lifetimes without access to the specimen database of the Oregon Flora Project (OFP), whose most recent update of 2007 included all available digital specimen data for Oregon from the four larger regional herbaria (Oregon State University, Portland State University,

Washington State University, University of Washington) and 14 other local and national herbaria. The only herbarium that we had to search manually was that of Reed College, whose specimens have yet to be databased.[1] Unfortunately, we were not able to include databased records from Clark County, housed primarily at the University of Washington and Washington State University. These records would have greatly improved our coverage for the Vancouver area, and hopefully they can be included in future editions of this work.

Figure 3 reflects the relative density of databased specimens in the vicinity of Portland and south of the Columbia River, collected between 1869 and 2006, and compiled by OFP. The dots represent a total of some 7,200 specimens, 5,520 of which occurred within our circular study area. These include material from the earliest resident pioneer botanists to recent student collections. Most earlier material, such as Meriwether Lewis' specimen from the Sandy River (Figure 4), and specimens collected by Douglas and Nuttall, are not yet available online. Major herbaria such as the New York Botanical Garden, the Missouri Botanical Garden, the Smithsonian Institution, and Harvard University have not yet completed databasing all their North American specimens, and many more records from our area presumably are buried in their holdings. The total number of existing specimens of vascular plants from the Portland-Vancouver area may be as high as 10,000.

### Archival material

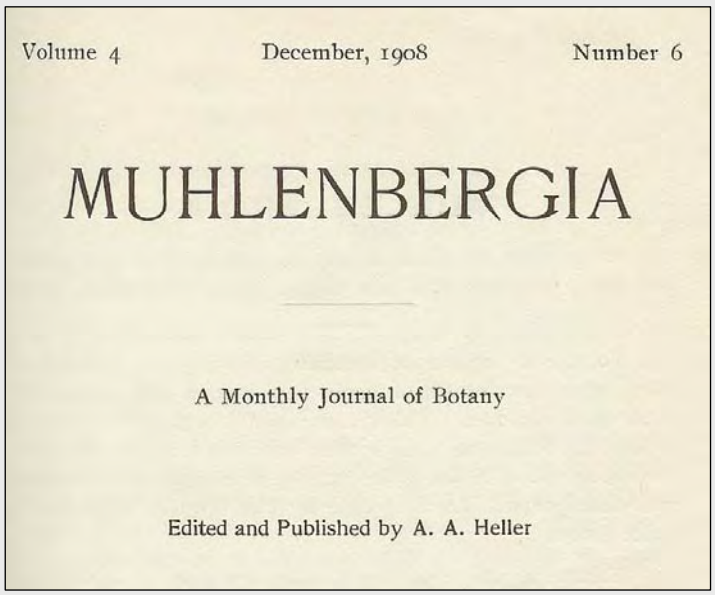
The papers of M.W. Gorman, A.R. Sweetser, and J.C. Nelson, housed in the Special Collections Division of the University of Oregon's Knight Library, provided essential details on both well known and lesser-known botanists who worked in our area, and details about the Portland flora as seen by these collectors. The papers of A.A. Heller in the Special Collections Division of the Allen Library, University of Washington, shed light on the extinct journal *Muhlenbergia*. The collections of the Multnomah County Library, Oregon State University's Valley Library, Reed College, and the Oregon Historical Society provided essential published and unpublished references.

## Nomenclature

Taxonomy is a collection of hypotheses about relationships between species, and it reflects our understanding of those relationships. Because taxonomic interpretation is subjective, people do not always agree on plant names. Most botanists rely on published floras to understand the plants around them, but changing species concepts and nomenclature have a way of making floras obsolete over time. Many of the plant names used by Howell, Henderson, and Gorman can no longer be found in modern floras. Because most botanists do not have ready access to the latest developments in taxonomy, they must rely on periodically updated checklists or new floras to keep their nomenclature current. The advent of online databases has made this bookkeeping task somewhat easier, but users still need to decide which sources to follow.

1. Our analysis included 112 specimens from the Reed College herbarium, collected between 1875 and 1899. The herbarium contains about 10,000 specimens, 1,600 of which were collected between 1848 and 1909.

## *Muhlenbergia*, an extinct botanical journal


Volume 4 December, 1908 Number 6

MUHLENBERGIA

A Monthly Journal of Botany

Edited and Published by A. A. Heller

***Muhlenbergia* was a short-lived botanical journal published between 1900 and 1917 by botanist Amos Arthur Heller (Thomas 1969). Library catalogs universally indicate that nine volumes of *Muhlenbergia* were published between 1900 and 1915 and that Volume 2 remained incomplete. For reasons unknown to us today, Heller always intended that Volume 2 would be larger than the other volumes, regardless of chronology. This was where part of Gorman's *List of Plants* was published.**

In successive advertisements in *Muhlenbergia* between 1907 and 1909, Heller's projected pagination for Volume 2 increased from 325 to 425 pages. While publishing Volume 3 in 1907, he simultaneously added 84 pages in two installments to Volume 2, bringing total pagination for Volume 2 to 340 pages. Then, after completion of Volume 9 in 1915, he added at least 92 more pages to Volume 2 in 1916 and 1917. These pages included the papers by Nelson (1916) and Gorman (1916-1917) that led to their meeting and botanical collaboration.

Distribution of the last installments of Volume 2 to subscribers was incomplete, and final pagination varies greatly among libraries. Some holdings end at page 340, others at page 416, and some have only portions of these pages. As far as is currently known, the University of Washington has the most complete Volume 2, which ends abruptly at page 432 and leaves more than 200 species in Gorman's original manuscript unpublished. Libraries of major botanical institutions such as the New York Botanical Garden, the Missouri Botanical Garden, Harvard University, the Arnold Arboretum, and the California Academy of Sciences, all have fewer pages than those present at the University of Washington. Because Heller's personal papers and library are housed at the University of Washington (Thomas 1969), it is highly likely that the university's copy of *Muhlenbergia* is the most complete available anywhere, and that page 432 was the last utterance of Volume 2 and the premature end of the journal.

So great was the apparent vacuum surrounding the final installments of Volume 2 that the publication of Gorman's *List of Plants* remained unknown even to his biographers (Anonymous 1926; Glisan 1926; Nelson 1927). Nelson did not include Gorman's *List of Plants* in his obituary of Gorman even though Gorman's paper appeared immediately after his own in *Muhlenbergia* (Nelson 1916). The Heller papers contain letters from subscribers inquiring about final installments of *Muhlenbergia* that were never received. In 1923, University of Wisconsin librarian Walter Smith asked Heller if anything after page 384 was available for Volume 2 and if the journal had ceased publication with Volume 9. In

1930, Alice Eastwood of the California Academy of Sciences asked Heller if he would send the "additional volumes." A year later she had assistant John T. Howell repeat the question, as the first inquiry evidently went unanswered. Pending results of a search of the 52 libraries that have *Muhlenbergia* in their collections, digital copies of the last three papers of Volume 2 will be made available to those institutions that want to complete their holdings of all known published pages.

While celebrating 25 years of publication of another botanical journal, *American Botanist*, Clute (1926) reflected on the extinction of several such "botanical magazines" including *Muhlenbergia*. He noted that publishing costs had quadrupled since 1901 and that the "advent of radio, movies, autos and jazz have provided amusement for many that otherwise would have taken up scientific pursuits." *American Botanist* itself died in 1948 and since then popular intellectual pursuits have diminished even further under the pervasive tyranny of television, iPods, cell phones, "personal data assistants," videogames, and DVDs.

This catalog of the Portland-area flora usually follows the PLANTS database of the USDA Natural Resources Conservation Service (http://plants.usda.gov/). Federal agencies, Metro, the City of Portland, the network of Natural Heritage programs in North America, and most local and national consulting firms currently use the PLANTS database as a nomenclatural standard. It provides ready online access to current scientific names, common names, and recent synonymy. In addition to classification, it provides ancillary data such as state and county distribution maps, National Wetlands Inventory indicator status, weed status and control, identification keys, photographs, species fact sheets, cultural significance, conservation status, and tools to generate checklists. For exotic taxa not present in the PLANTS database, we used the TROPICOS database of the Missouri Botanical Garden (http://www.tropicos.org/Home.aspx?projectid=0) to assess the current disposition of synonymy.

Because the PLANTS database is national in scope, it lacks a local focus that some botanists need to resolve issues of local or regional variability in our flora. Floras written for local, state, or regional areas often fill this need, and for our state the Oregon Flora Project (OFP; http://www.oregonflora.org/) is the most authoritative source of information. In cases where names used by the Oregon Flora Project differ from those used by PLANTS, we provide the cross-referenced OFP names in square brackets whenever there is a discrepancy. Because Hitchcock et al. (1955-1969) and Hitchcock and Cronquist (1976) were the most widely used floras for our area in recent years, we also provide cross-referenced names used by these works if they differ from the PLANTS names. If multiple cross-referenced names are present in square brackets, the first name listed is always that used by the OFP, followed by the name used by Hitchcock. References to other works are given when nomenclature deviates from these standard sources.

## Identity of Specimens

Voucher specimens for most species reported by Gorman and Nelson are present in regional herbaria. Because the early collectors lived so far from centers of botanical expertise, they maintained their own herbaria and actively corresponded and exchanged specimens with professional botanists elsewhere in the country. Through these activities they were able to identify most of their own specimens correctly. Gorman admitted that his knowledge of grasses and sedges was limited, but this weakness was offset by Nelson's strength in these groups. Both Gorman and Nelson assembled good libraries with the latest floras, including

Howell (1897-1903, of which Gorman had two copies[2]), Piper (1906), Robinson and Fernald (1908), Jepson (1909-1922), Britton and Brown (1913), Frye and Rigg (1914), and Piper and Beattie (1915). Edmund Sheldon came to Portland in 1897 with a degree in botany from the University of Minnesota, and provided expertise locally until his departure in about 1913. Nelson had most of his specimens verified by experts, including C.V. Piper (Washington State University), Agnes Chase (grasses, National Herbarium), Kenneth McKenzie (sedges, New York Botanical Garden), and the staff of the Gray Herbarium at Harvard. He deposited his specimens at these institutions and the Philadelphia Academy of Natural Sciences. J.W. Thompson was a highly proficient botanist and co-author of Hitchcock et al. (1955-1969). Una Davies at Reed College had her specimens verified by C. L. Hitchcock (University of Washington) and H.W. Rickett (a visiting professor at Reed, later on staff at New York Botanical Garden).

We were fortunate that the identities of most specimens from our area in the Oregon State University Herbarium had been recently verified by the Oregon Flora Project and the Carex Working Group. Annotations on the specimens were extremely useful in tracking old names reported in the early literature that proved to be misidentifications, and in verifying their current identities. Most specimens at Portland State University and Reed College have not been examined critically in recent years and for this study we had to verify or correct the identities of many species. In many cases herbarium specimens are the only vouchers for species that are no longer present in today's flora of the Portland-Vancouver area.

## Native vs. Exotic Species

The diverse flora of the Portland-Vancouver area is composed of species from near and far, and some from in between, and classifying them for purposes of analyzing our flora required some special rules. Aside from species obviously known to be native to Europe, Asia, and eastern North America, there are (or were) also species native to the Pacific Northwest but not to our local area. Some of the northwestern natives occurred here naturally under environmental conditions that no longer exist, and others were brought in both accidently and intentionally by railroads, ships, the nursery trade, and arboreta. For purposes of this paper, **native** taxa are those reportedly native to any part of Oregon or Washington, though not necessarily native to Portland and Vancouver. **Exotic** taxa include species native beyond the borders of Oregon and Washington, including other parts of North America as well as other continents. All exotics were assumed to be increasers, except for taxa that are rare today or waifs that have disappeared from our area. Additional details are given at the beginning of the species catalog on page 65.

2. In a letter written to Sweetser on 24 Feb 1926, Gorman related how a fire at his residence had badly damaged his two copies of Howell's flora, and that he had sent what books he thought were worth repairing to a bookbinder. A possible mixup of loose fascicles at the bookbinder may explain why only one-half of a copy of Howell's flora at the Oregon State University Herbarium (originally from the University of Oregon Herbarium before its merger with OSU in 1993) contains copious annotations in Gorman's handwriting, while another copy once owned by William H. Baker contains the other half of Gorman's annotations. The second copy remains in private hands (Wagner 2006).

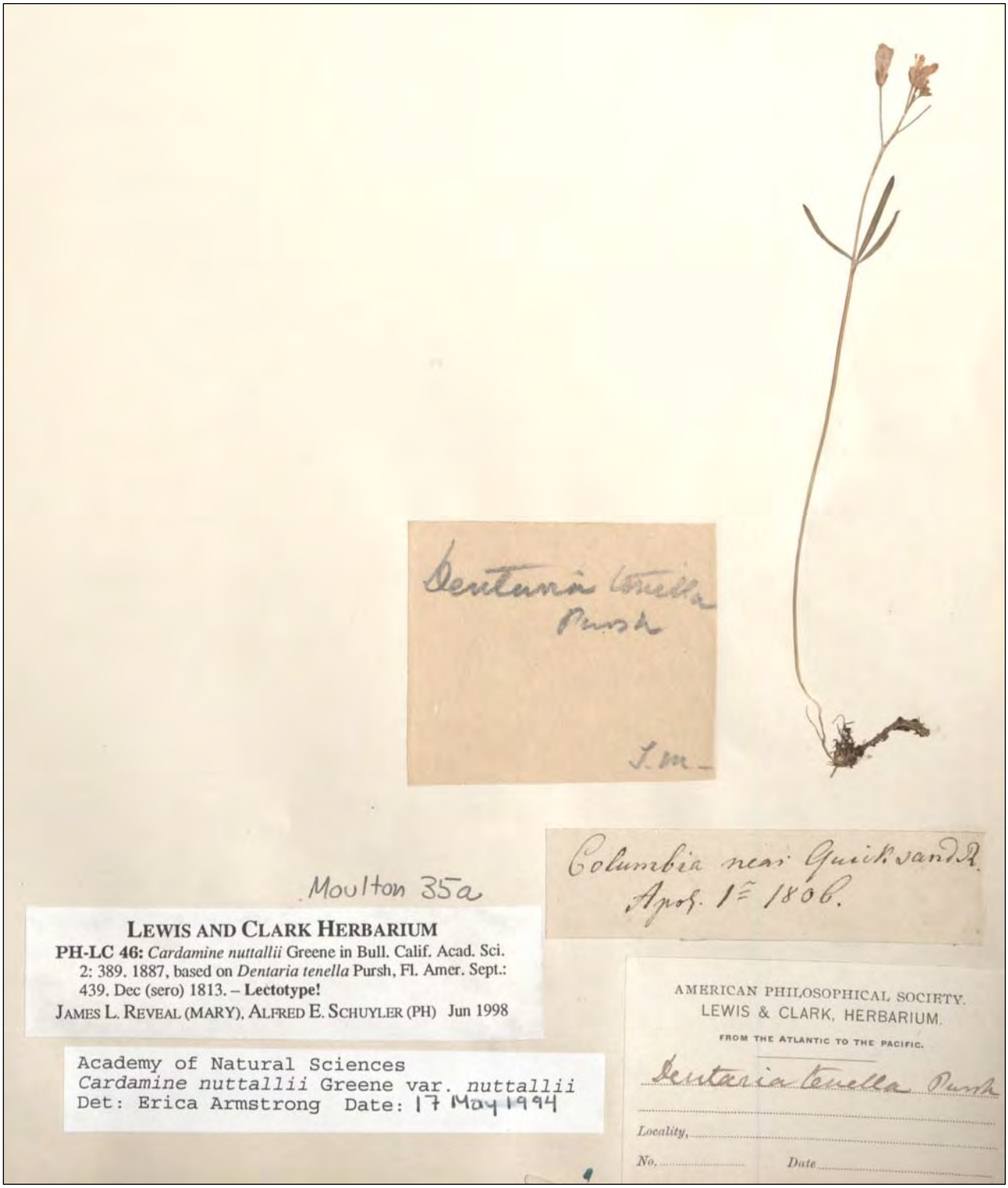



**Figure 4. *Cardamine nuttallii* var. *nuttallii* collected near the mouth of the Sandy ("Quicksand") River by Meriwether Lewis in 1806, from the Lewis and Clark Herbarium, Academy of Natural Sciences, Philadelphia. This is the type specimen (lectotype) for both *Dentaria tenella* and *Cardamine nuttallii*.**

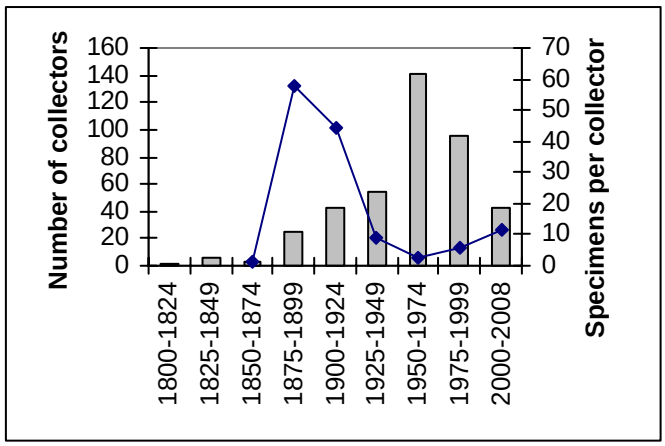



**Figure 5. Number of collectors (bars) and average number of specimens per collector (line). Numbers of specimens prior to 1869 not available. Source, 1869-present: Oregon Flora Project.**

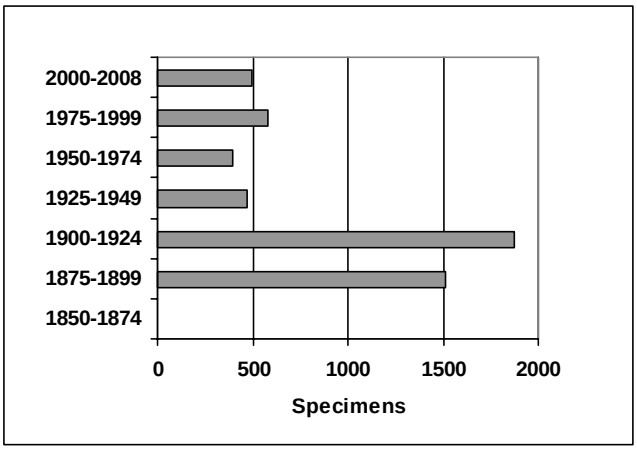



**Figure 6. Number of specimens of vascular plants collected in Portland area, 1869-2006, in 25-year increments. Source: Oregon Flora Project.**

# Portland-area Plant Collectors and Their Herbaria

## Plant Specimens and Herbaria

The database of the Oregon Flora Project contains records of 5,520 plant specimens collected from the Portland area since 1869. For convenience in analyzing trends here and elsewhere in this book, we have divided the 200-year period of our study into intervals of 25 years each.

Botanical collecting in the region can be divided into what appears to be three distinct phases of activity—relatively few collectors with many specimens each, many collectors with few collections each, and since 2000 possibly many collectors with many specimens (Figures 5 and 6; Table 1). In the first phase, 61 percent (3,387) of all specimens in the database were collected in the 50 years between 1875 and 1924, averaging 1,694 specimens per 25-year interval. Activity during this period was greatest between 1900 and 1924, with about 55 collectors gathering an average of 60 specimens each. Among their ranks are 10 of the 12 people who collected more than 100 specimens each in the Portland area over the entire 139 years represented in the database. E.P. Sheldon and L.F. Henderson collected 994 and 860 specimens, respectively, followed in decreasing order by Thomas Howell (310 specimens), M.A. Flinn (302), Wilhelm Suksdorf (241), Martin Gorman (204), J.W. Thompson (201), Joseph Howell (122), and J.C. Nelson (116). The distribution of specimens from this period among various university herbaria tells us something about where these collectors' personal herbaria ended up, and helps differentiate specimens collected by students, professionals, and hobbyists (Table 1). In decreasing order, specimens went to Portland State University (herbaria of Joseph Howell and Michael Flinn), the University of Oregon (mainly herbaria of Thomas Howell, E.P. Sheldon, and Martin Gorman, all later transferred to Oregon State University), Oregon State University (miscellaneous collectors and duplicates from the University of Oregon), Willamette University (herbaria of James Nelson and Morton Peck), and the University of Washington (herbarium of J.W. Thompson, and duplicates of Wilhelm Suksdorf).

**Table 1. Distribution of herbarium specimens, by 25-year increments. Herbarium acronyms are defined on page 67. Except for the period 1850-1874, only those herbaria with 5 or more specimens are included. Source: Oregon Flora Project.**

| 1850-1874 | 1875-1899 | 1900-1924 | 1925-1949 | 1950-1974 | 1975-1999 | 2000-2008 |
|---|---|---|---|---|---|---|
| HPSU 1 | GH 5 | HPSU 203 | ORE 102 | COCC 27 | HPSU 360 | HPSU 287 |
| NY 1 | HPSU 99 | NY 15 | OSC 74 | HPSU 127 | LINF 50 | LINF 24 |
| OSC 1 | NY 5 | ORE 1129 | WILLU 72 | ORE 9 | ORE 5 | OFP 14 |
| | ORE 918 | OSC 131 | WTU 218 | OSC 202 | OSC 144 | OSC 119 |
| | OSC 396 | WILLU 147 | | WTU 25 | WTU 6 | WTU 40 |
| | WILLU 6 | WS 22 | | | | |
| | WS 7 | WTU 218 | | | | |
| | WTU 69 | | | | | |

The second phase of botanical collecting was characterized by an abrupt decline to about 500 specimens collected per 25-year interval for the next 75 years, and a large increase in student collectors. Between 1925 and 1949 the number of collectors rose to 54, but each collected an average of only 9 specimens that are housed mostly at the University of Oregon (miscellaneous collectors) and the University of Washington (herbarium of J.W. Thompson). Between 1950 and 1974, collectors increased to 141, but each collected an average of only 2.8 specimens. This period presumably represents burgeoning student populations at universities after World War II, expansion of agriculture, forestry, and range-related sciences at Oregon State University, and the advent of biology classes at Vanport Extension Center (later Vanport College, then Portland State University) in 1946. Not unexpectedly, most of the specimens are at Portland State University and Oregon State University. The period between 1975 and 1999 saw a continuation of this pattern but a decline in collectors from 141 to 96, a consequent rise to 6 specimens per collector, with the bulk of specimens again at Portland State University and Oregon State University. The shift in university priorities from systematic botany to molecular biology may have diminished student collections. Paradoxically, the decline of botany at universities has been counterbalanced by the rise of native plant societies (the Native Plant Society of Oregon was founded in Portland in 1964) and the advent of wetland sciences, wetland regulation, and habitat restoration by public agencies and private organizations that required trained field botanists, collecting of specimens, and herbarium study.

In what may be a third phase of botanical activity in the Portland area, the relatively brief period between 2000 and 2008 has already exceeded the preceding 50 years of collecting activity between 1925 and 1974. If sustained, this recent trend may indicate a revival of interest in the region's flora. Forty-two collectors over the last 8 years have collected an average of 11.6 specimens each. There has been sustained interest in botany classes offered at Portland State University, and ongoing work by agency personnel and consulting firms related to wetland and habitat conservation work. Two of the Portland area's 12 most prolific collectors over the last 139 years also have been active during this period, George Kral (235 specimens) and Melinda Trask (183). It is of interest that these specimens were collected not for university classes but as part of professional work for the City of Portland, Metro, and the Oregon Department of Transportation. Most material from this period has gone to Portland State University and Oregon State University.

## Plant Collectors

The 5,520 specimens from the Portland area were collected by 387 different people over the last 139 years, including pioneer botanists, hobbyists, university professors, high school teachers, and both high school and university students.[3] These records, combined with published and unpublished accounts, reveal the numbers and identities of five generations of botanists who laid the groundwork for our knowledge of the region's flora past and present. The number of collectors increased steadily over the decades and peaked between 1950 and 1974 (Figure 5).

**Figure 7. *Trillium ovatum* collected at Portland by Harford in May 1869. Source: U.S. National Herbarium, Smithsonian Institution.**

Prior to 1888 all of the plant collectors in our area were men, but between 1888 and 1919 about 12 percent of them were women. The first women of record were Alice Evans (1888) and Zulette Holman (1888), followed by Emma L. Fliedner (1889), Lillie Riggs (1907), Elvida Allmen (undated but probably prior to 1910), Alice Taylor (1911), Ruth Howell (1914), and Mrs. P.G. Cull (1915). Other than the specimens they collected we currently know little about these women, but the dates for the first three suggest they were students of L.F. Henderson, and probably classmates of Fred Drake and Frank Drake. In addition to Lilla Leach and Helen Gilkey, who began collecting locally in 1925 and 1934, respectively, eight other women collected between 1925 and 1949, and M.E. Soth wrote about plants in Portland even though her name is not in the herbarium record (Soth 1932, 1933, 1934, 1936, 1938). Ensuing years saw a steady increase in the number of women collecting plants here—19 percent between 1925 and 1949, 29 percent between 1950 and 1974, 47 percent between 1975 and 1999, and 43 percent since 2000.

3. Labels on 104 specimens do not identify the collector, and 189 specimens are undated.

## Chronology of Botanical Collecting

Scientific study of the Portland-area flora began with visitors from far away and ended with those born here (Table 2). The early visitors stayed in the Oregon Territory for no more than a few weeks to a few seasons. The region was transitioning from at least 10,000 years of occupation by Native Americans to joint occupation by newcomers from Canada, Great Britain, and the United States. The native people surely had a vast and deep familiarity with the local flora, but few of the newcomers bothered to ask them about it. Archibald Menzies, the first European to collect widely along the coast of the Pacific Northwest, bypassed Oregon entirely when sailing with GeorgeVancouver in 1792. He was not aboard the brig *Chatham* that Vancouver sent upriver to near Portland in November of that year. Documentation of the Portland-area flora therefore did not begin until 1 April 1806 when Meriwether Lewis (U.S. Corps of Discovery, also known as the Lewis and Clark Expedition) collected *Cardamine nuttallii* var. *nuttallii* (the type specimen of *Dentaria tenella*) at the mouth of the Sandy River (Figure 4; Clark 1995). Tweny-four years passed before the next visiting botanists came to document our flora. David Douglas (collecting for the Royal Horticultural Society and based part of the time at Fort Vancouver), John Scouler, Meredith Gairdner, and William Tolmie (all three as surgeons for the Hudson Bay Company at Fort Vancouver, and Thomas Nuttall (scientist with Nathaniel Wyeth's business venture) collected locally between 1825 and 1835. William Brackenridge (U.S. Exploring Expedition, also known as the Wilkes Expedition) visited Fort Vancouver in 1841 but is not known to have collected specimens in our area. A 28-year hiatus then ensued until William G.W. Harford and Albert Kellogg (California Academy of Sciences) collected at Portland and Oregon City in 1869 (Figure 7).

Although we know of no plants collected in our area during the 1850s, the region's flora made an impression on two young minds that would bear fruit in coming decades. In 1851, Joseph Howell (age 22) and Thomas Howell (age 9) settled with their parents on a farm on Sauvie Island. Though perhaps at first drawn to plant collecting by the possibility of selling specimens of new or rare species to professional botanists in the eastern United States or abroad, the brothers started collecting plants around 1870 and were active for most of their lives, long after it must have become apparent that there was little money to be made in botanizing. By so doing, they were the first resident or "pioneer" botanists in the region. The Howells' records formed the basis for Martin Gorman's work, upon which in turn our own work is based.

Gorman's *List of Plants* was firmly rooted on the collaborative work of contemporary resident botanists, most of whom lived in or near Portland and were active between 1875 and 1925. It was during these years that the greatest number of specimens were collected in our area, effectively documenting the flora of that era (Figure 6). Primary collectors here were the Howell brothers, Louis Henderson, Frank and Fred Drake, James Dickson, Edmund Sheldon, Wilhelm Suksdorf, Michael Flinn, and James Nelson. Gorman knew all of these men personally. He also must have known Henry Bolander and Morton Peck, but no evidence of their association has been found. Henderson and Sheldon collected prodigious amounts of specimens, but of all our resident botanists it was the Howell brothers, Suksdorf, and to a lesser degree Henderson whose new species seemed to have attracted the most attention of botanists elsewhere in the country (Rodgers 1944).

From today's perspective, it is difficult to appreciate the relative physical and intellectual isolation in which these early botanists had to work. The Pacific Northwest was a newly settled and rapidly developing corner of the United States, its population focused on enterprises directly or indirectly exploiting the region's natural resources. Portland had become a major business center with a well-educated population of

**Table 2. Chronology of well-known plant collectors in Portland area, 1806-1970. Source: Oregon Flora Project.**

| Collectors | 1800-1809 | 1810-1819 | 1820-1829 | 1830-1839 | 1840-1849 | 1850-1859 | 1860-1869 | 1870-1879 | 1880-1889 | 1890-1899 | 1900-1909 | 1910-1919 | 1920-1929 | 1930-1939 | 1940-1949 | 1950-1959 | 1960-1969 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Meriwether Lewis (1774-1809) | ■ | | | | | | | | | | | | | | | | |
| David Douglas (1799-1834) | | | ■ | ■ | | | | | | | | | | | | | |
| John Scouler (1804-1871) | | | ■ | | | | | | | | | | | | | | |
| Meredith Gairdner (1809-1837) | | | | ■ | | | | | | | | | | | | | |
| William Tolmie (1812-1886) | | | | ■ | ■ | | | | | | | | | | | | |
| Thomas Nuttall (1786-1859) | | | | ■ | | | | | | | | | | | | | |
| William Brackenridge (1810-1893) | | | | | ■ | | | | | | | | | | | | |
| William Harford (1825-1911) | | | | | | | ■ | | | | | | | | | | |
| Albert Kellogg (1813-1887) | | | | | | | ■ | | | | | | | | | | |
| Joseph Howell (1829-1912) | | | | | | | | ■ | ■ | | ■ | ■ | | | | | |
| Thomas Howell (1842-1912) | | | | | | | | ■ | ■ | ■ | ■ | | | | | | |
| Henry Jesup (1829-1903) | | | | | | | | ■ | | | | | | | | | |
| Louis Henderson (1853-1942) | | | | | | | | ■ | ■ | ■ | ■ | | | ■ | | | |
| Fred Drake (1876-1947) | | | | | | | | | ■ | ■ | | | | | | | |
| Edmund Sheldon (1869-1917?) | | | | | | | | | ■ | ■ | ■ | | | | | | |
| George Vasey (1822-1893) | | | | | | | | | ■ | | | | | | | | |
| Frank Drake (1868-1937) | | | | | | | | | ■ | ■ | | ■ | | | | | |
| Martin Gorman (1853-1926) | | | | | | | | | ■ | ■ | ■ | ■ | ■ | | | | |
| Wilhelm Suksdorf (1850-1932) | | | | | | | | | ■ | ■ | ■ | ■ | ■ | | | | |
| James Dickson (1870-1937) | | | | | | | | | ■ | | | | | | | | |
| John Leiberg (1853-1913) | | | | | | | | | ■ | | ■ | | | | | | |
| Charles Piper (1867-1926) | | | | | | | | | ■ | | ■ | | | | | | |
| Adolph Elmer (1870-1942) | | | | | | | | | | | ■ | | | | | | |
| Michael Flinn (1841-1924) | | | | | | | | | | | ■ | ■ | | | | | |
| A.S. Foster (1854-1922?) | | | | | | | | | | | ■ | ■ | | | | | |
| Albert Sweetser (1861-1940) | | | | | | | | | | | ■ | ■ | | | | | |
| Amos Heller (1867-1944) | | | | | | | | | | | | ■ | ■ | | | | |
| James Nelson (1867-1944) | | | | | | | | | | | | ■ | ■ | | | | |
| Morton Peck (1871-1959) | | | | | | | | | | | | ■ | ■ | | | | |
| A.N. Steward (1897-1959) | | | | | | | | | | | | | ■ | | | ■ | |
| Leroy Abrams (1874-1956) | | | | | | | | | | | | | ■ | | | | |
| J.W. Thompson (1890-1978) | | | | | | | | | | | | | ■ | ■ | | | |
| Douglas Ingram (1882-1929) | | | | | | | | | | | | | ■ | | | | |
| Lilla Leach (1886-1980) | | | | | | | | | | | | | ■ | ■ | | | |
| John T. Howell (1903-1996) | | | | | | | | | | | | | | ■ | | ■ | |
| Leroy Detling (1898-1967) | | | | | | | | | | | | | | ■ | ■ | ■ | |
| Helen Gilkey (1886-1972) | | | | | | | | | | | | | | ■ | ■ | | |
| Orlin Ireland (1895-1973) | | | | | | | | | | | | | | ■ | | ■ | |
| Lincoln Constance (1909-2001) | | | | | | | | | | | | | | ■ | ■ | | |
| Delzie Demaree (1889-1987) | | | | | | | | | | | | | | ■ | | | |
| Arthur Cronquist (1919-1992) | | | | | | | | | | | | | | | ■ | | |
| C.Leo Hitchcock (1902-1993) | | | | | | | | | | | | | | | | ■ | |
| Robert Ornduff (1932-2000) | | | | | | | | | | | | | | | | ■ | ■ |

professionals, but outlying areas were still very much rural, and regional universities were in their infancy. The resident botanists of this period needed each other's company because there was nobody else out there who shared their interests. University herbaria and botanical libraries simply did not exist in the Pacific Northwest until after 1900, so the early collectors had to assemble their own herbaria and libraries. However, the early collectors did not work in a vacuum. They exchanged correspondence and specimens with botanists in other parts of the country and overseas to sharpen their skills and to maintain treasured social and intellectual interaction in what may have seemed to be an otherwise philistine world around them. Their letters and botanical discoveries enticed botanists from other parts of the country to visit Portland and collect with the locals—Henry G. Jesup (1877, Dartmouth College), George Vasey (1882 and 1884, U.S. Department of Agriculture), John Leiberg (1888, soon to be U.S. Department of Agriculture), A.D.E. Elmer (1901, Stanford University), Charles V. Piper (1904, U.S. Department of Agriculture and formerly Washington State University), and Amos A. Heller (1910, founder and editor of botanical journal *Muhlenbergia*[4]). Eventually, changing times and the advent of botany at newly-founded regional universities after 1900 led to some regional infighting between self-trained local botanists and an influx of trained "university men" from elsewhere in the country (Read 1983, 1989). All was not always harmonious or collegial in our corner of botanical Eden.

The fate of the private herbaria of Portland's resident botanists is a history in itself and fraught with several mysteries. Most of the collections fortunately ended up preserved at various universities. The avid exchange of specimens collected by Portland-area botanists resulted in considerable duplication among the various private herbaria, which proved extremely fortunate because some collections were lost to the ravages of fire and insects. We trace the fate of the private collections, when known, in the brief biographical sketches in the following section.

Prior to 1920, botanical collectors in the Portland area relied largely on railroads and streetcars to get around the city and suburbs. A network of electric streetcar lines built by competing transit companies allowed easy access to most areas. Electric interurban rail lines provided access to more remote locations throughout the region. North and south, interurban lines extended from Hayden Island and the Columbia Beach amusement park to Oregon City. Another line extended from Vancouver to Sifton, about 2 miles NE of Orchards. To the east, three lines provided service to Troutdale, Dodge Park, the Bull Run powerhouse, Estacada, and Cazadero on the Clackamas River. To the west, one line ran from Portland to Garden Home, Beaverton, Hillsboro, and Forest Grove, and another from Portland northwest to Burlington, then over the Tualatin Mountains at Cornelius Pass and west to North Plains and Banks. Others ran south to Tualatin, Wilsonville, and ultimately to Eugene. The Southern Pacific operated one interurban line south from Portland, over the southern spur of the Tualatin Mountains at Bertha and what is now Hillsdale, then west to Beaverton, Hillsboro, Forest Grove, and McMinnville. Another SP line ran south from Portland to Lake Oswego, west through Tualatin to McMinnville and south ultimately to Corvallis (MacColl 1979; Austin and Dill 1987; Abbott 2001). These rail lines were at their zenith in 1915 when Gorman wrote his *List of Plants*, and although some have disappeared completely or have been replaced by highways or bicycle paths, their legacy lives on in the pattern of collecting sites shown in Figure 3. A distinct alignment of sites extends along the length of Multnomah Channel and the Willamette River from Burlington to Oregon City, another extends west from Bertha to Hillsboro, and a third more faintly runs east from Sellwood past Lents and Mt. Scott to Gresham, thence south through Boring and Eagle Creek to Estacada. These are the station names and neighborhoods recorded by Thomas Howell, Gorman, Sheldon, and Flinn as they collected plants on their botanical outings.

4. Coincidentally, A.A. Heller and J.C. Nelson both had the same birth and death years (1867-1944).

Botanizing from streetcar and rail lines resulted in a well-documented flora of the metro area but a lesser-known flora in more remote areas. Coupled with the concentration of botanical expertise in the city, knowledge of the region's flora during this period was distinctly skewed toward the Portland area. While fortunate for our own study of the city's historical flora, the lack of information on the flora of more remote areas must have been a handicap and perhaps even a source of irritation for emerging botanical interests elsewhere in the region after 1900. Of 361 species catalogued for the Willamette Valley by Larsen (1912)—in what amounted to the first ecoregional analysis of Oregon's flora—fully 80 % of the specimens cited came from the Portland area. Larsen's work was based on the fledgling botanical collection at the University of Oregon, composed mostly of Thomas Howell's herbarium acquired by Albert Sweetser in 1903. From the perspective of a state-wide or regional flora, it is easy to see how someone like Sweetser would have realized that much more botanical work was needed outside of the Portland metro region.

Portland's influence on regional botany faded after 1925 and collecting activity was limited for the next 65 years (Figure 5). With Gorman's death in 1926 and Nelson's abandonment of botany at about the same time, botanical expertise in our area shifted from Portland to university campuses in Oregon and Washington. Most collecting around Portland and Vancouver after 1925 was done by people who did not live in the area—J. William Thompson (University of Washington), Albert Sweetser (University of Oregon), Morton Peck (Willamette University), and Helen Gilkey (Oregon Agricultural College, later renamed Oregon State University). Portland residents Lilla Leach and a number of students at Reed College—particularly William Van Dersal, Una Davies, and Robert Ornduff—continued collecting locally, but compared to earlier decades the output of material from our area was relatively meagre between 1925 and 1990 (Figure 5). Proliferation of automobiles and improved roads after 1920 also contributed to the demise of interest in Portland's flora. Automobiles facilitated botanizing of more remote areas and led to the neglect of urban floras. Many collectors may have found Portland's urbanizing habitats too disturbed or the flora too boring to investigate any further, and the lure of more pristine rural and wilderness areas was irresistable. Reed College was the only site of any botanical activity in Portland until the Vanport Extension Center (later called Vanport College, then Portland State University) was founded in 1946. Both institutions offered elementary botany classes as part of their general biology curricula. Today's herbaria at both Reed College and Portland State University contain a significant amount of material gathered by Portland's early botanists, but it remains a mystery how either collection—one belonging to Flinn and the other possibly belonging to Drake and Dickson—ended up at these institutions.

Since about 1990, the advent of wetland regulatory work, habitat restoration projects, and a renewed interest in the metro area's flora have expanded botanical activity in the Portland area (Figure 5). Interestingly, collecting activity over the last eight years alone (2000-2008) exceeded all activity between 1925 and 1990, and if sustained through 2024 could exceed all earlier records. However, numbers of specimens collected does not necessarily translate into improved knowledge of our flora. Despite the increase in botanical activity in the region over the last 18 years, we still have a poor understanding about the distribution and abundance of many species in our area.

The following brief biographies focus on 15 collectors who laid the groundwork for documenting the Portland-area flora between 1825 and 1925. James Dickson was born in Portland, but all the rest came from somewhere else. One collector was Canadian (Martin Gorman), two were English (David Douglas, Thomas Nuttall), and two were German (Henry Bolander, Wilhelm Suksdorf). Their professions included a doctor (Michael Flinn), an accountant (Martin Gorman), a dentist (Frank Drake), three school teachers (Henry

Bolander, Louis Henderson, James Nelson), two university professors (Morton Peck, Albert Sweetser), a school adminstrator (James Nelson), a Congregational minister (James Dickon), a businessman and lawyer (Edmund Sheldon), a farmer (Joseph Howell), and three employed or self-employed as plant collectors (David Douglas, Thomas Nuttall, Thomas Howell), one of whom (Howell) had to augment his meager income by being a postmaster, grocer, and launderer. Although Drake, Flinn, and Joseph Howell earned themselves entries in some of the period's biographical "mug books" of successful citizens, the achievements of the other collectors went unheralded during their lifetimes and for some it is difficult to find any information at all about their lives. Bolander's botanical legacy from his earlier life in California does not appear to have been acknowledged in Portland. Thomas Howell struggled in poverty, and his botanical achievements were mostly acknowledged only after his death.

Some of the following biographical material (Gorman, Nelson, Bolander, Flinn, Henderson, Suksdorf) was compiled by Rhoda Love, John Christy, Robert Ornduff, Mariana Bornholdt, and others as part of the Northwest Plant Hunters Project, being edited by A.R. Kruckeberg and Rhoda Love.

## Principal Collectors, 1825-1925

**David Douglas** (1799-1834). Douglas was a plant collector employed by the Royal Horticultural Society to find new species of plants suitable for the emerging horticultural trade. He and his colleague John Scouler were the first trained botanists to collect in the Portland area and much has been written about their exploits in the Pacific Northwest. While on various expeditions to different parts of the Pacific Northwest in 1825-1827 and 1830-1832, Douglas botanized locally around Fort Vancouver and along the Willamette and Columbia rivers. Unfortunately we cannot always be sure of localities cited by Douglas and other early collectors. Label data on their specimens is frustratingly imprecise, and something labeled "Fort Vancouver" could have been anywhere within 50 miles of the fort.

Most of Douglas' herbarium is at the Royal Botanic Gardens at Kew, England, with a few duplicates in the Gray Herbarium at Harvard University.

For more information on Douglas see Douglas (1914), Harvey (1947), McKelvey (1955), Morwood (1973), and Davies (1980).

**Thomas Nuttall** (1786-1859). Nuttall was a printer and plant collector who left a position at Harvard University to go to the Oregon country in 1834 as part of the expedition led by American businessman Nathaniel Wyeth. He stayed at Fort Vancouver for almost three months, wintered in the Sandwich (Hawaiian) Islands, and in 1835 returned to work at Fort William on Sauvie Island—and possibly Fort Vancouver also—for about five months. He then worked at the Academy of Natural Sciences in Philadelphia before returning to England in 1841. In our area, Nuttall collected around the confluence of the Willamette and Columbia rivers and at Willamette Falls, but he also ranged up the Columbia River to The Dalles and possibly

downriver to Astoria. He collected many interesting plants from the Portland-Vancouver area with locality data more dependable than that of Douglas or Scouler. However, doubts persist about the correct localities for some of his specimens. Some species that he recorded from the Portland region are now found only at higher elevations in the Cascades, or are entirely restricted to east of the Cascades. Some researchers think these specimens were mislabeled and could not possibly have occurred here, but the landscape was very different in 1834 and we cannot summarily dismiss these questionable records as errors. Nuttall did not keep a journal while in Oregon, but many of his activities were recorded by fellow expedition members John Townsend and Nathaniel Wyeth.

Nuttall's collections are in the British Museum, the Gray Herbarium at Harvard, and the Academy of Natural Sciences at Philadelphia.

For more information on Nuttall see Piper (1906), Pennell (1936), McKelvey (1955), Lange (1958), Graustein (1967), and Townsend (1999).

**Joseph Howell** (1829-1912). Howell was a farmer on Sauvie Island. Although today Joseph is less well known as a botanist than his brother Thomas, he made many early botanical discoveries in Oregon. He came west from Missouri with his parents and siblings in 1850. They first farmed near Forest Grove but moved to Sauvie Island in 1851. Joseph began collecting plants about 1870, earlier than his brother, and discovered ten new species throughout the region (Greene 1913). He corresponded with eastern botanists and his specimens are distributed in major herbaria around the country. Howell was a successful farmer and owned over 500 acres on Sauvie Island (Anonymous 1903, Anonymous 1912), but he has never received more than passing mention in botanical biographies. Specimens at Portland State University indicate that he collected plants as late as 1910.

Howell collected about 120 specimens in the Portland area. His herbarium also contained many specimens that he had obtained in exchange with other botanists of the day. He bequeathed one half of his personal herbarium to Michael Flinn (see entry below for Flinn), and recent research suggests that the other half may have ended up at Reed College (Marttala 2008).

Howell's grave is in the family burial plot at the old Vancouver Cemetery. Sadly, the upper half of his gravestone has been broken off by vandals. For more information on Joseph Howell see Lodewick and Lodewick (1993).

**Thomas J. Howell** (1842-1912). The "other" Howell was possibly Oregon's best-known plant collector. A brother of Joseph Howell, he moved to Oregon with his family in 1850 and settled on Sauvie Island in 1851. A self-taught botanist who against all odds published the landmark *Flora of Northwest America* (Howell 1897-1903), he began collecting plants with his brother in 1875 or 1876, and eventually discovered more than 50 new species of plants. He lived on Sauvie Island until about 1893, when he moved to Milwaukie. Many of his collections from the latter period were from Milwaukie, Elk Rock, and Oregon City. In the Milwaukie area he was at various times a postmaster at

Creighton Post Office (today's Oak Grove; McArthur 1982), a grocer, and a launderer, but he never had much money. With stubborn determination, perseverance, and help of people like Gorman, Howell managed to set all the type for his *Flora* by hand and pay for the printing himself. Despite being a landmark publication as the first flora of the Pacific Northwest, the book was a failure financially. Howell had to use any receipts from sales to repay loans that California botanist Edward L. Greene had provided for publication of the *Flora*.

Howell collected about 310 specimens in the Portland area between 1874 and 1912. He donated his personal herbarium to the University of Oregon in 1903, and A.R. Sweetser employed him there for a year to curate the collection (Wagner 1994).

Howell's grave in the family burial plot at the old Vancouver Cemetery is unmarked, though at one time it may have had a wooden marker that has since decayed. For more information on Thomas Howell see Smith (1913), Lange (1953), Thatcher (1978, 1980), Lodewick and Lodewick (1993), Kruckeberg and Ornduff (2003), and Ornduff (2008).

**Louis F. Henderson** (1853-1942). Arriving in Portland in 1877, Henderson taught languages and botany at Portland High School (today's Lincoln High School) and later became its principal. He had a long and active life and, more than any of his contemporaries, had a lasting influence on the botany of the Pacific Northwest. He collected widely in the Portland area between 1878 and 1889. During this period he botanized locally with Bolander, Dickson, Frank Drake, Gorman, and the Howell brothers. He was also the first to collect weeds in downtown Portland. Henderson left Oregon in 1889, but after botanizing for the government in Washington and teaching at the University of Idaho he returned to Hood River in 1911 to manage the family farm. He returned to botany full-time when Albert Sweetser hired him to manage the University of Oregon herbarium, a position he held from 1924 to 1939. During the 11 years he lived in Portland, Henderson did more than teach and collect plants. As principal of Portland High School he also had to socialize, cultivate influential citizens supportive of public education, and teach their children. Amazingly, Henderson called on these same contacts and their heirs 40 years later to help fund the purchase of insect-proof cabinets for the University of Oregon herbarium, so the specimens that he and other resident botanists collected around Portland would have a safe home.

An untold number of Henderson's early specimens from Portland were destroyed in a fire at the University of Idaho in 1906. Fortunately, he had exchanged specimens with other local collectors, and duplicates of his specimens survived in the private herbaria of Dickson, Drake, Gorman, and the Howells, all of which eventually ended up in various colleges and universities. Combined, his collections from the Portland area number about 860, most made between 1878 and 1889, and offer a nearly comprehensive picture of the flora during those years.

For more information on Henderson see Thatcher (1980) and Love (2000, 2001).

**Wilhelm N. Suksdorf** (1850-1932). Suksdorf was a farmer and plant collector who came to the Northwest in 1876 to work at the family farm and dairy near Bingen, Washington. With limited university training but encouragement from Asa Gray at Harvard, he began collecting locally around the Columbia Gorge and Mt.

Adams, but later went further afield. He hosted visiting botanists and corresponded with most contemporary collectors of the day, including Thomas Howell and Nelson. He collected in Portland between 1882 and 1912, presumably when visiting one of his brothers who lived in the city. It was Suksdorf who first started collecting on the ballast grounds at Lower Albina and Linnton, and along the shores of the Columbia and Willamette Rivers.

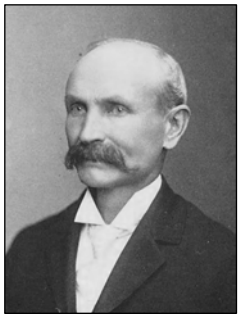
Suksdorf collected about 250 specimens in the Portland area. His keen eye, scrutiny of ballast and other weedy sites, and the sheer diversity of new or unusual specimens that he collected make his herbarium perhaps the most important of any collected here. Many of the species he collected had never been seen in our area and have not been seen since. Despite all the thorough work that the Howell brothers and Henderson did to document native and exotic species in our area, Suksdorf did more by looking closer and deeper. Perhaps he benefited from a flora augmented by worldwide commerce that had greatly expanded since Henderson's day, but he also found things that his contemporaries never did. His herbarium was purchased by Washington State University in 1933.

For more information on Suksdorf see Lange (1956) and Love (1998).

**Henry N. Bolander** (1830-1897). Better known for his extensive botanical work in California during the 1860's, Bolander came to Portland in 1883 and was a much-revered school teacher until his death in 1897. He taught science and languages at St. Helen's Hall for girls (today's Oregon Episcopal School), the Bishop Scott Grammar School for boys (later Bishop Scott Academy, a military school that closed in 1904), and the International Academy. Bolander collected plants in and around Portland with Henderson, Thomas Howell, and Frank Drake between 1883 and 1889, and was Drake's German teacher (Lockley 1928; Thatcher 1980; Henderson 1981-1982; Read 1989). He published at least one botanical paper during this period. There is no record that Gorman ever met Bolander, but the cadre of botanists in Portland was so small that it is difficult to believe that they did not know each other.

The 1889 catalog of St. Helen's Hall boasted "an extensive Herbarium belonging to the Hall, which includes most of the plants peculiar to Eastern and Western Oregon." Scott (1890) likewise noted that the school had "an herbarium of great value." Undoubtedly assembled by Bolander, the fate of herbarium is one of Portland's botanical mysteries. It may have been lost in a fire that destroyed two-thirds of the school in 1914, but there is no evidence of such a loss. The herbarium simply vanished. The current herbarium at Oregon Episcopal School contains no early collections from Portland, and no Bolander specimens from this period have been found at Oregon State University, Portland State University, or Reed College. It is possible that the herbarium of St. Helen's Hall ended up at Reed College, but the fact that it does not contain any Bolander material from Portland indicates a different origin.

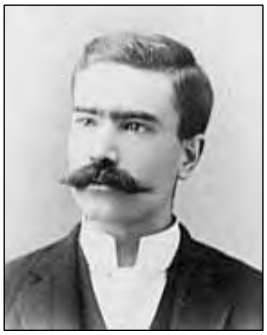
Bolander's grave is in Greenwood Hills Cemetery, adjacent to Riverview Cemetery.



**Martin W. Gorman** (1853-1926). Gorman was an accountant whose interest in botany of the Portland area dated from about 1885. He was a unique combination of explorer, botanist, forester, accountant, editor, ethnographer, and general polymath. Better still, he wrote it all down and published it. He had direct access to well-informed immigrants of the 1850s such as brothers Joseph and Thomas Howell, who first saw the metro area much as it had been during the fur-trade era. George Himes, a founder of the Oregon Historical Society (Laugesen 2000), provided Gorman with details on the history of the area's Native American and Euro-American pioneer culture, including early farming practices and weed lore. Gorman was a charter member of several organizations founded between 1887 and 1894, including the Science Club of Portland (later reorganized as the Oregon State Academy of Sciences; Read 1983, 1989), the Oregon Alpine Club, and Mazamas. These organizations had a highly educated and progressive membership, and reflected a high degree of scientific inquiry and scholarship. This was due in no small part to Gorman's influence. From 1906-1926, he was curator of the Forestry Building, which became a hub of botanical activity in Portland. He had daily personal contact with other botanists and the public, and gained firsthand knowledge of champion trees and shrubs, and the everyday uses of native plants for domestic and commercial purposes. Because the Forestry Building served as Portland's natural history museum, Gorman was able to use its collections for educational exhibits and publications. Gorman's residence burned in 1925 or early 1926, badly damaging his library and destroying some of his notes (letter from Gorman to Sweetser, 24 Feb 1926). The scorched and burned notebooks among Gorman's papers in the University of Oregon's Knight Library are a palpable reminder of an unknown amount of his work that was lost to the fire.

Gorman collected about 200 specimens from the Portland area. Due largely to the efforts of Sweetser and Nelson, Gorman willed his herbarium to the University of Oregon (Anonymous 1926; Wagner 1994). The specimens show no evidence of fire, indicating that Gorman presumably stored them outside his home, or that damaged material was discarded.

Gorman's grave is in Mt. Calvary Cemetery on Barnes Road. For more information on Gorman see Nelson (1927), Lange (1956), Thatcher (1980), and Bornholdt (2006).



**J. Francis (Frank) Drake** (1868-1937). Drake was a dentist and a close personal friend of Gorman. He came to Portland from California in the early 1880s and attended the city's public schools. Along with fellow student James Dickson, he learned botany from Henderson at Portland High School and accompanied Henderson, Bolander, Thomas Howell, Dickson, and Gorman on collecting trips in the Portland area between 1882 and 1892. He graduated from Portland High School in 1886 and then took a year of German with Bolander at Bishop Scott Academy. With Gorman he built the Oregon exhibit for the 1893 World's Columbian Exposition in Chicago, which included 500 species of wildflowers (Anonymous 1893; Lockley 1928; Read 1983). Drake earned a law degree from the University of Oregon in 1894 and a dental degree from North Pacific Dental College (today's Oregon Health Sciences University School of Dentistry) in 1905. Along with Gorman, Drake was a charter member of Mazamas and the Science Club of Portland, and was also involved with the Oregon State Academy of Sciences. **Frederick H. Drake** (1876-1947) was Frank's younger brother, who between 1882 and 1892 collected with Frank and Gorman in the Portland area. Like his brother and Martin Gorman, Fred was a charter member of Mazamas. He graduated from Stanford

University in 1901 and became a lawyer in Portland. As a colonel in the Judge Advocate General's department of the Oregon National Guard, he was the state's authority on military law (Anonymous 1947).

Frank Drake collected about 70 specimens in the Portland area. At some time prior to 1900, James Dickson gave or sold his personal herbarium to Drake, but the ultimate fate of the combined collection is a mystery. Gorman wrote to Sweetser in 1919 that at some point the Drake and Dickson herbarium had been left in his care, presumably because Drake was no longer botanizing. It contained two cases of material collected by Henderson, Dickson, Drake, and Gorman, but Gorman indicated that he kept it separate from his own herbarium. Perhaps because Gorman lacked the space necessary to store the Drake and Dickson herbarium, he in turn left it in the care of James A. Lyman at Portland Academy.[5] By the time Portland Academy closed in 1916, the specimens had been neglected and attacked by insects with great loss. Gorman indicated in his papers that at some point Albert Sweetser salvaged what he could of the Drake and Dickson herbarium and added it to the collection at the University of Oregon. Lockley (1928) wrote that Drake donated his herbarium and botanical library—"several thousand species and sets of rare botanical works"—to the University of Oregon, but evidence documenting such a gift from Drake has not been found at the University. Oddly, we have found tangible evidence of the Drake and Dickson herbarium at Reed College, where custom-printed envelopes used as fragment packets bore the names of both men (see label above). Where did the specimens at Reed College come from? The earliest indications of their presence at Reed are annotations made by student William Van Dersal in 1929. Until evidence is found, we speculate that the Drake and Dickson herbarium and the Gorman herbarium were combined and accessioned as a single batch at the University of Oregon some time after Gorman's death in 1926. Henderson, hired in 1924 by Sweetser to curate the University of Oregon herbarium, was a friend of Thomas Lamb Eliot—who was instrumental in the founding of Reed College in 1908. Eliot may have asked Henderson to cull specimens from the combined collections of Drake, Dickson, and Gorman to provide Reed with a "starter set" or nucleus for its own new herbarium.

For more information on Frank and Fred Drake see Lockley (1928) and Anonymous (1937a, 1937b).[6]

**James H. Dickson** (1870-1937). Dickson was a minister and missionary for the First Congregational Church. Unlike all the other local botanists of the period, he was born in Portland. He attended the city's public schools in the 1880s and along with fellow student Frank Drake he learned his botany from Louis Henderson at Portland High School. As a student, Dickson accompanied Gorman, Frank Drake, Henderson, and Thomas Howell on collecting trips between 1888 and 1891. Because of his association with Drake, he must have also known Bolander (Lockley 1928). Dickson left Portland for good in 1891, graduating from the University of Michigan in 1895 and thereafter attending the Oberlin Theological Seminary at Oberlin College in Ohio. He was ordained a minister in the First Congregational Church of Oberlin in 1899.

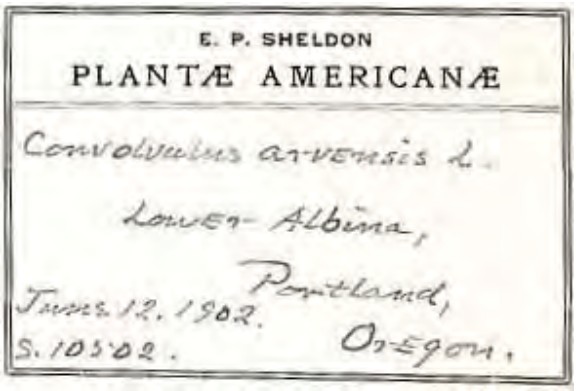
5. Gorman referred to Charles Lyman in his letter, but Reynolds (1921) indicated that the correct name for the contact at Portland Academy was James A. Lyman, Ph.D., Beloit College. Lyman taught botany at Portland Academy but was trained as a chemist. Curiously, after the closure of Portland Academy in 1916, the building was leased and then purchased (in 1921) by St. Helens Hall, the same girls' school where Henry Bolander had taught earlier when he botanized with Dickson and Drake.

6. A confusing jumble of Drake names and initials occur in herbarium records and Mazamas publications, and these refer to different members of the Drake family. "F.V." and "Frank V." was Frank's father, Frank V. Drake, a district attorney in Nevada who died in Reno in 1908 (Lockley 1928). "J.F." and "Frank" refer to our subject botanist. "F.H." and "Fred" was Frank's younger brother and fellow collector.

Sometime during these years he also studied and practiced civil and electrical engineering in Detroit, Michigan and in London, Ontario. In 1900 he embarked on missionary work in Sri Lanka (then called Ceylon) and India where he specialized in founding trade schools for the Tamil people.[7] He was allowed home on furlough every 10 years, retired in 1936, and died in Bangalore, India, in 1937 (Anonymous 1926, 1937c, 1937d).

Like most collectors of his day, Dickson assembled a personal herbarium that he presumably gave or sold to Frank Drake some time before moving to Sri Lanka in 1900 (see entry above for Frank Drake).

**Edmund P. Sheldon** (1869-1917?). Sheldon was a teacher, businessman, and lawyer who reportedly arrived in Portland in 1897 after having earned a B.Sc. in botany from the University of Minnesota in 1894 and working for the Natural History Survey of Minnesota.[8] His mysterious, short but frenetic career in Portland focused mainly on the forest industry, which at that time was the biggest show in town. He taught school when he first arrived, but by 1904 he was president and general manager of the Pioneer Wood and Manufacturing Company. That same year, he was also superintendent of the Oregon forestry exhibit at the Louisiana Purchase Exposition in St. Louis, also known as the St. Louis World's Fair. In 1905 Sheldon was appointed superintendent of forestry for the Lewis and Clark Centennial Exposition in Portland, and was a member of the Exposition Commission. During his tenure on the Commission, he was largely responsible for both the construction of the Forestry Building and for ensuring its preservation after the close of the exposition (Sheldon 1905; Read 1989). With Gorman's appointment as curator of the Forestry Building in 1906, the structure was maintained for the next 40 years as a museum to showcase the natural resources of Oregon. While serving on the Exposition Commission in 1905, Sheldon—along with Gorman and Sweetser—was also a founding officer and primary mover in the formation of the Oregon State Academy of Sciences (Read 1983, 1989). The Academy assumed management of the City Free Museum, and Sheldon was appointed curator from 1906 to 1909. During those same years he was employed as secretary and then general manager of the Oregon Lumber Manufacturers Association, and served on the Oregon State Board of Forestry from 1907 to 1909. Presumably because of his business interests, he reinvented himself in 1911 as a lawyer, and for the next 3 years practiced alone and in parnership with other lawyers. In 1912 and 1913 Sheldon served as president of Mazamas, and in 1913 he was appointed secretary of the Academy of Sciences. He left Portland that summer and was never heard from again, and his disappearance is one of the great botanical mysteries of the western United States (O'Brian 1988, Read 1989). His first and second wives were listed in city directories (Portland and Minneapolis) as widows in 1917 and 1918, respectively. Details of Sheldon's death have never been found.


E. P. SHELDON
PLANTÆ AMERICANÆ
Convolvulus arvensis L.
Lower Albina,
Portland,
June 12. 1902.
S. 10 '02.
Oregon.

7. Gorman incorrectly noted in his later papers that Dickson was a Methodist minister and left Portland in 1901. He also noted that Dickson moved to Boston in 1919, which we could not confirm but which is entirely possible because the American Board of Commissioners for Foreign Missions was based in Boston.
8. Although it is clear that Sheldon lived in Minnesota until 1894, there are 29 specimens in the Oregon State University herbarium that are labeled as having been collected by Sheldon in Oregon between 1882 and 1896.

Sheldon collected some 900 specimens of plants throughout the metro area, more than any of the other collectors, mostly in a flurry of activity in 1902 and 1903. Duplicates of his specimens were well distributed among the private herbaria of the other local collectors as well as universities around the country. His private herbarium reportedly contained an astonishing and possibly fanciful estimate of 10,000 specimens, which he loaned to the City Free Museum when serving as its curator between 1906 and 1909 (O'Brian 1988; Read 1989). By means unknown, Sheldon's collection appears to have ended up at the University of Oregon, possibly arriving with Gorman's herbarium after 1926 (Wagner 1994). However, the combined collections of the University of Oregon and Oregon State University contain only 1,921 specimens collected by Sheldon, indicating that the earlier estimate of 10,000 specimens was either a wild exaggeration or that large portions of his herbarium have disappeared or possibly were destroyed. Alternatively, Sheldon may have divided his herbarium among a number of institutions that will remain unknown until their collections are databased and made accessible online.

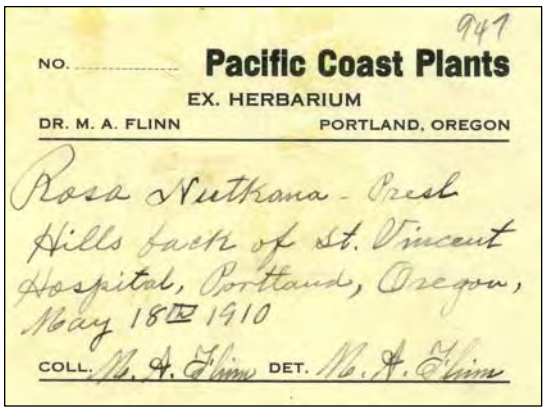
For more information on Sheldon see O'Brian (1988).

**Albert R. Sweetser** (1861-1940). Sweetser was a professor of botany at the University of Oregon from 1902 to 1931. During this period he created the university's herbarium by acquiring the private collections of Thomas Howell, William Cusick, James Dickson, Frank Drake, at least part of Edmund Sheldon's herbarium, and that of Martin Gorman. To these he added his own collections and those exchanged with other botanists. Integrating all these specimens into a single collection was an enormous task. He turned to Louis Henderson for help, hiring him to manage the herbarium full-time from 1924 to 1939. Along with Gorman and Sheldon, Sweetser was a founding officer of the Oregon State Academy of Sciences in 1905 (Read 1983, 1989). He knew or corresponded with many botanists of his day, often soliciting from them first-hand biographical accounts for a never-written history of botany and botanists of the Oregon Country. His papers, a trove of information on both well-known and poorly known plant collectors, are housed at the Knight Library of the University of Oregon.

Sweetser's botanical collections were housed in the University of Oregon herbarium, now at Oregon State University.

For more information on Sweetser see Wagner (1994) and Love (1996).

**Michael A. Flinn** (1841-1924). Flinn was a doctor, practicing in Vancouver until 1877 and in Portland from 1885 until his retirement in 1914. He had immersed himself in botany by 1903, and was most active between 1905 and 1915. He corresponded and collected with Gorman, the Howell brothers, Sweetser, and Piper. He probably also knew Sheldon, Henderson, and Bolander. His personal collecting was mostly limited to the Portland-Vancouver region and the area around Tygh Valley in Wasco County.


941
NO. Pacific Coast Plants
EX. HERBARIUM
DR. M. A. FLINN PORTLAND, OREGON
Rosa Nutkana - Brush Hills back of St. Vincent Hospital, Portland, Oregon, May 18th 1910
COLL. M. A. Flinn DET. M. A. Flinn

Flinn collected about 300 specimens in the Portland area. He combined these with one-half of Joseph Howell's personal herbarium that Howell had bequeathed to him (Flinn 1920). Flinn wrote to Albert Sweetser in 1920 that he would donate his herbarium to the University of Oregon if the University would pay the cost of freight from Portland to Eugene. It appears that this transaction never occurred, as no record of purchase or accession of the Flinn collection has ever been found at the University of Oregon, other than some duplicate specimens that came with Gorman's herbarium (Wagner 1994; Love 1996). By means yet unknown, Flinn's collection ended up in the herbarium of Portland State University (PSU). Known today as the "Howell-Flinn Collection," it contains about 1,980 specimens collected by various individuals between 1862 and 1915. Annotations on specimens indicate that the collection has been at PSU since at least 1959. Circumstantial evidence and recollections by emeritus PSU professors Calvin Clyde and Ed Lippert in 2001 indicate that it was obtained from parties unknown by Erwin F. Lange, a professor of chemistry at PSU from 1947 to 1976 who published a number of papers on pioneer botanists of the Portland area (Lange 1953, 1955, 1956, 1958).

Flinn's grave is in Riverview Cemetery. For more information on Flinn see Lang (1885), Hines (1893), and Anonymous (1903).

**Morton E. Peck** (1871-1959). Peck was a professor of botany who came to Oregon in 1908 to teach at Willamette University in Salem. He served on various committees of the Oregon State Academy of Sciences (Read 1983), where he most certainly would have met Gorman. He collected sporadically in Portland, making most of his trips on weekends and during summer (Kephart 2001). Peck and J.C. Nelson both lived in Salem and came to know each other well. Nelson donated his personal herbarium to Willamette University, where Peck used it extensively when writing his *Manual of the Higher Plants of Oregon*, first published in 1941.

Peck collected about 90 specimens from the Portland area. His herbarium is now on permanent loan to Oregon State University. Peck wrote Nelson's obituary (Peck 1945).

For more information on Peck see Kephart (2001).

**James C. Nelson** (1867-1944). Nelson was a school administrator in Salem. Like Gorman, he was a polymath. A voracious reader, he knew seven languages, corresponded with people around the world, and was an authority on the literature of the French Revolution. He taught himself botany and was most active in the field between 1914 and 1923, collecting widely in western Oregon, corresponding with other botanists locally and nationwide, and distributing his specimens to many major herbaria. Employed full-time during this period as an administrator at what is now known as North Salem High School, he nevertheless managed to publish 47 botanical papers, book reviews and notes (Peck 1945). The mutual botanical interests of Gorman

and Nelson intersected when Nelson published a paper in *Muhlenbergia* (Nelson 1916) that included some new records from the Portland area. Having just submitted his own manuscript on the Portland flora to *Muhlenbergia*, Gorman read Nelson's paper and was surprised to find a new botanist working on his home turf. This led to a correspondence between the two and joint forays to Linnton and Hayden Island. In 1918, at the urging of A.R. Sweetser, Nelson advised Gorman to write a will and appoint either Nelson or A.R. Sweetser as his literary executors. Nelson and Morton Peck both lived in Salem and came to know each other well. In the end, Nelson wrote Gorman's obituary (Nelson 1927), and Peck wrote Nelson's obituary (Peck 1945).

Nelson collected about 115 specimens from the Portland area, most of them from the ballast grounds at Linnton. He donated his personal herbarium to Willamette University, where Peck used it extensively in writing his *Manual of the Higher Plants of Oregon*, first published in 1941. Nelson's specimens are widely distributed in the United States because he sent much of his material off to major herbaria for verification. The specimens he donated to Willamette University are now housed at Oregon State University.

For more information on Nelson see Peck (1945).

# Changing Habitats, Changing Flora

## Vegetation between 1806 and 1870

Aside from Meriwether Lewis' single collection made on the Sandy River in 1806 (Figure 4), the earliest records of the flora of our area are the works of David Douglas, John Scouler, William Tolmie, Meredith Gairdner, and Thomas Nuttall. They compiled a very respectable list of species and collected specimens during their forays around Fort Vancouver between 1825 and 1835. Later botanists dismissed some of these records as labeling errors because the plants seemed to be too far out of their normal range. We are not so sure that these reports were errors, because the landscape and ecological processes seen by the early collectors had changed profoundly by the time the monographers came along 100 years later.

The Howell brothers arrived in Portland in 1850, only 25 years after David Douglas and 15 years after Thomas Nuttall. The region was still sparsely settled. Fort Vancouver was 26 years old, Oregon City 21 years, and Portland only 5 years old. Public land surveys by the General Land Office (GLO) would not begin until the following year at the Willamette Stone along what is now NW Skyline Drive. The first treaties with the few surviving Native Americans in western Oregon would not be signed for another 3 years.

The GLO surveys of the Portland and Vancouver area, completed between 1851 and 1860, established the township, range, and section lines still in use today. The vegetation described by the surveyors was the same seen by the Howells when they settled on Sauvie Island and it was largely unchanged from that seen by Meriwether Lewis, David Douglas, and Thomas Nuttall (Figure 9; Christy et al. 2008). Although mapping of historical vegetation for part of our area is incomplete, it is evident that the landscape was dominated, in descending order of acreage, by (1) upland Douglas fir - maple forest, (2) oak, Douglas fir, and ponderosa

pine woodland,[9] (3) rivers and floodplain lakes, (4) oak, fir, and pine savanna, (5) wet and upland prairie, and (6) ash, willow, and cottonwood riparian forest. The vegetation observed by GLO surveyors was to a large extent a product of at least 10,000 years of occupation by Native Americans, during which time many habitats were burned with mostly low-intensity fires on a relatively frequent basis (Boyd 1986, 1999; Boag 1992).

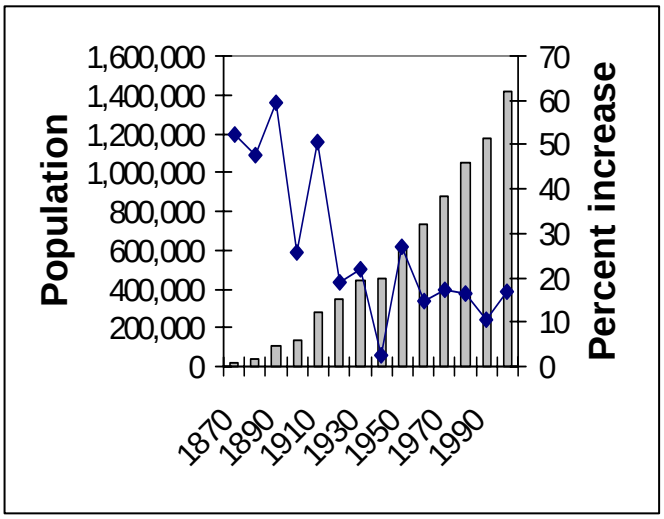



**Figure 8. Population (bars) and percent increase in population (line) in Multnomah, Washington, and Clackamas Counties, 1860-2000. Source: Abbott (2001).**

## Urban Expansion after 1870

Gorman, Bolander, Dickson, Drake, Flinn, Henderson, and Sukdsdorf arrived 25-30 years after the Howells. They were part of a huge pulse of newcomers who flooded into the area after 1860 at a rate that has not been equaled since. The pulse waned only after 1910 at the end of the real estate boom sparked by the Lewis and Clark Exposition (Figure 8; Abbott 1983, 1996; Dibling et al. 2006).[10] During this period, Portland was the third fastest-growing city in the country, the largest metropolitan area on the Pacific Coast, and the largest financial center in the Pacific Northwest. There were 16 sawmills within the city limits, making it the nation's largest lumber manufacturing center and the west's largest furniture manufacturing city. Paper, wheat, flour, wool, livestock, meats, canned fruits, vegetables, and salmon were big markets. The city was served by 10 railroads and 36 steamship lines (Port of Portland 1920, 1922, 1924; MacColl 1976; MacColl and Stein 1988).

Not surprisingly, the landscape seen by the Howells had changed dramatically by the time Gorman and Nelson began to compile Portland's flora. Engineered alterations to the landscape began in the 1890s, but major work did not occur until after 1900 when technological advances and availability of sufficient investment capital enabled large-scale expansion of railroads, marine shipping, and urban infrastructure. Four existing bridges over the Willamette River were rebuilt between 1905 and 1926, and three new ones were added during the same period (Ashbaugh 1987). These bridges connected downtown to East Portland where most new commercial and residential construction was occurring. Farm and suburban land on the east side was rapidly covered by streets, sidewalks, sewer lines, and water works. Four times as much money was invested in streets, bridges, and sewers by the City of Portland between 1905 and 1914 than had been spent in the previous 40 years (Abbott 1983).

Although the region's frantic pace of growth diminished after 1910 (Figure 8), habitats in outlying areas that previously had been spared much development began to change. The advent of the automobile and growth

9. The term "woodland" is frequently used for any deciduous forest, in western Oregon specifically for communities dominated by white oak. We follow the National Vegetation Classification System (NVCS; Jennings et al. 2009) that defines woodland as "open stands of trees with crowns usually not touching," with canopy cover ranging from 25-60 % and with an understory of shrubs, herbs, or nonvascular plants. The NVCS includes savanna in its "herbaceous" formation class because it has a canopy cover of less than 25 % and an understory dominated by graminoids, herbs, and ferns. Because GLO data do not provide percent canopy cover, distances to witness trees were used as a surrogate for canopy cover (Christy et al. 2008).

of the trucking industry, coupled with a decline in interurban rail service and eventually streetcars too, ushered in the suburban growth model that continues today. This trend, coupled with the deaths of Gorman, Flinn, and the Howells, led to the dimming of Portland's star as a center of botanical activity after 1920. Botanical expertise shifted to universities and botanists preferred collecting in far-away places instead of their own back yards and vacant lots.

Between 1920 and 1940, suburbs expanded as mobility increased. The urban footprint extended outward along existing transportation corridors originally served by interurban rail lines and later by paved highways. The areas most heavily developed during this period were between Portland and Oregon City east of the Willamette River, between Rocky Butte and Lents, and to the south between Multnomah, Tigard, and Lake Grove. Development with slightly less density occurred north and east of Vancouver, between Beaverton and Forest Grove, and along the west face of the Tualatin Mountains between Sylvan and Bonny Slope. Of all suburban housing built in the Portland-Vancouver area during this period, 82% occurred between 1930 and 1940. At the same time, many farm and forest properties were subdivided into smaller "part time" or "hobby" farms with higher housing density, occupying about 33% of the suburban zone by 1940. Most of the acreage of these "farmettes" occurred on flatter ground around Vancouver, Camas, and Washougal, but smaller pockets were also scattered throughout the rest of the metro area and through the Tualatin Valley to Forest Grove (Throop 1948).

Urbanization affected all major habitats through either direct impacts such as filling, excavation, construction, and water pollution, or through indirect impacts such as altered fire or flood regimes and habitat fragmentation. Forest vegetation on the hills would have been the most heavily impacted by conversion to orchards and pastures, while conversion of preexisting farms to nurseries, vegetable farms ("truck farms"), dairies, berry farms, poultry farms, and orchards presumably had lesser impact on an already altered flora. However, the increased density of farmettes hastened the fragmentation and demise of remnant prairie vegetation in the Tualatin Valley and around Vancouver, and facilitated the spread of exotic ornamentals and weeds. Oak woodland and rocky outcrop habitats sustained proportionately higher impacts during this period because they were scarcer to begin with and were located in the most heavily developed areas. These habitats, already with a long history of disturbance because of their proximity to early settlements, contained many of our rarest species of plants.

Suburban development between 1940 and 1980 followed a similar pattern but filled in undeveloped pockets of land to increase urban density, creating the urban zone recognizable today (Figure 10). Many of the "part time" farms of the 1930s, along with unprofitable golf courses, outmoded small airports, and larger farms, were themselves subdivided during this period. Since 1980, development has continued along the edges of inevitably-expanding urban growth boundaries. Regional tree cover, fish and wildlife habitat, and groundwater supplies continue to diminish (Hennings 2008). The prevailing business model in new developments results in hundreds of houses built on extensive tracts of denuded land. In hilly areas these developments have primarily impacted coniferous, mixed deciduous-coniferous forest, and cutover lands on moderate to steep slopes, while development on more level land has occurred on former farmland. Despite regulations intended to protect streams and wetlands from development, they have been at the receiving end of 80 years of altered streamflows, increased loads of sediments, nutrients, and contaminants, and invasive vegetation. These transformed "urban streams" and "urban wetlands" no longer resemble or function like those known to the Howell brothers or Gorman.

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10. In contrast, Vancouver experienced its greatest growth in population between 1900 and 1920 (Vogel 1945).

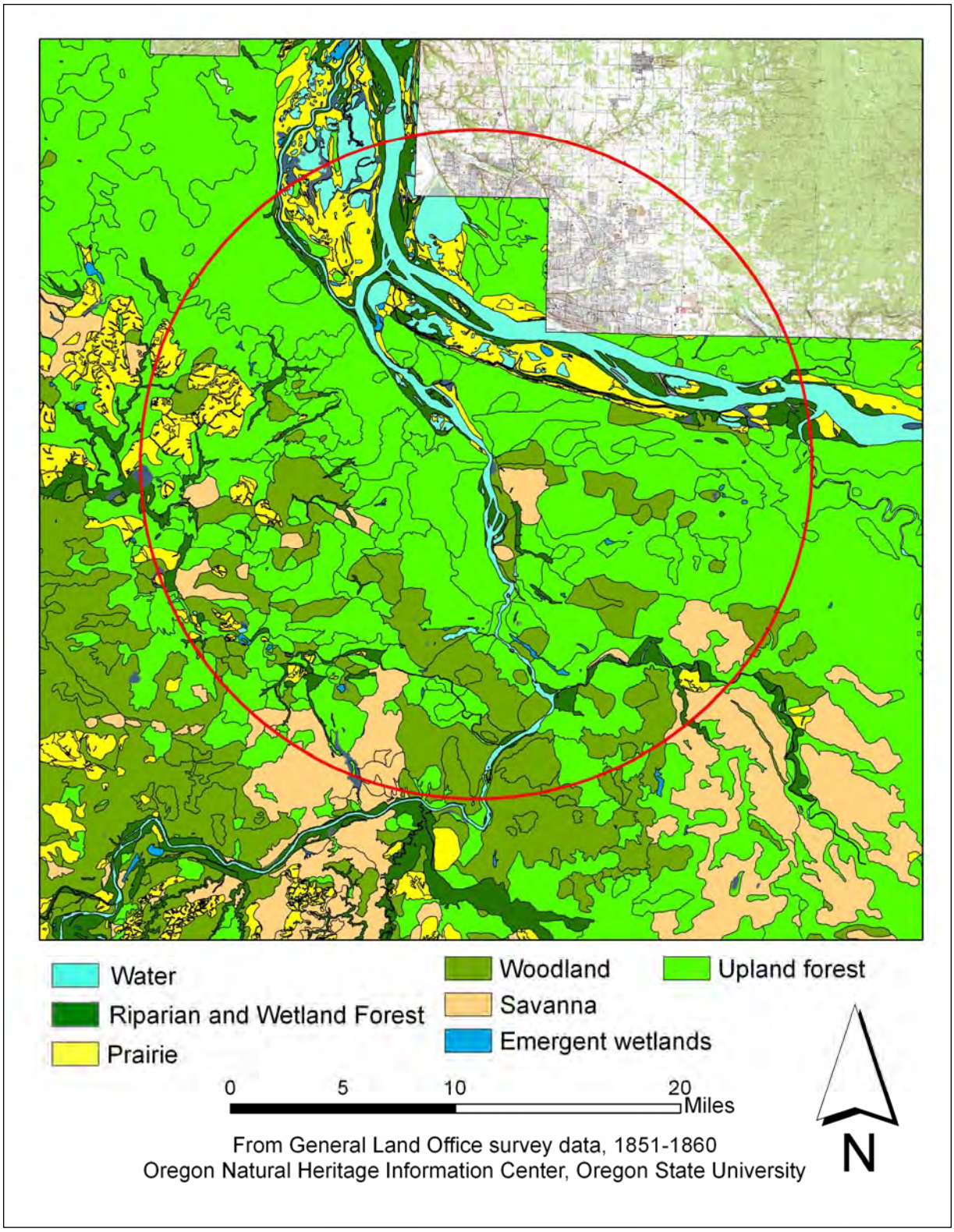



**Figure 9. Historical vegetation in Portland area, ca. 1806. Mapping of historical vegetation is not available for most of Clark County. Red circle is our study area delineated in Figure 2.**

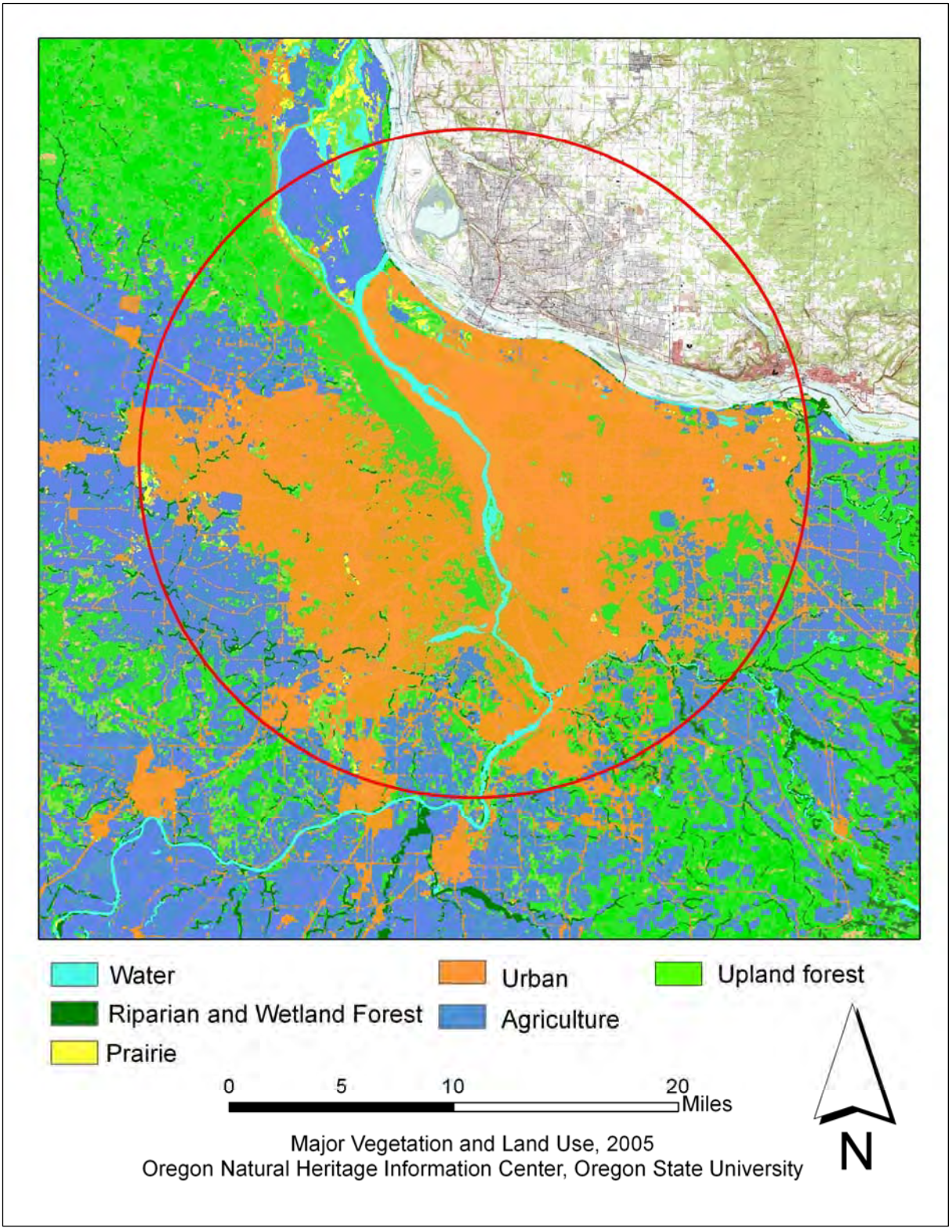



**Figure 10. Current vegetation and land use, 2005. Cover for Clark County is not available, but gray and pink shading on USGS topographic maps indicate extent of urbanization. Red circle is our study area delineated in Figure 2.**

**Figure 11. Coniferous forest in the West Hills, fragmented by roads and housing, has been invaded by numerous exotic species. Here, a 100-foot-tall *Pseudotsuga menziesii* is festooned with a mat of *Polygonum baldschuanicum*, thought to have been introduced as an ornamental after 1950. Adjacent trees are covered with *Clematis vitalba*, introduced during the same period. The ground layer is dominated by *P. baldschuanicum*, *Rubus armeniacus*, and *Hedera helix*.**

While regional development resulted in widespread impacts to our native flora (Figure 11), some taxa enjoyed special status and were planted in the changing landscape. Cardwell (1906), Gorman (1916-1917) and Van Dersal (1929) promoted several species of native trees and shrubs prized as ornamentals, including *Arbutus menziesii*, *Cornus nuttallii*, *Philadelphus lewisii*, and *Ribes sanguineum* (Appendix B). Hoyt Arboretum, designed in 1928-1930 to showcase trees from all over the world, included many native

specimens already present on site at the time of construction, or planted between 1931 and about 1940. Similarly, in 1933 Reed College planted an arboretum of 54 species of native trees and shrubs, many of which still grace today's campus (Reed College 2002).

In today's metro area, the future of our native flora is now linked to the region's arboreta, parks, and protected natural areas. While many smaller parks in the region have been developed for conventional recreation such as ballfields, swimming pools, and tennis courts, we are fortunate to have many large tracts of land managed specifically as natural areas. These larger parcels are clearly visible in satellite imagery as undeveloped islands and peninsulas in an urban sea. Agencies managing the larger tracts of natural areas in or just beyond the boundaries of our area include the the Oregon Department of Fish and Wildlife (ca. 12,000 acres—Sauvie Island Wildlife Management Area), Metro (ca. 11,000 acres—including Smith and Bybee Lakes, Cooper Mountain, and many other sites), the U.S. Fish and Wildlife Service (ca. 9000 acres—Tualatin River, Ridgefield, and Steigerwald National Wildlife Refuges), the City of Portland (ca. 8,200 acres—including Forest Park, Powell Butte Nature Park, Oaks Bottom Wildlife Refuge), the Oregon Parks and Recreation Department (ca. 1,060 acres—Tryon Creek State Natural Area, Molalla River State Park, Mary S. Young State Recreation Area, Willamette Stone State Heritage Site), the Tualatin Hills Park and Recreation District (ca. 1,100 acres—including Tualatin Hills Nature Park), and North Clackamas Parks and Recreation District (ca. 288 acres—including Mt. Talbert Nature Park). These areas comprise about half of an estimated 80,000 acres of significant habitat remaining in the region (Hennings 2008). Since 1995, Metro has aggressively purchased large tracts of land beyond the city limits of Portland, using funds from bond measures. With ever-expanding urban growth boundaries and infilling development within those boundaries, Metro's properties will become increasingly important as the last vestiges of undeveloped habitat for native plants and animals. The foresight of past and present urban and regional planners, and the enormous amount of funds and effort invested by these agencies and the public have provided us with a rare opportunity to protect remnant ecosystems throughout our area. Habitat restoration and management will enhance the chances for native species and communities to survive and will provide a window on the past. With some imagination, future generations will be able to glimpse what fur traders, the Howell brothers, Henderson, and Gorman once saw. However, urban parks and remaining undeveloped areas will be subject to an increasing host of stresses. Continued development, habitat fragmentation, the loss of natural flood and fire regimes, the proliferation of exotic species, and heavy use by bikers, hikers, and the homeless will present ongoing challenges to managers.

## Changing Habitats

Urbanization of the Portland-Vancouver area between 1806 and today had inevitable and predictable effects on the region's vegetation (Figure 12, Table 3). Urban, suburban, and agricultural land use now dominate a landscape where virtually none existed in 1806. Over time they have consumed much or most of the original habitats: emergent wetlands and shrub swamp (97% loss), coniferous forest (92% loss), prairie and savanna (90% loss), riparian and wetland forest (58% loss), and oak communities of any sort (40% loss). Open water features declined 49 percent.

Two other historical vegetation types disappeared completely in our area because of fire suppression—burned forest and woodland.[11]

Coniferous and deciduous woodland, maintained historically by periodic burning, converted to forest or was logged or cleared for agriculture and urbanization. In contrast to woodland, mixed deciduous-coniferous forest has lost only 5 percent of its former area, presumably because it was not abundant in the historical landscape and today is a common seral stage after logging and other types of disturbance.

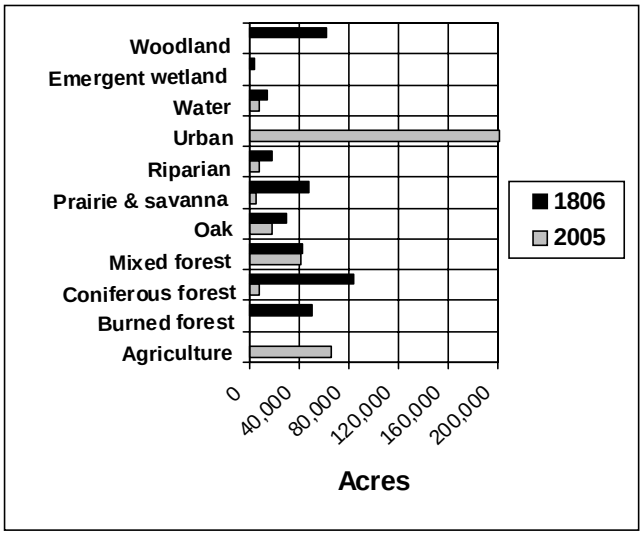


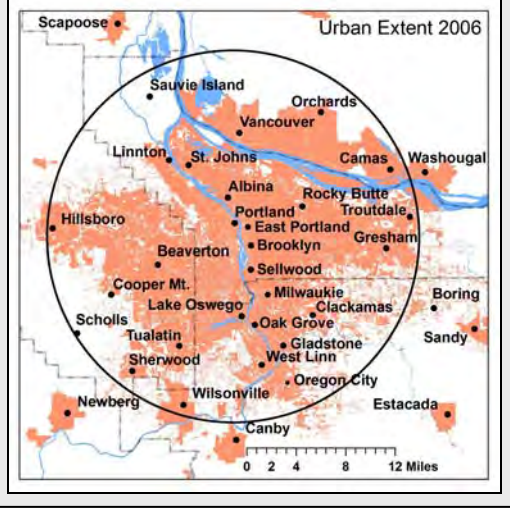

**Figure 12. Change in land cover in Portland area since 1806, by acres. Clark County is not included because mapping of historical vegetation for the county is incomplete.**

**Coniferous and mixed coniferous-deciduous forest**

Between 1851 and 1860, GLO surveyors described and mapped over 301,000 acres of forest in our area, some of which had been burned within the previous 10-20 years. The forest was dominated by *Pseudotsuga menziesii* and *Acer macrophyllum*, with lesser amounts of *Tsuga heterophylla*, *Abies grandis*, *Thuja plicata*, *Quercus garryana*, and *Alnus rubra*. The Watkins photographs (cover photo) show that parts of Portland's West Hills had been logged and burned prior to 1867, and other fires followed in 1889, 1940, and 1951 (Kuhn 2005). Olmstead and Olmstead (1903) noted that "for about a mile northwest of the hill north of Balch Canyon the woods have been...much cut and burnt." Despite impacts from growing settlements, historical photos show that old-growth forest persisted very close to Oregon City and Hillsboro until about 1890. The ubiquity of forests and the relatively limited demand for forest products from a small population enabled these stands to survive close to expanding cities. Growing population and industry changed all this after 1890, and Gorman noted how remaining local forests were cut over during this period.

For decades, park and urban planners urged the city to protect its wooded hillsides for their scenic and recreational appeal. Olmstead and Olmstead (1903) recommended forested parks and parkways in the West Hills, Mount Tabor, and on the river bluffs along the Willamette at Mocks Crest and Sellwood, but the frenzied real estate market sparked by the Lewis and Clark Exposition precluded protection of most of these areas. Moses (1943) noted that "wooded hills and valleys in and around Portland have in a large measure been overlooked" by planners, and those west of the city "are as important to Portland as the Palisades of the Hudson are to the city of New York." Reiterating what the Olmsteads had written 40 years earlier, he urged the city to create what in 1948 would become Forest Park. He also recommended protection of the forested slopes along West Burnside and Barnes Road, Jefferson Street, and Canyon Road that today are important natural areas within the city. He also recommended a parkway along Skyline Drive that never materialized, and today the road's stupendous views are accessible only from private cemeteries or housing developments that have replaced the forest along the ridgetop.

11. No large tracts of forest have burned locally since the Forest Park fire of 1951, but every year more fuel accumulates in forests and suburban neighborhoods, and new fires are inevitable.




## Expanding Urban Footprint

Although today's population and urban footprint are very much larger than what they were in 1910 (left), the rate of growth in the region's population and urban infrastructure between 1875 and 1925 has not been equaled since that period (Figure 8). The 1910 census indicated that the city's population was 72 times larger than what it had been in 1860, and that Portland was the largest city in the state. These numbers no doubt reflect population gained by a series of annexations between 1891 and 1915 that included Albina, East Portland, Sellwood, subdivisions in the West Hills (Kings Heights, Portland Heights, Willamette Heights), Holgate, Mt. Tabor, Sunnyside, Swan Island, Linnton, and St. Johns (Herst 1931). Phenomenal growth was characteristic of cities on the west coast. During the same 50-year period, the populations of Los Angeles and Seattle increased 3000 percent and 9000 percent, respectively (Throop 1948; Klingle 2001). Between 1930 and 1940, population growth in Portland was flat, but suburban growth ranged from 38 percent in unincorporated Multnomah County to 73 percent in Clark County. Portland's population rose again during World War II because of war-related industry, particularly in shipyards. After the war, much of the "temporary" work force decided to stay put, and at this point suburban development began to outstrip development within the cities of Portland and Vancouver (Moses 1943, Throop 1948). Metro anticipates a regional population of 3.2 million by 2035 and 3.8 million by 2060, the latter being twice the number of people recorded in the 2000 census.

Of course, most of the region's original forest has been altered, and much of what remains is fragmented by urban infrastructure. In spite of these changes, the 5,000-acre Forest Park is the largest contiguous stand of trees in the Portland-Vancouver area and one of the three or four largest urban forest parks in the United States. Not surprisingly, old-growth conifer forest has mostly disappeared from our area, but a few stands or scattered individual trees persist in Forest Park and are occasional elsewhere in the region. A number of species associated with coniferous or mixed coniferous-deciduous forest no longer occur here, including *Chimaphila umbellata, Corallorhiza mertensiana, Cypripedium montanum,* and *Lycopodium clavatum*.

**Table 3. Change in land cover in the Portland area since 1806, by acres. Clark County was not included in the analysis because mapping of historical vegetation for the county is incomplete.**

| Land cover type | Acres 1806 | Acres 2005 | % change |
|---|---|---|---|
| Agriculture | 0 | 66,197 | 100 |
| Urban | 0 | 201,184 | 100 |
| Mixed forest | 42,925 | 40,935 | -5 |
| Oak | 29,340 | 17,592 | -40 |
| Water | 14,288 | 7,255 | -49 |
| Riparian forest, wetland forest | 18,615 | 7,903 | -58 |
| Prairie, savanna | 48,067 | 4,835 | -90 |
| Coniferous forest | 83,874 | 7,137 | -92 |
| Emergent wetland, shrub swamp | 3,536 | 98 | -97 |
| Burned forest | 50,107 | 14 | -100 |
| Woodland | 62,399 | 0 | -100 |
| Total | 353,150 | 353,150 | |

Most of the smaller parks in the west hills have lost their understories to exotic species such as *Prunus laurocerasus, Ilex aquifolium, Hedera helix,* and *Hedera hibernica*, but there are still large areas in Forest Park with intact native plant communities in mature second growth forest. Thousands of acres of Douglas fir forest still have an understory dominated by *Mahonia nervosa, Polystichum munitum* and *Gaultheria shallon*, with *Trillium ovatum, Vancouveria hexandra,* and *Viola glabella* present in the herb layer. East of the Willamette River, the East Buttes and Sandy River Gorge comprise another substantial unit of coniferous forest in our area. Metro purchased or is planning to purchase several thousand acres of conifer-dominated habitat in these areas with funding from the 1995 and 2006 bond measures. Most of these protected properties are becoming surrounded by housing developments and are also threatened with invasion by *Ilex aquifolium, Hedera helix,* and *Hedera hibernica*.

**Prairie, savanna, and oak woodland**

About 97,000 acres of oak and conifer woodland, 53,000 acres of oak and conifer savanna, and 36,000 acres of wet and upland prairie were recorded from our area by GLO surveyors. Remants of these specialized habitats contain what are now our rarest species. Influenced historically by frequent aboriginal burning, these habitats began to change after Euroamerican settlement. Prairie on deep soils was quickly converted to farms and settlements, and periodic fires ceased. In 1832, the Hudson Bay Company had about 700 acres under cultivation in what had been prairie located around Fort Vancouver. By 1853, this area had expanded to 2,000 acres (Taylor 1992). In the absence of fire the remaining prairie, oak woodland, and savanna quickly began to fill in with more oaks and Douglas fir, eventually converting open stands to forest dominated by Douglas fir. Ubiquitous grazing by livestock hastened the demise of the native herb layer in

**Figure 13. Oregon City, view to the southeast just below Willamette Falls, ca. 1867. Extensive exposures of basalt along the Willamette River in this vicinity provided habitat for oak woodland, rock garden, and upland prairie species that are now rare. The entire foreground and area with the large buildings on the far shore are now covered by paper mills. The largest structure was a woolen mill.**

these habitats. Today we really don't know what the original composition of the herb layer might have been in these places, other than guessing from what species remain in relictual stands. Even with restoration efforts, the accumulated litter or thatch from exotic grasses prevents germination of native species. Unlike the more widespread coniferous forest in the metro area, prairie and oak habitats were scarcer and many sustained intense urban and suburban development so that cumulative impacts on the flora of these habitats have been severe. Today, large-diameter white oaks and ponderosa pines occur throughout much of our area, but most are located on fragmented bits of land or among office parks, homes, and industrial sites.

Gorman's (1916-1917) descriptions provided the earliest and most comprehensive written record of what species grew in historical upland and wet prairie in the Portland area (Table 4). His work provides a link between our current knowledge of prairie farther south in the Willamette Valley, and prairie to the north in the Puget Trough. We interpreted Gorman's descriptions of upland and wet prairie to include "plains," "prairie tracts," "open places," "dry open places," "open rocky places," "fields," "moist open ground," "moist ground," and "wet ground."

We were also able to compile from Gorman's work a species list for historical oak savanna and woodland in the Portland area (Table 5). There are very few historical descriptions of oak savanna and woodland in western Oregon and Washington, making Gorman's notes particularly valuable. He described oak woodland and savanna as "open woods," "dry open woods," "glades," "open glades," "open grassy glades," "open rocky places," "open places," "scrub oak," "dry open tracts," "open gravelly tracts," "moist open woods,"

# Use, abuse, and conservation

Gorman's notes about everyday uses of some of our plants make fascinating reading (Appendix B). In addition to documenting "champion" trees and shrubs in our area he also described myriad industrial, agricultural, ethnobotanical, and home uses for various species. *Carex exsiccata* was used in iron foundries, *Corylus cornuta* var. *californica* in brewing beer, and *Dipsacus fullonum* in woolen mills. Native Americans, Chinese, and European-Americans alike ate a number of our species as staple or survival foods. Vanilla-scented *Achlys triphylla* was sold by boys on street corners. *Lupinus polyphyllus* was a problem plant for farmers because its seeds discolored wheat flour. The bark of *Frangula purshiana* was collected and sold as a laxative, as it still is today. A surprising number of native species were planted in yards as ornamentals. Wagonloads of greens were collected and sold for holiday decorations.

Gorman was the first in our area to raise an alarm about the abuse of the local flora. As early as 1904 he railed against "sneaking vandals" and the "idle Sunday rabble" who ravaged vegetation in private yards, cemeteries, and woods alike for fun and fashion. It was customary, even for the family of learned and much accomplished Thomas Lamb Eliot (a friend of Henderson's and possible acquaintance of Gorman's) to return from local picnics "laden with trilliums, spring beauties, ginger flowers, johnny-jump-ups, and Oregon currant blossoms" (Wilbur 1937). Although upset about these depredations, Gorman was distinctly less charitable toward *Toxicodendron diversilobum* and species of *Madia*, paradoxically advocating their eradication for the public good because of "poisoning" by the former (to which he was sensitive) and the tar-like exudate of the latter that plagued farmers. By 1916, some of his shrill predictions from a decade earlier had moderated because of changing fashions, market conditions, or local customs. Fortunately, some of his other predictions were just plain incorrect, and a few of these plants are still with us today.

**Species recorded by Gorman as being overcollected for holiday decorations, cut flowers, or commercial uses:**

| | | | |
|---|---|---|---|
| *Achlys triphylla* | *Calypso bulbosa* | *Gaultheria shallon* | *Philadelphus lewisii* |
| *Adiantum aleuticum* | *Centaurea cyanus* | *Iris tenax* | *Phoradendron villosum* |
| *Arbutus menziesii* | *Cornus nuttallii* | *Leucanthemum vulgare* | *Polystichum munitum* |
| *Blechnum spicant* | *Erythronium oregonum* | *Mahonia aquifolium* | *Ribes sanguineum* |
| *Calochortus tolmiei* | *Frangula purshiana* | *Mahonia nervosa* | *Trillium ovatum* |

**Table 4. Native prairie species reported from the Portland area by Gorman (1916-1917).**

| | | |
|---|---|---|
| *Achnatherum lemmonii* var. *lemmonii* | *Equisetum arvense* | *Madia glomerata* |
| *Agoseris heterophylla* | *Erigeron strigosus* | *Marah oreganus* |
| *Anaphalis margaritacea* | *Eriophyllum lanatum* | *Microsteris gracilis* |
| *Antennaria howellii* ssp. *howellii* | *Eryngium petiolatum* | *Microseris laciniata* ssp. *leptosepala* |
| *Aphanes arvensis* | *Erythronium oregonum* ssp. *oregonum* | *Montia dichotoma* |
| *Artemisia ludoviciana* | *Euthamia occidentalis* | *Myosurus minimus* |
| *Balsamorhiza deltoidea* | *Fragaria chiloensis* ssp. *pacifica* | *Orthocarpus bracteosus* |
| *Barbarea orthoceras* | *Fragaria vesca* ssp. *bracteata* | *Oxalis suksdorfii* |
| *Brodiaea coronaria* ssp. *coronaria* | *Gamochaeta purpurea* | *Poa nervosa* |
| *Brodiaea elegans* ssp. *hooveri* | *Geranium bicknellii* | *Polygonum polygaloides* ssp. *kelloggii* |
| *Bromus marginatus* | *Geranium carolinianum* | *Prunella vulgaris* ssp. *lanceolata* |
| *Bromus vulgaris* | *Gilia capitata* | *Sanguisorba annua* |
| *Calochortus tolmiei* | *Githopsis specularioides* | *Sanicula bipinnatifida* |
| *Camassia quamash* ssp. *maxima* | *Grindelia integrifolia* | *Sericocarpus oregonensis* |
| *Carex stipata* var. *stipata* | *Heterocodon rariflorum* | *Sidalcea oregana* |
| *Castilleja attenuata* | *Hieracium scouleri* | *Solidago canadensis* var. *salebrosa* |
| *Castilleja tenuis* | *Hypericum scouleri* ssp. *scouleri* | *Solidago simplex* ssp. *simplex* var. *simplex* |
| *Cerastium arvense* ssp. *arvense* | *Iris tenax* | *Symphyotrichum hallii* |
| *Cirsium remotifolium* | *Isoetes nuttallii* | *Trichostema oblongum* |
| *Clarkia amoena* ssp. *lindleyi* | *Lathyrus holochlorus* | *Trifolium eriocephalum* |
| *Clarkia purpurea* ssp. *quadrivulnera* | *Leptosiphon bicolor* | *Trifolium microcephalum* |
| *Clarkia purpurea* ssp. *viminea* | *Lomatium nudicaule* | *Trifolium willdenovii* |
| *Collinsia grandiflora* | *Lotus micranthus* | *Triodanis perfoliata* |
| *Cuscuta pentagona* | *Lupinus arbustus* | *Triphysaria pusilla* |
| *Danthonia californica* | *Lupinus latifolius* | *Triteleia hyacinthina* |
| *Delphinium trolliifolium* | *Lupinus lepidus* | *Veratrum californicum* var. *caudatum* |
| *Deschampsia caespitosa* | *Lupinus polycarpus* | *Veronica peregrina* var. *xalapensis* |
| *Dichelostemma congestum* | *Luzula comosa* | *Viola praemorsa* ssp. *praemorsa* |
| *Epilobium torreyi* | *Madia exigua* | *Zigadenus venenosus* |

"open pine woods," "grassy openings," "moist grassy openings," and "open pole oak groves."[12] There was by necessity some overlap between these habitats and prairies, as Gorman's descriptions were not always mutually exclusive.

Outside the urban core, oak habitat still exists in both the Clackamas and Tualatin River drainages. Along the Tualatin, a number of oak and ash dominated floodplains occur between the Tualatin National Wildlife Refuge and Forest Grove, and valuable riparian habitat is protected by various public and private landowners. On the Clackamas River east of Carver, a complex of rock outcrops and oak woodlands extends beyond our study area. This area lies in the path of new housing development that is pushing eastward into this area, but Metro and Clackamas County are planning new parks for the region.

Along the east side of the Willamette River, the Willamette Bluffs extend from St. Johns south to Greeley Avenue and are dominated by mature white oak. This habitat is sometimes used by rare birds, including neotropical migrants (Hagar and Stern 2001). *Cynoglossum grande, Disporum smithii*, and *Cardamine nuttallii* var. *nuttallii* are dominant species in one small area of bluff with an area of less than half an acre. On Waud Bluff, below the University of Portland, there are a number of dominant native shrubs including *Toxicodendron diversilobum, Rosa nutkana,* and *Holodiscus discolor*. The rest of the bluff is heavily infested with exotic species, primarily *Rubus armeniacus* and pasture grasses. Camassia Preserve and several properties in the Willamette Narrows support about 100 acres of oak, upland prairie, wet prairie, and wetlands on rocky outcrops. Most of these retain a diverse groundcover of native species. *Piperia unalascensis* is another rare plant associated with oak on a rocky outcrop in the Agency Creek drainage, adjacent to Forest Park.

**Cliffs, Rock Outcrops, and Rocky Oak Woodland**

Basalt outcrops and cliffs occur along the Willamette River, on the buttes of the Boring Lava field, around Oregon City (Figure 13), in the Tonquin Scablands, along Highway 30 north of the St. Johns Bridge, from Warrior Point on Sauvie Island across the river to Ridgefield National Wildlife Refuge, on Prune Hill near Camas, and along the east side of Lacamas Lake. Some sites have been quarried or covered by *Hedera helix* or *Hedera hibernica*, but many less disturbed sites with seepage persist and need to be investigated for rare species. Willamette Narrows, Canemah Bluffs, Camassia Preserve, Rock Island, Elk Rock Island, and Elk Rock are perhaps the best-known sites with this kind of habitat. Most of these sites are thought to have been created by the Bretz Floods (Missoula Floods) that during the late Pleistocene. These floods periodically and catastrophically flooded our area with 400 feet of high-energy water and stripped these habitats of their topsoil (Allen et al. 1986). Sites usually have shallow soils over bedrock that are wet with a perched water table in the winter and bone-dry in the summer. Typical vegetation is drought-tolerant oak, madrone, and Douglas fir woodland, with openings of upland prairie and mats of moss over nearly bare rock outcrops. Some sites are sheer cliffs with few trees.

Most of these habitats occur along the Willamette River, and because of their central location in the metro area have been subject to a long history of urban and suburban development. Many native species have been

12. "Pole oak" refers to oaks of pole size, with trunks 5-10 inches in diameter at breast height.

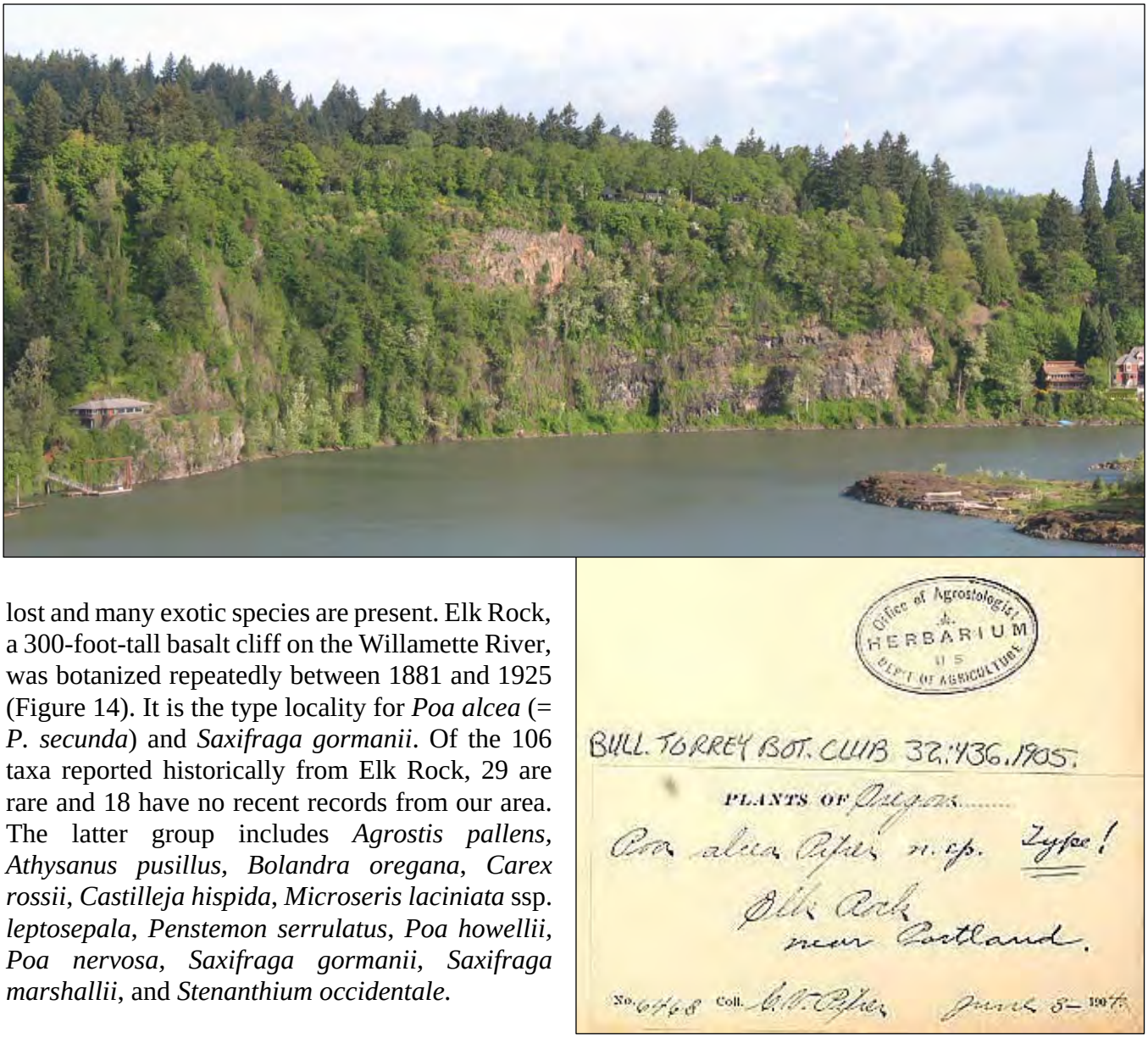



**Figure 14. Elk Rock (above), historical hotspot for local botanical rarities and the type locality for Piper's *Poa alcea* (below). Part of Elk Rock Island is visible in the lower right foreground. Note houses for scale.**

lost and many exotic species are present. Elk Rock, a 300-foot-tall basalt cliff on the Willamette River, was botanized repeatedly between 1881 and 1925 (Figure 14). It is the type locality for *Poa alcea* (= *P. secunda*) and *Saxifraga gormanii*. Of the 106 taxa reported historically from Elk Rock, 29 are rare and 18 have no recent records from our area. The latter group includes *Agrostis pallens*, *Athysanus pusillus*, *Bolandra oregana*, *Carex rossii*, *Castilleja hispida*, *Microseris laciniata* ssp. *leptosepala*, *Penstemon serrulatus*, *Poa howellii*, *Poa nervosa*, *Saxifraga gormanii*, *Saxifraga marshallii*, and *Stenanthium occidentale*.

The flora of these dry, rocky islands in what was originally an ocean of forest is of phytogeographical interest. In many ways they are outliers of the Columbia River Gorge and drylands east of the Cascades, containing both xeric elements from eastern and southwestern Oregon (e.g., *Sedum stenopetalum*) and mesic elements from the Gorge, the Cascades, and east to the Snake River (e.g., *Sullivantia oregana* and *Bolandra oregana*). The type specimens of both *Sullivantia* and *Bolandra* were collected on cliffs near Oregon City by Joseph Howell (Watson 1879), and both these and *Sedum stenopetalum* occurred historically at Elk Rock. The plants of these habitats are relicts of previous warmer and drier climates, and were presumably more widespread in the past. They are also markers for habitats that need protection from urban development, and they are tangible reminders of the catastrophic Pleistocene floods.

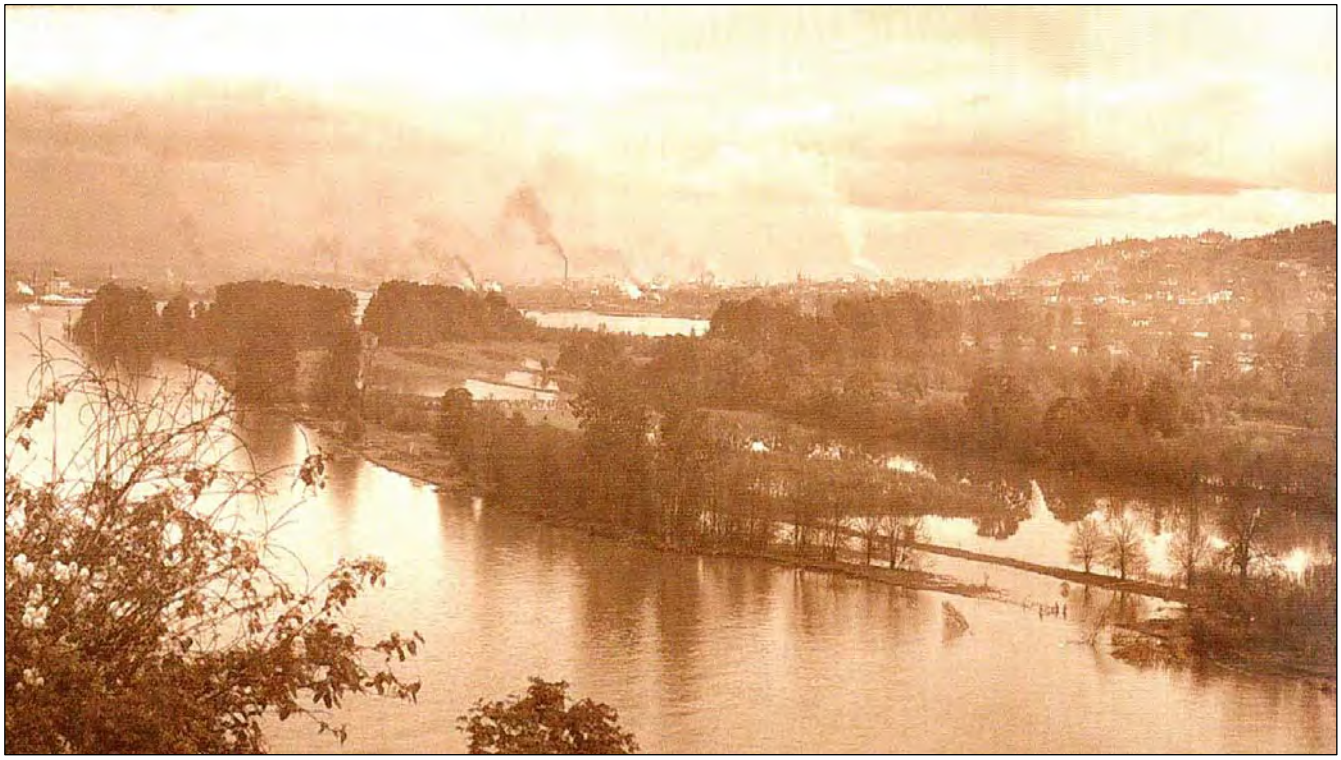


**Figure 15. Swan Island during spring freshet, looking south from Waud Bluff and University of Portland toward downtown, 1911-1918. The island and river channel to the left are now covered by fill and industrial buildings.**

### Rivers, streams, lakes, and wetlands

The most conspicuous aquatic and wetland habitats in the metro area were the Columbia and Willamette rivers and their extensive floodplains, which contained numerous lakes, ponds, sloughs, shrub swamps, wet prairie, and riparian forest. GLO surveyors described the bottomlands of these rivers as "subject to an annual inundation...varying from 1 to 15 feet deep...lasting from 1 to 2 months in the summer season, leaving only a few of the highest places dry...They are mostly open grass land...badly cut up with bayous, stagnant ponds & lakes" (Ives 1851; Hunt 1853).

The annual inundation described by the GLO surveyors was called the "June flood" or "spring freshet." It originated from snowmelt throughout the enormous Columbia River Basin, in contrast to winter floods derived from smaller tributary watersheds such as the Willamette located west of the Cascades. The winter floods were of short duration, but the spring freshet lasted for a month or two between May and July. The average annual freshet reached a flood stage of 21.5 ft. above mean low water at Vancouver and had a flow of about 600,000 cfs. These average flows were punctuated periodically by huge flows, the largest of which in 1894 reached 36 feet above mean low water at Vancouver. A spring flood in 1849 was probably of the same magnitude (U.S. Army Corps of Engineers 1948, 1988; Christy and Putera 1993). During these floods, only the tops of trees were visible on the floodplains, and all lakes and sloughs were inundated (Figure 15). Olmstead and Olmstead (1903) noted that both Ross Island and Swan Island were "almost wholly covered by the annual floods...[but] not injured by this to any appreciable extent."

**Figure 16. Mudflat at Sturgeon Lake, Sauvie Island, an example of what Gorman called an "estival" or "receding" pond on the Columbia River floodplain. The moist surface is habitat for dwarfed ephemeral wetland plants.**

The annual freshet limited floodplain vegetation to species that could survive inundation for at least a month during the growing season. The wettest areas were the many sloughs, ponds, and lakes, shallow as they still are today. Many of them were confluent with the rivers during the spring freshets, and dried out partially or completely by late summer, exposing mud flats that were colonized by a specialized flora of dwarfed, short-season s annuals such as *Crassula aquatica, Cyperus squarrosus, Eleocharis obtusa, Gratiola neglecta,* and *Limosella aquatica* (Figure 16). Gorman called these "estival" or "receding" ponds. Wet prairies occupied slightly higher elevations on floodplains, described by GLO surveyors as "open grassland," and were dominated by *Carex aperta*. According to Gorman, this sedge formed “extensive meadows on overflowed bottom lands.” Nuttall (1841) and Gorman (1916-1917) provided what is probably the only historical documentation for some herbaceous species that occurred on the Columbia River floodplain, species that they specifically noted as being tolerant of prolonged immersion during the June floods: *Carex aperta, Carex exsiccata, Coreopsis tinctoria* var. *atkinsoniana, Poa annua, Poa palustris,* and *Symphyotrichum subspicatum.*

**Table 5. Native oak savanna and woodland species reported from the Portland area by Gorman (1916-1917).**

| | | |
|---|---|---|
| *Adenocaulon bicolor* | *Disporum hookeri* | *Phacelia linearis* |
| *Agoseris grandiflora* | *Dodecatheon hendersonii* | *Physocarpus capitatus* |
| *Agrostis microphylla* | *Epilobium brachycarpum* | *Piperia elegans* |
| *Amelanchier alnifolia* var. *semiintegrifolia* | *Epilobium torreyi* | *Poa howellii* |
| *Anemone oregana* var. *oregana* | *Eriophyllum lanatum* | *Poa nervosa* |
| *Anisocarpus madioides* | *Erythronium oregonum* ssp. *oregonum* | *Potentilla glandulosa* |
| *Aquilegia formosa* | *Eschscholzia californica* | *Potentilla gracilis* var. *gracilis* |
| *Arbutus menziesii* | *Eurybia radulina* | *Prunus emarginata* var. *mollis* |
| *Arctostaphylos columbiana* | *Euthamia occidentalis* | *Prunus virginiana* var. *demissa* |
| *Arctostaphylos uva-ursi* | *Fragaria vesca* ssp. *bracteata* | *Pteridium aquilinum* var. *pubescens* |
| *Aruncus dioicus* var. *acuminatus* | *Fritillaria affinis* | *Quercus garryana* |
| *Brodiaea coronaria* ssp. *coronaria* | *Geum macrophyllum* var. *macrophyllum* | *Rosa gymnocarpa* |
| *Bromus vulgaris* | *Heracleum maximum* | *Rubus leucodermis* |
| *Calochortus tolmiei* | *Hieracium albiflorum* | *Rubus parviflorus* |
| *Calypso bulbosa* | *Hierochloe occidentalis* | *Salix scouleriana* |
| *Camassia quamash* ssp. *maxima* | *Holodiscus discolor* | *Sambucus nigra* ssp. *cerulea* |
| *Cardamine nuttallii* var. *nuttallii* | *Hypericum scouleri* ssp. *scouleri* | *Sanicula bipinnatifida* |
| *Carex stipata* var. *stipata* | *Lathyrus nevadensis* | *Scrophularia lanceolata* |
| *Castilleja tenuis* | *Lathyrus torreyi* | *Sidalcea campestris* |
| *Ceanothus sanguineus* | *Ligusticum apiifolium* | *Spiraea betulifolia* var. *lucida* |
| *Ceanothus velutinus* var. *hookeri* | *Lilium columbianum* | *Symphoricarpos albus* |
| *Cephalanthera austiniae* | *Lomatium nudicaule* | *Symphoricarpos hesperius* |
| *Chamaesyce serpyllifolia* | *Lotus nevadensis* var. *douglasii* | *Synthyris reniformis* |
| *Chamerion angustifolium* ssp. *circumvagum* | *Lupinus latifolius* | *Tonella tenella* |
| *Cinna latifolia* | *Lupinus polyphyllus* | *Toxicodendron diversilobum* |
| *Cirsium edule* | *Luzula campestris* | *Trientalis borealis* ssp. *latifolia* |
| *Clarkia gracilis* ssp. *gracilis* | *Luzula parviflora* | *Trifolium ciliolatum* |
| *Clarkia purpurea* ssp. *purpurea* | *Madia exigua* | *Trifolium wormskioldii* |
| *Clarkia purpurea* ssp. *quadrivulnera* | *Mahonia aquifolium* | *Triodanis perfoliata* |
| *Clarkia rhomboidea* | *Maianthemum racemosum* ssp. *amplexicaule* | *Triteleia hyacinthina* |
| *Claytonia sibirica* | *Malus fusca* | *Vaccinium caespitosum* |
| *Clinopodium douglasii* | *Marah oreganus* | *Vaccinium ovatum* |
| *Collinsia grandiflora* | *Melica subulata* | *Viburnum ellipticum* |
| *Collomia grandiflora* | *Nemophila parviflora* | *Vicia americana* |
| *Collomia heterophylla* | *Nemophila pedunculata* | *Vicia nigricans* ssp. *gigantea* |
| *Comandra umbellata* | *Oemleria cerasiformis* | *Viola adunca* |
| *Corallorhiza maculata* | *Osmorhiza berteroi* | *Viola howellii* |
| *Corylus cornuta* | *Oxalis suksdorfii* | *Viola sempervirens* |
| *Deschampsia caespitosa* | *Packera macounii* | *Vulpia octoflora* |

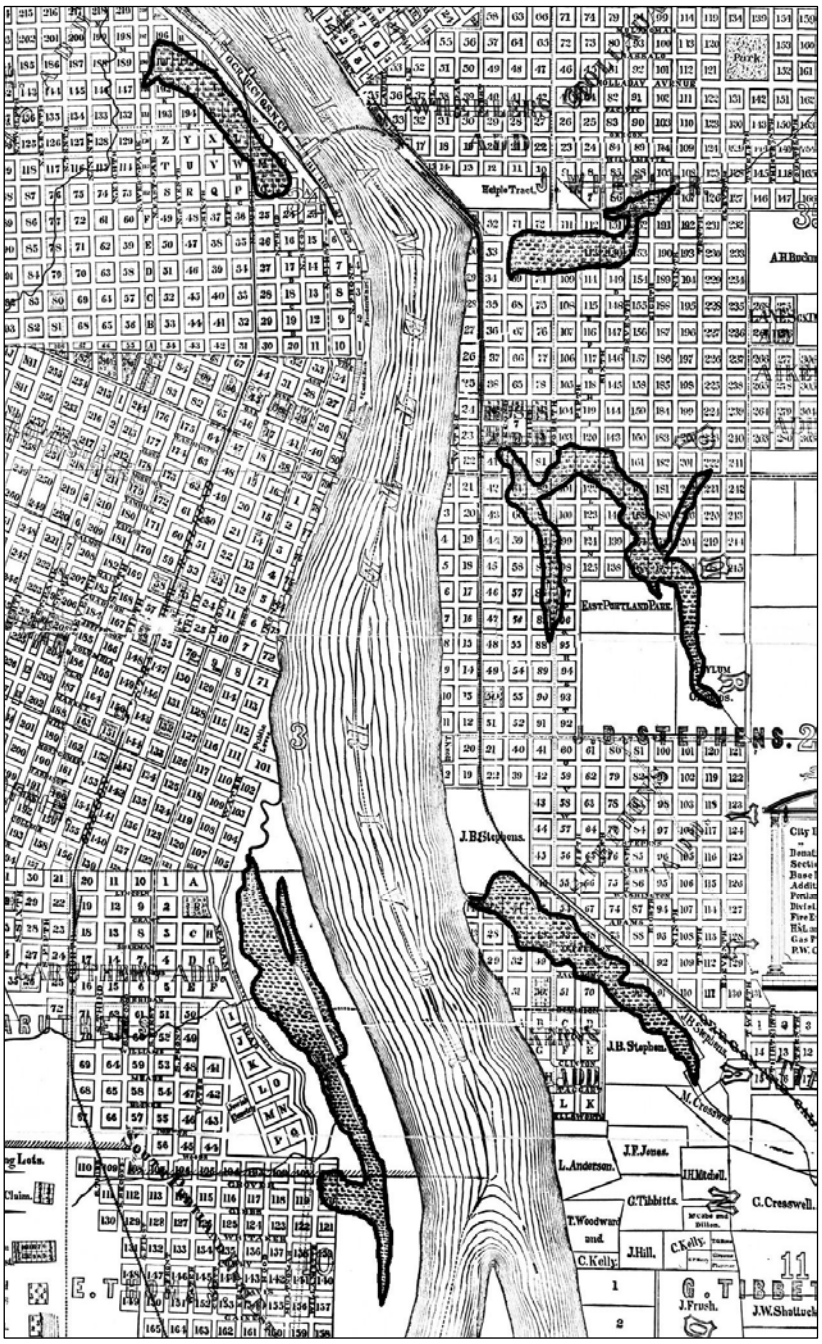



**Figure 17. Wetlands in downtown Portland, 1874. Some of the waterfront blocks shown here were imaginary when the map was made, but extensive fills would later eliminate all the wetlands. Clockwise from upper left: Couch Lake, lower Sullivans Gulch, Asylum Gulch, Stephens Slough, and Marquam Lake. The combined Tanner and Balch creeks are visible W of Couch Lake. Enois Creek drained Marquam Gulch (not shown) and flowed into Marquam Lake.**

The most extensive area of floodplain lakes, ponds, and sloughs was located along the Columbia River north of the Portland Peninsula, including today's Rivergate Industrial Area and Columbia Slough bottoms. Smaller floodplains occurred along the Willamette at Mocks Bottom, Guilds Lake, and Marquam Lake that today comprise the Swan Island Industrial Area, the Northwest Industrial Area, and the South Waterfront development. The east bank of the Willamette River opposite Portland was cut by three "profound chasms or gulches" (Figures 17 and 18; Scott 1890). The northernmost of these defiles was Sullivan's Gulch, 50 feet deep and 600 feet wide, its bottom described as a "morass." Today the gulch is traversed by a railroad, the Max light rail line to Gresham, and Interstate 84. Asylum Gulch contained a stream that emanated from Hawthorne Springs and extended from today's inner eastside industrial area to Ladd's Addition. Stephens Gulch contained a spring-fed stream larger than that of Asylum Gulch, and extended from near OMSI southeast to the Brooklyn rail yards.

Extensive areas of bottomland were also covered by riparian shrub swamp and forest dominated by *Fraxinus latifolia*, *Salix lucida* ssp. *lasiandra*, *Salix sitchensis*, and *Populus balsamifera* ssp. *trichocarpa*. Many stands contained old-growth trees that, as in uplands, were cut for lumber, firewood, and paper pulp (Christy and Putera 1993). Douglas (1914) described cottonwoods along the river that were 6-12 feet in diameter, but today few exceed 36 inches and are probably less than 80 years old. One may still find old, hollow ash trees along Multnomah Channel, on

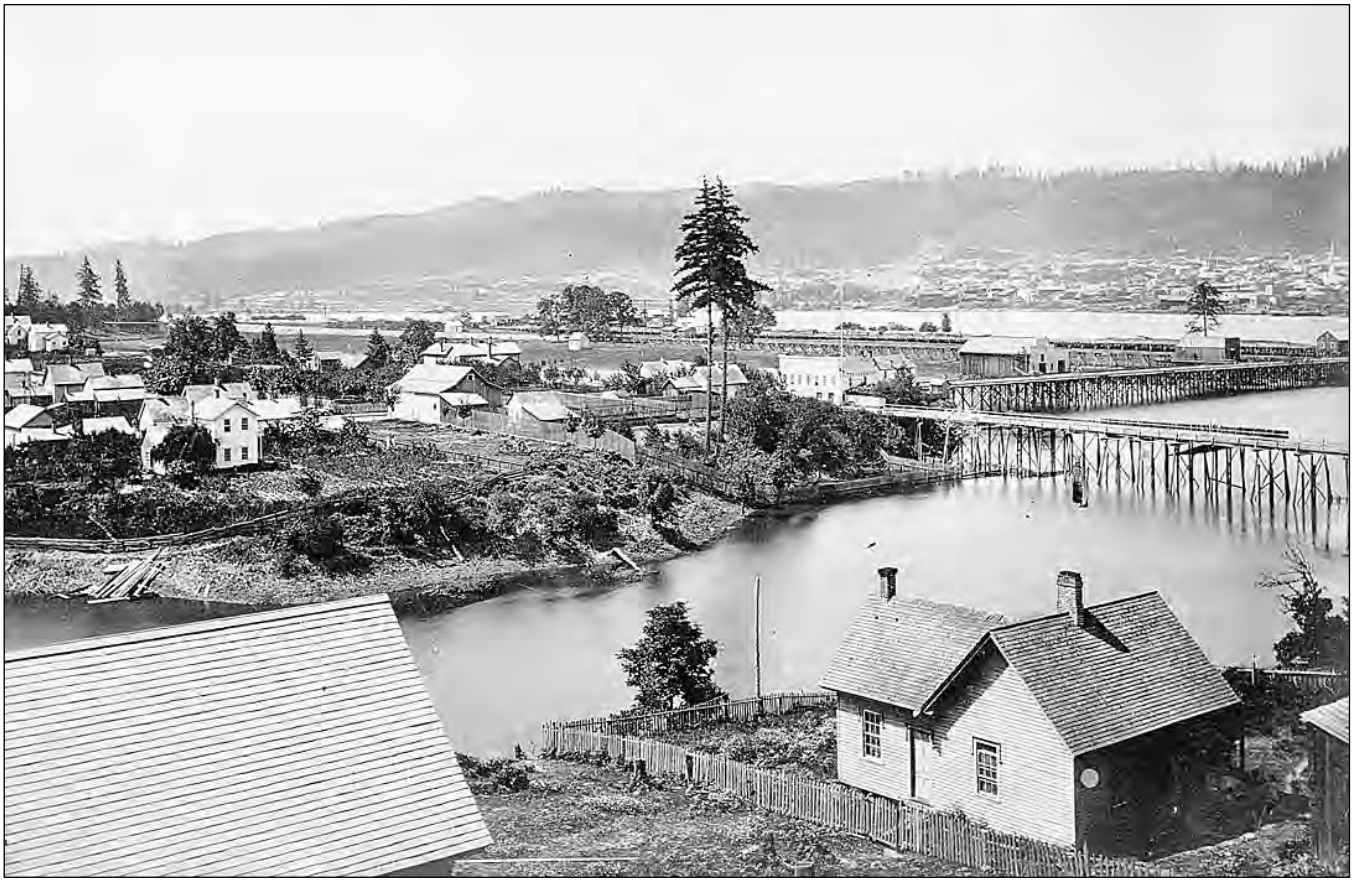


**Figure 18. East Portland, outlet of Sullivan's Gulch, ca. 1874. Note the stand of oaks in the center background, to the left of the two tall firs. All of the channel leading out to the Willamette River is now covered by fill and traversed by rail lines and Interstate 84.**

Sauvie Island, and at Ridgefield NWR that are 5-6 feet in diameter, but most of today's trees seldom exceed 24 inches in diameter and date from about 1910 to 1930.

Flood control dams on the Willamette and Columbia rivers brought an end to the annual floods. Early photographs show that since completion of Bonneville Dam in 1938, siltation has increased the size of many islands downstream, and many of their interior sloughs have filled in. Shallow overflow lakes and ponds have diminished in size because of siltation and encroachment of upland vegetation. Levees constructed along the Columbia River, Columbia Slough, and Multnomah Channel disconnected floodplains and wetlands from the river and allowed wholesale conversion of the floodplain to agricultural, commercial, and residential development. On the floodplain drained by Columbia Slough alone, 10,000 acres were converted to these uses. These combined impacts have altered floodplain vegetation to such an extent that it is difficult to reconstruct what the original herb layer might have been like.

In the 1880s, Henderson botanized in marshes along the Willamette River "below Portland" that extended from Swan Island to Kelley Point. Species collected there included *Alisma triviale, Elatine chilensis, Eleocharis acicularis, Eleocharis palustris, Juncus effusus* ssp. *pacificus, Myriophyllum hippuroides, Najas flexilis, Panicum capillare, Polygonum hydropiperoides, Potamogeton richardsonii, Rorippa curvipes* var. *truncata, Scutellaria lateriflora,* and *Sium suave*. Most of these emergent wetlands and associated bottomland hardwood forest were replaced by industrial, urban, and residential development. Between 1885

and 1930, Asylum Gulch, Balch Lake, Couch Lake, Doane Lake, Guilds Lake, Kittredge Lake, Marquam Lake, Stephens Slough, Sullivan's Gulch, and Swan Island (Figures 17 and 18) were covered by up to 50 feet of fill, and what remained of Mocks Bottom was filled between 1950 and 1986. Oaks Bottom was partially filled with debris from construction of Interstate 405 and only survives because of intervention by citizens in the 1970s. It is now one of the city's premier natural areas. Similarly, the St. Johns Landfill and hundreds of acres of fills in the adjacent Rivergate Industrial District destroyed many lakes, sloughs, and wetlands. Planners working with Moses (1943) saw "2,000 acres of lakes, marshes, and lowlands, subject to inundation during river flood stages...[that] at present serve no useful purpose." They recommended that the Port of Portland buy the property—"useless in its present state"—and fill it with dredge spoils to create new port and recreational facilities. Similarly, Vogel (1945) reported on plans to convert Vancouver Lake into a port facililty open to the Columbia River and served with multiple moorages and rail terminals, while filling other bottomlands along the river with dredge spoils. Moses' recommendations for Rivergate were implemented and bottomlands were filled from 1962 right into the 1980's, but fortunately Smith and Bybee Lakes and Vancouver Lake survived as important urban wetland complexes. Recent reviews of the condition of wetlands in the metro area ranged from 75% moderately impacted and 25% severely degraded (Holland et al. 1995) to 11 % good condition, 46% fair condition, and 43 % poor condition (Kentula et al. 2004).

Wetlands near the rail yards at Brooklyn once supported a trove of rare species. Henderson and Dickson collected at the "Car Works" or "Car Shops" between 1879 and 1888, and Gorman referred to them in his *List of Plants*. Wetland habitats at this locality were variously described as "bog," "moist ground," "wet meadows," "moist pastures," and ponds. Native species collected there included *Botrychium multifidum, Carex cusickii, Carex aurea, Carex interior, Carex lenticularis* var. *lipocarpa , Carex obnupta, Frangula purshiana, Glyceria grandis, Lysichiton americanus, Myosotis laxa,* and *Sparganium eurycarpum*. In addition, *Pinus ponderosa* and *Lonicera involucrata* were also collected in the vicinity.

A number of early collections labeled "Mt. Scott," primarily those of Sheldon made in 1902-1903, are wetland species such as *Carex exsiccata, Carex aurea, Downingia elegans, Eleocharis acicularis, Eleocharis palustris, Gnaphalium palustre, Hypericum anagalloides, Plagiobothrys figuratus, Ranunculus aquatilis* var. *aquatilis, Ranunculus flammula* var. *filiformis, Verbena hastata,* and *Veronica americana*. Some of the specimens indicate that they were near the interurban rail line to Estacada and it is likely that all of them originated from wetlands along the floodplain of Johnson Creek north of Mt. Scott, traversed by today's Springwater Corridor Trail. Many of these wetlands were later filled for industrial use, but a few remnants survive.

Between 1882 and 1887, Henderson and Thomas Howell collected at a lake somewhere "below Howell's" on Sauvie Island that contained floating islands of peat with peatland plants such as *Menyanthes trifoliata, Dulichium arundinaceum, Hippuris vulgaris, Comarum palustre, Lycopus uniflorus*, and *Carex comosa*. *Juncus acuminatus* and *Schoenoplectus acutus* var. *occidentalis* were also present at the site. Currently, only one such peatland is known to remain in our area at Peach Cove, composed of a floating mat of *Spiraea douglasii* and *Sphagnum squarrosum* with a few remnant *Menyanthes* and *Dulichium*. The historic site on Sauvie Island was presumably along Multnomah Channel and may have been today's Virginia Lakes, now nearly a monoculture of *Phalaris arundianacea* with remnant *Eleocharis palustris* in the wettest portions. Alternatively, it may have been where Lincoln Constance and Alan Beetle collected in 1940, which they described as a "*Carex* bog" 4 miles N of the Burlington ferry. They recorded *Alopecurus, Polygonum,* scattered *Salix* and *Fraxinus, Carex aperta, Carex exsiccata, Lapsanastrum apogonoides, Lysimachia*

*nummularia*, and *Torreyochloa pallida*, but none of the species reported by Henderson from the floating islands.

Streams and springs near downtown Portland suffered a fate similar to wetlands. Between 1885 and 1930, lower Balch Creek, Caruthers Creek, Enois Creek, Fanno Creek, Hawthorne Springs, Johnson Creek, and Tanner Creek had been either channelized or diverted into culverts and paved over, their locations forgotten until recently. Prior to the completion of the Bull Run distribution system in 1895, springs and headwaters of some of these streams were diverted by several competing companies to supply drinking water to various parts of the city, and this practice continued in the West Hills until the city was able to pump water to reservoirs at higher elevations (Herst 1931). Because of ever-expanding pavement across watersheds, flows in today's urban streams such as Johnson and Fanno creeks rise and fall rapidly in response to downpours. The flora of these streams and associated wetlands is now usually more depauperate than that found in rural areas. It is composed of a predictable set of species tolerant of both drought and inundation caused by highly variable water levels (Cooke and Azous 1997). In most cases more than half of these species are exotic, particularly if they are surrounded by agricultural or urban development (Magee et al. 1999).

In our catalog of the flora, 146 species were in some way associated with rivers. All but 22 of them were native. Sand bars and riverbanks are disturbed habitats similar to the edges of roads and railroads, and in similar ways they serve as corridors for dispersal. Nelson observed that sand and gravel bars along the Columbia and Willamette rivers were "a sort of extended ballast-ground" that almost guaranteed discovery of species new to the area. Nuttall, Gorman and others found over 70 "fugitive" species in our area, including exotic species, taxa native to eastern North America, and some that were more typical of eastern Oregon or higher elevations in the Cascades (Table 6). Some of the more unexpected native species included *Cirsium undulatum, Leymus cinereus, Leymus triticoides, Mimetanthe pilosa, Mimulus breviflorus, Mimulus washingtonensis, Muhlenbergia richardsonis, Pseudoroegneria spicata, Psilocarphus oregonus*, and *Puccinellia distans*. While many of these were clearly waifs, some were described by Gorman as "not uncommon" in our area. Gorman and Nelson surmised that these had been "brought down [the Columbia River] during the annual inundation." Nelson wrote to Suksdorf in 1916 that "there has been an emigration of desert plants down the river that are establishing themselves on the sand bars...far from their natural habitat." Although most of Gorman and Nelson's records were from Hayden Island, these species probably also occurred elsewhere in our area along both sides of the river. Hayden Island just happened to be easily accessible because of roads to the Vancouver ferry, the Interstate Bridge, and the rail line to the Columbia Beach amusement park on what is now called Tomahawk Island.

Soth (1932) observed that many of Nuttall's specimens from the vicinity of Sauvie Island could not be relocated by later collectors, and ascribed these records to the same phenomenon of being rafted down the Columbia River. In Colorado she had seen Rocky Mountain plants occurring along streams "well out on the plains." The confluence of the Columbia and Willamette rivers is the type locality of *Agoseris elata*, but today the closest known populations occur only at higher elevations in or east of the Cascades. However, this is not as far-fetched as it seems, because Gorman and Henderson also collected it at Olympia, Washington, in 1888 (WTU), showing that populations did exist at low elevations west of the Cascades (Chambers 2009). Hitchcock et al. (1955-1969) restricted *Psilocarphus oregonus* to east of the Cascades and dismissed Nuttall's report of it from our area as an error. Nevertheless, it is probable that propagules of all of these species periodically rafted down the Columbia River during the spring freshets.

Given the very different environmental conditions present in our area in 1834, these records cannot be dismissed out of hand, and their connection to other peculiar records from our area cannot be ignored. Given the Great Unknown of what habitats might have been like in the early days, we are inclined to accept these "unbelievable" historical reports and question some of the dismissive assumptions made by later botanists during the first half of the twentieth century.

The species from the Cascades and eastern Oregon (Table 6) have largely disappeared from our area today. Those that may have depended on the spring freshets for dispersal probably disappeared after 1938 because of habitat changes due to flood control dams and subsequent competition from exotic species. Presumably, these taxa would have required bare ground and periodic deposition of flood-borne seeds or vegetative propagules to sustain their populations in our area. They would have disappeared once the annual freshets ceased and flood-intolerant species invaded their habitats. We cannot dismiss the possibility that some of these species may also have been introduced intentionally by Native Americans for purposes unknown, or that they were relictual populations of species that were once more widespread west of the Cascades.

**Roads and Railroads**

Roads and highways are well-known avenues of dispersal for plants and need not be discussed here. In Gorman's day, railroads dominated most aspects of commercial traffic and the regional economy. Prior to 1930 they sustained heavier loads of traffic than highways and probably were the primary dispersal agents for plants throughout the country. The concentration of weedy species on Hayden Island and at the stockyards near the Interstate Bridge may have resulted in part from the extensive network of rail lines built on the Portland peninsula by 1910. Soth (1926) recorded the spread of *Sisymbrium altissimum* along rail lines in Idaho in 1905. Farmers and ranchers in Gorman's day, seeing an obvious link between weeds and railroads, called this species "Jim Hill weed" after railroad magnate James J. Hill who built the Great Northern Railway. In our area, roads continue to facilitate the spread of both exotic and native species. *Alliaria petiolata*, *Geranium lucidum*, and *Geranium robertianum* have spread dramatically along roads in the West Hills over the last 20 years. In contrast, Bruce Newhouse found the native local rarity *Idahoa scapigera* along Interstate 205 in 1997, but it has since disappeared from that locality.

**Dredge Spoils and Ballast**

The Rivergate Industrial District, adjacent to Smith and Bybee lakes, was once all wetlands. Following the recommendations of Moses (1943), most of the area was filled between 1960 and 1990 with dredge spoils from the Columbia River to create industrial land. The fill created habitat for a number of exotic species that are rare elsewhere in our area, including several species of *Centaurea*, *Cardaria draba*, and a variety of other species.

Ballast probably provided a habitat similar to dredge spoils. Variously composed of soil, sand, gravel, or stone, ballast was used by mariners for millennia to stabilize their ships in the water. When they arrived at ports to deliver or load cargo, excess ballast was loaded or dumped to adjust the trim of the ship, and seeds in the ballast were distributed to ports around the world. Old maps of the Portland harbor show some of the

**Table 6. Native and exotic species originating from eastern Oregon, according to Gorman, Nelson, or Hitchcock et al. (1955-1969).**

| | | |
|---|---|---|
| *Acroptilon repens* | *Descurainia sophia* | *Marrubium vulgare* |
| *Amaranthus blitoides* | *Dichanthelium oligosanthes* var. *scribnerianum* | *Melica smithii* |
| *Apera interrupta* | *Echinochloa muricata* var. *microstachya* | *Melissa officinalis* |
| *Artemisia biennis* | *Erigeron divergens* | *Mollugo verticillata* |
| *Artemisia dracunculus* | *Erysimum repandum* | *Muhlenbergia richardsonis* |
| *Artemisia lindleyana* | *Galium bifolium* | *Nicotiana attenuata* |
| *Artemisia ludoviciana* | *Galium mexicanum* ssp. *asperrimum* | *Oenothera pallida* |
| *Atriplex rosea* | *Geranium viscosissimum* | *Pseudoroegneria spicata* |
| *Bidens vulgata* | *Geum aleppicum* | *Psilocarphus oregonus* |
| *Bromus orcuttianus* | *Glycyrrhiza lepidota* | *Puccinellia distans* |
| *Calystegia sepium* ssp. *angulata* | *Heliotropium curassavicum* var. *obovatum* | *Ranunculus macounii* |
| *Carex vulpinoidea* | *Hordeum murinum* ssp. *glaucum* | *Sagittaria cuneata* |
| *Chamaesyce serpyllifolia* | *Hordeum pusillum* | *Saponaria officinalis* |
| *Chenopodium botrys* | *Iva axillaris* | *Schoenoplectus maritimus* |
| *Chenopodium glaucum* | *Juncus balticus* ssp. *ater* | *Solanum triflorum* |
| *Clarkia pulchella* | *Juncus longistylis* | *Solidago gigantea* |
| *Coreopsis tinctoria* var. *atkinsoniana* | *Juncus torreyi* | *Solidago simplex* ssp. *simplex* var. *simplex* |
| *Corispermum americanum* | *Lepidium densiflorum* var. *densiflorum* | *Spergularia diandra* |
| *Crepis intermedia* | *Lepidium perfoliatum* | *Sporobolus cryptandrus* |
| *Crepis runcinata* ssp. *hispidulosa* | *Leymus cinereus* | *Symphyotrichum frondosum* |
| *Croton setigerus* | *Leymus triticoides* | *Trifolium fragiferum* |
| *Damasonium californicum* | *Linaria dalmatica* | *Trifolium plumosum* |
| *Descurainia pinnata* ssp. *filipes* | *Lupinus arbustus* | *Veronica anagallis-aquatica* |

locations of ballast sites.[13] While global trade has continued to expand, the use of solid materials for ballast declined in the 1920s and had ended by the early 1930s when ships began using fresh water or seawater for ballast (Dickson et al. 2000). This change in ballast materials has limited the opportunity for introductions of plants by this vector, but it has increased opportunities for exotic invertebrates such as the Chinese mitten crab and European green crab to invade our waters. For the last 80 years, the link between ballast and invasive species has shifted from botany to zoology.

13 . Until 2009, a basalt retaining wall surrounding the block bounded by SW Market, Mill, Fourth, and Fifth was reportedly built in 1865 using ballast from England or Belgium that was dumped at the foot of Clay Street. Now a parking lot, the block was the site of the old St. Marys Academy, built in 1889 and demolished in 1970. The deteriorating wall was dismantled in 2009 but is being rebuilt to a lower height.

## Wildflower Protection

Gorman was well ahead of his peers when he included a plea for wildflower protection in his *List of Plants* (Gorman 1916-1917). Despite his recommendations, a statute that would prohibit collecting certain species in Oregon was still almost 50 years away from passage by the state legislature.[1]

> **In view of the wanton destruction and vandalism which botanists and all real lovers of flowers are compelled to witness every spring in the vicinity of all American cities, the utility of such an appeal may well be doubted. However, inasmuch as the Audubon and other societies have accomplished so much for the protection for our native birds, and the Boy Scout and Camp Fire Girl movements have made such a marked improvement in the conduct of our young people of both sexes, it is sincerely to be hoped that something will yet be done for the protection of our lowly wild flowers. With this object in view, the writer would earnestly urge upon all teachers and particularly upon all parents into whose hands this list may come, to impress upon children the importance and desirability of not plucking or destroying wild flowers. This is all the more necessary from the fact** [that] **the most beautiful and the most fragrant are among the first to be plucked and destroyed. In the vicinity of Portland, the plants and shrubs which suffer most from this species of vandalism are: western tiger lily, cream-colored adders-tongue, western Solomon's seal, Oregon fairy bells, mottled-leaf wake robin, large wake robin, purple flag, white ladies slipper, calypso, Oregon grape, low Oregon grape, vanilla leaf, small toothwort, western syringa, red-flowered currant, Indian cherry, western dog violet, yellow wood violet, leafless wintergreen,** [and] **large hounds-tongue.**

[1] The statute would be the Oregon Wildflower Protection Act of 1963 (ORS 564.020-564.040). The current Oregon Endangered Species Act of 1987 (ORS 564.100-564.135) went far beyond the 1963 legislation. The 1987 bill was drafted by NPSO members Esther Gruber McEvoy and Julie Kierstead Nelson, and subsequently revised by staff of State Representative Carl Hosticka, who saw it through the lengthy legislative process. McEvoy and Nelson, together with NPSO President Rhoda Love, lobbied tirelessly for its passage.

Collectors in Europe were the first to discover the botanical riches of ballast grounds. Early collectors in the United States probably learned about the botany of European ballast in one of the popular "botanical magazines" then in print. Henderson botanized on ballast at Portland as early as 1886. Suksdorf, Sheldon, and Nelson all made a point of scrutinizing ballast grounds at Lower Albina and Linnton to find species new to the region. A total of 279 taxa were eventually documented from ballast in our area (Appendix C), nearly as strong a showing as the 300 exotic taxa collected among the docks of Edinburgh, Scotland, from the "sweeping of foreign vessels" (Clute 1904). When Nelson first visited the ballast area at Linnton in 1915, it had been undisturbed for a number of years, but in 1917 a shipyard was built on the site and most of the area was planked over, covered with tool sheds and machine shops, and "tramped over daily by hundreds of men and horses" (Nelson 1917, 1923a). When Nelson last saw the site in 1919 it had been filled and leveled with dredged sand in preparation for new development. Despite the fills, a number of exotic species he had observed earlier were still present on the site (Nelson 1923b). Ubiquitous pavement and sanitation procedures at today's marine terminals in Portland have probably limited the chances of plant introductions at these sites, but they still may be worthwhile places to search for species new to our area.

The term "ballast" is also applied to gravel and cinder used as bedding for railroad ties, usually overlying other fill material used to create a stable, well-drained, and fireproof base for laying track. The herbarium record shows that Portland's early botanists scrutinized rail yards and tracks, and some of the specimen labels referring to "ballast" clearly applied to railroads instead of marine ballast. However, most references, particularly those at Linnton, clearly identify ballast originating from marine shipping.

## Analysis of a Changing Flora

### Rare species, common species

Based on herbarium collections and literature reports, our current catalog of plant species for the Portland area contains 1,553 taxa in 126 families (Table 7). More species are known to occur here today than were reported in 1925, because of both an influx of exotic species and better documentation of the local native flora (Figure 19).

**Table 7. Composition of the Portland-area flora, 2008.**

| | Taxa | % |
|---|---|---|
| **Taxa in flora** | **1,553** | |
| **Families** | **126** | |
| **Native taxa** | **895** | **58** |
| Native, rare | 580 | 37 |
| Native rare, still present | 324 | 21 |
| Native rare, no recent reports | 256 | 17 |
| Native, common | 315 | 20 |
| **Exotic taxa** | **658** | **42** |
| Exotic, rare | 312 | 20 |
| Exotic rare, still present | 106 | 7 |
| Exotic rare, no recent reports | 206 | 13 |
| Exotic, common | 346 | 22 |

Native species in our flora still outnumber the exotics by 16 percent, but in terms of overall percentage the natives have lost ground to exotics over the last 84 years. Examination of rare (fewer than 5 known occurrences) versus common taxa indicates that the native flora is much less robust now than in 1925 because a greater proportion of it is composed of rare species (Figure 20). In contrast, the exotic flora has become more robust, with gains in both common and rare taxa. Today there are about half as many common native taxa as there were in 1925, and the number of rare native species has increased twelve-fold. Since 1925, the number of common exotic taxa has nearly tripled, while the number of rare exotics has increased by 119. This trend is to be expected in an urbanizing environment, and as time goes on more native species will become rare, while the ranks of common exotic species will continue to expand. Sixty-five percent (580 taxa) of our native species are now rare, and of these, 44 percent (256 taxa) have not been reported since 1980 or earlier. Forty-seven percent (312 taxa) of our exotic flora are now rare, and of these, 66 percent (206 taxa) have not been reported since 1980 or earlier. Rare native and exotic taxa, including those apparently extirpated from our area, are listed in Appendix D and Appendix E. These lists should be used in conservation and restoration planning because they show which species, and by extension which habitats, need the most attention.

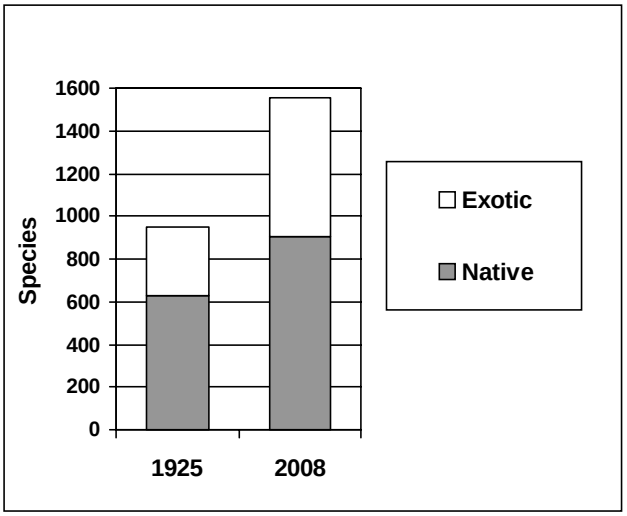



**Figure 19. Native vs. Exotic species of plants in the Portland area, 1925-2008.**

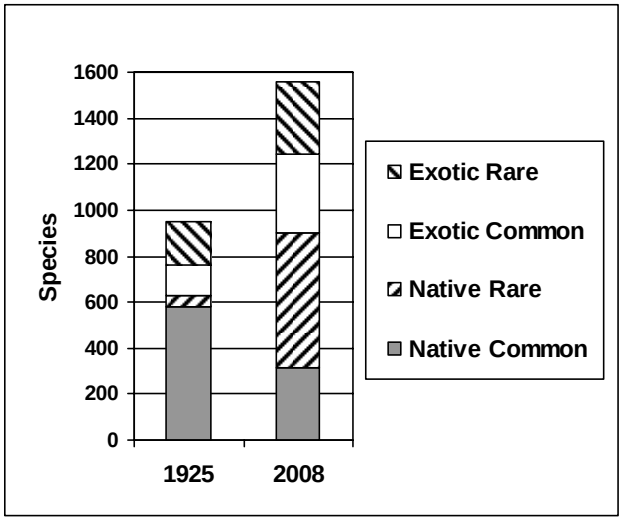



**Figure 20. Common vs. Rare species of native and exotic plants in the Portland area, 1925-2008.**

Rarity of native species is much greater in some plant families than in others. Eighteen of the 126 families in our flora each contained more than 10 rare species (Figure 21). The Orchidaceae, Boraginaceae, Apiaceae, Fabaceae, Asteraceae, and Saxifragaceae respectively have the highest percentages of rare species. This phenomenon most likely reflects habitat loss and the inability of some species to compete effectively with highly successful exotic taxa. It is no wonder that orchids in oak woodland and wetland habitats have disappeared in the face of urbanization, but it is more difficult to explain the decline of orchids in our better-quality urban coniferous forests, because many species elsewhere in western Oregon have survived 150 years of repeated logging and burning. Based on the observations of Gorman and his contemporaries made a century ago, the simplest explanation for at least the more showy orchids may be that they were extirpated by overcollecting, relentless picking, and transplanting to home gardens, where most surely died.[14] Rare Boraginaceae,

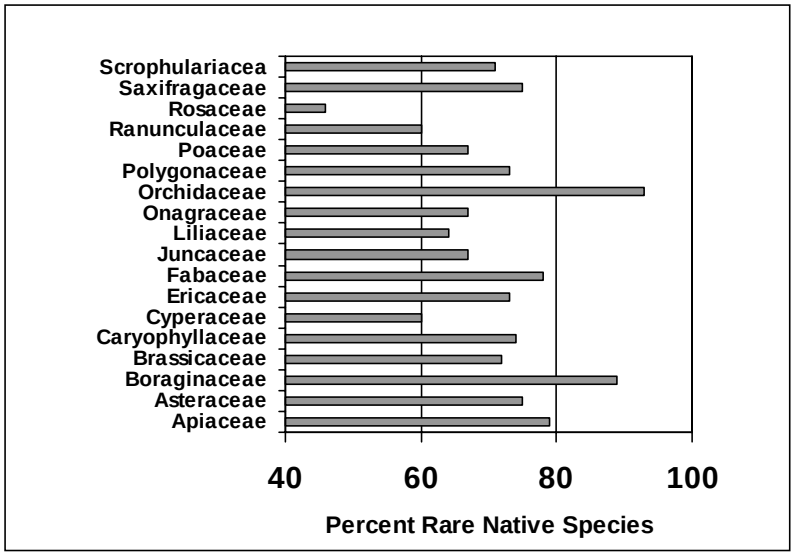



**Figure 21. Percentage of rare native species in the Portland area, by plant family.**

14. In 1927, Henderson wrote that *Cypripedium montanum* "used to grow everywhere around Portland...but it has pretty nearly disappeared under the inroads of constant and thoughtless picking of the plants, so that one has to go miles now before he can find the *Cypripedium* where it used to grow commonly." (Letter to Mrs. Alvin S. Hawk of La Grande, 27 January 1927. Henderson papers, Knight Library, University of Oregon). See other references to historical flower picking in text boxes on pages 41 and 54, and in Appendix B.

Apiaceae, Fabaceae, and Asteraceae were often denizens of open habitats such as prairie, woodland, and savanna, all of which have been decimated by development, shading, encroaching woody vegetation in the absence of fire, and the inexorable tide of exotic competitors.

Rare Scrophulariaceae, Cyperaceae, and Juncaceae fell victim to extensive filling of wetlands that occurred throughout our area, coupled with competition from exotic *Phalaris arundinacea*, and altered streamflows from flood control dams and paved-over watersheds.

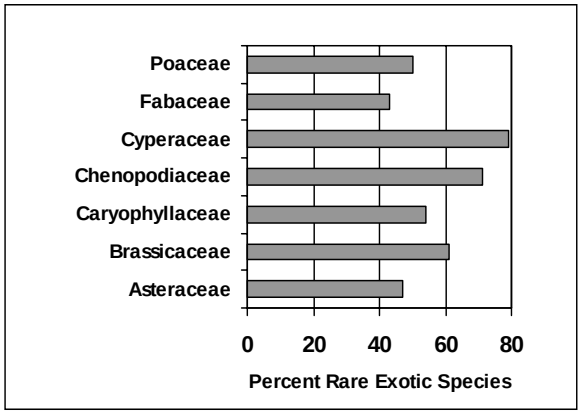



**Figure 22. Percentage of rare exotic species in the Portland area, by plant family.**

Disproportionate rarity of species in certain families is also evident in our exotic flora (Figure 22). While the Poaceae, Asteraceae, Fabaceae, and Brassicaceae have the greatest numbers of exotic species in the Portland area—the same families as reported from Glasgow, Scotland by Gilbert et al. (2000)—families with the greatest percentage of rare exotic species are dominated by the Cyperaceae, Chenopodiaceae, Brassicaceae, Caryophyllaceae, and Poaceae. In contrast to native species that are rare primarily because of habitat loss, rare exotics were mostly waif species from warmer climates that could not survive our cold, wet winters, even though they may be aggressive colonizers elsewhere in the world.

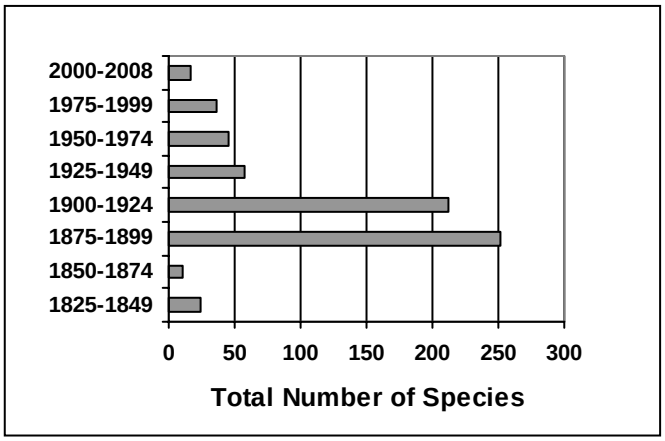



**Figure 23. Periods of Introduction for Exotic species of plants in the Portland area, 1825-2008.**

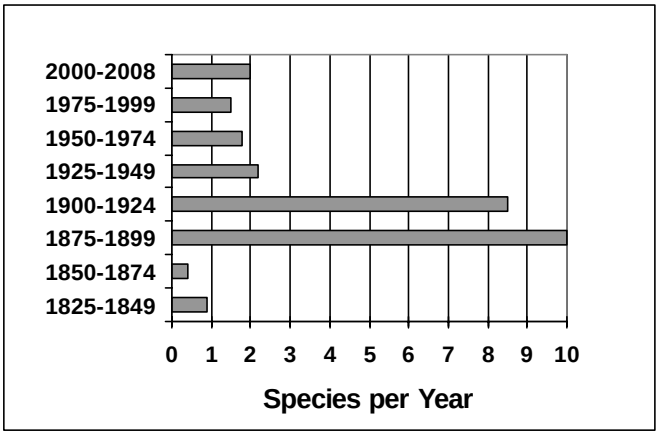



**Figure 24. Rate of introduction for Exotic species of plants in the Portland Area, 1825-2008.**

## Exotic species and periods of introduction

Our catalog of Portland-area species contains 658 exotic taxa, or 42 percent of the flora (Table 7). Since the establishment of Fort Vancouver in 1825, the Portland-Vancouver area has been subject to a steady influx of exotic species that over decades have naturalized, becoming a permanent fixture of our flora and often outcompeting native species (Figures 23 and 24). Species were introduced both intentionally for agricultural

or ornamental uses, and unintentionally in imported seed mixes, potted soils, rail cars, shipping ballast, or attached to humans, livestock, tools, vehicles, or other machinery. For convenience in analyzing trends in the introduction of exotic species, we have divided the 200-year period of our study into intervals of 25 years each.

Commercial imports beginning in 1825 focused on standard Old World agricultural and culinary species (Cardwell 1909; Nisbet 1979). Twenty-four exotic taxa were reportedly introduced at Fort Vancouver (Hooker 1829-1840; Taylor 1992), including pestiferous *Centaurea cyanus*, *Hypochaeris radicata*, *Leucanthemum vulgare*, and *Rubus laciniatus*. A number of common agricultural species were also introduced during this period, such as *Malus pumila, Phleum pratense, Prunus domestica*, *Trifolium pratense, Trifolium repens*, and *Vicia sativa*.

The first commercial nursery in Oregon, established at Milwaukie by Henderson Lewelling[15] and William Meek in 1848, focused on fruit trees, grapes, and berries (McClintock 1967). Brothers Seth and John Lewelling joined the Milwaukee nursery in 1852 and a year later established three branch nurseries farther south in the Willamette Valley where several competing nurseries had also been established. By 1853 these and other nurseries were offering a growing menu of ornamental trees, shrubs, bulbs, and flowers that by the 1860s included a slate of Old World, eastern North American, and even Pacific Northwestern native species such as *Acer macrophyllum*, *Mahonia aquifolium*, *Ribes sanguineum*, and *Sambucus nigra* ssp. *cerulea*. Other early nurseries in our area were those of Henry Dosch and J.B. Pilkington, the latter covering about one-quarter of what later became the city of Durham.

Many of our more important invasive species such as *Agrostis stolonifera, Arrhenatherum elatius* var. *elatius, Arrhenatherum elatius* var. *bulbosum, Bromus diandrus* ssp. *rigidus, Cirsium arvense, Cytisus scoparius, Dactylis glomerata, Hedera helix, Hedera hibernica, Holcus lanatus, Phalaris arundinacea,* and *Rubus armeniacus* all arrived between 1875 and 1924. *Brachypodium sylvaticum*, various species of *Cotoneaster*, *Ilex aquifolium*, *Polygonum cuspidatum* and its allies, and *Prunus laurocerasus* arrived between 1925 and 1949. *Alliaria petiolata, Clematis vitalba, Iris pseudacorus,* and *Myriophyllum spicatum* var. *spicatum* are relative newcomers, arriving between 1950 and 1974. The rate of introductions spiked enormously between 1875 and 1924, when Gorman and Nelson documented 407 new taxa. Presumably not entirely by chance, this spike coincided with increased collecting activity in the Portland area (Figures 5 and 6). Nevertheless, despite all appearances of being an artifact of botanizing, the introduction of many if not most of these taxa during these decades was no doubt real. Exponential growth in population, commerce, and urbanization was occurring simultaneously. Agriculture, railroads, and marine shipping all grew rapidly after 1875. By the early 1920s Portland had six miles of docks along the Willamette River, some of them 2,000 feet long, and 36 steamship lines brought material from all over the globe (Port of Portland 1920, 1922). In 1923 alone, seed imports topped 460 tons from Asia, 70 tons from South America, and 11 tons from Europe (Port of Portland 1924). The city also was served by 10 railroads, 5 of them transcontinental, with 6 trains a day from the south, 8 from the east, and 12 from the north.

All this regional and international traffic, in an era with little regulatory interest in invasive species, provided multiple avenues for new exotic plants to enter our local flora from almost anywhere in the world and in numbers never seen before or since. Despite our uncertainty about the actual dates of introduction for many taxa between 1875 and 1924, and even if some were reassigned to 1825-1874 in order to reflect a

15. Lewelling and Luelling were alternate spellings used by different members of this family.

more gradual rate of introduction, it still would have averaged somewhere between 4.1 and 9.3 species per year (Figure 24). Approximate dates for introductions of exotic species after 1925 are much better documented than those of earlier decades. Species arrived during ongoing expansion in trade, the construction of flood control dams on all the major rivers, deepening of shipping channels in the Columbia and Willamette rivers, and expansion of port and transportation infrastructure. By the early 1950s, shipping in and out of Portland had increased to more than 50 steamship lines, 110 trucking companies, and 30 barge lines. Rail traffic continued to expand despite corporate consolidations that reduced the number of competing companies from 10 to 5 (Port of Portland 1949-1953). Despite these increases in commercial activity, the average rate of introduction of exotic plants actually declined between 1925 and 1999, reflecting an average of about 47 new species every 25 years, or an average of 1.9 species per year. The rate dropped from 2.2 species per year between 1925 and 1949, to 1.5 species per year between 1975 and 1999. The declining rates after 1925 presumably can be attributed to the saturation of our area by common exotic species then in circulation, so that most available species were already established here. Part of the decline is also attributable to the change in ballast material used in marine shipping, which by 1930 had switched from soil, rock, and sand to water. This change greatly reduced the chances for the introduction of exotic plants.

Since 2000, the rate of introduction has rebounded to 2.0 species per year, approaching that of 1925-1949. Although only eight years are represented in this last period, the uptick may simply be attributed to sharpened botanical vigilance instead of a sudden influx of new taxa.

Since establishment of the Lewelling nursery in 1848, the Willamette Valley has become a major commercial center for the production of horticultural plants and grass seed. In 2004 Oregon produced over 43,000 plants for the nursery trade (Aguirre 2005). The majority of these species were native to Asia, South America, and other parts of the world, and some of them are invasive. As of 2004, 19 of the 242 exotic species not reported by Gorman or Nelson were high alert invasives that currently are not widespread but are potentially very threatening. Another 102 species were widespread and very aggressive modifiers of ecosystems, and 48 were widespread but not ecosystem modifiers (CWMA 2004). Of the 242 species not reported by Gorman or Nelson, 100 are sold commercially as container-grown stock, rootstock, or as seed, and some are for sale on the internet. Of the latter group of 100 species, only 39 are listed as noxious by the Oregon Department of Agriculture.

In the Portland-Vancouver area, most of the serious invasive species are well established and readily apparent. *Hedera helix, Hedera hibernica, Clematis vitalba, Myriophyllum spicatum* var. *spicatum* and *Phalaris arundinacea* are abundant in undeveloped areas and present a serious challenge to the conservation of native plants and habitats. In addition to their ecological threat, these plants also impose a financial burden on taxpayers and land managers in the form of increased costs for weed control, habitat restoration, dredging channels, and maintaining powerline or road rights-of-way. Extensive commercial production of grass seed in the Willamette Valley and its frequent use in roadside management, forage, and turf has spread numerous exotic grasses across the landscape. Grasses that invade natural areas typically have a high potential for altering site conditions and outcompeting native plants. Their success is due to high seed production, seed longevity, high germination rates, mat-forming growth habits, and higher tolerance to varying hydrologic or soil conditions. Both natural and genetically engineered resistance to herbicides in some of these species is yet another threat on the horizon.

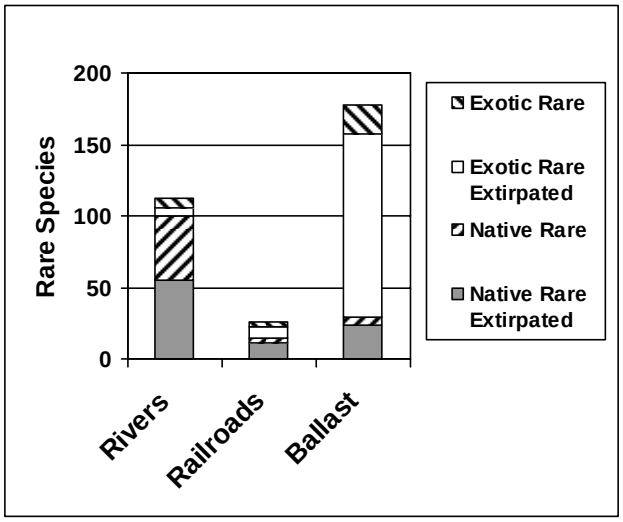



**Figure 25. Rare extant vs. rare extirpated species composition of dispersal corridors, Portland area, 1925.**

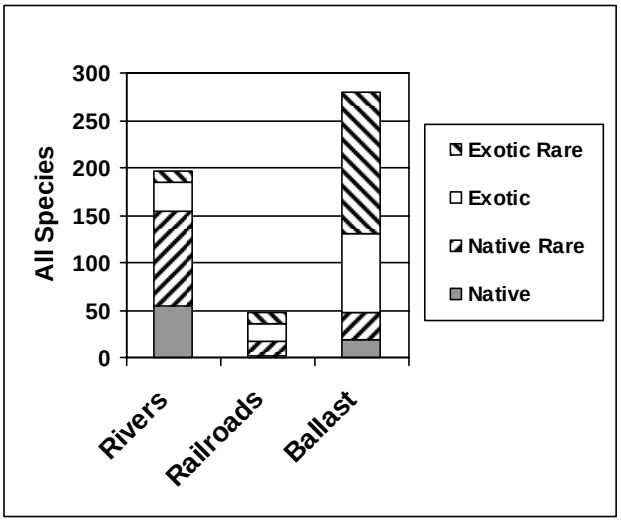



**Figure 26. Species composition of dispersal corridors, Portland area, 1925.**

## Differential dispersal corridors—Rivers, Railroads, and Ballast

Historically, the primary migration routes for plants entering the Portland area were rivers, railroads, and ballast. These avenues sustained regular disturbance and a continuous influx of plant propagules from somewhere else—upriver, downriver, whatever port or region of the country that had been visited by ships and trains, as well as whatever cargo and ballast the ships and trains were carrying. These propagules, whether they were commercial merchandise or stowaways lodged between the floorboards of a boxcar, were of both native and exotic origin. Each of the three avenues had a more or less distinctive flora that reflected different origins and survival rates (Figures 25 and 26). The total numbers reported for each group probably reflect relative search effort made for each, with railroad plants undersampled, ballast plants scrutinized in great detail, and rivers somewhere in between.

**Rivers.** The 197 taxa associated with the Columbia and Willamette rivers were mostly (78%) native, and half of these (51%) were rare natives. Of the rare natives, 55% have no recent reports from our area and presumably are extirpated locally. Most of these are wetland taxa associated with rivers, and presumably disappeared because of urban impacts. Today, 27% of them are now restricted to east of the Cascade Range.

**Railroads.** The flora along railroads was no doubt undersampled, as only 47 taxa were reported and surely many more were present. Nearly two-thirds (65%) of them were exotic, and 11 (24%) of those were rare exotics. Of the rare exotics, 73% have no recent reports from our area and presumably are extirpated locally, and the same is true for the rare natives in this group. Of the 19 combined extirpated species, 37% are today restricted to east of the Cascade Range.

**Ballast.** Of the 279 taxa reported from ballast in Portland and Linnton, 231 (83 %) were exotic, and of those, 148 (64%) were rare exotics. Many of the rare species, dominated by Poaceae, were from warmer latitudes and were ill suited to our climate. Of the 148 rare exotic species, 128 (86%) have not been seen for many years, and some not since they were first reported between 1915 and 1925. These include some of the rarest

vascular plants recorded from the Pacific Northwest, such as *Nassella chilensis*. A full listing of this interesting group of plants is given in Appendix C.

## Changing Climate, Changing Flora?

We should be thankful that so many of the ballast plants failed to establish in our area, because many probably had the potential to become serious invasive pests. However, all that may be about to change. Documented increases in regional temperatures and precipitation (Mote 2003) may soon enable noxious plants from warmer climates to gain a foothold and proliferate in our area, with potentially disastrous consequences. Sites in Portland and Vancouver with dredge spoils and areas around marine shipping terminals and drydocks are the modern-day equivalent of ballast sites. Periodic inspection of these areas may be a good way to detect changes in our local flora that are potentially driven by climate change. Identification of species new to our area would provide an early-warning system for weed control agencies and managers of natural areas to be on the lookout for these taxa.

## Comparison with other urban floras

Changes to the flora of the Portland-Vancouver area between 1806 and 2008 generally follow a fairly predictable pattern observed in cities around the globe—the diversity of native species declines and that of exotic species increases (Dickson et al. 2000; Clemants and Moore 2003). Urban floras of cities in the same phytogeographic regions are more similar than those of cities from different regions, the differences being driven largely by climate. The flora of the Portland-Vancouver area would be expected to be more similar to that of Seattle or Vancouver, B.C. than to San Francisco or New York. However, larger trends in changing urban floras are independent of geography and climate. The number of exotic species present is generally directly related to a city's area, population, and antiquity. There is also a strong correlation between the number of exotic species and the presence of marine shipping, and occurrences of exotic species diminish with increasing distance from seaports. Although comparative studies of the floras of different cities in western North America currently are not available, Portland presumably has a larger proportion of exotic species than any other city in Oregon, and the largest number of waif taxa that is a legacy of marine shipping prior to 1940.

In the Pacific Northwest, Gage and Rodman (1992, 2006) found that over the course of 100 years several urban centers in Washington had become devoid of native plants, and that a greater abundance and diversity of native species were to be found in less-urbanized areas on the periphery of cities. Magee et al. (1999) found that half of the flora of urban wetlands was consistently composed of exotic species.

Jacobson (2001) reported a total of 1,225 species in the flora of Seattle, excluding 41 taxa persisting from cultivation but not reproducing independently, a category that we don't include in the Portland area. Seattle had 179 fewer total species than Portland and had fewer species in all categories except for exotic taxa, of which it had 208 more species than Portland.

# Conclusion

The native flora of the Portland area was fabulously diverse 200 years ago. Habitats in 1806 included coniferous and deciduous forests of various age classes, oak and fir woodland, savanna, prairie, and numerous basalt balds and cliffs. The extensive bottomlands of the Columbia and Willamette rivers supported riparian forest, thousands of acres of wet prairie, ponds, lakes, miles of meandering sloughs, and even some peatlands with floating islands of vegetation. Some species have since disappeared from our area, including *Balsamorhiza deltoidea, Bolandra oregana, Carex aurea, Castilleja levisecta, Cypripedium montanum, Gentiana sceptrum, Platanthera dilatata* var. *leucostachys,* and *Wyethia angustifolia*. Over 40 species from montane and eastern Oregon also grew in Portland, and evidence suggests that these reports were not simply errors made by early botanists when labeling their specimens. A different climate, ten thousand years of aboriginal burning, and dispersal of propagules carried downriver by annual spring freshets from the interior Columbia Basin all made our area a very different place than it is now, with more possibilities for unusual native plants to gain a foothold.

The plant collectors and writers of Gorman's day provided us with a window to the past that we can use to appreciate and preserve what still remains. In his *List of Plants,* Gorman compiled what essentially are the first species lists for native prairie, woodland, and savanna habitats in western Oregon. Some of these species come as no surprise to those familiar with remnants of these habitats today. However, the lists fill a gap between better-known floras in the Willamette Valley to the south and the Puget lowlands to the north. Now-forgotten uses for plants and views of the landscape and flora written in an earlier and seemingly alien era make our lives richer today. We can combine these clues to the past with best available conservation and restoration science to protect what is left.

The demoralizing problems posed by the loss of habitat and native species in our area are to some degree counterbalanced by new challenges posed by the arrival and departure of exotic species. Weed science is fascinating in its own right and the study of patterns of dispersal, survival, and proliferation may help to control future invasions and improve management of existing natural areas. A number of our weeds arrived as early as 1825 but many of our most pernicious species arrived between 1875 and 1925. The latter period coincided with large-scale agricultural and urban settlement of our region with attendant development of commerce and transportation routes. Introductions since 1925 have averaged about 45 species every 25 years. Despite the spike in introductions prior to 1925, serious plant pests such as *Alliaria petiolata, Clematis vitalba, Iris pseudacorus, Lythrum salicaria,* and *Myriophyllum spicatum* var. *spicatum* have arrived since 1950 and are now well established and ineradicable on a regional scale. Heightened environmental awareness and vigilance in both public and private sectors has improved our ability to detect new exotic species and respond with control measures. Recent known occurrences of *Heracleum mantegazzianum* and *Pueraria montana* var. *lobata* have been attacked rapidly by management agencies, and have hopefully been contained. However, this work is expensive and requires ongoing public and government support if it is to be effective. Will current efforts to contain *Alliaria petiolata, Brachypodium sylvaticum,* or *Polygonum cuspidatum* be successful on a landscape scale? What botanical horrors are yet to arrive? What can the 128 species of failed ballast waifs tell us about the future consequences of a changing climate?

Despite losses of native habitat and species, and inroads made by exotic species, the current flora of the Portland-Vancouver area is still amazingly diverse. Many of our native species have disappeared and many

of those that remain are rare. However, much of the original flora and its habitat still remain. This gives us a seed to reclaim our botanical heritage. The numerous people who have contributed their expertise to this report and the many properties that Metro, the City of Portland, and various land trusts are working hard to preserve and restore, all give cause for optimism. With luck and ongoing commitment we can protect and restore part of the world that Portland's pioneer botanists were so fortunate to see. At the same time, the influx of exotic species opens new doors. While the effects of urbanization are hardly uplifting for lovers of native plants and their habitats, they provide opportunites to study a different kind of flora in a world that in many ways may resemble what previous generations of city-dwelling botanists already knew—because they had limited options for getting out of town. The rising cost of fuel, and concerns about the effects of carbon emissions on the earth's climate may ultimately curtail both automobiles and construction of new suburbs remote from public transit. Botanizing may someday run full circle, by necessity returning from distant alpine summits and tropical rain forests to urban centers within the reach of public transit: the original botanical universe for Gorman and his cohorts prior to 1925. We may learn many new lessons right in our own parks, back yards, industrial areas, and vacant lots.

# Catalog of vascular plants in the Portland-Vancouver area

The following catalog enumerates 1,553 taxa of native or naturalized vascular plants known or reported to have occurred outside of cultivation in the Portland-Vancouver area between 1806 and 2008. We relied heavily on the Oregon Flora Project's most recent data update of April 2007. All families are presented alphabetically regardless of classification as ferns, fern allies, gymnosperms, monocots, or dicots. Within each family, genera and species are listed alphabetically.

While the identities of most taxa reported from our area by local botanists and consulting firms over the last 15 years are generally dependable, many reports did not have voucher specimens. When our level of suspicion reached a certain threshold we noted in the catalog that voucher specimens could not be located. When our suspicions escalated further, we excluded species from the flora (see following paragraphs).

The flora of the Portland-Vancouver area is always changing—species come and go. Because of this variability the catalog will never be complete, but it can serve as a baseline for studying and restoring our area's flora and provide a springboard for further work. We hope it will spur further botanizing in the metro area. It will be updated with additions and corrections as time goes on.

***Species included***

The catalog includes all taxa not planted by people, occurring naturally or spontaneously in any habitat within the study area. It includes taxa without verified voucher specimens if we judged the source of the information to be knowledgeable or when the reported occurrence was consistent with the known distribution and habitat for the taxon. Plants originating independently from seeds or vegetative fragments (not connected to the parent specimen by shoots or suckers) of planted or cultivated specimens were deemed eligible for inclusion because they demonstrated independent reproduction and a potential for persisting in our flora.

***Species excluded***

The catalog excludes specimens planted by people, and reports lacking voucher specimens that were just too impossible even for us to believe. Excluded material is listed at the end of the species catalog.

**A. Left column ("Name"): Taxon.** This column identifies family, genus, species, subspecies or variety, and recent synonyms. Names used in the catalog follow the PLANTS database unless indicated otherwise. Taxa are sorted alphabetically by family and alphabetically within each family. Where applicable, current PLANTS names for each family and taxon may be followed by **names in square brackets** that allow cross-reference to nomenclature used by the Oregon Flora Project (always listed first if there is more than one), Hitchcock and Cronquist (1976), and Hitchcock et al. (1955-1969). These bracketed names are meant to point to the Oregon Flora Project or older literature and do not always indicate taxonomic synonymy. References to other works are given when nomenclature deviates from these standard sources. Authorities of binomials are omitted but may be found in the original sources. We usually also omit subspecific names if they are the same as the species name, unless more than one subspecific taxon is present in our area.

**B. Center column ("Historical Condition"): (1) Common name and (2) Historical Record.** This column provides the common name for the taxon and describes its local collecting history prior to 1980. All **text in bold typeface is transcribed verbatim from Gorman** (1916-1917) with modern edits to Gorman's text inserted in square brackets without bolding. Citations to that publication are omitted, but all other sources are shown. In cases where Gorman's original binomials differ from those shown in the left column ("Name"), we include them in square brackets to provide a link to current nomenclature, and to help identify any errors we may have made in interpreting their current disposition. Note that some of his names were erroneous, and these are not intended to be interpreted as synonyms of currently used names. In cases where two or more taxa on Gorman's list have since been synonymized, we list all of his entries together in the same cell in the catalog. His common names are included here **in bold** for historical interest even though they may no longer be in general use. Many of these common names predate those used in more recent floras and will serve to identify archaic names used in other historical documents. Current common names can be found in modern floras and the PLANTS database, but we provide current names for those not listed by Gorman. We chose 1980 to separate historical from contemporary material because it was a convenient breakpoint between earlier activity and a surge in local vegetation work occasioned by new wetland regulations and the advent of habitat conservation and restoration work by the City of Portland, Metro, The Nature Conservancy, and others.

**C. Right column ("Current Condition"): (1) Native or exotic, (2) Rare or common, (3) Period of introduction for exotic taxa in Portland-Vancouver area, (4) Modern Record, and (5) Miscellaneous comments.** This column provides the native or exotic status of the taxon, its abundance, its local collecting history since 1980, and relevant miscellanea. Information on current abundance and distribution is our best estimate, with the caveat that our knowledge is seriously insufficient for some species. We generally do not elaborate on distributions beyond the limits of our study area because they are beyond the scope of this work. Any errors or omissions are our own. Citations of herbarium specimens and sighting reports are shown in *italics* to help distinguish them from literature citations.

**Native or exotic, Rare or common.** We classified taxa as native or exotic according to current literature, primarily Hitchcock et al. (1955-1969), Hitchcock and Cronquist (1976), Gleason and Cronquist (1991), and Hickman (1993). In some cases, recent research has redefined the status of some species, and sources are provided when available. If early reports provided enough information on relative abundance, we further subdivided native and exotic taxa into "common" or "rare" that were useful for analyzing changes in the flora since 1875. An abundance rating of "occasional" did not qualify as a "rare" species.

**Exotic—**Taxa occasional to common. All exotics were assumed to be increasers, except for taxa that are rare today or waifs that have disappeared from our area. Includes species native elsewhere in North America but known or suspected to have been introduced in Oregon or Washington.

**Exotic, rare—**Taxa rare or with no recent reports from our area. Described by Gorman or Nelson as "infrequent," "rare," or "scarce." Current distribution with fewer than 5 known occurrences. Includes rare species native elsewhere in North America but known or suspected to have been introduced in Oregon or Washington.

**Native**—Taxa occasional to common. Includes taxa native to Oregon and Washington but presumed by some botanists to have been introduced in our area even though they may have occurred here naturally under now-vanished environmental conditions of an earlier era.

**Native, rare**—Taxa rare, infrequent, or with no recent reports from our area. Current distribution with fewer than 5 known occurrences. Includes (1) taxa native to Oregon or Washington but presumed by some botanists to have been introduced in our area, and (2) taxa that Gorman or Nelson described as "infrequent," "rare," or "scarce."

**Period of introduction for exotic taxa in Portland-Vancouver area.** Based on the historical record, we assigned exotic taxa to 25-year intervals in order to assess the rate of change in the flora, beginning with the first reports of exotics from our area in 1825. Most assignments were based on when the species was first reported or collected in our area. To provide a modicum of time for taxa to become established before being observed locally, specimens collected or reported within the first 3 years of a 25-year interval were assigned to the previous interval. Many dates remain speculative in the absence of local data, and rely on dates of first collection made elsewhere in the state, preferably in nearby counties in the Willamette Valley. In many cases our dates are probably conservative and a species may have been present for 10-25 years before someone actually collected or reported it. When using Adams (2004) to estimate the earliest dates for ornamental species available from commercial sources, we tried to be conservative by limiting our dates to availability in the western United States. However, customers could have imported plants earlier from commercial sources anywhere in the country, or not imported them at all. Similarly, material available through the 1912 catalog of the Portland firm of J.B. Pilkington (Adams 2004) may not have been sold locally until some years later.

**1825-1849:** Taxa first documented from our area by publications or herbarium specimens between 1825 and 1849.

**1850-1874:** Taxa first documented from our area by publications or herbarium specimens between 1850 and 1874.

**1875-1899:** Taxa (a) reported by Gorman as present, "common," "not uncommon," or (b) not reported by Gorman but first documented from our area by other publications or herbarium specimens between 1875 and 1899.

**1900-1924:** Taxa (a) reported by Gorman or Nelson as "infrequent," "not yet common," "not common," or "occasional," (b) taxa added by Gorman to his manuscript in 1915, or those added by Gorman to the *Muhlenbergia* proof sheets prior to publication, (c) reported by Nelson as present or "common" but not reported by Gorman, or (d) not reported by either Gorman or Nelson but first documented from our area by other publications or herbarium specimens between 1900 and 1924.

**1925-1949:** Taxa not reported by Gorman or Nelson that were first documented from our area by publications or herbarium specimens between 1925 and 1949.

**1950-1974:** Taxa not reported by Gorman or Nelson that were first documented from our area by publications or herbarium specimens between 1950 and 1974.

**1975-1999:** Taxa not reported by Gorman or Nelson that were first documented from our area by publications or herbarium specimens between 1975 and 1999.

**2000-2008:** Taxa not reported by Gorman or Nelson that were first documented from our area by publications or herbarium specimens between 2000 and 2008.

**Sources of data for herbarium specimens:** Information on most specimens cited in the catalog was obtained from three extremely useful online databases:

1. The Oregon Plant Atlas (Oregon Flora Project)—
   http://cladonia.nacse.org/platlas/jclass/OPAJava20.htm
2. The Oregon Vascular Plant Database (Oregon State University Herbarium)—

http://ocid.nacse.org/cgi-bin/qml/herbarium/plants/vherb.qml

3. The Vascular Plant Database of the Burke Museum of Natural History and Culture (University of Washington)—
http://biology.burke.washington.edu/herbarium/collections/vascular/search.php

**Acronyms for herbaria and other sources:** Standard codes for herbaria are from *Index Herbariorum*—
http://sciweb.nybg.org/science2/IndexHerbariorum.asp

CAS = California Academy of Sciences; COCC = Central Oregon Community College; F = Field Museum of Natural History; GH = Gray Herbarium; HPSU = Portland State University; K = Royal Botanic Gardens, LCEU = Lane Community College; LINF = Linfield College; MICH = University of Michigan; MIN = University of Minnesota; MO = Missouri Botanical Garden; NY = New York Botanical Garden; ODA = Oregon Department of Agriculture; OFP = Oregon Flora Project's Oregon Plant Atlas (databased species lists without voucher specimens); OSC = Oregon State University[16]; PH = Academy of Natural Sciences of Philadelphia; REED = Reed College; RM = University of Wyoming; UBC = University of British Columbia; UC = University of California, Berkeley; UTC = Utah State University; US = Smithsonian Institution; WS = Washington State University; WTU = University of Washington.

| Name | Historical Condition | Current Condition |
|---|---|---|
| **Aceraceae** | | |
| *Acer campestre* | Hedge maple, European cork maple. Not listed by Gorman or Nelson. Historical voucher specimens from Oregon not found, and not documented from Washington (Seattle) until 2000 (*Zika & Jacobson*, WTU). Grown commercially elsewhere in the US since the 1820s (Adams 2004) and probably available locally for 100 years, but specific information lacking. | Exotic. Introduced 1975-1999. Escaped ornamental known from several sites along the Columbia Slough including the Heron Rookery and Russell Pond (BES 2004). Spreading by both root sprouts and seeds. |
| *Acer circinatum* | **Vine maple. Common in moist woods. Macleay Park** [Gorman and Sheldon 1905]**, City Park, Lewis and Clark Fair Grounds, Mt. Tabor, etc. April-May.** Collected locally as early as 1888 (HPSU, OSC). | Native. Common throughout our area. |
| *Acer glabrum* var. *douglasii* | **Dwarf maple**, Douglas maple**. Rare in our limits. On banks of Clackamas River near the county bridge. April-May.** Collected in 1884 along the Sandy River by Henderson (OSC), possibly within our limits. | Native, rare historically and rare today. The closest known existing site is along the Sandy River near Oxbow Park, just beyond our limits (*Kimpo*). Gorman's "county bridge" on the Clackamas River was probably the Park Place Bridge in Gladstone, the site of a bridge since 1861. The Highway 99E Bridge (McLoughlin Bridge) was not built until 1933. |

16. For convenience we include here the collections of the University of Oregon (ORE) and Willamette University (WILLU), both housed at Oregon State University. WILLU is on permanent loan to Oregon State University, and ORE was transferred to Oregon State University in 1996.

| Name | Historical Condition | Current Condition |
|---|---|---|
| *Acer macrophyllum* | **Oregon maple**, bigleaf maple**. Common everywhere around Portland. April, May.** Collected locally as early as 1880 (HPSU, OSC). Macleay Park (Gorman and Sheldon 1905). On ballast at Linnton (Nelson 1917). | Native. Common throughout our area. |
| *Acer negundo* | Box elder. Not listed by Gorman or Nelson. Reed College (Van Dersal 1929). Available commercially in the West since 1873, and sold locally as early as 1912 (Adams 2004). | Native, rare. Occasional as an urban weed. Washington High School, where growing from a crack in pavement (*Christy, 2005*). Also present in E and SW Oregon. |
| *Acer platanoides* | Norway maple. Not listed by Gorman or Nelson. Available commercially in the West since 1887, and sold locally as early as 1912 (Adams 2004). | Exotic. Introduced 1875-1899. Common throughout our area. An escaped and weedy ornamental, invading shady edges of woods. Listed by the City of Portland as a nuisance plant. |
| *Acer pseudoplatanus* | Sycamore maple. Not listed by Gorman or Nelson. Historical voucher specimens from Oregon not found, and not documented from Washington (Seattle) until 1999 (*Zika*, WTU). Grown commercially elsewhere in the US since the early 1800s and available locally since 1912 (Adams 2004). | Exotic. Introduced 1900-1924. Occasional in urban wetlands. April Hill, Reed College canyon (Moreira and Stafford 1996), Johnson Lake (BES 2004). An extremely aggressive ornamental that invades wetlands and shaded riparian areas, producing a tremendous amount of viable seed. |
| **Aizoaceae** | | |
| *Galenia secunda* | **One-sided galenia. Infrequent on ballast grounds and waste places. Lower Albina. Adventive from South Africa. This weed or ballast waif is now established in most of the large seaports in the U.S. July-September.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. The PLANTS database indicates that in the US, *G. secunda* occurs only in Florida, but *G. pubescens* is present in California and perhaps Gorman confused these two species. |
| *Mesembryanthemum crystallinum* | Common iceplant. On ballast at Linnton (Nelson 1917). Available commercially in the West since 1880 (Adams 2004). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Mesembryanthemum nodiflorum* | Slenderleaf iceplant. On ballast at Linnton (Nelson 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Sesuvium verrucosum* | Verrucose seapurslane. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. In Oregon otherwise known only from Harney and Lake Counites, but rare. |
| *Tetragonia tetragonioides* | New Zealand spinach. On ballast at Linnton (Nelson 1916, 1917, 1919b, as *Tetragona expansa*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| **Alismataceae** | | |
| *Alisma gramineum* | Narrowleaf water plantain. Collected near Sauvie Island by Howell in 1885 (WTU), and in marshes around Portland by Henderson in 1886 (OSC). | Native, rare. No recent reports from our area. |
| *Alisma lanceolatum* | Lanceleaf water plantain. Not listed by Gorman or Nelson. | Exotic. Introduced 2000-2008. In some parts of our area more abundant than native *Alisma*. Tualatin River NWR (Maffitt et al. 2005-2008), Gotter Prairie, and elsewhere. Introduced as a seed contaminant supplied by a Willamette Valley grower of plants for wetland restoration projects. |

| Name | Historical Condition | Current Condition |
|---|---|---|
| *Alisma triviale* [*Alisma plantago-aquatica* var. *americanum*] | **Water plantain. In ponds near Oswego. Infrequent. May-August.** Collected in "marshes below Portland" by Henderson in 1880 and at Hillsboro by Torvend in 1954 (OSC). | Native. Frequent in both natural and constructed wetlands throughout our area. Sauvie Island (*Christy, 1992*; Marttala et al. 2002), SE 115th Street N of Springwater Corridor Trail (*Marttala*), ponds E of Brookside Ponds (*Marttala*). More common than in Gorman's day, presumably because of better documentation. |
| *Damasonium californicum* [*Machaerocarpus californicus*] | California damsonium, machaerocarpus. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Smith and Bybee lakes, seen on peninsula among reed canary grass (*Gaddis, 2004*). Not relocated in 2005. Mostly E of the Cascades. |
| *Sagittaria cuneata* | **[*Sagittaria arifolia*]. Arum leaved arrowhead. (= *S. cuneata*, as to the deep-water form). Margins of ponds. Swan Island, Sauvie Island, Bridgeton, Oak Grove, etc. July, August.** Collected at University Park by Sheldon in 1902 and near Oak Grove by Gorman in 1905 (OSC). | Native, rare. Not presently known from our area. Mostly E of the Cascades. |
| *Sagittaria latifolia* | **Wapato. In ponds. Mocks Bottom and near Oak Grove. This species formerly grew sparingly in the slough** [fed by Hawthorne Springs] **on East Morrison and East Stark streets, but has disappeared there when the present fills began to be made. July-September.** Collected several times in "marshes about Portland" and on Sauvie Island by Henderson, Thompson, and Leach between 1881 and 1929 (OSC). | Native. Occasional in our area. Smith and Bybee Lakes, Columbia Slough, Oaks Bottom, Peach Cove Fen, Burlington Bottoms, Vancouver Lake, Ridgefield NWR, Tualatin and Willamette River floodplain. The largest stands remaining in Oregon occur on Sauvie Island, just beyond our limits (Darby 1996). Populations usually expand in wet years and are invaded by *Phalaris arundinacea* in drought years. |
| **Amaranthaceae** | | |
| *Amaranthus albus* | Prostrate pigweed. Not listed by Gorman or Nelson. Collected at Linnton by Suksdorf in 1911, and at East Portland by Thompson in 1926 (WTU). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Widely dispersed throughout the state but not particularly abundant. Gorman and Nelson's unvouchered reports of *A. blitoides* may have been *A. albus*. Thompson's specimen of *A. albus* was originally named *A. blitoides*, and most occurrences of *A. blitoides* are E of the Cascades. |
| *Amaranthus blitoides* [*Amaranthus graecizans*] | **Tumbleweed. Not uncommon on sand spits and sandy banks at the head of Hayden Island. Naturalized from tropical America. June-September. It certainly is not indigenous in Oregon or Washington.** Reported from the same locality by Nelson (1918a) but voucher specimens not found. Gorman must have added this species to the proof sheets for his *Muhlenbergia* paper, because it was not in the original manuscript. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. See discussion under *Amaranthus albus*. Given the riverine habitat, it is entirely possible that *A. blitoides* could have been in Portland, and it was known from Hood River as early as 1909 (WTU). It is a problematic weed of cultivated and disturbed areas E of the Cascades, and has developed a resistance to multiple herbicides. |
| *Amaranthus deflexus* | Largefruit amaranth. Collected at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Amaranthus powellii* | Powell's amaranth. Not listed by Gorman or Nelson. | Native. A common garden weed in our region. |

| Name | Historical Condition | Current Condition |
|---|---|---|
| *Amaranthus retroflexus* | **Rough pigweed. A common weed in gardens, cultivated ground, and waste places everywhere. Naturalized from tropical America. July-October.** Collected at Linnton by Suksdorf in 1911 (WTU), and at East Portland by Thompson in 1926 (WTU). Reed College, where "common" (Van Dersal 1929; Davies 1938). Gilbert (1917) found it "common" in the Willamette Valley. | Native. Very common primarily in heavily urbanized areas. Now considered a native weed. |
| *Amaranthus viridis* [*Amaranthus gracilis*] | Slender amaranth. On ballast at Linnton (Nelson 1916, 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Native to the American tropics. |
| **Anacardiaceae** | | |
| *Toxicodendron diversilobum* [*Rhus diversiloba*] | **Western poison oak. Very common in open woods and on sunny slopes. Macleay Park, Fulton, South Portland, Mt. Tabor, Rocky Butte, Brooklyn, Slavin Road, Cornell Road, St. Helens Road, 21st and Pettygrove Streets, 22nd and Thurman Streets, etc. March-October.** Collected near Fort Vancouver by Douglas in 1825-1827, where "plentiful" (Hooker 1829-1840, as *Rhus lobata*), and several times around Portland as early as 1888 (OSC, WTU). Van Dersal (1929) found it "very abundant" on high ridges in Macleay Park, where it had been "increasing rapidly...in the last few years." | Native. Common throughout our area in oak and mixed conifer woodlands. Patches still exist on dry S-facing ridgetops in Macleay Park. Stands are probably shrinking as forests mature after cutting and burning. |
| **Apiaceae** [Umbelliferae] | | |
| *Anethum graveolens* | Dill. Collected near Montgomery Park by French in 1961 (OSC). | Exotic. Introduced 1950-1974. Occasional on dry roadsides and other disturbed areas. |
| *Angelica arguta* | Lyall's angelica. Not listed by Gorman or Nelson. Collected on Sauvie Island and near Fort Vancouver by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and along "roads back of City Park" [Washington Park] by Sheldon in 1902 (OSC). | Native, rare. In our area known only from Forest Park, in wooded riparian draws or wetlands (*Kimpo*). |
| *Angelica genuflexa* | Kneeling angelica. Not listed by Gorman or Nelson. Collected on Sauvie Island and near Fort Vancouver by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and near Oregon City by Thompson in 1926 (WTU). | Native, rare. No recent reports from our area, and voucher specimens not found. More common at higher elevations in the Cascades and Coast Range. |
| *Anthriscus caucalis* [*Anthriscus scandicina*] | Bur chervil. Not listed by Gorman or Nelson. Collected at Oregon City by Thingvold in 1955, and at Estacada by Cook in 1959, the latter somewhat beyond our limits (OSC). | Exotic. Introduced 1950-1974. Common throughout our area. Clear Creek, Clackamas River floodplain (*Kimpo*), Willamette Narrows (Smyth 1999b), Troutdale (*Wilson*, OFP), Tualatin River NWR (*Brunkow, 2003*), Burnt Bridge Creek and Salmon Creek watersheds (*Gaddis*). |
| *Anthriscus sylvestris* | Wild chervil. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1975-1999. Collected at Tualatin in 2000 (*White*, OSC). Probably more common but overlooked. |
| *Apium graveolens* | Wild celery. Not listed by Gorman or Nelson. Collected in SW Portland by French in 1961 (OSC). | Exotic. Introduced 1950-1974. Occasional on disturbed sites. Markham School. |
| *Berula erecta* [*Berula erecta* var. *incisa*] | Cutleaf waterparsnip. Not listed by Gorman or Nelson. Collected on Sauvie Island by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area. |

| Name | Historical Condition | Current Condition |
|---|---|---|
| *Bowlesia incana* [*Bowlesia septentrionalis*] | **Northern bowlesia. Ballast grounds and waste places. Albina, East Portland, etc. A trailing umbelliferous annual, native of California, Mexico, and Chile but introduced here. May-August.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. |
| *Cicuta douglasii* | Western water hemlock. Not listed by Gorman or Nelson. Listed by Van Dersal (1929, as *C. occidentalis*), but without locality data. Reed College (Davies 1938). | Native. Frequent in wetlands and on log rafts and around houseboats on the Willamette and Columbia Rivers. West Hills, Fanno Creek, Sauvie Island, Killin Wetland (*Christy, 1991*). It is inexplicable why Gorman or Nelson did not report this species from our area. |
| *Conioselinum gmelinii* [*Conioselinum pacificum*] | Pacific hemlock parsley. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Willamette Narrows (*Kimpo*). |
| *Conium maculatum* | **Poison hemlock. Not observed in Portland before 1904, but now common in vacant lots, waysides, and waste places. At 20th and Quimby Streets, 20th and Savier Streets, and many other places about the city. Naturalized from Europe. June-August.** Collected at Portland by Gorman in 1904 and by Flinn in 1910 (HPSU, OSC). On ballast at Linnton, where "occasional" (Nelson 1917), and on waste ground in Portland (Nelson 1918a). | Exotic. Introduced 1900-1924. Very common on roadsides and disturbed soils throughout our area. |
| *Daucus carota* | **Wild carrot, bird's nest. A very common weed in fields, roadsides, vacant lots, and waste places everywhere around Portland. Native of Europe. May-September.** Collected in East Portland by Henderson as early as 1889, and in Sullivan's Gulch by Sheldon in 1902 (OSC). Gilbert (1917) found it "throughout" the Willamette Valley. | Exotic. Introduced 1875-1899. A common weed in disturbed sites throughout our area. |
| *Daucus pusillus* | **American carrot. On rocky ground. Oswego, Willamette Falls, etc. April-June.** Collected at St. Helens by Joseph Howell in 1876, at Elk Rock Island by Henderson in 1884, at Milwaukie by Thomas Howell in 1890, and at Willamette Falls by Sheldon in 1903 (HPSU, OSC). | Native, rare. In our area known only from the Morand property (Maffitt et al. 2005-2008) and the N end of Sauvie Island (Marttala et al. 2002). |
| *Eryngium petiolatum* | Coyote thistle. Not listed by Gorman or Nelson. | Native, rare. In our area known only from vernal pools at Peach Cove (*Smyth*), wet prairie at Green Mountain (*Gaddis*), and the Steinborn Unit of Tualatin River NWR (*Roberts, Maffitt, 2008*). |
| *Foeniculum vulgare* | **Fennel. Roadsides, vacant lots, and waste places. Wisconsin Street, South Portland, Macadam Road, below St. Johns, etc. Adventive or introduced from Europe. Possibly a garden escape.** On ballast at Linnton (Nelson 1917). Collected on the Holgate Street viaduct by French in 1953 (OSC). | Exotic. Introduced 1875-1899. Occasional to locally common in our area in disturbed areas where it occurs in patches and spreads rapidly. Difficult to control where established. Along the Willamette River, near OMSI, along railroad tracks in SE Portland (*Brehm*), and Columbia Slough. |

| Name | Historical Condition | Current Condition |
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| *Heracleum mantegazzianum* | Giant hogweed. Not listed by Gorman or Nelson. | Exotic. Introduced 1950-1974. Known from about 80 sites since it was first reported from our area in 2001. Most were planted as ornamentals, some probably before 1975 (*Poff, Brunkow*; ODA 2001; DHS 2002). Capable of spreading from dumped yard waste, as observed in Polk County (*Myers-Shenai*). Reed College (*Brehm*), Fanno Creek. Most sites eradicated by ODA. Its sap causes severe photodermatitis. |
| *Heracleum maximum* [*Heracleum lanatum*] | **Cow parsnip. Open woods. South side of Canyon Road, head of Jefferson Street, Rooster Rock, and creek banks, Wilson Place, Sauvie Island. May-June.** Collected several times around Portland as early as 1890 (HPSU, OSC). | Native. Occasional in our area in wet to mesic openings and edges of woods. Springwater Corridor Trail, etc. (*Marttala*), Wapato Lake near Gaston (*Maffitt*), the latter beyond our limits. |
| *Hydrocotyle ranunculoides* | **Floating marsh pennywort. In ponds and ditches. Sullivan's Gulch and mouth of Balch Creek. May-September.** | Native. Occasional in both natural and constructed wetlands. Columbia Slough, Milwaukie (*Christy, 2003*), lower Salmon Creek wetlands (*Gaddis*), Scappoose bottomlands, the last beyond our limits (*Christy, 2002*). |
| *Ligusticum apiifolium* | **Celery leaved lovage. Common in open scrub oak tracts about Portland. May-August.** Collected by Nuttall in prairie near the confluence of the Columbia and Willamette rivers in 1834-1835 (Hitchcock et al. 1955-1969), and at Elk Rock, Oswego, Willamette Falls, and near Hillsboro by Henderson, Sheldon, Constance and Beetle, and French between 1882 and 1962 (OSC). | Native, rare. Infrequent in our area in open oak woodlands. Cooper Mountain, Camassia Preserve, Tualatin River NWR (Maffitt et al. 2005-2008), and Mt. Talbert (*Kimpo*). Not relocated at Elk Rock (PPR 2004). |
| *Ligusticum grayi* | Gray's licorice-root. Not listed by Gorman or Nelson. | Native, rare. In our area, known only from Green Mountain (*Gaddis, 1994*, HPSU). |
| *Lilaeopsis occidentalis* | Western grasswort. Not listed by Gorman or Nelson. | Native, rare. In our area known only from mud flats at Vancouver Lake (*Christy, 1992*). More common downstream along the Columbia River, and on the coast. |
| *Lomatium bradshawii* | Bradshaw's lomatium. Not listed by Gorman or Nelson. | Native, rare. In our area known only from relictual wet prairie along Lacamas Creek in Clark County (Gaddis 1996). Also known from scattered sites in the central and southern Willamette Valley, but Lacamas Creek is the world's largest known population. Presumably there were intervening populations in the Portland area that have been extirpated. |
| *Lomatium dissectum* | **[*Leptotaenia dissecta*]. Cut-leaved leptotaenia. On cliffs and talus slopes. Elk Rock, etc. April-June.** Collected by Nuttall in prairie near the confluence of the Columbia and Willamette rivers in 1834-1835 (Hitchcock et al. 1955-1969), and at Forest Grove by Marsh, undated (WTU). Seen at Elk Rock by Marttala in 1976. | Native, rare. In our area known only from Camassia Preserve, Willamette Narrows, and possibly Cooper Mountain, the latter needing verification. Not relocated at Elk Rock (PPR 2004). |

| Name | Historical Condition | Current Condition |
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| *Lomatium nudicaule* | **[*Cogswellia nudicaulis*]. Few-leaved parsley. Grassy glades and open plains. Tualatin Plains. April-June.** Collected "on gravelly soils" near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *Seseli leiocarpum*; Hitchcock et al. 1955-1969). | Native, rare. In our area known only from Willamette Narrows (Smyth 1999b). |
| *Lomatium triternatum* | **[*Cogswellia triternata*]. Deep rooted parsley. On rocky banks. Elk Rock. April-June.** Collected on "dry gravelly soils" near Fort Vancouver by Douglas (Hooker 1829-1840, as *Seseli triternatum*), at Elk Rock and Forest Grove by Henderson in the 1880's, and on Rock Island by Ornduff in 1962 (OSC). | Native, rare. In our area known only from Lacamas Lake Park (*Gaddis*). Not relocated at Elk Rock (PPR 2004). |
| *Lomatium utriculatum* | **[*Cogswellia utriculata*]. Bladder parsnip. Rocky banks and slopes. Oswego, Willamette Falls, Vancouver, etc. April-June.** Collected by Nuttall near the confluence of the Columbia and Willamette rivers in 1834-1835 (Hitchcock et al. 1955-1969), at Willamette Falls by Sheldon in 1903 (OSC), and at Forest Grove by Henderson in 1884 (OSC) and St. Helens by Thompson in 1928 (REED), the latter two just beyond our limits. | Native, rare. In our area known only from Willamette Narrows (*Kimpo*). Still present at St. Helens (Christy and Alverson 2001; Pierce 2003), just outside our area. |
| *Oenanthe sarmentosa* | **Water parsley, marsh cowbane. In boggy ground. Albina, East Portland, etc. May-September.** Macleay Park, where "common" (Gorman and Sheldon 1905). Collected several times in our area between 1880 and 1959 (OSC). | Native. Common throughout our area in wet, shaded areas with permanently saturated soils. Forest Park (Houle 1996), Peach Cove Fen (*Christy, 1996*), Reed College canyon (*Marttala*), Morand Property (*Maffitt*). |
| *Osmorhiza berteroi* [*Osmorhiza chilensis*] | **[*Washingtonia divaricata*]. Nuttall's sweet cicely, western sweet-cicely. Open woods. Macleay Park** [Gorman and Sheldon 1905, as *Washingtonia nuda*]**, St. Helens Road, etc. April-June.** Collected several times in our area between 1886 and 1977 (OSC). | Native. Common throughout our area in coniferous forests. Forest Park (Houle 1996), Leach Botanical Garden, Berry Botanic Garden, Powell Butte, N end of Sauvie Island (Marttala et al. 2002). |
| *Osmorhiza occidentalis* [*Glycosma ambiguum*] | Western sweetroot. Not listed by Gorman or Nelson. Collected near Portland by Henderson in 1878 (OSC). | Native, rare. In our area known only from upland prairie and savanna at Willamette Narrows. |
| *Osmorhiza purpurea* | Purple sweetroot. Not listed by Gorman or Nelson. Collected at Forest Grove by Henderson in 1888 (OSC). | Native, rare. In our area, known only from oak woodland at Willamette Narrows. Reported from the Tualatin Hills Nature Park (*Bluhm*, OFP). More common E of our area. |
| *Pastinaca sativa* | Wild parsnip. Not listed by Gorman or Nelson. Collected near Rockwood by Towle in 1958 (OSC). | Exotic, rare. Introduced 1950-1974. No recent reports from our area. |
| *Perideridia gairdneri* [*Perideridia montana*] | **[*Carum gairdneri*]. Small yampa. Moist slopes. Oswego, Mt. Tabor, Mt. Scott, etc. July-September.** Collected on Sauvie Island by Thomas Howell in 1882 and 1883 and French in 1965 (HPSU, OSC, WTU), and on or near Mt. Scott by Sheldon in 1902 (OSC). | Native, rare. Green Mountain (*Habegger, 1998*, WTU), Lacamas Creek Park and Fifth Plain Prairie (*Gaddis*), N end of Sauvie Island (Marttala et al. 2002), St. Helens (Pierce 2003). |
| *Perideridia oregana* | **[*Carum oreganum*]. Large yampa. Moist ground. Sauvie Island, etc. June-August.** Collected by Nuttall on Sauvie Island in 1834-1835 (Hitchcock et al. 1955-1969). | Native, rare. In our area known only from Camassia Preserve (Horvath 1993), the Tualatin River NWR (Maffitt et al. 2005-2008), and Green Mountain (*Gaddis*). |

| Name | Historical Condition | Current Condition |
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| *Sanicula bipinnatifida* | **Purple sanicle. Open rocky places near Oswego. May-July.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840; Hitchcock et al. 1955-1969), around Portland by Henderson in 1880, and at Willamette Falls by Sheldon in 1903 (OSC). | Native, rare. In our area known only from Cooper Mountain, where a few plants seen in the late 1990s have since disappeared (*Kimpo*). It is likely to occur elsewhere in the metro area but probably has been overlooked. Habitat is oak woodlands and rocky outcrops. |
| *Sanicula crassicaulis* | **[*Sanicula menziesii*]. Menzie's snakeroot. Stream banks. Oswego and Willamette Falls. May-August.** | Native. Occasional throughout our area in open woodlands. Cooper Mountain, Mt. Talbert, Willamette Narrows, Morand Property, Tualatin River NWR, Clark County. |
| *Sanicula graveolens* | Northern sanicle. Not listed by Gorman or Nelson | Native, rare. In our area known only from oak woodland at Clear Creek. |
| *Scandix pecten-veneris* | Shepherd's needle. Not listed by Gorman or Nelson. Collected at Hillsboro and Beaverton by Burkhart and Youngberg in 1954 and 1961 (OSC). | Exotic, rare. Introduced 1950-1974. No recent reports from our area. |
| *Sium suave* | **[*Sium cicutaefolium*]. Hemlock water parsnip. Moist ground. University Park, Columbia Slough, etc. June-October.** Collected along the Willamette "below Portland" by Henderson in 1882 (OSC), and on Sauvie Island by the Howells in 1887 and 1892 (HPSU, WTU) and Trainer in 1964 (OSC). | Native, rare. No recent reports from our area. Frequent in Columbia River wetlands downstream from Portland, beyond our limits. |
| *Torilis arvensis* | Spreading hedgeparsley. Not listed by Gorman or Nelson. First collected in our area near Johnson Creek and SE 34th Avenue by Hajda in 1975, but known from Linn County as early as 1938 (OSC). | Exotic. Introduced 1925-1949. Increasing around our area in dry oak woodlands. Clear Creek, Willamette Narrows, Canemah Bluff (Smyth 1999a), Mt. Talbert, Sauvie Island (*Christy, 2005*). |
| *Torilis japonica* | Erect hedgeparsley. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1975-1999. Collected at Millard Camp near Eagle Creek by Kierstead in 1982 (OSC), just beyond our limits. Probably present elsewhere in the metro area. |
| *Torilis nodosa* | Knotted hedgeparsley. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. In our area known only from recent work at Cooper Mountain (*Kimpo*). |
| *Torilis scabra* | **[*Caucalis scabra*]. Rough hedge parsley. Ballast grounds and waste places. Lower Albina, etc. Adventive from Japan. May-September.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. |
| *Zizia aptera* [*Zizia aptera* var. *occidentalis*] | Golden alexanders, meadow zizia. Not listed by Gorman or Nelson. Collected at Oregon City by Kellogg in 1869, on Sauvie Island by Howell in 1877, at Forest Grove by Marsh between 1867 and 1890, and on or near Mt. Scott by Sheldon in 1903 (OSC). | Native, rare. No recent reports from our area. Mesic to wet prairies. |

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| **Apocynaceae** | | |
| *Apocynum androsaemifolium* | **Spreading dogbane. Infrequent in open woods and fence corners. About Bertha, Beaverton, Garden Home, etc. June-September.** Collected a number of times at Albina, Lake Grove, and Irvington by Sheldon, Drake, and Gorman between 1888 and 1919 (OSC). Oregon City (Larsen 1912). | Native. Occasional in our area on dry roadsides. Camassia Preserve (Horvath 1993), North Keys, Clear Creek (Smyth 1999c), Pacific Highway near Tualatin (*Kimpo*), Boones Ferry Road, Morand property (Maffitt et al. 2005-2008), Smith and Bybee Lakes (*Gaddis*), Barberton (Gaddis). More common than in Gorman's day, presumably because of better documentation. |
| *Apocynum cannabinum* [*Apocynum sibiricum*] | **Indian hemp. Moist ground. Swan Island, etc. May-July.** Collected on an island in the Wiilamette River "below Oregon City" by Henderson in 1885 (OSC). | Native, rare. Sparsely distributed throughout our area on roadsides, along fencerows, and in pastures. Smith and Bybee Lakes (*Gaddis*, *Kimpo*). |
| *Vinca major* | Bigleaf periwinkle. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but available commercially in the West since 1880 (Adams 2004). Collected in Columbia County in 1958, but known from Benton County as early as 1912 (OSC). | Exotic. Introduced 1875-1899. Occasional to locally abundant in our area on dry, partially shaded sites. Clackamas River Road, Willamette Narrows, Multnomah Channel. It spreads vegetatively from landscaped areas and where yard debris has been dumped, and has invaded natural areas. |
| *Vinca minor* | **Periwinkle. On roadsides, sloping banks, and waste places. Portland Heights, Lewis and Clark Fair Grounds, etc. Established in quite a few spots about Portland. Escaped from cultivation. Introduced from Europe. February-June.** Available commercially in the West since 1894 (Adams 2004). | Exotic. Introduced 1875-1899. A common garden escape, spreading vegetatively from residential landscaping and where yard debris has been dumped. Like *V. major*, it is problematic in some natural areas. |
| **Aquifoliaceae** | | |
| *Ilex aquifolium* | English holly. Not listed by Gorman or Nelson. First planted at SW 19th Avenue in 1878 and shipped by local nurseries as early as 1890 (Wieman 1961). Reed College (Davies 1938), but not clear if planted or naturalized. Not documented as naturalized in Oregon (Lake Oswego) until 1986 (*Zika*, OSC, WTU). Grown commercially elsewhere in the US since the 1780s (Adams 2004). | Exotic. Introduced 1875-1899. Common throughout our area in coniferous and mixed conifer-deciduous forest. An escaped ornamental and serious pest. A prolific seeder, spread into forests far and wide by birds, where it thrives in deep shade. Variegated types became popular about 1925 and holly farms proliferated in western Oregon and Washington after 1930 (Wieman 1961). |
| **Araceae** | | |
| *Arum italicum* | Italian lords and ladies. Not listed by Gorman or Nelson. Not documented from Oregon until 1988 (*Zika*, OSC) and information on commercial availability unknown, but we have seen it around neglected houses built before 1925. | Exotic. Introduced 1925-1949. N end of Oaks Bottom (*Wilson*, OFP), Sellwood Park, Rose City Golf Course, compost pile at Berry Botanic Garden (*Christy, 2008*), and undoubtedly elsewhere. A long-lived garden ornamental spreading vegetatively from gardens and from dumping of yard debris. |

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| *Lysichiton americanus* [*Lysichitum americanum*] | **[*Lysichiton kamtschatcensis*]. Western skunk cabbage. Common in boggy ground. South Portland, Fulton, Oak Grove etc. February-April.** Collected several times around Portland and the Tualatin Valley by Howell, Henderson, and Leach between 1882 and 1928 (OSC, REED), and at the Car Works in East Portland (Larsen 1912). Reed College (Van Dersal 1929; Davies 1938). | Native. Occasional to locally abundant throughout our area in wet, shaded sites with perennially saturated soils, usually near springs or seeps. More frequent in the Johnson Creek watershed than in the West Hills. Kelly Creek, North Clackamas Park, Johnson Creek, Reed College canyon (Moreira and Stafford 1996), Tualatin River NWR (*Maffitt*). |
| **Araliaceae** | | |
| *Hedera helix* | English ivy. Not listed by Gorman or Nelson. Reed College (Van Dersal 1929), as an escape that "grows well nearly anywhere." Collected at Portland by Olsen in 1954 (OSC), but available commercially in the West since 1880, and sold locally as early as 1912 (Adams 2004). Peck (1961) found it more abundant in the Portland area than elsewhere in the state. | Exotic. Introduced 1875-1899. The local distribution of *H. helix* is uncertain because of long-time inclusion of *H. hibernica* as a subspecies. It is reportedly less common and less invasive than *H. hibernica* (Murai 1999). Both taxa are notorious invaders of coniferous and deciduous forest, yards, and shrubbery and are spread far and wide by birds and dumping of garden waste. Listed as a Class B Noxious Weed by ODA, but ornamental cultivars are still allowed to be sold commercially. |
| *Hedera hibernica* | Atlantic Ivy. Not listed by Gorman or Nelson. Collected near Albina by Thompson in 1927, where a "freqent escape" (WTU; Zika and Alverson 2005). | Exotic. Introduced 1875-1899. Treated by some as a subspecies of *H. helix*, and until recently not distinguished from it locally. It is reportedly more invasive than *H. helix* and may constitute up to 80% of what has naturalized in the region (Murai 1999). Lumped with *H. helix* as a Class B Noxious Weed by ODA. |
| *Oplopanax horridus* | **[*Echinopanax horridum*]. Devil's club. Shady creek banks. Holbrook Creek, Logie Trail, etc. May-July.** Gorman (undated #2) reported it from "head of creek on St. Helens Road near Linnton." | Native, rare. In our area known only from four locations in Forest Park (PPR; *Christy*, *2008*). |
| **Aristolochiaceae** | | |
| *Asarum caudatum* | **Western wild ginger, tailed wild ginger. Common in moist coniferous woods. Macleay Park** [Gorman and Sheldon 1905]**, Mt. Tabor, Mt. Scott, etc. April-June.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hitchcock et al. 1955-1969) and at City Park by Henderson in 1887 (OSC). Reed College (Van Dersal 1929; Davies 1938). | Native. Relatively common in better-quality coniferous forest. Forest Park (Houle 1996), Powell Butte, Reed College canyon (Moreira and Stafford 1996), Tualatin River NWR (*Maffitt, 2006*). Rare in Clark County (*Gaddis*). Its distribution is limited by the spread of *Hedera helix* and *H. hibernica.* |
| **Asclepiadaceae** | | |
| *Asclepias speciosa* | Showy milkweed. Not listed by Gorman or Nelson. | Native, rare. In our area previously known from a roadside ditch near Forest Grove, slightly beyond our limits (*Kimpo*). The ditch was later recontoured and the population may be gone. To be sought closer to Portland. |

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| **Aspleniaceae** [*Asplenium* formerly in Polypodiaceae] | | |
| *Asplenium trichomanes* | **Maidenhair spleenwort. Dry rocky cliffs. Rocky Butte. June, July.** Collected on Rocky Butte by Sheldon and Gorman in 1903 and Flinn in 1911, at Lake Oswego by Thompson in 1928, and at St. Helens by the Howells and Thompson between 1876 and 1928 (OSC). | Native, rare. In our area known only from the crater on Powell Butte (PPR 2004*; Poff & Marttala*), Hardscrabble Quarry (Weber et al. 1999; Christy et al. 2007), and Camassia Preserve (Horvath 1993). Present at St. Helens (Christy and Alverson 2001) and further up the Sandy River (*Marttala*), both beyond our limits. |
| **Asteraceae** [Compositae] | | |
| *Acanthospermum australe* | Paraguayan starbur. On ballast at Linnton (Nelson 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Achillea millefolium* | **Yarrow. Common on roadsides, vacant lots, and waste places around Portland. June-October.** On ballast at Linnton (Nelson 1917). | Native. Very common in meadows and open woods throughout our area. Widely planted in native landscaping, but most of these are probably not native ecotypes (Liston 2009). |
| *Acroptilon repens* [*Centaurea repens*] | Russian knapweed. Not listed by Gorman or Nelson. Collected in E Oregon as early as 1927 (OSC). | Exotic, rare. Introduced 1925-1949. Known in our limits only from the Rivergate area along the lower Columbia Slough (ODA). Listed as a Class B Noxious Weed by ODA. Mostly E of the Cascades. |
| *Adenocaulon bicolor* | **Downy leaves, poor relations,** trailplant, pathfinder. **Common in open woods and roadsides. King's Heights, Slaven Road, Cornell Road, Mt. Tabor, etc. May-July.** Collected near Fort Vancouver by Douglas or Scouler in 1825 (Hooker 1829-1840), and near the confluence of the Columbia and Willamette rivers in 1834-1835 by Nuttall (1841, as *Adenocaulon integrifolium*). Macleay Park (Gorman and Sheldon 1905). Reed College (Van Dersal 1929). | Native. Relatively common throughout our area in higher quality conifer forests. Forest Park (Houle 1996; *Christy*, *2008*), Canemah Bluffs, Clear Creek, Sandy River (*Kimpo*), Powell Butte, Leach Botanical Garden, Berry Botanic Garden (PPR 2004), Clackamas River Bluffs (Christy et al. 2007). |
| *Agoseris apargioides* var. *maritima* | Woolly goat chicory. Not listed by Gorman or Nelson. Collected along the Willamette River at Portsmouth by Henderson in 1883 (OSC). | Native, rare. In our area known only from the N end of Sauvie Island (Marttala et al. 2002), just beyond our limits. More common on coastal dunes. Type specimens of *A. apargioides* reportedly collected along the Columbia River by Douglas in 1825-1827 (Hooker 1829-1840, as *Leontodon hirsutum*; Hitchcock et al. 1955-1969) have been applied to *A. hirsuta*, which is restricted to the Bay Area of California. The Douglas specimens therefore may have been mislabeled (Chambers 2009). |
| *Agoseris elata* | Tall agoseris. Not listed by Gorman or Nelson. Collected on prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841, as *Stylopappus elatus*; Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area. The closest occurrences today are at elevations of 3,000 feet or higher in or east of the Cascades. |

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| *Agoseris grandiflora* | **Large-flowered agoseris. Moist open glades. St. Johns, Columbia Boulevard, etc. May-July. [*Agoseris laciniata*]. Cut-leaved agoseris. Low ground and open woods around Portland. May-July.** Collected a number of times around Portland by Nuttall, Henderson, Howell, Sheldon, and Flinn between 1835 and 1918 (HPSU, OSC; Nuttall 1841, as *Stylopappus grandiflorus, Stylopappus laciniatus,* and *Troximon taraxacifolium*). | Native, rare. No recent reports from our area. A number of historical collections originally named as varieties of *Agoseris glauca* have been referred to *A. grandiflora*, and we do the same with Nuttall's early reports that Hitchcock et al. (1955-1969) referred to *A. glauca*. |
| *Agoseris heterophylla* | **Annual agoseris. Open places. Oswego, Milwaukie, etc. May-July.** Collected a number of times near Portland by Henderson and Howell in the 1880's (OSC). | Native, rare. No recent reports from our area. |
| *Ambrosia acanthicarpa* [*Franseria acanthicarpa*] | Flatspine bur ragweed. On sand bar on Hayden Island (Nelson 1920a, as *Franseria acanthicarpa*). | Native, rare. Not currently known from our area. |
| *Ambrosia artemisiifolia* | Annual ragweed. Not listed by Gorman or Nelson. Collected at Portland by Suksdorf, Flinn, and Thompson between 1901 and 1927 (HPSU, WTU), near Hillsboro by Burkhart in 1952, and at St. Helens by Walrod in 1956 (OSC). | Native, rare. In our area known only from the Steinborn Unit of Tualatin River NWR (*Maffitt, 2008*). Along with *A. trifida*, this wind-pollinated species is a primary cause of hay fever for many people, but insect-pollinated *Solidago* often takes the blame because it flowers at the same time. Native but weedy throughout North America and presumably native here. |
| *Ambrosia chamissonis* [*Ambrosia chamissonis* var. *bipinnatisecta*, *Franseria chamissonis*] | Silver bursage, beach-bur. Collected on ballast at Linnton by Gorman and Nelson in 1919 and 1922 (OSC; Nelson 1917, 1923a, as *Franseria bipinnatifida*). Nelson knew this coastal dune species was clearly out of its normal habitat, but he thought it would persist in the regional flora. | Native, rare. No recent reports from our area. |
| *Ambrosia psilostachya* | Cuman ragweed. Collected in rail yards at Lower Albina by Suksdorf in 1917 (WTU; Nelson 1920a). | Native, rare. No recent reports from our area. |
| *Ambrosia tenuifolia* | Slimleaf bur ragweed. On ballast at Linnton (Nelson 1916, 1917). Nelson (1917) indicated that it did not survive the winter. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Native to South America, it has spread to the Caribbean and Mediterranean. |
| *Ambrosia trifida* | Great ragweed. Collected at Linnton by Suksdorf in 1910 and 1911 (WTU). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Another hay fever pest but a large, magnificent plant. Native elsewhere in North America but presumably introduced here. |
| *Anaphalis margaritacea* | **Pearly everlasting. Common in dry, open grassy places everywhere around Portland. June-August.** Macleay Park (Gorman and Sheldon 1905). On ballast at Linnton, where "abundant" (Nelson 1917). | Native. Common throughout our area. |

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| *Anisocarpus madioides* [*Madia madioides*] | **Woodland tarweed. Open woods around Portland, Willamette Falls, etc. June-August.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841; Hitchcock et al. 1955-1969), and several times around Portland by Howell, Sheldon, and Henderson between 1881 and 1905 (OSC), including Elk Rock. | Native, rare. No recent reports from our area. |
| *Antennaria howellii* ssp. *howellii* [*Antennaria neglecta* var. *howellii*] | **Howell's cats-foot**, Howell's pussytoes**. Open places. Oswego, Milwaukie, etc. April-June.** Collected in and around Portland by Flinn, Gorman, Henderson, and Piper between 1882 and 1911 (OSC, WTU). | Native, rare. No recent reports from our area. |
| *Antennaria howellii* ssp. *neodioica* [Antennaria neglecta var. attenuata] | Field pussytoes. Not listed by Gorman or Nelson. Collected on or near Mt. Scott by Sheldon in 1903 (OSC). | Native, rare. No recent reports from our area. |
| *Antennaria howellii* ssp. *petaloidea* [*Antennaria neglecta* var. *attenuata*] | Small pussytoes. Not listed by Gorman or Nelson. Collected on or near Mt. Scott by Piper in 1904 (US; Hitchcock et al. 1955-1969, as *A. concolor*). | Native, rare. No recent reports from our area. |
| *Antennaria racemosa* | Raceme pussytoes. Collected near Portland by Henderson in 1881 (OSC). | Native, rare. No recent reports from our area. |
| *Anthemis altissima* | Tall chamomile. Not listed by Gorman or Nelson. On ballast at Portland (Hitchcock et al. 1955-1969) but without collection data. Presumably collected at Albina or Linnton by Suksdorf, Sheldon, or Nelson, before 1925. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Anthemis arvensis* | **Field chamomile. Infrequent in fields, door-yards, and roadsides around Portland. Naturalized from Europe. May-September.** Collected at Oregon City by Thomas Howell in 1896 and Chilcote in 1956, on ballast at Linnton, where "infrequent" (Nelson 1917), and E of Clackamas by Warren in 1953 (OSC). | Exotic. Introduced 1875-1899. Frequent throughout our area on disturbed soils. |
| *Anthemis cotula* | **Dog-fennel. Very common on roadsides, door-yards, waste places, and recently disturbed soil everywhere around Portland. Naturalized from Europe. June-November.** Collected several times in and around Portand between 1898 and 1963 (OSC, WTU). Gilbert (1917) noted that it was widely distributed. Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. Common throughout our area. |
| *Arctium lappa* | Greater burdock. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Marion County as early as 1918 (OSC). | Exotic. Introduced 1900-1924. Occasional in our area on roadsides and disturbed sites. |
| *Arctium minus* | **Common burdock. Common on roadsides, vacant lots, and waste places around Portland. A pernicious weed in western Oregon. Naturalized from Europe. June-October.** Collected at Portland by Henderson in 1881 and by Sheldon in 1902 (OSC). On ballast at Linnton (Nelson 1917), and at Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. Occasional throughout our area in pastures, inactive farmland, or openings in dry forest. Possibly less common today than in Gorman's day because of the disappearance of barnyards from our area. Reed College canyon (Moreira and Stafford 1996). |

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| *Arctotheca calendula* | Capeweed. On ballast at Linnton in 1915, but not surviving the winter (Nelson 1917, as *Arctotis calendulacea*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. An escaped garden weed native to South Africa. Occurrences so named in California also include *Arctotheca prostrata*, and both are invasive (Mahoney and McKenzie 2008). |
| *Arnica amplexicaulis* | **Water arnica. Wet cliffs, Elk Rock. April-June.** Collected at Willamette Falls by Nuttall in 1834-1835 (Nuttall 1841; Hitchcock et al. 1955-1969), and several times on the Sandy River by Henderson, Drake, and Gorman between 1881 and 1892 (OSC). Seen at Elk Rock by Marttala in 1976. | Native, rare. No recent reports from our area. |
| *Artemisia absinthium* | Absinthe wormwood. Not listed by Gorman or Nelson. First collected in our area "near Portland" by Driscoll in 1956, and at St. Helens by Walrod in 1959 (OSC). | Exotic. Introduced 1950-1974. Common along the Columbia and Willamette rivers on dry, sandy soils. N end of Sauvie Island (Marttala et al. 2002). |
| *Artemisia annua* | Sweet sagewort. In rail yards at Lower Albina (Nelson 1920a). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. Grown occasionally in Oregon for essential oils, and a known invasive in arid regions. Noted as an occasional weed by Hitchcock et al. (1955-1969). |
| *Artemisia biennis* | **Biennial wormwood. Barn yards, old fields, and waste places around Portland. A native plant with weedy tendencies. July-October.** Collected on Hayden Island by Flinn in 1915 and by Nelson and Peck in 1922 (HPSU, OSC), and in rail yards in Portland (Nelson 1918a). Gorman (1916) thought it had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Native. Common throughout our area. |
| *Artemisia campestris* | Field sagewort. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840, as *A. desertorum*; Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area. Nuttall's specimen may have been var. *scouleriana* (Chambers 2009). |
| *Artemisia douglasiana* | Douglas' sagewort. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1905 and 1907, at University Park by Sheldon in 1902, and on Sauvie Island by Thompson in 1926 (OSC, WTU). | Native. Known from four sites on the Columbia and Willamette River floodplains (PPR 2004), and Burlington Bottoms. |
| *Artemisia dracunculus* | Tarragon. Gorman (1916, as *A. dracunculoides*) reported it without locality data, surmising that it had moved into the Portland area from E of the Cascades via the Columbia Gorge. Sandy banks of Hayden Island opposite Vancouver (Nelson 1918a), and collected along the Columbia River by Flinn in 1911(OSC). | Native, rare. Not currently known in our area. |

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| *Artemisia lindleyana* | Columbia River wormwood. Gorman (1916) reported it without locality data. Collected on sandy banks of the Columbia River, 1 mile W of Vancouver, by Sheldon in 1902 (CAS, GH; Sheldon 1903, as *A. arachnoidea*; Hitchcock et al. 1955-1969), on sand bars along the Columbia by Flinn in 1915 (HPSU, OSC), and on sandy banks of Hayden Island opposite Vancouver (Nelson 1918a), where also collected by Thompson in 1927 (OSC). Gorman (1916) surmised that it had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Native. Occasional in our area along the Columbia River. Kelley Point Park (*Halse, 1991,* OSC), Hayden Island (*Chambers, 1992*, OSC), and Sandy River delta (*Zika, 1992*, OSC). The Portland area was probably always part of the natural range of this species (Chambers 2009). |
| *Artemisia ludoviciana* | **Western mugwort, White sage. Open places. South Portland, Fulton, etc. July-September.** Collected on ballast at Lower Albina by Sheldon in 1902, on sand bars along the Columbia by Flinn in 1915 (HPSU, OSC), and in rail yards at Lower Albina by Nelson in 1920 (OSC; Nelson 1920a). Gorman (1916, as *A. gnapholodes*) thought that it had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Native, rare. In our area reported from the Sandy River delta (*Zika et al., 1992*, OFP). Most occurrences are E of the Cascades, and presumably this species occasionally rafts down the Columbia River (Chambers 2009). |
| *Artemisia suksdorfii* | Coastal wormwood. Not listed by Gorman or Nelson. Collected at Linnton by Zivney in 1939 (OSC). | Native, rare. In our area known only from Willamette Narrows (Smyth 1999b), Clackamas River Island (Mohler 2005), and along Highway 30 near Newberry Road (*Kral, 2002,* OSC). |
| *Artemisia tilesii* | Tilesius' wormwood. On ballast at Linnton (Nelson 1917). | Native, rare. No recent reports from our area. The only known voucher specimens are from farther E in the Columbia Gorge. On rocky or gravelly sites. |
| *Artemisia vulgaris* | Common wormwood. Collected on ballast at Linnton and Lower Albina by Suksdorf in 1900 and Nelson in 1920 and 1922, where it was the "most abundant species of the area, forming dense thickets" (OSC, WTU; Nelson 1917, 1920a, 1923a). Nelson predicted it would persist in the regional flora. | Exotic. Introduced 1875-1899. Occasional in our area on disturbed ground. Sandy River delta (*Zika et al., 1992*, OFP), Tomahawk Island (*Wilson*, OFP). Sometimes grown commercially in the Willamette Valley. |
| *Baccharis pilularis* | Coyotebrush. Not listed by Gorman or Nelson. | Native, rare. In our area known only from a single female plant at Camasssia Preserve, where it is still alive but struggling (*Soll*, *2001*). It is the first inland record N of Lane County. |
| *Balsamorhiza deltoidea* | **Heart-leaved balsam-root. Fields and open places near Gladstone. May-July.** Collected near the confluence of the Columbia and Willamette Rivers by Nuttall in 1834-1835 (Nuttall 1841), and at Vancouver by Piper in 1904 (WS; Piper 1906). | Native, rare. No recent reports from our area. Piper's specimen at WS was verified by Weber in 1951. |
| *Balsamorhiza hookeri* | Hooker's balsamroot. Not listed by Gorman or Nelson. Collected "on the gravelly banks of the Columbia near Fort Vancouver" by Douglas in 1825-1827, where "common" (Hooker 1829-1840, as *Heliopsis balsamorhiza*; Piper and Beattie 1915, as *B. balsamorhiza*; Hitchcock et al. 1955-1969), and on Mill Plain by Thomas Howell in 1880 (Piper 1906, as *B. balsamorhiza*; Hitchcock et al. 1955-1969). | Native, rare. Not seen in our area since 1880. |

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| *Balsamorhiza* × *terebinthacea* | Common name unavailable. Not listed by Gorman or Nelson. Collected near the confluence of the Columbia and Willamette Rivers by Nuttall in 1834-1835 (K; Hooker 1829-1840, as *B. terebinthacea*; Nuttall 1841; Piper 1906, as *B. terebinthacea*). | Native, rare. No recent reports from our area. Weber (1953) demonstrated that Nuttall's specimen was *B.* × *terebinthacea*, a hybrid between *B. deltoidea* and *B. hookeri*. |
| *Bellis perennis* | English daisy. Gorman added *Bellis* to his *Muhlenbergia* manuscript in December 1915, but had previously recorded it from St. Helens Road in his 1906 notebook. Nelson (1918a) noted that it was "so abundant as to be in nine cases out of ten the first plant in flower encountered by the student." Available commercially in the West since 1873 (Adams 2004). | Exotic. Introduced 1875-1899. A common lawn weed throughout our area. |
| *Berkheya heterophylla* | Prickly gousblom. On ballast "near Portland" (Abrams and Ferris 1923-1960) but without collection data. Presumably collected at Albina or Linnton by Suksdorf, Sheldon, or Nelson before 1925. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. Native to South Africa. |
| *Bidens cernua* | **Nodding bur marigold. Wet ground in vacant lots and waste places. University Park, St. Johns, etc. August-October.** First collected in our area near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *B. chrysanthemoides*) and on Sauvie Island at the confluence of the Willamette and Columbia rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969). | Native. Common and abundant in wetlands and on floodplains, particularly on the Willamette and Columbia River bottomlands. Often with *B. frondosa.* Beggar's-tick Wildlife Refuge, Springwater Corridor Trail, Sauvie Island, Steinborn Property, Tualatin River NWR. |
| *Bidens connata* | Purplestem beggar-ticks. Not listed by Gorman or Nelson. First collected in Clatsop County in 1999 (Zika, WTU), but established along the Columbia River from Bonneville Dam to Astoria. | Exotic, rare. Introduced 1975-1999. In our area known only from the silty shore of the Columbia River in Camas, 0.6 mile W of Oak Park (*Zika, 2002*, WTU; Zika 2003b). Native to E North America. |
| *Bidens frondosa* | Leafy beggar-ticks. On the shore of Hayden Island (Nelson 1923b). | Native. Common and abundant in wetlands, often with *B. cernua*. Beggar's-tick Wildlife Refuge, Peach Cove Fen (*Christy, 1996*), Burlington Bottoms, Columbia Slough, N end of Sauvie Island (Marttala et al. 2002). |
| *Bidens tripartita* | Threelobe beggar-ticks. Not listed by Gorman or Nelson. Collected by Howell on Sauvie Island in 1887 (OSC). Reported from ballast near Portland (Hitchcock et al. 1955-1969), but without collection data. Presumably collected at Albina or Linnton by Suksdorf, Sheldon, or Nelson, before 1925. | Exotic, rare. Introduced 1875-1899. Burlington Bottoms (*Beilke, 1996*, OSC), Steinborn Unit of Tualatin River NWR (*Maffitt, 2008*). Reported several times from along lower Columbia Slough but not confirmed. |
| *Bidens vulgata* | **Tall beggar-ticks. Moist places along Willamette River. July-September.** Gorman (1916) thought that it had moved into the Portland area from E of the Cascades via the Columbia Gorge. Collected on Sauvie Island by Peck in 1926 (OSC). | Native, rare. In our area known only from Camassia Preserve (Horvath 1993; *Trask & Abrams, 2001*, OSC). |
| *Canadanthus modestus* [*Aster modestus*] | Giant mountain aster. Not listed by Gorman or Nelson. Collected on Sunnyside Road by Leach in 1930 (OSC). | Native, rare. No recent reports from our area. Most recently seen on the Sandy River upstream from Indian John's Island (*Hauser, 1984*, OSC), beyond our limits. |
| *Carduus crispus* | Curly plumeless thistle. On ballast at Linnton (Nelson 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |

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| *Carduus nutans* | Nodding plumeless thistle. On ballast at Linnton, where well established and "stubbornly persisting over the entire area" (*Gorman, 1919*, OSC; Nelson 1916, 1917, 1920a, 1923a). Nelson predicted it would persist in the regional flora. | Exotic, rare. Introduced 1900-1924. In our area known only from the Rivergate area of Columbia Slough (Merrett 2004). |
| *Carthamus tinctorius* | Safflower. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1975-1999. In our area known only from Hayden Island (*Halse, 1991*, OSC). |
| *Centaurea calcitrapa* | **Star thistle. Infrequent on ballast grounds and waste places. Lower Albina and East Portland. Adventive from Europe. June-October.** Collected on ballast at Linnton by Nelson and Gorman between 1915 and 1920 (WTU; Nelson 1917, 1920a; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. Known from only one site about 5 miles E of Canby, slightly beyond our limits (*Myers-Shenai*). ODA is controlling it with herbicides. |
| *Centaurea cyanus* | **Bachelor's button, French pink. A common weed in fields, filled ground, freshly disturbed soil, and waste places. Goldsmith's Addition, Albina, South Portland, Risley Station, etc. Naturalized from Europe, and a troublesome weed. June-October.** Introduced here in 1847 (Appendix B). Available commercially in the West since 1907, and sold locally as early as 1912 (Adams 2004). | Exotic. Introduced 1825-1849. Common throughout our area on roadsides or recently disturbed areas, and used heavily in roadside seed mixes. |
| *Centaurea debeauxii* ssp. *thuillieri* [*Centaurea* × *pratensis, Centaurea pratensis, Centaurea jacea* × *nigra, Centaurea* × *moncktonii*] | Meadow knapweed. Not listed by Gorman or Nelson. First collected in our area "near Portland" by Gilkey in 1935 (OSC), but known from the Columbia Gorge in 1924 and Lane County as early as 1918 (OSC). | Exotic. Introduced 1900-1924. Well distributed on dry roadsides and disturbed sites throughout our area. Ennis Creek, Clear Creek, Powell Butte, Newell Canyon, Mt. Talbert. Listed as a Class B Noxious Weed by ODA. |
| *Centaurea diffusa* | Diffuse knapweed. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from E Oregon as early as 1937 (OSC). | Exotic. Introduced 1925-1949. Common in our area on dry, disturbed sites, mostly E of the Willamette River. Rivergate area of North Portland (*Kimpo*) and N end of Sauvie Island (Marttala et al. 2002). Listed as a "B" designated weed by ODA. |
| *Centaurea jacea* | **Brown knapweed. Infrequent on ballast grounds, Lower Albina. Fugitive from Europe. June-September.** | Exotic. Introduced 1900-1924. Throughout the Rivergate area and along Columbia Slough, E to the Columbia Gorge. |
| *Centaurea melitensis* | **Maltese star thistle. Fields and waste places. Albina, Milwaukie, etc. Naturalized from Europe. June-September.** On ballast at Linnton (Nelson 1917). | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. Still extant in Lane County, one population of which has been known since the 1930s (*Newhouse*; Simpson et al. 2002). |
| *Centaurea montana* | Perennial cornflower. Not listed by Gorman or Nelson. Collected along SW Elizabeth Street by Ornduff in 1960, where "sparingly established" (OSC). | Exotic, rare. Introduced 1950-1974. No recent reports from our area. |
| *Centaurea nigra* | Lesser knapweed. On ballast at Linnton (Nelson 1917, as *Centaurea consimilis*). Collected at Bridal Veil by Peck in 1911, somewhat beyond our limits (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |

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| *Centaurea stoebe* ssp. *micranthos* [*Centaurea maculosa*] | Spotted knapweed. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from E Oregon as early as 1935, and from the Columbia Gorge in 1961 (OSC). | Exotic. Introduced 1925-1949. Common throughout our area on dry disturbed sites. Quarantined and listed as a category B weed by ODA. |
| *Chamaemelum mixtum* | **[*Anthemis mixta*]. White chamomile. Ballast grounds and waste places, Lower Albina. Adventive from southern Europe. June-September.** Collected at Albina by Sheldon in 1902 (OSC) and at Linnton by Suksdorf in 1916 (WTU). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Chondrilla juncea* | Rush skeletonweed, hogbite. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but first collected in Douglas County in 1974 (OSC). | Exotic. Introduced 1975-1999. Occasional in our area on dry sites and roadsides. Troutdale (*Wilson, 2002*, OSC) and along NW St. Helens Road in the Guilds Lake industrial area (*Wilson*, OFP). |
| *Cichorium intybus* | **Chicory, blue sailors. Roadsides, vacant lots, and waste places. Thurman Street, Fairbanks Avenue, South Portland, Brooklyn, etc. Naturalized from Europe. June-October.** On ballast at Linnton and a "common escape" (Nelson 1917), and at Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. A common weed on dry sites throughout our area. |
| *Cirsium arvense* | **[*Carduus arvensis*]. Canada thistle. Fields, roadsides, vacant lots, and waste places. Overton Street between 19th and 20th Streets, NE corner 24th and Northrup Streets, East Portland, St. Helens Road, Risley Station, etc. A persistent and troublesome perennial weed, not yet common here but steadily spreading. Naturalized from Europe. May-September.** First collected in our area by Sheldon in 1902 (OSC). Gilbert (1917) reported it as "not common" in the Willamette Valley. On ballast at Linnton and in rail yards at Portland, where "a vile weed" (Nelson 1917, 1918a, 1920a). Soth (1933) found it abundant in some places. | Exotic. Introduced 1875-1899. Very common throughout our region, and a pernicious weed. |
| *Cirsium brevifolium* | Clustered thistle. Not listed by Gorman or Nelson. Collected by Henderson near Oswego in 1889 (OSC). | Native, rare. No recent reports from our area. |
| *Cirsium brevistylum* | Palouse thistle. Not listed by Gorman or Nelson. Collected near Oswego and Portland by Henderson in 1889, at City Park by Sheldon in 1902, and at the Sandy River by Lawrence in 1918 (OSC). | Native, rare. Confirmed near the Clackamas River between Carver and Barton (*Marttala*), just beyond our limits but probably present elsewhere in the region. |
| *Cirsium edule* [*Cirsium hallii*] | **[*Carduus edulis*]. Edible thistle. Open woods. Macleay Park** [Gorman and Sheldon 1905]**, St. Helens Road, Logie Trail, etc. June-August.** | Native, rare. In our area known only from Cooper Mountain (Wilson & Kral 1999) and the Morand property (Maffitt et al. 2005-2008). |
| *Cirsium remotifolium* | **[*Carduus remotifolius*]. Wooly-leaved thistle. Open places near Milwaukie, Mt. Tabor, etc. June-August.** Collected by Henderson in and around Portland between 1881 and 1884 and at Oswego in 1887, and at Elk Rock by Sheldon in 1903 (OSC). | Native, rare. No recent reports from our area. |

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| *Cirsium undulatum* | Wavyleaf thistle. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Nuttall in 1834-1835 (Nuttall 1841, as *C. douglasii*) and near Hillsboro by Thomas Howell, undated (OSC). | Native, rare. In our area reported from Multnomah Channel (Adolfson 2000) but voucher specimens not found. Nuttall listed his specimen as *Cirsium douglasii* but noted that it was hardly distinct from *C. undulatum*. Given the scarcity of *C. douglasii* in Oregon and relative abundance of *C. undulatum* along rivers E of the Cascades, we are inclined to think that Nuttall collected the latter. It could have been one of the species transported downriver by spring freshets. Location of voucher specimens for both Nuttall's collection and that of Adolfson (2000) would help resolve this issue. |
| *Cirsium vulgare* | **[*Carduus lanceolatus*]. Bull thistle. A common biennial weed in lawns, pastures, roadsides, waste places, and open woods around Portland. Naturalized from Europe. June-October.** Collected near City Park by Sheldon in 1902 (OSC), and on ballast at Linnton (Nelson 1917, as *Cirsium lanceolatum*). | Exotic. Introduced 1875-1899. Very common throughout our area. |
| *Conyza bonariensis* [*Conyza floribunda*] | Asthmaweed. Not listed by Gorman or Nelson. Collected "several times over a period of years in and about Portland" (Hitchcock et al. 1955-1969), probably based in part on Sheldon's collection from Lower Albina in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Conyza canadensis* | **[*Erigeron canadensis*]. Canada fleabane. A common weed in fields, roadsides, and waste places. East Portland, Mt. Tabor, Lents, South Portland, Fulton, etc. June-October.** Collected by Thomas Howell and others in various places around Portland as early as 1886 (OSC). On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Common throughout our area, usually adjacent to heavily developed areas. Columbia Slough. |
| *Coreopsis tinctoria* var. *atkinsoniana* [*Coreopsis atkinsoniana*] | **Atkinson's coreopsis. Moist ground and bottom-lands. Columbia Slough, Columbia River, Vancouver, etc. In the above localities this species may possibly be adventive from eastern Oregon and Washington, as its natural habitat is east of the Cascade Range. May-August.** Collected on the shores of the Columbia River and Hayden Island by Douglas in 1825-1827 (Hooker 1829-1840, as *Calliopsis atkinsoniana*), but inexplicably not vouchered again until Peck collected it on Sauvie Island in 1922 (OSC). Available commercially in the West since 1891 (Adams 2004). | Native. In our area occasional to locally abundant on floodplains along the Columbia River between the Gorge and the N end of Sauvie Island (*Christy, 1992*; *Kral, 1996*, HPSU; Marttala et al. 2002). |
| *Cotula australis* | Australian waterbuttons. Collected on ballast at Albina by Suksdorf in 1899 (WTU) and at Linnton (Nelson 1917; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Cotula coronopifolia* | **Brass buttons. Not uncommon in ditches, sloughs, and wet places. Albina and East Portland. In ponds, corner of East Main and East Water Streets. Adventive from South Africa. May-November.** Collected at Albina by Suksdorf in 1900 (WTU), and in Portland by Flinn in 1910 (HPSU). | Exotic. Introduced 1875-1899. Known from moist areas along the Columbia and Willamette Rivers. Gorman's ponds at East Main and Water streets were filled to create industrial land along the Willamette riverfront. |

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| *Crepis capillaris* | **[*Crepis virens*]. Smooth hawksbeard. A very common and troublesome weed in fields, lawns, meadows, pastures, roadsides, and waste places throughout Portland and its environs. It has become widely disseminated in western Oregon and Washington within the past 20 years. Naturalized from Europe. June-September.** Collected repeatedly in and around Portland as early as 1880 (HPSU, OSC, WTU). On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Common throughout our area. |
| *Crepis intermedia* | Limestone hawksbeard. Not listed by Gorman or Nelson. Reed College (Van Dersal 1929). | Native, rare. No recent reports from our area, and voucher specimens not found. Mostly E of the Cascades. |
| *Crepis runcinata* ssp. *hispidulosa* | Fiddleleaf hawksbeard. Not listed by Gorman or Nelson. Collected in or near Macleay Park by Van Dersal in 1928 (REED), and at Reed College (Van Dersal 1929, as *C. runciniata*). | Native, rare. No recent reports from our area. Mostly E of the Cascades. |
| *Crepis setosa* | Bristly hawksbeard. Not listed by Gorman or Nelson. Collected at Portland by Gilkey in 1935, and at Reed College by Davies in 1937 (OSC, REED). Known from elsewhere in the Willamette Valley as early as 1912. | Exotic. Introduced 1900-1924. Well-distributed in our area on dry sites. |
| *Crocidium multicaule* | **Yellow daisy. Moist slopes. Oswego, Milwaukie, Vancouver, etc. Blooms early, about April 1. March-May.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840; Hitchcock et al. 1955-1969), and near the confluence of the Columbia and Willamette rivers by Nuttall in 1835 (Nuttall 1841). | Native, rare. No recent reports from our area. Upper East Fork of Dairy Creek (*Kral, 1998*, HPSU) and St. Helens (Pierce 2003), both somewhat beyond our limits. Nuttall's locality was probably on basalt at Warrior Point or in the Carty Unit of the Ridgefield NWR. |
| *Dyssodia papposa* | Fetid marigold. Not listed by Gorman or Nelson. | Native, rare. In our area known only from the Morand property (Maffitt et al. 2005-2008). |
| *Echinops ritro* ssp. *ruthenicus* | **[*Echinops ritro*]. Porcupine flower. Infrequent on ballast grounds and waste places. Lower Albina, etc. Adventive from Europe. June-October.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. Readily available on the internet as "globe thistle," it is tolerant of well-drained soils with full sun exposure. Based on specimens naturalized in Washington, our material presumably was ssp. *ruthenicus,* but it also may have been *E. exaltatus* (Abrams and Ferris (1923-1960, as *E. commutatus*). |
| *Erechtites minimus* [*Erechtites minima*] | Coastal burnweed. Not listed by Gorman or Nelson. Known from the coast since 1913, but not from the Willamette Valley until 1998 (OSC). | Exotic, rare. Introduced 1975-1999. In our area known only from the N end of Sauvie Island (Marttala et al. 2002), but probably also present closer to Portland. An early invader of disturbed sites but a poor competitor, soon disappearing. |
| *Erigeron annuus* | **Daisy fleabane. A weed in fields, railroad tracts, and waste places about Portland. Not yet common. June-October.** Collected SW of Oswego Lake by French in 1963 (OSC). | Exotic. Introduced 1875-1899. A common weed on dry sites, often in oak habitat. Forest Park, Cooper Mountain (*Kimpo, 2001*, HPSU), Sauvie Island, and along the Willamette River near Wilsonville. |
| *Erigeron decumbens* | Willamette fleabane. Not listed by Gorman or Nelson. Collected at Clackamas by Lunnell in 1903 (GH, MIN, RM), at Gladstone by Howell in 1894 (GH, NY), and beyond our limits at Gaston by Henderson in 1881 (OSC). | Native, rare. No recent reports from our area. |

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| *Erigeron divergens* | Spreading fleabane. Reported by Gorman (1916) from Hayden Island and along the Columbia River floodplain. He considered it one of several species that had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Native, rare. No recent reports from our area. More common in the Columbia Gorge and E of the Cascade crest. |
| *Erigeron philadelphicus* | **Philadelphia fleabane. Stream banks near Oswego, Milwaukie, Willamette Falls, etc. April-August.** Collected on moist rocks at Oregon City by Henderson in 1883, on Sauvie Island by Howell in 1893, and at Balch Creek by Sheldon in 1903 (OSC). | Native, rare. In our area currently known only from lower Salmon Creek (*Gaddis, 1995*), Green Mountain (*Habegger, 1998*, WTU), and the Tualatin River NWR (*Maffitt, 2006*). Also present downriver along the Columbia, and further up the Sandy River, both beyond our limits. |
| *Erigeron speciosus* | **Tall erigeron. Margins of woods and gravelly tracts, Gladstone. June-August.** Collected on Sauvie Island by Henderson in 1889, and at Gladstone by Howell in 1894 (OSC). | Native, rare. No recent reports from our area. |
| *Erigeron strigosus* | **[*Erigeron ramosus*]. Daisy erigeron. Fairly common in dry open tracts near Arleta, Mt. Scott, St. Johns, Willamette Falls, etc. May-October.** Collected multiple times in our area between 1882 and 1934 (OSC). | Native, rare. In our area known only from the Tualatin River NWR (*Maffitt, 2008*). |
| *Eriophyllum lanatum* [*Eriophyllum lanatum* var. *leucophyllum*] | **Wooly golden yarrow. In gravelly or rocky soil, fields, and waste places. Along Willamette River, Risley Station, etc. May-July. A rayless form is not uncommon in the same habitat and localities. [*Eriophyllum leucophyllum*]. White-leaved golden yarrow. In open glades above Multnomah Falls, etc. May-Jully.** Collected multiple times around Portland between 1882 and 1910 (OSC). | Native. Common in upland and wet prairie but infrequent on a regional scale. Cooper Mountain, Sandy River Delta, Camassia Preserve, Lacamas Lake Park (*Gaddis*). |
| *Eurybia radulina* [*Aster radulinus*] | **Low rough aster. Dry open woods. Oswego, Milwaukie, etc. July-September.** Collected on or near Mt. Scott by Suksdorf in 1911, and at the W end of Oswego Lake by French in 1963 (OSC, WTU). | Native, rare. In our area known only from the Tualatin River NWR (*Maffitt, 2006,* OSC). |
| *Euthamia occidentalis* [*Solidago occidentalis*] | **Western goldenrod. Open woods, stream banks, and margins of prairies. Sullivan's Gulch, Rocky Butte, Sauvie Island, etc. August-October.** Collected on the banks of the Columbia and Willamette rivers in 1834-1835 by Nuttall (1841, as *Euthamia occidentale*), and along the Willamette by Henderson in 1888 (OSC). | Native. Throughout our area on roadsides, vacant lots, and seasonally moist sandy to silty beaches along the Columbia River. N end of Sauvie Island (Marttala et al. 2002). |
| *Galinsoga parviflora* | Gallant soldier. Not listed by Gorman or Nelson. Collected at Linnton by Suksdorf in 1911 (WS). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Gamochaeta purpurea* [*Gnaphalium purpureum*] | **Purplish cudweed. Common in dry open places about Portland, Oregon City, etc. May-September.** Macleay Park (Gorman and Sheldon 1905). On ballast at Linnton, where "occasional" (Nelson 1917). Collected near Vancouver by Thompson in 1926 (WTU). | Native, rare. Infrequent throughout our area. |

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| *Gnaphalium palustre* | **Western cudweed. Roadsides and wet places. South Portland, Fulton, Oswego, etc. May-August.** Collected on Sauvie Island by Henderson in 1884, and on or near Mt. Scott by Sheldon in 1903 (OSC). | Native. Occasional throughout our area on wet soils, but much less common than *G. uliginosum*. |
| *Gnaphalium uliginosum* | **Marsh cudweed. Low ground and wet banks about Portland. Not uncommon. Believed to be indigenous in some parts of North America but here it is undoubtedly naturalized from Europe. June-September.** Collected on Sauvie Island by Thomas Howell in 1880, and at University Park and Lower Albina by Sheldon in 1902 (OSC). | Exotic. Introduced 1875-1899. Frequent throughout our area. Beaverton (*Alverson, 1987*, OSC), Sauvie Island (*Halse, 1981*, OSC; Marttala et al. 2002). |
| *Grindelia columbiana* [*Grindelia nana* var. *discoidea, Grindelia nana* var. *integrifolia*] | Columbia River gumweed. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969). Reported from Portland by Abrams and Ferris (1923-1960, as *G. nana* ssp. *columbiana*), probably referring to Nuttall's specimen. | Native, rare. No recent reports from our area, and voucher specimens not found. |
| *Grindelia integrifolia* | Willamette Valley gumweed. Not listed by Gorman or Nelson. Collected near Fort Vancouver in 1834-1835 by Nuttall (1841, as *Grindelia virgata*), on Willamette Heights by Sheldon in 1902, and in downtown Portland by Sheldon in 1902 and 1903 (OSC). | Native, rare. In our area known only from Elk Rock Island. Hybridizes with *G. nana*. |
| *Grindelia nana* | **Small gum-plant. Stream banks, Willamette River above Milwaukie. June-August.** Collected near Fort Vancouver in 1834-1835 by Nuttall (1841), at Lower Albina by Sheldon in 1902, and at Portland by Gilkey in 1935 (OSC). | Native, rare. Possibly seen along the Springwater Corridor Trail near Beggar's-tick Wildlife Refuge, but unconfirmed (*Marttala*). Otherwise not presently known from our area. Hitchcock et al. (1955-1969) considered it to be introduced in NW Oregon and W Washington. Hybridizes with *G. integrifolia*. |
| *Helenium autumnale* | **[*Helenium autumnale grandiflorum*]. Western sneezeweed. Common in moist ground. East Portland, Albina, St. Johns, Columbia Slough, Oak Grove, etc. August-October.** Collected on the banks of the Columbia and Willamette Rivers by Nuttall in 1834-1835 (Nuttall 1841, as *Helenium grandiflorum*), and repeatedly in and around Portland between 1880 and 1932 (OSC). | Native. Frequent around seasonally flooded areas on floodplains of the Columbia and Willamette rivers. Sauvie Island, Vancouver Lake lowlands, NE 185$^{th}$ and Marine Drive (*Kral, 1996*, HPSU). It has survived grazing and farming in these areas, but not industrial and urban development. |
| *Helianthus annuus* | Common sunflower. Not listed by Gorman or Nelson. Collected at Lower Albina by Gorman in 1919, and near a railroad at Linnton by Peck in 1926 (OSC). | Native. No recent reports from our area as naturalized, but it is a common garden plant. |
| *Hemizonia pungens* [*Centromadia pungens* ssp. *pungens*] | Common tarweed. On ballast at Linnton (Nelson 1917). | Native, rare. No recent reports from our area. Hitchcock et al. (1955-1969) indicated that it was introduced here, but Hickman (1993) treated it as native. |
| *Heterotheca villosa* [*Chrysopsis villosa*] | **Hairy golden aster. River banks near Oswego. Rare here. June-August.** | Native, rare historically and rare today. No recent reports from our area. |

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| *Hieracium albiflorum* | **White hawkweed. Open woods. Macleay Park** [Gorman and Sheldon 1905]**, Cornell Road, Mt. Tabor, Mt. Scott, etc. June-August.** Collected around Fort Vancouver by Nuttall in 1834-1835, where "common" (Nuttall 1841), on Sauvie Island by the Howells in 1875 and 1886, around Portland by Henderson in 1882, along Cornell Road by Sheldon in 1902, at Gladstone Park by Sweetser in 1905, and at the Linn Street moorage on the Willamette River by French in 1963 (OSC). | Native, rare. In our area known only from Camassia Preserve (Horvath 1993), Willamette Narrows (Smyth 1999b), Clackamas River Bluffs (Christy et al. 2007), and slopes above lower Salmon Creek in Clark County (*Gaddis*). Reported from St. Mary's Woods (Walthall, OFP). |
| *Hieracium bolanderi* | **Bolander's hawkweed. On open rocky slopes. Near Multnomah Falls, etc. June, July.** | Native, rare. No recent reports from our area, and voucher specimens not found. Restricted to SW Oregon. It may have occurred in Portland as a railroad weed, or Gorman may have confused it with another *Hieracium*. |
| *Hieracium laevigatum* | Smooth hawkweed. Not listed by Gorman or Nelson. Not documented from Oregon, and first Washington specimens (King County) collected in 2007 (WTU). | Exotic. Introduced 2000-2008. Occasional in our area on disturbed sites. Junction of Interstates 5 and 205 in Clark County (*Gaddis*). Much less common than *H. caespitosum* and *H. pilosella*. |
| *Hieracium murorum* | Wall hawkweed. Not listed by Gorman or Nelson. Collected in open grassy areas on Council Crest by Robert Ornduff in 1960, where "very abundant and spreading" (OSC; Zika 2002). | Exotic, rare. Introduced 1950-1974. In our area known only from Ornduff's collection at Council Crest. This problematic specimen has had a variety of recent annotations, including *H. lachenalii*. |
| *Hieracium pilosella* | Mouse-ear hawkweed. Not listed by Gorman or Nelson. First collected in our area from a lawn on SW Ravensview Drive by Ornduff in 1960 (OSC). | Exotic, rare. Introduced 1950-1974. No recent reports from our area, and not seen since Ornduff's original collection. |
| *Hieracium scouleri* | **Scouler's hawkweed. Prairie tracts and open places, Tualatin Plains. June-August.** Collected near the Willamette River by Nuttall in 1834-1835, where "common" (Nuttall 1841), and on Sauvie Island by Thomas Howell in 1886 (OSC). | Native, rare. No recent reports from our area. |
| *Hieracium umbellatum* | Narrowleaf hawkweed. Collected in forests near the Willamette River by Nuttall in 1834-1835 (Nuttall 1841, as *H. macranthum*). On ballast at Linnton, where "very rare" (Nelson 1917, as *H. canadense*). Collected three times on Sauvie Island by Howell between 1878 and 1890 (OSC). | Native, rare historically and rare today. In our area known only from Hoyt Arboretum (*Zika; Reynolds,* HPSU). Early collections called *H. canadense* were later renamed *H. umbellatum*. |
| *Hypochaeris glabra* | Smooth catsear. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Lane and Marion counties as early as 1916 and 1918 (OSC). | Exotic. Introduced 1900-1924. Common on dry, disturbed sites in our area. |
| *Hypochaeris radicata* | **Gosmore, Russian dandelion, pig-root. A very common and troublesome weed in meadows, pastures, lawns, parks, streets, waysides, and waste places everywhere around Portland. Naturalized from Eurasia. April-October.** Introduced here about 1844 (Appendix B). Collected by Sheldon at Lower Albina and Portland in 1902 and 1903, and on ballast at Linnton (OSC; Nelson 1917). | Exotic. Introduced 1825-1849. Ubiquitous in our area. |

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| *Inula helenium* | **Elecampane. Roadsides and waste places. Albina, East Portland, etc. Naturalized from Europe. July-September.** Collected on Sauvie Island by Howell in 1887, at Riverdale by Sheldon in 1903, and at Lake Grove by Gorman in 1919 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Still present in the Columbia Gorge, beyond our limits (*Alverson*). Widely available on the internet. |
| *Iva axillaris* | **Alkali-weed. Infrequent on ballast grounds and along railroad tracks. Albina and East Portland. Fugitive from eastern Oregon. May-September.** Collected in rail yards at Lower Albina by Howell in 1887, and by Sheldon in 1902 (OSC). | Native, rare historically and rare today. No recent reports from our area. |
| *Lactuca biennis* | Tall blue lettuce. Not listed by Gorman or Nelson. Collected on Canyon Road by Gorman in 1919 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Lactuca canadensis* | **Wild lettuce. Moist woods. Oswego, Milwaukie, etc. June-October.** | Native, rare. No recent reports from our area, and voucher specimens not found. The only known voucher from Oregon was collected at Corbett in the Columbia Gorge (*Chambers, 1964*, OSC). |
| *Lactuca serriola* | **[*Lactuca scariola integrata*]. Prickly lettuce. A common, troublesome weed in fields, waste places, and newly disturbed ground around Portland. Naturalized from Europe. June-September.** Collected at Albina by Suksdorf in 1909, on ballast at Linnton by Nelson, where "one of our worst weeds," and at East Portland by Thompson in 1926 (WTU; Nelson 1917). Though not documented from our area until 1909, Howell (1897-1903) reported it as "becoming common." | Exotic. Introduced 1875-1899. Common on disturbed ground throughout our area in both heavily urbanized areas and agricultural zones. For many years this weed was also called *L. scariola*, and the var. i*ntegrata* was used for specimens with more or less entire leaves. The variety may represent a hybrid between *L. serriola* and the common garden lettuce *L. sativa*, fertile hybrids of which are "readily produced" (Hitchcock et al. 1955-1969). Today, *L. scariola* var. *integrata* is treated as a synonym of *L. sativa.* Historical specimens named *L. scariola* var. *integrata* by Gorman and Nelson were prickly, weedy, and clearly referable to *L. serriola*. However, in the days before sterile hybrids came to dominate agriculture, *L. sativa* occasionally did go wild. Howell (1897-1903) reported it as a railroad weed in S Oregon but "hardly naturalized," and Suksdorf collected it at Bingen in 1903 (WTU). There are no recent specimens of naturalized *L. sativa* in any regional herbaria, and no reports from our area, but fertile hybrids with *L. serriola* may still exist. |
| *Lactuca tatarica* var. *pulchella* [*Mulgedium pulchellum*, *Lactuca tatarica* ssp. *pulchella*, *Lactuca pulchella*] | **Blue lettuce. Moist ground. Columbia River near mouth of Willamette River, Vancouver, etc. A native weed inclined to spread in cultivated ground if neglected. May-September.** Collected on Sauvie Island by Howell in 1887 (OSC). | Native, rare. No recent reports from our area. |
| *Lapsana communis* | **Nipplewort. Roadsides and waste places. Cornell Road, East Portland, Sauvie Island, etc. Naturalized from Europe. June-August.** Collected several times around Portland between 1881 and 1938 (OSC). | Exotic. Introduced 1875-1899. Common in dry forest, yards, and along roadsides throughout our area. It quickly colonizes areas where *Hedera* recently has been removed, and often occurs with *Alliaria petiolata*. |

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| *Lapsanastrum apogonoides* [*Lapsana apogonoides*] | Japanese nipplewort. Not listed by Gorman or Nelson. Collected on Sauvie Island by Constance and Beetle in 1940 (OSC; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1925-1949. No recent reports from our area. |
| *Leontodon saxatilis* [*Leontodon taraxacoides, Leontodon nudicaulis* ssp. *taraxacoides*] | Hairy hawkbit. Not listed by Gorman or Nelson. Collected in a lawn near Reed College by French in 1961 (OSC). | Exotic. Introduced 1950-1974. Very common in our area on dry, disturbed sites. Tualatin River NWR (Maffitt et al. 2005-2008). Reported from Tualatin Hills Nature Park and Tryon Creek State Park (*Bluhm*, *1996,* OFP). |
| *Leucanthemum vulgare* [*Chrysanthemum leucanthemum*] | **[*Chrysanthemum leucanthemum pinnatifidum*]. Ox-eye daisy. A very common and pernicious weed in fields, pastures, and waste places everywhere about Portland. May-November.** First collected in our area at Fort Vancouver by Garry (Hooker 1829-1840). Collected several times around Portland between 1888 and 1934, and on ballast at Linnton (OSC; Nelson 1917). | Exotic. Introduced 1825-1849. Ubiquitous in our area. Frequently included in commercial wildflower seed mixes. |
| *Madia elegans* | **[*Madaria elegans*]. Large madaria. Hillsides west of Oregon City (south of paper mill). July-October.** Collected in prairie near Willamette Falls and on the banks of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841, as *Madaria racemosa* and *Madorella racemosa*; Hitchcock et al. 1955-1969), and at Willamette Falls and Oregon City by Henderson, Thomas Howell, and Sheldon between 1885 and 1903 (OSC). | Native. Occasional in our area on roadsides and in open areas. |
| *Madia exigua* | **[*Harpaecarpus madarioides*]. Lesser tarweed. Not uncommon in open woods around Portland. June-August.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841; Hitchcock et al. 1955-1969), and around Portland and at Lower Albina by Howell, Henderson, and Sheldon between 1883 and 1902 (OSC). Macleay Park (Gorman and Sheldon 1905, as *Harpaecarpus exigua*). | Native, rare. In our area known only from Camassia Preserve (Horvath 1993) and St. Helens (Pierce 2003), the latter beyond our limits. |
| *Madia glomerata* | **Small-flowered tarweed. Common in neglected fields and waste places. Milwaukie, Oregon City, etc. July-September.** Collected at Willamette Heights and on ballast at Lower Albina by Sheldon in 1902 (OSC). | Native. Occasional throughout our area on roadsides and in fields. |
| *Madia gracilis* | **[*Madia racemosa*]. Gum-weed. Common in vacant lots, waste places, and freshly disturbed soil about Portland. July-September.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and several times in and around Portland between 1881 and 1904 (OSC). | Native. Occasional on roadsides throughout our area. |

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| *Madia sativa* | **Chile tarweed. Vacant lots and waste places around Portland. Not so abundant as** [*M. gracilis*]**. July-September. [*Madia capitata*]. Stout tarweed. Common in neglected fields, waste places, fills, and freshly disturbed ground about Portland, Milwaukie, Oregon City, etc. July-September.** Collected on Sauvie Island near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969). | Native. Occasional on dry roadsides and waste places throughout our area. Sauvie Island, Clark County (*Gaddis*). |
| *Matricaria discoidea* [*Matricaria matricarioides*] | **[*Matricaria suaveolens*]. Pineapple-weed. Common on roadsides, fields, pastures, and waste places around Portland. Native of the Pacific Coast but in habit resembles an introduced weed in every way. May-August.** Collected several times in and around Portland between 1888 and 1922, and on ballast at Linnton (OSC; Nelson 1917). | Native. Ubiquitous on exposed disturbed soils. |
| *Matricaria recutita* [*Matricaria chamomilla*] | **Wild chamomile. Ballast grounds, roadsides, and waste places around Portland and Oregon City. Adventive from Europe. June-August.** Reported from ballast "near Portland" by Hitchcock et al. (1955-1969), presumably at Lower Albina, or Linnton by Suksdorf, Sheldon, or Nelson. | Exotic. Introduced 1875-1899. Common in our area in disturbed habitats. |
| *Microseris laciniata* ssp. *leptosepala* [*Microseris laciniata*] | **[*Scorzonella leptosepala*]. Long-awned scorzonella. Moist slopes. Elk Rock, Mt. Scott, etc. May-July. [*Scorzonella laciniata*]. Leafy scorzonella. Prairie tracts and waste places. Oregon City, Beaverton, etc. May-July.** Collected around Fort Vancouver by Garry and in prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841, as *Scorzonella laciniata* and *S. leptosepala*; Hitchcock et al. 1955-1969), on the Tualatin Plains by Henderson in 1881, above Oswego and near Willamette Falls by Henderson and Sheldon between 1887 and 1903, and on or near Mt. Scott by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). |
| *Mycelis muralis* [*Lactuca muralis*] | Wall-lettuce. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Marion County as early as 1942 (OSC). | Exotic. Introduced 1925-1949. Frequent to common along shaded trails and roadcuts in coniferous and deciduous forest, and as a garden or yard weed. Powell Butte (*Marttala*), Hoyt Arboretum and Forest Park (*Christy, 2007*), N end of Sauvie Island (Marttala et al. 2002), St. Mary's Woods (*Walthall*, OFP), Tualatin Hills Nature Park (*Bluhm*, OFP). A shade-tolerant weed and potentially invasive pest. |
| *Oncosiphon suffruticosum* [*Matricaria suffruticosa*] | **[*Matricaria multiflora*]. Cape chamomile. Ballast grounds and waste places, Lower Albina. Adventive from South Africa. June-August.** Collected on ballast at Lower Albina by Sheldon in 1902 (OSC; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |

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| *Packera macounii* [*Senecio macounii*] | **[*Senecio fastigiatus*]. Flat-topped senecio. Open woods, Rock Island opposite Elk Rock. May-July.** Collected in prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841; Hitchcock et al. 1955-1969), and along the Sandy River by Henderson in 1885 (OSC), the latter at the edge of our limits. | Native, rare. Reported by Bruce Newhouse from Iron Mountain Park in Lake Oswego, but needing confirmation. |
| *Petasites frigidus* | **[*Petasites speciosa*]. Western sweet coltsfoot. Common on moist ground and stream banks. Macleay Park, Balch Creek** [Gorman and Sheldon 1905, as *P. palmata*]**, Barnes Road, Canyon Road, etc. March-May.** Collected along the Columbia and Willamette Rivers in 1834-1835 by Nuttall (1841, as *Nardosmia speciosa*), at Oregon City by an unnamed botanist in 1898, and on Willamette Heights by Sheldon in 1902 (OSC). | Native. Occasional in early-season wet spots in coniferous and mixed forest throughout our area. Forest Park (Houle 1996), Reed College canyon (Moreira and Stafford 1996), Humphrey Boulevard (*Christy, 1995*), Sandy River near the Stark Street Bridge. |
| *Prenanthes alata* | Western rattlesnakeroot. Not listed by Gorman or Nelson. Collected "near" Fort Vancouver by Scouler in 1825 (Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area, and voucher specimens not found. Present in the Columbia Gorge (the closest being Latourelle Falls, *Gilkey, 1933*, OSC), the Cascades, and the Coast Range. Scouler's locality could have been anywhere within 50 miles of Fort Vancouver and in fact *P. alata* may never have occurred in the metro area. |
| *Pseudognaphalium canescens* ssp. *microcephalum* [*Gnaphalium canescens* ssp. *thermale*, *Gnaphalium microcephalum* var. *thermale*] | Wright's cudweed. Not listed by Gorman or Nelson. | Native, rare. In our area known only from the boat launch at Smith and Bybee Lakes. |
| *Pseudognaphalium luteoalbum* [*Gnaphalium luteoalbum*] | Jersey cudweed. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC; Hitchcock et al. 1955-1969; Halse 2007). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Pseudognaphalium stramineum* [*Gnaphalium stramineum, Gnaphalium chilense*] | **Sprengel's cudweed. Moist stream banks, St. Johns. June-August.** Collected on Sauvie Island by Nuttall in 1834-1835 (Nuttall 1841, as *Gnaphalium luteo-album* var. *occidentale*; Hitchcock et al. 1955-1969) and Thomas Howell in 1880, at Lower Albina by Sheldon in 1902, and in SW Portland by Gorman in 1924 (OSC). | Native, rare. In our area known only from North Portland (*Schooler, 2001*, OSC). Reported from Tryon Creek State Park (*Bluhm*, *1996,* OFP) and Troutdale (*Wilson*). |
| *Psilocarphus elatior* | **Stout woolyheads. Infrequent on low ground. East Portland, Sunnyside, Vancouver, etc. June-August.** Collected several times in and around Portland by Joseph Howell, Henderson, and Sheldon between 1875 and 1903 (HPSU, OSC). | Native, rare historically and rare today. In our area known only from Gotter Prairie on the Tualatin River. On the Tualatin River floodplain near Forest Grove, somewhat beyond our limits. |

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| *Psilocarphus oregonus* | **[*Psilocarphus oreganus*]. Oregon woolyheads. Common on low ground and roadsides around Portland. June-August.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841; Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area. Hitchcock et al. (1955-1969) restricted it to E of the Cascades and dismissed Nuttall's report as an error. However, given the historical presence of other eastside species in the metro area and correctly-named specimens of *P. oregonus* elsewhere in western Oregon at OSC, it seems perfectly possible that Nuttall found it here. A specimen so named at HPSU collected on Sauvie Island (*Joseph Howell, 1875*) is *Psilocarphus elatior*. |
| *Rudbeckia* sp. | *Rudbeckia* is one of eight genera that Gorman added to his manuscript in December 1915, but the missing pages of *Muhlenbergia* make it impossible to know which species he had in mind. Historical voucher specimens from our area not found. | Native, rare. Gorman most likely would have found *R. occidentalis* in our area. Many species are used in landscaping but none are known to have naturalized in the Portland area. |
| *Senecio integerrimus* var. *ochroleucus* [*Senecio integerrimus* var. *exaltatus* in part] | **[*Senecio exaltatus ochraceus*]. Heart-leaved senecio. On sandy ground, Sauvie Island. May-July.** Collected in prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841, as *S. exaltatus* and *S. cordatus*; Hitchcock et al. 1955-1969), at Portland by Henderson in 1888 (OSC), "on sandy hills, Sauvie Island near the mouth of the Willamette River" (Howell 1897-1903, as *S. cordatus*), and at Pacific University in Forest Grove by Dickson and Drake in 1886 (OSC), the latter beyond our limits. | Native, rare. In our area known only from Coffee Lake, just beyond our limits. Specimens from our area previously identified as var. *exaltatus* were later renamed var. *ochroleucus*. |
| *Senecio jacobaea* | Tansy ragwort, stinking willie. Collected on ballast at Linnton and in rail yards at Portland where "thoroughly established" (*Nelson*, *1922, OSC; Thompson*, *1927*, OSC; Nelson 1916, 1917, 1918a, 1923a). Nelson predicted it would persist in the regional flora. | Exotic. Introduced 1900-1924. A ubiquitous weed in our area but much reduced over the last 25 years because of effective biocontrol. The fact that Nelson found it well established on ballast but that Gorman (1916-1917) didn't report it suggests that it was a recent arrival in Portland. |
| *Senecio sylvaticus* | **Lowland groundsel. Not uncommon in moist glades and low ground. St. Johns, Sauvie Island, etc. Naturalized from Europe. May-September.** Collected on ballast at Linnton, where "becoming common" (Nelson 1917), and near Durham Station by O'Rourke in 1954 (OSC). | Native, rare. Occasional around the edges of wetlands on the Columbia and Willamette River floodplains. Sandy River delta (*Zika et al., 1992*, OFP), Beaverton (*Smith, 2005*, OSC), bottomlands near Scappoose (*Christy, 2005*), N end of Sauvie Island (Marttala et al. 2002). |
| *Senecio viscosus* | Sticky ragwort. On ballast at Linnton (Nelson 1916, 1917; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Senecio vulgaris* | **Groundsel. A very common weed in fields, waste places, and recently disturbed ground everywhere around Portland. Naturalized from Europe. February-May.** Collected several times in and around Portland between 1880 and 1925 (OSC). | Exotic. Introduced 1875-1899. Very common on freshly disturbed soils throughout our area. |

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| *Sericocarpus oregonensis* [*Aster oregonensis*] | **Oregon white-topped aster. Open gravelly tracts near Arleta, Lents, etc. July-September.** Collected around Fort Vancouver in 1834-1835 by Nuttall (1841), at East Portland by Henderson in 1885 and 1886, at Lower Albina by Sheldon in 1902, and at East Portland by Thompson in 1926 (OSC, WTU). | Native, rare. In our area known only from Cooper Mountain. |
| *Sericocarpus rigidus* [*Aster curtus*] | **Stiff white-topped aster. Dry grassy slopes. Mt. Scott, Powell Valley Road, etc. July-September.** Reported as "abundant" and "common" around Fort Vancouver in 1825-1827 and 1834-1835 by Douglas (Hooker 1829-1840) and Nuttall (1841). Collected at East Portland, St. Johns, and Lower Albina by Sheldon and Henderson between 1880 and 1902 (OSC). | Native, rare. In our area known only from Camassia Preserve (Alverson 1991). |
| *Silybum marianum* | **Milk thistle. Infrequent on waysides and waste places. Lower Albina and Vancouver. Naturalized from southern Europe.** Collected on ballast at Portland by Henderson and Sheldon in 1886 and 1902 (OSC), on ballast at Linnton (Nelson 1917), along railroad tracks N of Vancouver by Thompson in 1926, and in Gresham by Frandeen in 1955 (OSC). | Exotic, rare. Introduced 1875-1899. In our area known only from St. John's and Bridgeton Slough, along lower Columbia Slough. It has established small colonies that are being treated with herbicides, but the populations are reportedly contained. |
| *Solidago canadensis* var. *salebrosa* [*Solidago elongata*] | **[*Solidago elongata*]. Long-plumed goldenrod. Open fields, waste places, and along fences. East Portland, Mt. Tabor, Base Line Road, etc. July-October.** Collected numerous times throughout our area between 1834 and 1918 (OSC; Nuttall 1841; Gorman and Sheldon 1905; Nelson 1917, as *S. lepida*; Hitchcock et al. 1955-1969). | Native. Common throughout our area on roadsides and in clearings. Cedar Mill Creek, Tryon Creek State Park. |
| *Solidago gigantea* | **[*Solidago serotina*]. Late goldenrod. Moist rich ground. Swan Island, Columbia Slough, etc. July-October.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840), on Sauvie Island and on the banks of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841), on Mt. Tabor by Sheldon in 1902, and on Sauvie Island by Peck in 1926 (OSC). | Native, rare. No recent reports from our area. Similar to and sometimes mistaken for *S. canadensis*, which has minutely hairy stems and inflorescences. Mostly E of the Cascades. |
| *Solidago missouriensis* | Missouri goldenrod. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Ramsey Lake (*Schooler, 2001*, OSC) and reported from Troutdale (*Wilson*, OFP). Frequently misidentified as *S. canadensis*. |
| *Solidago simplex* ssp. *simplex* var. *simplex* [*Solidago simplex* var. *simplex*, *Solidago spathulata*] | **[*Solidago glutinosa*]. Gummy goldenrod. Open fields, fence corners, and waste places. East Portland, etc. August-October.** Collected in prairies along the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841), several times in or near Portland by Henderson and Thomas Howell between 1881 and 1887, and by Flinn in 1910 and 1917 (HPSU, OSC). | Native, rare. No recent reports from our area. Most records are from E of the Cascades. |
| *Sonchus arvensis* | **Field sow-thistle. Common in fields, filled ground, and waste places about Portland. Naturalized from Europe. June-October.** | Exotic. Introduced 1875-1899. Common throughout our area. |

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| *Sonchus asper* | **Spiny sow-thistle. Common in neglected fields, roadsides, and waste places about Portland. Naturalized from Europe. May-October.** On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Common throughout our area in agricultural and dry waste areas. |
| *Sonchus oleraceus* | **Common sow-thistle. Fields, vacant lots, and waste places about Portland. Naturalized from Europe. May-October.** On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Common throughout our area in dry waste areas. |
| *Symphyotrichum eatonii* [*Aster eatonii*] | Eaton's aster. Not listed by Gorman or Nelson. | Native, rare. Known in our region only from Clear Creek (*Smyth, 1999*), but voucher specimens not found and needing verificaton. |
| *Symphyotrichum frondosum* [*Brachyactis frondosa, Aster frondosus*] | Short-rayed alkali aster. *Symphyotrichum* [as *Brachyactis*] is one of eight genera that Gorman added to his *Muhlenbergia* manuscript in December 1915. The pages missing from the journal make it impossible to know which species he had in mind, but in Gorman (1916) he identified it as *S. frondosum*. It was one of a number of species that he thought had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Native, rare. No recent reports from our area. Restricted to E of the Cascades. |
| *Symphyotrichum hallii* [*Aster hallii*, *Aster chilensis* ssp. *hallii*] | **Hall's aster. On gravelly plains, Gladstone. June-August.** Collected on the Tualatin Plains in 1880, probably by Howell, and on or near Mt. Scott by Sheldon in 1902 (GH, OSC, US; Sheldon 1903, as *A. mucronatus*; Hitchcock et al. 1955-1969). Formerly near the intersection of Bryant and Jean Roads, and along SW Central Avenue near Lake Oswego (*French, 1963*, OSC). | Native, rare. In our area known only from Clear Creek above the Clackamas River, Camassia Preserve (*Trask & Abrams, 2001*, HPSU), Tualatin River NWR (*Maffitt, 2004),* Apache Bluff (*Schooler, 2004*, OSC), and a remnant prairie near Camas (*Gaddis*). |
| *Symphyotrichum laeve* var. *geyeri* [*Aster laevis* var. *geyeri*] | Smooth blue aster. Not listed by Gorman or Nelson. | Native. Collected on fill on the Willamette River floodplain by Nevers in 2004 (OSC). Native to other western states and provinces but not otherwise known from Oregon except for a coastal specimen collected by Peck in 1947. |
| *Symphyotrichum subspicatum* [*Aster subspicatus*] | **[*Aster oreganus*]. Oregon aster. Wet places. University Park, St. Johns, etc. July-September. [*Aster douglasii*]. Douglas' aster. Common in bottom-lands and moist ground everywhere around Portland. July-October.** Common in 1834-1835 in "inundated tracts" along the Columbia and Willamette rivers (Nuttall 1841, as *Aster douglasii* and *Tripolium oregonum*). Collected numerous times around Portland between 1886 and 1922 (GH, NY, OSC, WTU; Sheldon 1903, as *A. umbraticus*; Nelson 1917, as *A. douglasii*, and "abundant;" Hitchcock et al. 1955-1969), including Elk Rock. | Native. Occasional in moist riparian areas throughout our area. Morand Unit of Tualatin River NWR (*Maffit, 2008*). |
| *Tanacetum balsamita* [*Chrysanthemum balsamita*] | Costmary. Not listed by Gorman or Nelson. Collected at East Portland by Gorman in 1920, and at Portland by Cummings in 1955 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Tanacetum corymbosum* | **[*Chrysanthemum corymbosum*]. Flat-topped daisy. Infrequent on ballast grounds and waste places, Lower Albina. Adventive from Europe. June-October.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |

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| *Tanacetum parthenium* | Feverfew. Not listed by Gorman or Nelson. Collected in East Portland by Thompson in 1927 (WTU). | Exotic, rare. Introduced 1900-1924. Reported from Hayden Island by Wilson (OFP). |
| *Tanacetum vulgare* | **Tansy. Infrequent on roadsides and waste places about Portland. A garden escape. Introduced from Europe. July-September.** On ballast at Linnton, as "occasional" (Nelson 1917). | Exotic. Introduced 1900-1924. Frequent in our area on dry disturbed soils. |
| *Taraxacum officinale* | **Dandelion. A very common, though not unsightly weed in fields, pastures, lawns, parks, streets, waysides, and waste places everywhere about Portland. Naturalized from Europe. June-November.** | Exotic. Introduced 1875-1899. Ubiquitous in our area in agricultural areas, disturbed ground, and lawns. |
| *Tragopogon dubius* | Yellow salsify. Not listed by Gorman or Nelson. Collected at Kelley Point Park by Erickson in 1979 (HPSU), but known from Salem as early as 1922 (OSC). | Exotic. Introduced 1900-1924. Common in our area along dry roadsides and disturbed areas. Interstate 5 S of downtown, and along 26th Avenue S of Holgate (*Brehm,* ca*. 2000*). |
| *Tragopogon porrifolius* | **Oyster plant, salsify. Infrequent in open grassy places. SW corner of 23rd and Overton Streets, Portland Heights, Albina, etc. Sparingly escaped from cultivation. Introduced from Europe. May-August.** Collected at NW 24th and Raleigh Street by Gorman in 1926 and at Tigard by Scheckla in 1956 (OSC). Reed College (Van Dersal 1929, as *T. porrifolia*). | Exotic. Introduced 1900-1924. Occasional to infrequent throughout our area on disturbed soils. SE 24th and Holgate (*Brehm,* ca*. 2000*). |
| *Tragopogon pratensis* | Jack-go-to-bed-at-noon. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Lane County by Peck as early as 1916 (OSC). | Exotic. Introduced 1900-1924. Occasional in our area on disturbed soils. Along railroad tracks near SE 24th and Holgate (*Brehm*, ca*. 2000*), Hayden Island (*Wilson*, OFP). |
| *Tripleurospermum inodorum* [*Tripleurospermum perforatum, Matricaria maritima*] | False mayweed. Not listed by Gorman or Nelson. Collected several times on ballast at Lower Albina and Linnton by Sheldon, Gorman and Nelson between 1902 and 1922 (OSC). Nelson (1917, 1920a, 1923a, as *Matricaria inodora*) found it "established over the entire area and escaping to the adjoining territory," and thought it would persist in the regional flora. | Exotic, rare. Introduced 1875-1899. In our area known only from Aloha at SW 198th and Butternut Creek (*Smith, 2005*, OSC). |
| *Wyethia angustifolia* | California compassplant, wyethia. Not listed by Gorman or Nelson. Collected in prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841, as *Wyethia robusta*; Hitchcock et al. 1955-1969), and around Portland and the Tualatin Plains by Henderson in 1880 and 1882 (OSC). | Native, rare. No recent reports from our area. |
| *Xanthium spinosum* | **Spiny burweed, Chinese thistle. Low marshy ground and waste places. Guilds Lake, etc. Naturalized from southern Europe. June-September.** Collected at Portland by Henderson in 1882 and 1885 (OSC). On ballast at Linnton (Nelson 1917). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Xanthium strumarium* var. *canadense* | **[*Xanthium speciosum*]. Great cocklebur. Low moist ground, Columbia Slough, and on ballast grounds and waste places, Lower Albina. June-September.** On ballast at Linnton (Nelson 1917). | Native. Occasional throughout our area. Powell Butte, Tualatin River NWR (*Marttala*), along the shore of the Columbia River, and at the N end of Sauvie Island (Marttala et al. 2002). |

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| **Balsaminaceae** | | |
| *Impatiens capensis* | Jewelweed. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found. First collected in Washington in 1950 and in Oregon in 1961 (Ornduff 1966). | Exotic. Introduced 1950-1974. Common in wet areas along the Willamette and Columbia River bottoms, and tributaries. Spreading rapidly and hybridizing with native *I. ecalcarata* along the lower Columbia River (Ornduff 1966; Zika 2006a, 2006b). |
| *Impatiens glandulifera* | Policemen's helmet. Not listed by Gorman or Nelson. Collected near Gresham by Fleming in 1952 (OSC). | Exotic. Introduced 1925-1949. An escaped ornamental, known from several forested drainages on the W side of our area and along the Sandy River. Problematic in riparian areas. |
| **Berberidaceae** | | |
| *Achlys triphylla* | **Vanilla leaf, western May-apple. Common in open coniferous woods. Macleay Park** [Gorman and Sheldon 1905; *Flinn*, *1915*, HPSU]**, Mt. Tabor, Portland Heights, St. Helens Road, etc. April-June.** Collected near Fort Vancouver by Garry (Hooker 1829-1840), and repeatedly in our area between 1875 and 1916 in 1875 (Larsen 1912; Van Dersal 1929; Davies 1938; HPSU, OSC). | Native. Still common in coniferous woods throughout our area, but declining near the urban core because of competition from *Hedera helix* and *H. hibernica*. Forest Park (Houle 1996). |
| *Mahonia aquifolium* [*Berberis aquifolium*] | **Oregon grape. On open rocky ridges. Mt. Tabor, Rocky Butte, along Tualatin River, etc. Not nearly so common as the following species. March-May.** Collected at Fort Vancouver by Scouler in 1825 (Hooker 1829-1840), and repeatedly in our area between 1886 and 1928 (HPSU, OSC, WTU). Macleay Park, where "rather rare" (Gorman and Sheldon 1905). Reed College (Davies 1938). Available commercially in the West since 1894, and sold locally as early as 1912 (Adams 2004). | Native. Common throughout our area, and frequently used in enhancement projects because of its ability to grow in disturbed, compacted soils and full sun. Springwater Corridor Trail (*Marttala*), Reed College canyon (Moreira and Stafford 1996), Forest Park (Houle 1996). The Oregon State Flower, proposed by the Oregon Horticultural Society in 1892 and adopted by the state legislature in 1899 (Horner, 1919). |
| *Mahonia nervosa* [*Berberis nervosa*] | **Low Oregon grape, false Oregon grape. Common in open coniferous woods everywhere around Portland. March-May.** Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840), and several times in our area between 1882 and 1928 (HPSU, OSC, WTU). Macleay Park (Gorman and Sheldon 1905). Reed College (Van Dersal 1929; Davies 1938). | Native. Common in coniferous forest throughout our area. Leach Botanical Garden, Springwater Corridor Trail, Forest Park (Houle 1996), Reed College canyon (Moreira and Stafford 1996), Tualatin River NWR (*Maffitt*). Its abundance has declined over time because of competition from *Hedera helix* and *H. hibernica.* |
| *Vancouveria hexandra* | **Barrenwort, umbrella flower. Common in coniferous woods. Barnes Road, Cornell Road, Macleay Park** [Gorman and Sheldon 1905]**, Mt. Tabor, etc. April, May.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *Epimedium hexandrum*), and repeatedly in our area between 1882 and 1940 (HPSU, OSC, WTU; Larsen 1912). | Native. Common in coniferous woods throughout our area, where not overrun by *Hedera*. |
| **Betulaceae** | | |
| *Alnus incana* | **[*Alnus tenuifolia*]. Mountain alder. Moist ground and stream banks. Rocky Butte and near mouth of Sandy River. April, May.** | Native, rare. No recent reports from our area, and voucher specimens not found. More common at higher elevations in the Cascades. |

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| *Alnus rubra* | **[*Alnus oregona*]. Oregon alder**, red alder**. Common on moist ground. Macleay Park** [Gorman and Sheldon 1905]**, Lewis and Clark Fair Grounds, Car Shops, Fulton, etc. March, April.** Collected at the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and repeatedly in our area between 1886 and 1902 (HPSU, OSC, WTU). | Native. A common pioneer on moist, exposed mineral soils throughout our area, and widely planted in native landscaping. |
| *Alnus viridis* ssp. *sinuata* [*Alnus sinuata*] | Sitka alder. Not listed by Gorman or Nelson. Collected on Johnson Creek by Drake and Gorman in 1891, and at Troudale and Rocky Butte by Sheldon in 1903 (OSC). | Native, rare. In our area known only from an unverified report at Camassia Preserve, where it could possibly be *A. rhombifolia*. More common in higher-elevation wetlands in the Cascades. |
| *Betula pendula* | European white birch. Not listed by Gorman or Nelson. Historical voucher specimens not found, but common in subdivisions dating from 1935-1955. Available commercially in the West since 1880 (Adams 2004). | Exotic. Introduced 1875-1899. A common ornamental, escaping in roadcuts, old fields, and wetlands. Sandy River delta (*Zika, 1992,* OSC*; Halse, 1996,* OSC), Peach Cove Fen (*Christy, 1996*), Columbia Slough, Newell Canyon, Clackamas River floodplain (CWMA 2004), Cedar Mill Creek (*Zika*, OFP). In Clark County, it does well in wetlands with muck soils (*Gaddis*). |
| *Corylus avellana* | Common filbert. Not listed by Gorman or Nelson. Though not collected in Oregon until 1992 (OSC), filberts have been grown commercially in the Willamette Valley since 1892. | Exotic. Introduced 1875-1899. An escaped cultivar, common throughout our area. Particularly abundant in suburban areas where it is readily dispersed by birds and squirrels, and now more common than the native *C. cornuta.* |
| *Corylus cornuta* var. *californica* | **[*Corylus californica*]. Western hazelnut, hazel-nut. Common on hillsides and open woods everywhere around Portland. February-April.** Collected repeatedly around Portland between 1880 and 1902 (OSC). Macleay Park (Gorman and Sheldon 1905). | Native. Common throughout our area, but in suburban areas largely replaced by the exotic cultivar *C. avellana.* |
| **Blechnaceae** [*Blechnum* formerly in Polypodiaceae] | | |
| *Blechnum spicant* | **[*Struthiopteris spicant*]. Deer fern. Moist woods and stream banks. Macleay Park, St. Helens Road. May-July.** Collected on Sauvie Island by Howell in 1875, at Portland by Henderson and Howell in 1882 and 1887, and on Willamette Heights by Sheldon in 1902 (OSC). In the West Hills at 200 feet elevation (Van Dersal 1929). | Native, rare. Extremely scarce in our area except in relictual old-growth stands where it can be fairly common. Presumably decreased in part because of competition from *Hedera helix* and *H. hibernica*. Powell Butte (*Marttala*), Forest Park (Houle 1996; *Gaddis*), Cooks Butte (*Gaddis*). |
| **Boraginaceae** | | |
| *Amsinckia lycopsoides* | **Pale amsinckia. In rich alluvial soil, Sauvie Island. April, May.** Collected along the Willamette River by Henderson in 1884, and at Lower Albina by Suksdorf (Hitchcock et al. 1955-1969), Sheldon in 1902 and 1903, and Nelson in 1922 (OSC). | Native, rare. No recent reports from our area. |

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| *Amsinckia menziesii* var. *menziesii* | Menzies' fiddleneck. Not listed by Gorman or Nelson. Collected from cultivated ground on Sauvie Island by Joseph and Thomas Howell in 1875 and 1887 and by Peck in 1922, along White House Road by Henderson (undated), and along the Willamette River by Drake in 1888 (OSC). Also "near Portland" (Van Dersal 1929, as *Amsinckia intermedia*). | Native, rare. No recent reports from our area. More common farther S and widespread E of the Cascades. |
| *Amsinckia tessellata* | Bristly fiddleneck. Collected in railroad yards at Lower Albina by Nelson in 1922 (OSC). | Native, rare. No recent reports from our area. |
| *Argusia sibirica* [*Tournefortia sibirica*] | Siberian sea rosemary. Not listed by Gorman or Nelson. Collected at Peninsula Docks in St. Johns by Constance in 1936 (WTU; Hitchcock et al. (1955-1969), where reportedly on ballast). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Borago officinalis* | Common borage. Not listed by Gorman or Nelson. Probably long cultivated in our area, but the earliest voucher from elsewhere in the Willamette Valley is 1975 (OSC). | Exotic. Introduced 1950-1974. Occasional as an escaped garden plant on dry hillsides and shady disturbed sites. Burlington Bottoms, Willamette Bluffs, Cooper Mountain (*Kral, 1998*, HPSU), Barbur Boulevard (CWMA 2004). |
| *Cryptantha ambigua* | **Rough cryptantha. On dry hillsides, Oswego. May, June.** | Native, rare. No recent reports from our area, and voucher specimens not found. More common E of the Cascades. |
| *Cryptantha flaccida* | Weakstem cryptantha. Not listed by Gorman or Nelson. Collected at Willamette Heights by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. |
| *Cryptantha intermedia* | Clearwater cryptantha. "Not infrequent" in rocky woods, especially near Portland (Nelson 1920a, as *C. hendersonii*). Collected at Portland, Albina, Elk Rock, Oregon City, and along the Sandy River near the Columbia between 1881 and 1907 (OSC). | Native, rare. No recent reports from our area. |
| *Cryptantha sobolifera* | Waterton Lakes cryptantha. Not listed by Gorman or Nelson. Collected on or near Mt. Scott by Sipe in 1929 (OSC). | Native, rare. No recent reports from our area. |
| *Cryptantha torreyana* | Torrey's cryptantha. Not listed by Gorman or Nelson. Collected along the Willamette River below Lower Albina by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. |
| *Cynoglossum grande* | **Large hounds-tongue. Open conifer woods. Macleay Park** [Gorman and Sheldon 1905, where becoming rare]**, near Oswego, etc. March, April.** Collected along Cornell road, the banks of the Willamette River near the flour mills at Lower Albina, at Elk Rock, and at Oswego by Henderson, Sheldon, and Gorman, between 1886 and 1903 (OSC). Reed College, but "rare" in our area (Van Dersal 1929). | Native, rare. In our area known only from Cooper Mountain (*Kral, 1998*, HPSU), Kelly Butte (*Alverson, 2008*), along Greeley Boulevard in Portland (*Kimpo, 2001,* HPSU). Seen above SW Macadam Avenue near Edge Cliff Road in the 1980's (*Brunkow*) and at Dodge Park (*Poff & Marttala*), the latter just beyond our limits. Potentially confused with weedy *Anchusa azurea* and *Pentaglottis sempervirens* that occur further south in the Willamette Valley (*Liston*, *Newhouse*). |
| *Cynoglossum officinale* | Houndstongue, gypsyflower. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but first collected in Marion County in 1922 (OSC). | Exotic. Introduced 1900-1924. An escaped garden plant, occasional in our area forming small patches on dry exposed slopes. |
| *Heliotropium amplexicaule* | Clasping heliotrope. On ballast at Linnton (Nelson 1917, as *Cochranea anchusaefolia*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |

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| *Heliotropium curassavicum* var. *obovatum* | **Seaside heliotrope. Ballast grounds and waste places. Lower Albina, etc. This species is native on the coast or in saline soil in the interior, and is undoubtedly adventive here. May-September.** Collected at Portland by Suksdorf in 1901, and at Lower Albina by Sheldon in 1902 (OSC, WTU). | Native, rare. No recent reports from our area. Restricted to E of the Cascades. |
| *Mertensia platyphylla* | **Broad-leaved lungwort. Moist slopes, Elk Rock. May, June.** Collected on the Willamette River near Milwaukee by Drake in 1884, and in "rich, moist bluff bases" at Elk Rock by Henderson in 1884 and 1888 (OSC). | Native, rare. In our area known only from riparian forest along Salmon Creek upstream from Mill Creek in Clark County (*Gaddis, 1995*). Not relocated at Elk Rock (PPR 2004). It typically occurs on terraces of rich hardwood bottomlands (*Alverson*). |
| *Myosotis arvensis* | Field forget-me-not. Not listed by Gorman or Nelson. Henderson collected *M. arvensis* (= *M. scorpioides* var. *arvensis*) on Johnson ("Johnston") Creek in 1880 (OSC), and Gorman's reports of *M. scorpioides* probably refer to *M. arvensis*. | Native, rare. No recent reports from our area. Near Heisson Bridge over East Fork of the Lewis River, beyond our limits (*Gaddis*). It may be confused with *M. scorpioides* that is frequent in vernally wet and moist areas. |
| *Myosotis discolor* | **[*Myosotis versicolor*]. Varied scorpion-grass. Fields and waste places. Bybee Slough, etc. Naturalized from Europe. April-June.** Collected several times in our area between 1903 and 1938 (HPSU, OSC). | Exotic. Introduced 1875-1899. A common weed in moist to wet areas throughout our area, sometimes even in lawns (*Marttala*). |
| *Myosotis laxa* | **Smaller forget-me-not. Common in moist glades. St. Johns, Sauvie Island, etc. Probably introduced here. May-July.** Collected at the Car Works in East Portland by Henderson in 1888, and at Fulton, Riverdale, Oswego, and on Sauvie Island between 1892 and 1915 (OSC). Reed College (Van Dersal 1929). | Native. Occasional to common around our area in vernally-flooded depressions and ditches. Sauvie Island, Columbia River floodplain, Clark County. There is some question if this species is native. |
| *Myosotis scorpioides* | **[*Myosotis palustris*]. Forget-me-not. In boggy ground and wet places. Fulton, Oswego, etc. Escaped from cultivation. Naturalized from Europe. May-July.** | Exotic. Introduced 1875-1899. Very common on moist soils throughout our area. Some of Gorman's reports of *M. scorpioides* may refer to *M. arvensis*. |
| *Myosotis stricta* [*Myosotis micrantha*] | **Early forget-me-not. Roadsides and waste places. Oswego, Willamette Falls, etc. Naturalized from Europe. April-June.** Collected at Willamette Falls by Sheldon in 1903 (OSC). | Exotic. Introduced 1875-1899. Common on disturbed soil throughout our area. |
| *Myosotis sylvatica* | Woodland forget-me-not. Not listed by Gorman or Nelson. Collected at Macleay Park by Creager in 1979 (HPSU). | Exotic. Introduced 1975-1999. Occasional.as a garden escape. NE Portland (*Ramstem, 1982*, HPSU) and a garden in Washington County (*Miranda, 2001*, HPSU), the latter evidently still in cultivation. |
| *Myosotis verna* | **[*Myosotis macrosperma*]. Prairie scorpion-grass. Moist open glades, Sauvie Island. April-June.** Collected in Portland by Henderson in 1880, on Sauvie Island by Howell in 1881, 1883, and 1890, and along Johnson Creek and on or near Mt. Scott by Sheldon in 1903 and Thompson in 1926 (OSC, WTU; Larsen 1912). | Native, rare. In our area known only from the Dennis Unit of the Tualatin River NWR (*Maffitt, 2006*). Specimens from Gorman's era named *M. macrosperma* were later renamed *M. verna*. *Myosotis macrosperma* (= *M. verna* var. *macrosperma*) is restricted to the SE US. |
| *Pectocarya pusilla* | Little combseed. Not listed by Gorman or Nelson. Collected at Portland by Howell, undated (OSC). | Native, rare. No recent reports from our area. Native to SW Oregon and E of the Cascades, but presumably introduced at Portland. |

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| *Plagiobothrys figuratus* | Fragrant popcornflower. Not listed by Gorman or Nelson. Collected a number of times at Oswego, Oregon City, Gladstone, and along Johnson Creek on or near Mt. Scott between 1885 and 1939 (HPSU, OSC). | Native, rare. Infrequent in our area in wet prairies. Green Mountain (*Habegger, 1998*, WTU), Tualatin River NWR (*Maffitt*), Fifth Plain Prairie and Barberton (*Gaddis*), St. Helens (Pierce 2003), the last beyond our limits. |
| *Plagiobothrys nothofulvus* | Rusty popcornflower. Not listed by Gorman or Nelson. Collected near Willamette Falls by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. |
| *Plagiobothrys scouleri* | **[*Allocarya scouleri*]. Scouler's white forget-me-not. Wet places near Gladstone. May, June. [*Allocarya californica*]. California allocarya. Wet grassy glades. Sauvie Island, etc. April, May.** Collected at Oregon City by Thomas Howell in 1897 (Larsen 1912) and Bybee Slough and Lower Albina by Sheldon in 1903 (OSC). | Native. Occasional in our area. North Keys, Arrowhead Creek (*Kimpo*), NW 139th Street and 2nd Avenue in Clark County (*Gaddis*), S of Hillsboro Airport near Cornell Road (*Alverson, 1990*), Tualatin River NWR (*Maffitt*), Lovejoy property, SE of junction of Stafford Road and Interstate 5 (*Alverson*), St. Helens (Christy and Alverson 2001), the last beyond our limits. |
| *Plagiobothrys tenellus* | **Slender white forget-me-not. On dry ridges about Oswego. May, June.** Collected near Oswego by Thomas Howell in 1877 (OSC; Larsen 1912). | Native, rare. No recent reports from our area. |
| *Symphytum officinale* | Common comfrey. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1888 (OSC). | Exotic. Introduced 1875-1899. Occasional in our area as a garden escape. University of Portland (*Kimpo, 2001*, HPSU), Forest Park (*Nelson et al., 2003*, OSC), Aloha (*Smith, 2005*, OSC). |
| **Brassicaceae** [Cruciferae] | | |
| *Alliaria petiolata* [*Alliaria officinalis*] | Garlic mustard. Not listed by Gorman or Nelson. First collected in our area at Reed College by Robert Ornduff in 1959 (OSC), and probably the basis for the report from Portland in Hitchcock et al. (1955-1969), where "said to be well established." | Exotic. Introduced 1950-1974. Well-distributed in our area along roads and trails. Forest Park, West Hills, Oaks Bottom (*Marttala*), Johnson Creek, Reed College canyon (Moreira and Stafford 1996), Clark County (*Gaddis*), and into the Columbia River Gorge (*Nipp, 2009*). Shade-tolerant and invasive, it is spreading rapidly. Not yet reported from S of the Portland metro area. |
| *Arabidopsis thaliana* | **[*Sisymbrium thalianum*]. Mouse-ear cress. Common in fields and moist sandy and rocky places. Oak Grove, etc. Naturalized from Europe. April-June.** Collected along the Willamette River near Oswego by Gorman in 1905, and at Oregon City by Nelson in 1916 (OSC). Peck (1961) reported it as only "sparingly established" in the Willamette Valley. | Exotic. Introduced 1875-1899. Very common in our area in open areas and as a garden weed. |
| *Arabis eschscholziana* [*Arabis hirsuta* var. *eschscholziana*] | Eschscholtz's hairy rockcress. Not listed by Gorman or Nelson. Collected at City Park by Fleidner in 1889, at Portland by Drake in 1892, and at Elk Rock by Sheldon in 1903. | Native, rare. A segregate of *A. hirsuta*, with no recent reports from our area. Not relocated at Elk Rock (PPR 2004). |
| *Arabis glabra* [*Turritis glabra*] | **[*Arabis perfoliata*]. Tower mustard. On dry ridges and rocky places near Oswego. April-July.** Collected on Sauvie Island by Joseph Howell in 1875, near Albina by Henderson in 1884 and 1889, and at Willamette Falls by Sheldon in 1902 and 1903 (HPSU, OSC, REED). | Native, rare. No recent reports from our area. |

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| *Arabis hirsuta* | **Hairy rock cress. About base of rocky cliffs. Elk Rock. April-August.** Collected on Sauvie Island by Howell in 1878 and 1882, on the Sandy River by Henderson in 1886, and in Portland by Flinn in 1910 (HPSU, OSC). | Native, rare. In our area known only from Green Mountain (*Habegger, 1998*, WTU). Some historical material with this name was recently renamed *A. eschscholziana*. |
| *Athysanus pusillus* | **Hairy pod. Infrequent in rocky places. Elk Rock and near Oswego. March, April.** Collected on rocky banks near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), on the banks of the Willamette near Portland and at East Portland by Henderson in 1881 and 1884, and on rocky slopes on the S side of Oswego Lake by Gorman and Peck in 1919, where "not uncommon" (OSC; REED). | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). |
| *Barbarea orthoceras* | **[*Campe americana*]. Western yellow rocket. Common in fields and along stream banks about the city. April-June.** Collected several times on Sauvie Island by the Howells in 1876 and 1886, near Portland and at East Portland by Henderson and Dickson between 1882 and 1888, and at Beaverton by Shiniger in 1975 (HPSU, OSC, REED). | Native. Occasional in our area. Burlington Bottoms (*Christy, 1989*), Sandy River delta (*Zika, 1992*, OFP), N end of Sauvie Island (Marttala et al. 2002), Morand property (Maffitt et al. 2005-2008), Curtin Creek watershed near NE 72nd Avenue and St. Johns Road (*Gaddis*). |
| *Barbarea vulgaris* | Garden yellowrocket. Not listed by Gorman or Nelson. Historical voucher specimens for our area not found, but collected by Lund in Benton County in 1950 (OSC). | Exotic. Introduced 1950-1974. Occasional on disturbed sites. Tualatin River NWR (Maffitt et al. 2005-2008), NE 78th and Andreson in Clark County (*Gaddis*). |
| *Brassica juncea* | India mustard. Not listed by Gorman or Nelson. Collected at Portland by Suksdorf in 1900, and on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Brassica nigra* | **Black mustard. Common in fields and waste places around Portland. Naturalized from Europe. May-October.** | Exotic. Introduced 1875-1899. Very common and spreading rapidly on disturbed soils along roadways. Especially abundant along Interstate 205 between Oregon City and Wilsonville. |
| *Brassica rapa* [*Brassica campestris*] | **Wild turnip. Common in fields, vacant lots, and waste places about city. Introduced from Europe. April-October.** Collected in open fields at Portland by Henderson in 1888, on ballast at Lower Albina by Sheldon in 1902, and on ballast at Linnton (OSC, REED; Nelson 1917). | Exotic. Introduced 1875-1899. Common in our area. |
| *Camelina microcarpa* | Littlepod false flax. On ballast at Linnton (Nelson 1917). Collected near Oswego by Smith in 1957, and at Cornelius by Burkhart in 1956 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Camelina sativa* | Gold-of-pleasure. Not listed by Gorman or Nelson. Collected in East Portland by Joseph Howell in 1910 (HPSU, OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Capsella bursa-pastoris* | **[*Bursa bursa-pastoris*]. Shepherd's purse. Common weed in fields, lawns, roadsides, and waste places everywhere. Naturalized from Europe. February-November.** Collected on Sauvie Island by Joseph Howell in 1884 (HPSU), on ballast at Linnton (Nelson 1917), and at Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. A common weed throughout our area. |

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| *Cardamine angulata* | **Angular leaved cress. In moist woods. Balch Creek and near Linnton. April-June.** Collected near Fort Vancouver by Douglas and Scouler in 1825, where "not uncommon" (Hooker 1829-1840), at the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and several times around Sauvie Island and Portland between 1880 and 1915 (HPSU, OSC). Seen at Elk Rock by Marttala in 1976. | Native. Occasional in our area. Forest Park (Houle 1996), Tualatin Hills Nature Park, Tryon Creek State Park, and Dodge Park. |
| *Cardamine breweri* var. *orbicularis* | Sierra bittercress. Not listed by Gorman or Nelson. Collected near Portland by Henderson in 1880 and at Forest Grove by Leach in 1929, the latter somewhat beyond our limits (OSC). | Native, rare. No recent reports from our area. |
| *Cardamine californica* var. *integrifolia* [*Cardamine integrifolia* in part] | Pop-weed. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1882, and at Oaks Bottom by Larkin in 1979 (HPSU, OSC). | Native. Occasional in our area. Lovejoy property (*Kimpo*). |
| *Cardamine californica* var. *sinuata* [*Cardamine integrifolia* in part] | Milkmaids. Not listed by Gorman or Nelson. Collected about Portland in 1882 by Henderson (OSC). | Native, rare. In our area known only from NW Skyline Drive (*Norvell, 1988*, HPSU), Tualatin Hills Nature Park (*Bluhm*, OFP). |
| *Cardamine flexuosa* | Woodland bittercress. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1975-1999. In our area known only from Tualatin Hills Nature Park (Zika, 2003, OSC, WTU) and the NW end of Burnt Bridge Creek greenway (Zika, 2004, WTU). |
| *Cardamine hirsuta* | Hairy bittercress. Not listed by Gorman or Nelson. Collected on Sauvie Island by Joseph Howell in 1882 (HPSU). | Exotic. Introduced 1875-1899. A common weed thoughout our area. Usually misidentified as *C. oligosperma*, making its actual distribution uncertain. Burnt Bridge Creek (*Zika, 2003*, WTU). |
| *Cardamine nuttallii* var. *nuttallii* [*Cardamine pulcherrima, Dentaria tenella*] | **Small toothwort. Common in open woods in early spring. Macleay Park, Cornell Road, Mt. Tabor, Mt. Scott, Sellwood, etc. March-May.** Collected at the mouth of the Sandy River ("Columbia near quicksands") by Meriwether Lewis in 1806 (PH, lectotype; Coues 1898, Meehan 1898), around Portland by Henderson in 1882 (OSC). Reed College (Van Dersal 1929). Seen at Elk Rock by Marttala in 1976. | Native. Intermittent throughout our area, often in remnant oak woodlands. Camassia Preserve (Horvath 1993), Forest Park (Houle 1996, as *C. pulcherrima*), Powell Butte, Elk Rock (PPR 2004), Greeley Avenue (*Marttala*, seen several times), Hoyt Arboretum, Reed College canyon (Moreira and Stafford 1996), N end of Sauvie Island (Marttala et al. 2002), the Steinborn Unit of the Tualatin River NWR (*Maffitt, 2008*), and many sites in Clark County (*Gaddis*). Lewis' specimen was the first plant ever collected in our area by a Euro-american. |
| *Cardamine occidentalis* | **Western bitter cress. Wet places. Lower Albina, Milwaukie, Sauvie Island, etc. April-June.** Collected several times by Joseph Howell and Henderson on Sauvie Island, at Oregon City, and at Gladstone between 1882 and 1898 (Howell 1897-1903; Hitchcock et al. 1955-1969), and at Forest Grove by Leach in 1928 (HPSU, OSC). | Native. Occasional to locally common in our area on wet ground. Camassia Preserve (Horvath 1993), Green Mountain (*Bjork, 1997* and *Habegger, 1998*, WTU). Based on annotations at OSC, Gorman's (1916-1917) report of *C. pratensis* from shallow ponds and wet places near Milwaukie can be referred to *C. occidentalis* (= *C. pratensis* var. *occidentalis*). |

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| *Cardamine oligosperma* | **Annual cress. Under coniferous trees. Macleay Park, Mt. Tabor, etc. April-June.** | Native. The local distribution and abundance of *C. oligosperma* is uncertain because of long-time confusion with *C. hirsuta*. It is presumably less common than *C. hirsuta*. (*Liston*, *Zika*). |
| *Cardamine parviflora* var. *arenicola* | Sand bittercress. Not listed by Gorman or Nelson. Collected on ballast at Linnton by Suksdorf in 1912 (GH). | Exotic, rare. Introduced 1900-1924. In our area known only from the silty shore of Sturgeon Lake on Sauvie Island (*Zika, 2004*, WTU). Native to E North America. |
| *Cardamine penduliflora* | Willamette Valley bittercress. Not listed by Gorman or Nelson. | Native, rare. Authentic *C. penduliflora* reportedly does not occur N of Salem and local material may be referable to *C. occidentalis* (*Zika*), but a specimen from Beaverton (*Barclay, 1997*, HPSU) appears to be this species. Reports and specimens from Camassia Preserve (*Horvath*), Green Mountain (*Bjork, 1997; Habegger, 1998*, WTU), and St. Helens (*Smith*, *2006*, OSC) need verification. |
| *Cardamine pensylvanica* | Pennsylvania bittercress. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1881, on Sauvie Island by Howell in 1882, near Riverview Cemetary by Sheldon in 1903, at Portland by Love in 1959, at Oaks Bottom by Hopkins in 1975, and at Collins Sanctuary by Creager in 1979 (OSC, HPSU). Reed College canyon swamp (Davies 1938). | Native, rare. Occasional in our area. Tualatin Hills Nature Park (*Zika*, *2003*, WTU), Sherwood (*Peck, 1991*, LINF). |
| *Cardaria chalapensis* [*Lepidium draba* ssp. *chalepense*] | Lenspod whitetop. On ballast at Linnton (Nelson 1916, 1917, as *Lepidium draba chalepense* and *Lepidium draba* ssp. *chalepense*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Cardaria draba* [*Lepidium draba* ssp. *draba*] | Whitetop. On ballast at Linnton and in vacant lots about Portland, but rare (*Gorman 1919*, OSC; *Suksdorf*, *1919*, WTU; Nelson 1916, 1917, 1918a, 1923a, as *Lepidium draba*). Nelson predicted it would persist in the regional flora. | Exotic, rare. Introduced 1900-1924. In our area known only from the Rivergate area (ODA). |
| *Cardaria pubescens* [*Lepidium appelianum*] | Hairy whitetop. Not listed by Gorman or Nelson. Collected at North Portland near the stockyards on Columbia Boulevard by Ornduff in 1960 (OSC). | Exotic, rare. Introduced 1950-1974. No recent reports from our area. |
| *Conringia orientalis* | Hare's ear mustard. Not listed by Gorman or Nelson. Collected at Lower Albina by Nelson in 1922 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Coronopus didymus* [*Lepidium didymum*] | **Lesser wart cress. In ditches and moist waste places. East Portland and Lower Albina. Naturalized from Europe. May-July.** Collected at Albina by Suksdorf in 1899, on ballast at Lower Albina by Sheldon in 1903, and at Linnton by Nelson and Gorman (OSC, WTU; Nelson 1917). | Exotic, rare. Introduced 1875-1899. Occasional in our area as a short-lived weed on moist, disturbed sites. SW Portland (*Lewis, 1990,* OSC), SE 9th and Ankeny (*Marttala, 2000*). |
| *Coronopus squamatus* [*Lepidium squamatum*] | **[*Coronopus procumbens*]. Swine cress. Infrequent on ballast grounds and waste places. Lower Albina, East Portland, etc. Not nearly so much inclined to spread or become a weed as is *Coronopus didymus*. Adventive from Europe. May-August.** Gorman must have added this species to the proof sheets of his *Muhlenbergia* paper, because it was not in the original manuscript. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |

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| *Descurainia incana* ssp*. incisa* [*Descurainia incisa* ssp*. incisa, Descurainia richardsonii* var*. sonnei*] | Mountain tansymustard. Not listed by Gorman or Nelson. Collected twice on Sauvie Island by Joseph Howell in 1877 (HPSU). | Native, rare. No recent reports from our area. Mostly E of the Cascades. |
| *Descurainia pinnata* ssp*. filipes* [*Descurainia incisa* ssp*. filipes, Descurainia pinnata* var*. filipes*] | Western tansymustard. Not listed by Gorman or Nelson. Collected on Sauvie Island by Joseph Howell in 1884 and on ballast at Lower Albina by Sheldon and Heller in 1903 (HPSU, OSC). | Native, rare. No recent reports from our area. Mostly E of the Cascades. |
| *Descurainia sophia* | Herb sophia. Collected at Lower Albina by Sheldon and Gorman in 1903 and 1919, and in rail yards at Portland (OSC; Nelson 1918a, as *Sisymbrium sophia*). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. More common E of the Cascades. |
| *Diplotaxis muralis* | Annual wallrocket. Not listed by Gorman or Nelson. Reported from "near Portland" by Hitchcock et al. (1955-1969), presumably based on specimens collected at Albina by Suksdorf in 1900 and at Lower Albina by Sheldon in 1902 (OSC, WTU). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Diplotaxis tenuifolia* | Perennial wallrocket. Collected at Albina by Suksdorf in 1899 and 1906, and on ballast at Linnton and Lower Albina by Nelson (OSC, WTU; Nelson 1917, 1920a, 1923a). Nelson predicted it would persist in the regional flora. | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Draba nemorosa* | **[*Draba leiocarpa, Draba lutea*]. Slender whitlow grass. On sandy banks. Willamette River near Oswego. May-July.** | Native, rare. No recent reports from our area., but known from the Columbia Gorge and eastward. |
| *Draba verna* | **Vernal whitlow grass. Infrequent but locally abundant on moist sandy slopes, roadsides, and waste places. Sandy Boulevard, Hemlock Station, Vancouver, etc. Naturalized from Europe. March, April.** Collected in our area as early as 1903 (HPSU, OSC), and "well established" at Vancouver (Howell 1897-1903, as *Erophila vulgaris*). | Exotic. Introduced 1875-1899. Common on seasonally moist, disturbed soils throughout our area, including the urban core. |
| *Eruca vesicaria* ssp*. sativa* | Rocket salad. Collected at Linnton by Suksdorf in 1912 (WTU). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Erysimum capitatum* [*Erysimum asperum*] | **[*Cheiranthes elatus*]. Tall wall-flower. On rocky cliffs and sandy slopes. Macleay Park, South Portland, and Elk Rock. April-July.** Collected a number of times in and around Portland between 1881 and 1919 (HPSU, OSC, REED, WTU). | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). |
| *Erysimum cheiranthoides* | Wormseed wallflower. Not listed by Gorman or Nelson. Collected at Hillsboro by Burkhart in 1957 (OSC). | Exotic, rare. Introduced 1950-1974. In our area known only from the Dennis Unit of the Tualatin River NWR (*Maffitt, 2006*). |
| *Erysimum repandum* | Spreading wallflower. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1902 and 1906, and on ballast and along railroad tracks at Lower Albina by Sheldon in 1903 and Nelson in 1920 and 1922 (OSC, WTU; Nelson 1921). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. A Eurasian species common in waste areas E of the Cascades. |

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| *Hesperis matronalis* | Dame's rocket. Not listed by Gorman or Nelson. Collected at Portland by Gorman in 1917 and by Ornduff in 1960, and at East Portland by Thompson in 1926 (OSC, WTU). Available commercially in the West since 1873 (Adams 2004). | Exotic. Introduced 1875-1899. A common roadside and agricultural weed. |
| *Hirschfeldia incana* | Shortpod mustard. Collected on ballast at Linnton by Nelson in 1922, where "very persistent over the entire area" (OSC; Nelson 1916, 1917, 1920a, 1923a, as *Brassica incana*). Nelson predicted it would persist in the regional flora. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, but a common weed in California. |
| *Hutchinsia procumbens* | Prostrate hutchinsia. Not listed by Gorman or Nelson. Collected by Nuttall in shady prairies near the confluence of the Columbia and Willamette rivers in 1834-1835 (Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area. |
| *Idahoa scapigera* | Oldstem idahoa. Not listed by Gorman or Nelson. | Native, rare. In our area known only from the SW corner of the Stafford Road crossing on Interstate 205 (*Newhouse, 1997*, OSC), but not relocated in a later search (*Newhouse, 2009*). |
| *Ionopsidium acaule* | False diamondflower. A garden weed at the Kerr estate, Elk Rock (Nelson 1918b). | Exotic, rare. Introduced 1900-1924. A common garden annual, but in our area currently not known to have naturalized. Its current status at Elk Rock is unknown. |
| *Lepidium campestre* | Field pepperweed. Not listed by Gorman or Nelson. Collected near Molalla, Gresham, Oregon City, and Colton between 1953 and 1960, but known from Marion County as early as 1913 (OSC). | Exotic. Introduced 1925-1949. Occasional to fairly common on dry, disturbed sites throughout our area. Cooper Mountain, SE 11$^{th}$ and Sandy Boulevard (*Marttala*), Green Mountain (*Habegger, 1998*, WTU). |
| *Lepidium densiflorum* var. *densiflorum* | **[*Lepidium apetalum*]. Roadside pepper-grass. Dry sandy slopes. Sandy Boulevard. May-July.** Collected in "waste places" at Reed College by Van Dersal in 1928 (REED; Van Dersal 1929), but not relocated by Davies (1938). Gorman (1916) thought it had moved into the Portland area from E of the Cascades via the Columbia Gorge, the closest locality being Bridal Veil Falls. | Native, rare. No recent reports from our area. Abrams and Ferris (1923-1960) noted that in North America this species erroneously had been called *Lepidium apetalum,* the real *L. apetalum* being a Eurasian weed not yet reported from North America. Recent annotations of historical specimens originally named *L. apetalum* indicate that they represent this and the following two varieties of *L. densiflorum*. Gorman's concept of *L. apetalum* thus would have included all three varieties. |
| *Lepidium densiflorum* var. *pubecarpum* [*Lepidium densiflorum* var. *pubicarpum*] | Babyseed pepperweed. Included in Gorman's concept of *Lepidium apetalum*. Collected on ballast at Lower Albina by Sheldon in 1902, and on ballast at Linnton and waste ground in Portland by Nelson (OSC; Nelson 1917, as *L. virginicum* ssp. *texanum*; Nelson 1918a, as *L. apetalum*; Nelson 1921, as *L*. *densiflorum* var. *pubecarpum*). | Native, rare. No recent reports from our area. |
| *Lepidium densiflorum* var. *ramosum* | Miner's pepperweed. Included in Gorman's concept of *Lepidium apetalum*. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. |

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| *Lepidium graminifolium* | Grassleaf pepperweed. On ballast at Linnton (Nelson 1916, 1917; Hitchcock et al. 1955-1969). Nelson expressed some doubt about the identity of his specimens, but Hitchcock et al. (1955-1969) confirmed the report. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Lepidium heterophyllum* | Purpleanther field pepperweed. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Benton County since 1927 (OSC). | Exotic, rare. Introduced 1975-1999. In our area known only from rocky ground at the N end of Sauvie Island (Marttala et al. 2002), beyond our limits but to be sought in the metro area. |
| *Lepidium perfoliatum* | Clasping pepperweed. On ballast at Linnton and in waste places around Portland, where "becoming common" (Nelson 1917, 1918a). Collected in rail yards at Lower Albina by Nelson in 1922, in NW Portland by Gorman in 1923 ("infrequent as yet"), and near Vancouver by Thompson in 1926 (OSC, WTU). Soth (1934, 1936) reported it from her yard and documented its failure the following year, and Peck (in Soth 1934) reported a similar ephemeral population at Salem. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Mostly E of the Cascades. |
| *Lepidium ruderale* | Roadside pepperweed. Not listed by Gorman or Nelson. Collected on ballast at Portland by Henderson in 1886 (REED). Reported from "near Portland" by Hitchcock et al. (1955-1969) presumably based on Henderson's specimen. This may be the source of Howell's (1897-1903) record of *Lepidium lasiocarpum*, reportedly collected on railroad ballast at Portland by Henderson. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Lepidium strictum* | Upright pepperweed. Collected at Lower Albina by Sheldon in 1902, and on ballast at Linnton by Nelson (OSC; Nelson 1917, as *Lepidium reticulatum*; Hitchcock et al. (1955-1969). Nelson (1917) expressed some doubt about the identity of his specimens at Linnton, but Hitchcock et al. (1955-1969) confirmed the report. | Native, rare. No recent reports from our area. |
| *Lepidium virginicum* var. *medium* | **[*Lepidium medium*]. Round podded pepper-grass. Hillsides and sandy places. Sandy Boulevard. May-July.** Also at Lower Albina (*Sheldon*, *1902*, OSC) and on ballast at Linnton (Nelson 1917, 1920a). | Native, rare. No recent reports from our area. |
| *Lepidium virginicum* var. *pubescens* | Hairy pepperweed. Not listed by Gorman or Nelson. Collected at lower Albina by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. |
| *Lobularia maritima* | Sweet alyssum. Not listed by Gorman or Nelson. Collected at Portland by Ireland in 1934 (OSC), but available commercially in the West since 1904 (Adams 2004). | Exotic, rare. Introduced 1900-1924. In our area known only from NW 9th and Front, near Union Station (*Zika, 1998*, OSC), and along the East Bank Esplanade between the Hawthorne Bridge and SE Main Street (*Marttala, 2008*). |
| *Lunaria annua* | Annual honesty. Not listed by Gorman or Nelson. Collected at Portland by an unknown botanist in 1908 (OSC). | Exotic. Introduced 1900-1924. Occasional to common on dry, partially shaded sites in our area, particularly along roadsides in wooded areas. Generally not forming colonies large enough to displace native species. |

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| *Nasturtium officinale* [*Rorippa nasturtium-aquaticum*] | **[*Radicula nasturtium-aquatica*]. Water-cress. Common in running water, ditches, and about springs. East Portland, South Portland, Goldsmith's Addition, etc. Naturalized from Europe. April-October.** Collected at Portland by Henderson 1881 and 1887 (OSC) and by Flinn in 1910 (HPSU). | Exotic. Introduced 1875-1899. Common in shady seeps and ditches with perennially flowing water. Sometimes competing with *Lysichiton americanus* and *Oenanthe sarmentosa*. |
| *Raphanus raphanistrum* | Wild radish. Not listed by Gorman or Nelson. Collected on "waste ground" at Linnton by Thompson in 1926 (WTU), and at Tigard by Foster in 1978 (HPSU). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Hybridizes with *Raphanus sativus* (see following). |
| *Raphanus sativus* | **Radish. In fields, roadsides, and waste places around Portland. Introduced from Europe but native of China. April-October.** First brought to Fort Vancouver in 1831 (Taylor 1992). Collected on ballast at Lower Albina by Sheldon in 1902, and on "waste ground" at East Portland by Thompson in 1926 (OSC, WTU). On ballast at Linnton and "a common escape" (Nelson 1917). "Becoming established" in Washington County (Gilkey 1929). | Exotic. Introduced 1825-1849. Once a common weed, but much of it may have been replaced by *Raphanus raphinastrum* × *Raphanus sativus*, which has occurred in California (Hegde et al. 2006; Liston 2009). Its current status in our area, and the possible presence of the hybrid, is uncertain. |
| *Rapistrum rugosum* | Annual bastardcabbage. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC; Halse 1999). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Rorippa columbiae* [*Rorippa calycina* var. *columbiae*] | Columbian yellowcress. Not listed by Gorman or Nelson. Collected by Joseph Howell on Sauvie Island in 1884 (GH, holotype; HPSU and OSC, isotypes for *Nasturtium sinuatum* var. *pubescens*; Hitchcock et al. 1955-1969). | Native, rare. Infrequent on the Columbia River floodplain. Moore Island (PPR 2004), Wright Island (PPR 2004), Sandy River delta (*Zika, 1992*) |
| *Rorippa curvipes* var. *truncata* [*Rorippa obtusa* var. *integra*] | Bluntleaf yellowcress. Collected in muddy bottoms of the Willamette "below Portland" by Henderson in 1883, and on the margin of Lake Oswego by Nelson in 1917 (OSC, REED). Abundant on mud flats in Oswego Lake, and on the shore of the Columbia River at Hayden Island (Nelson 1918a, as *Radicula obtusa*). | Native, rare. No recent reports from our area. |
| *Rorippa curvisiliqua* | **[*Radicula curvisiliqua*]. Curved fruited cress. Stream banks. Fulton, Oswego, Oregon City, etc. April-June.** Collected at Portland by Henderson in 1888 (REED). | Native. Occasional to common in our area on vernally flooded soils. Sauvie Island, Beggar's-tick Wildlife Refuge, Tualatin River NWR (*Maffitt, 2005*), Morand Property (*Maffitt, 2005*), Ridgefield NWR, Clark County. |
| *Rorippa dubia* [*Rorippa indica*] | **[*Radicula indica*]. East Indian cress. Ballast grounds and waste places. Lower Albina. Adventive from India. May-July.** Collected at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |

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| *Rorippa palustris* [*Rorippa islandica*] | **[*Radicula palustris*.] Yellow water-cress. Wet places and stream banks. Swan Island, Sauvie Island, etc. April-July.** | Native. Occasional in our area on moist, disturbed ground. A number of taxa of *R. palustris* have been reported from our area, most without voucher specimens. We lump all subspecies here until their identities can be resolved. *R. palustris* ssp. *hispida* is currently the only documented subspecies from near our area, while ssp. *fernaldiana* and ssp. *occidentalis* are restricted to E of the Cascades. Recent reports of *R. islandica* from Oaks Bottom (*Marttala*) and Green Mountain (*Habegger, 1998*, WTU) are also included here. |
| *Sinapis alba* [*Brassica hirta*] | **[*Brassica alba*]. White mustard. Fields, roadsides, and waste places about city. Introduced from Europe. May-October.** | Exotic. Introduced 1875-1899. Common on disturbed soils, and frequently planted as a commercial crop. |
| *Sinapis arvensis* [*Brassica kaber*] | **[*Brassica arvensis*]. Charlock. Noxious weed in fields, vacant lots, and waste places everywhere about city. Naturalized from Europe. April-October.** On ballast at Linnton, where "common" (Nelson 1917, as *Brassica arvensis*). | Exotic. Introduced 1875-1899. Common throughout our area on dry, disturbed soils. |
| *Sisymbrium altissimum* | **Tumbling mustard, Jim Hill mustard. Recent and undesirable immigrant in dry sandy waste places and along railroad tracks. East Portland. Infrequent here as yet. Adventive from Europe. April-June.** On ballast at Linnton, and "becoming common" (Nelson 1917). Possibly established at Portland prior to 1900, as Gilkey (1929) reported that it was introduced to Oregon about 1887. It had become conspicuous in Idaho by 1905 and reportedly had invaded there from Washington or Oregon (Soth 1926). | Exotic. Introduced 1900-1924. Common on dry, disturbed soils throughout our area. |
| *Sisymbrium officinale* | **Hedge mustard. Common in fields and waste places around Portland. Naturalized from Europe. April-October. [*Sisymbrium officinale leiocarpum*]. Smooth podded mustard. Common weed in fields and waste places around Portland. Naturalized from Europe. April-October.** On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Common in our area on dry, disturbed sites. |
| *Teesdalia nudicaulis* | Barestem teesdalia. Not listed by Gorman or Nelson. Collected near the Stark Street Bridge on the Sandy River by Peck in 1925 and 1926 (OSC; Peck 1961). | Exotic, rare. Introduced 1900-1924. In our area known only from the Sandy River delta (*Zika, 1992*, OSC) and the N end of Sauvie Island (Marttala et al. 2002). |
| *Thlaspi arvense* | **Field penny cress, Frenchweed. In fields and waste places about the city. Naturalized from Europe. May-July.** Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic. Introduced 1875-1899. Occasional in our area probably originating from bird seed, of which it is a common component. SE 111$^{th}$ Avenue, N of Harold (*Marttala, 1997*). Listed as a noxious weed in British Columbia, Alberta, Manitoba, and Minnesota. |
| *Thysanocarpus curvipes* | Sand fringepod. Not listed by Gorman or Nelson. Collected on bluffs near Oregon City by Henderson in 1886 and 1887, and N of Tonquin by Thompson in 1927 (OSC, REED). | Native, rare. No recent reports from our area. |

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| **Buddlejaceae** | | |
| *Buddleja davidii* | Butterflybush. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but first collected in Oregon in Benton County in 1939 (OSC), where possibly cultivated. | Exotic. Introduced 1925-1949. Well-established throughout our area on disturbed soils. Particularly problematic on dry bluffs and disturbed sites along rivers and highways. A popular ornamental that has proliferated throughout the Pacific Northwest over the last 30 years. |
| **Cabombaceae** [*Brasenia* formerly in Nymphaeaceae] | | |
| *Brasenia schreberi* | **Water-shield. In ponds. Sauvie Island. June-August.** Collected in "mucky ponds" at Oswego by Gorman in 1916 (OSC). | Native. Occasional in standing water throughout our area, usually beyond heavily developed areas. Sometimes appearing in created wetlands. |
| **Callitrichaceae** | | |
| *Callitriche heterophylla* | Twoheaded water-starwort. Not listed by Gorman or Nelson. Collected in ponds on Sauvie Island by Howell in 1879 (OSC). | Native. Occasional to locally abundant in our area. Multnomah Channel, Burlington Bottoms (*Christy, 1991*, OSC), Camassia Preserve, Reed College canyon. |
| *Callitriche palustris* [*Callitriche verna*] | **Vernal water starwort. In ponds and ditches. East Portland. June-August.** Collected in and around Portland and Beaverton by Henderson between 1881 and 1885 (OSC, REED). Reed College canyon (Davies 1938). | Native. Occasional to common in our area in sloughs, ponds, ditches, and mud flats. Burlington Bottoms, Columbia Slough, Sauvie Island, Hillsboro. |
| *Callitriche stagnalis* | Pond water-starwort. Not listed by Gorman or Nelson. First collected in our area in 1987 (*Alverson*), but present in Columbia County in 1953 and in Lane County as early as 1935 (OSC). | Exotic. Introduced 1925-1949. Occasional to locally common in our area in pools, ponds, and streams. Burlington Bottoms, Columbia Slough, Sauvie Island, Oaks Bottom, Springwater Corridor Trail, Beggar's-tick Wildlife Refuge (*Marttala*), Beaverton. |
| **Campanulaceae** | | |
| *Campanula persicifolia* | Peachleaf bellflower. Not listed by Gorman or Nelson. Collected in Portland on SW Davenport Sreet by Ornduff in 1960, where plants had established in a wooded area (OSC). Grown commercially in the US since the early 1800s (Adams 2004). | Exotic. Introduced 1950-1974. Occasional in our area as a garden escape. |
| *Campanula rapunculoides* | Rampion bellflower. Not listed by Gorman or Nelson. Collected at East Portland by Thompson in 1927 (WTU; Hitchcock et al. 1955-1969). | Exotic. Introduced 1900-1924. An escaped ornamental, occasional in our area in gardens and yards, where it reproduces but is not particularly weedy. A specimen so named at HPSU (*Flinn, 1910*) could not be identified with certainty. |
| *Campanula rotundifolia* | Bluebell bellflower. Not listed by Gorman or Nelson. | Native, rare. In our area, known only from cliffs along the Sandy River just downstream from the Stark Street Bridge, and at Lewis and Clark State Park (*Kemp, 1994*, OFP; *Maffitt, 2009*). Mostly in the Columbia Gorge, the Cascades, and the Blue Mountains. |

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| *Campanula scouleri* | **Scouler's bellflower. Moist woods and grassy slopes. Macleay Park** [Gorman and Sheldon 1905, and "common" around Portland]**, Goldsmith's Addition, Portland Heights, St. Helens Road, etc. May-July.** Collected near Fort Vancouver by Scouler and Douglas in 1825, where "plentiful" (Hooker 1829-1840; Hitchcock et al. 1955-1969), and repeatedly around Portland by Henderson, Sheldon, Peck, and Sweetser between 1880 and 1910 (OSC). | Native. Occasional throughout our area, including Forest Park, Mt. Talbert (*Gaddis, 2008*), Lacamas Creek Park (*Gaddis*), and Camassia Preserve. Also present farther up the Sandy River beyond our limits (*Marttala*). |
| *Downingia elegans* | **[*Bolelia elegans*]. Northern lobelia. In ditches and wet places. Gladstone, Mt. Scott, etc. May-June.** Collected on the Tualatin Plains and near Gladstone by Thomas Howell between 1881 and 1898, at Oregon City by Henderson in 1885, and on or near Mt. Scott by Sheldon in 1902 (OSC). | Native, rare. In our area known only from wet prairie at Tualatin River NWR (Maffitt et al. 2005-2008), Fifth Plain Prairie, and Barberton (*Gaddis*). |
| *Githopsis specularioides* | **Corn cockle bellflower. Fields and open places near Oswego, etc. May-July.** Collected by Nuttall near the confluence of the Columbia and Willamette rivers in 1834-1835 (Hitchcock et al. 1955-1969), at East Portland by Henderson in 1884 and 1886, and at Oswego by Drake in 1885 (OSC). | Native, rare. No recent reports from our area. |
| *Heterocodon rariflorum* | **Spreading bellflower. In fields and moist places, near Risley Station. May-July.** Collected at Hillsboro and on the Tualatin Plains by Thomas Howell in 1880 and 1881 (OSC). Also at St. Helens (Joseph Howell, 1876, OSC) and Forest Grove (Lloyd, 1894, OSC), somewhat beyond our limits. | Native, rare. In our area known only from Camassia Preserve. It also occurs beyond our limits in the Sandy River drainage. |
| *Howellia aquatilis* | **Pond lobelia. In ponds. Oswego, Sauvie Island, etc. April-May.** Collected repeatedly (including the type specimen) on Sauvie Island by the Howell brothers and Henderson between 1879 and 1886 (GH, OSC; Hitchcock et al. 1955-1969), and in ponds near Oswego by Thomas Howell in 1889 0(OSC). "In ponds in the vicinity of Portland" (Howell 1897-1903). | Native, rare. The only known population still extant in the metro area is near Ridgefield, just beyond our limits (*Kemp, 1988; Christy, 1990*). One of Oregon'sr rarest native plants. |
| *Jasione montana* | Sheepbit, sheep scabious. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. The only known population in the metro area is near Washougal, just beyond our limits (Legler et al. 2008). An escaped ornamental likely to occur within our area. |
| *Triodanis perfoliata* | **[*Specularia perfoliata*]. Venus' looking-glass. Fields and open woods. About Oswego, Milwaukie, etc. May-September.** Collected at South Portland by Henderson in 1884 (OSC) and naturalized in a Portland garden (Soth 1933). | Native, rare. Scarce in our area. Seen in 2000 at SE 32nd and Stark Street, and formerly at SE 103rd and Foster Road. Also further up the Sandy River drainage, beyond our limits (*Marttala*). |

| **Caprifoliaceae** | | |
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| *Linnaea borealis* ssp. *longiflora* [*Linnaea borealis* var. *longiflora*] | **[*Linnaea americana*]. American twinflower. In coniferous woods. Portland Heights, Macleay Park** [Gorman and Sheldon 1905]**, Mt. Tabor, Mt. Scott, etc. Very abundant on Germantown Road and Logie Trail. May-November.** Collected repeatedly around Portland and on Sauvie Island by Henderson, Thomas Howell, Fliedner, Drake, Palmer, Flinn, Sweetser, and Constance and Beetle between 1880 and 1940 (HPSU, OSC, WTU). | Native. Occasional in our area in dry coniferous woods. Forest Park (Houle 1996), Tualatin and Sandy river watersheds (*Kimpo*), Hoyt Arboretum (*Christy, 1998*). None was found in the 2004 Portland Parks survey. |
| *Lonicera ciliosa* | **Wild honeysuckle, large-flowered honeysuckle. Common in coniferous woods around Portland. April-June.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *L. occidentalis*; Hitchcock et al. 1955-1969) and several times around Portland between 1880 and 1902 (OSC). Gorman (undated #2) cited a specimen from Barnes Road. Macleay Park (Gorman and Sheldon 1905). | Native. Occasional in remnant oak woodlands and dry conifer forest. Forest Park, Tualatin River NWR (*Brunkow, Maffitt, 1999*). |
| *Lonicera hispidula* | **Western honeysuckle. On rocky slopes near Oswego. April-June.** Collected at East Portland by Henderson in 1886 and 1887, and at Oswego by Thomas Howell and Henderson between 1889 and 1892 (OSC). | Native. Occasional in remaining oak woodlands and rocky slopes throughout our area. Elk Rock Island (*Marttala, Brunkow & Poff, 1991*), Tualatin River NWR (*Maffitt, 2005*). |
| *Lonicera involucrata* | **[*Lonicera ledebourii*]. Coast fly honeysuckle. Marshy ground and stream banks. Happy Hollow Road, Sauvie Island, etc. April-June.** Reed College (Van Dersal 1929), but not relocated by Davies (1938). | Native. Infrequent to common on moist ground throughout our area, around the edges of woods and in riparian zones. Powell Butte, Springwater Corridor Trail (*Marttala*). On the Tualatin Plains, it is more common in scrub-shrub wetlands. Often used in restoration plantings. |
| *Sambucus nigra* ssp. *cerulea* [*Sambucus mexicana*, *Sambucus cerulea*] | **[*Sambucus glauca*]. Blue elderberry. Not uncommon in open woods and roadsides everywhere around Portland. April-September.** Macleay Park (Gorman and Sheldon 1905), Reed College (Van Dersal 1929). | Native. Common throughout our area in open woods and roadsides. In recent years it has been widely used in restoration projects because of its versatility, as it does well in extremely exposed and dry conditions. Cardwell (1906) indicated that it was used as both an ornamental and as a source of fruit for preserves and wine. |
| *Sambucus nigra* ssp. *nigra* | European black elderberry. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1875-1899. Formerly cultivated and quite likely escaped near the Brookside Wildlife Area S of SE Foster Road, E of 111$^{th}$ Avenue and N of Brookside Drive at Johnson Creek (*Marttala, 2007*). Fruiting abundantly. Cardwell (1906) referred to ssp. *cerulea* (above), but we assume that ssp. *nigra* was also used as an ornamental and for preserves and wine. |
| *Sambucus racemosa* | **[*Sambucus callicarpa*]. Red elderberry. Moist woods and stream banks. Rather rare in the vicinity of Portland. Sauvie Island, St. Helens Road and Powell Valley Road. April-May.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840). Macleay Park, Reed College (Van Dersal 1929). | Native. Common in edge habitats, mixed forest, and riparian woods throughout our area. It is not clear why Gorman would have found it rare. |

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| *Symphoricarpos albus* | **[*Symphoricarpos racemosus*]. Snowberry. Open woods, vacant lots, and waste places. Macleay Park** [Gorman and Sheldon 1905]**, Goldsmith's Addition, Fulton, etc. May-September.** On ballast at Linnton, and "common in wooded districts" (Nelson 1917). Available commercially in the West since 1880, and sold locally as early as 1912 (Adams 2004). | Native. Common and often dominant throughout our area in riparian zones, on floodplains, and in open forest. |
| *Symphoricarpos hesperius* [*Symphoricarpos mollis*] | **Low snowberry. Open woods. Canyon Road, Cornell Road, South Portland, etc. Not nearly so common as** [*S. albus*]**. May-July.** | Native. Common in open woods, particularly oak woodlands, but much less abundant than *S. albus*. |
| *Viburnum edule* | High-bush cranberry, squashberry. Not listed by Gorman or Nelson. | Native. Occasional in open woodlands. Tonquin area, Newell Canyon (*Kimpo 2005*), Graham Oaks, Willamette Narrows. |
| *Viburnum ellipticum* | **Western black haw. Open woods. Oswego and Willamette Falls. April-May.** Collected several times around Oswego, Oregon City, and Elk Rock between 1885 and 1919 (OSC). | Native. Occasional in our area in oak woodland and cottonwood forest. Lloyd Boulevard at Lloyd Center exit from Interstate 84 (*Marttala*), N end of Sauvie Island (Marttala et al. 2002), Tualatin River NWR (*Brunkow*, *Maffitt, 1999*), Ridgefield NWR. |
| *Viburnum opulus* var. *opulus* | European cranberrybush. Not listed by Gorman or Nelson. Collected at Portland by Suksdorf in 1908, and in the Columbia Gorge by Piper in 1904, the latter beyond our limits (WTU). A cultivar has been available locally since 1912 (Adams 2004). | Exotic, rare. Introduced 1900-1924. In our area known from Burnt Bridge Creek near NE 51st Street and NE 112th Avenue (*Zika, 2002*, WTU), and at Rocky Butte (*Vrilakas, 2007*). |
| **Caryophyllaceae** | | |
| *Agrostemma githago* | **Corn cockle. In cultivated fields about Portland, Milwaukie, and Vancouver. Introduced from Europe. June-September.** Collected at East Portland by Flinn and Gorman in 1905 and 1912, and in Vancouver by Thompson in 1926 (HPSU, OSC, WTU). "Frequent" in the Willamette Valley (Gilbert 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Arenaria serpyllifolia* | **Thyme leaved sandwort. Common in fields and roadsides around Portland. Naturalized from Europe. April-July. [*Arenaria serpyllifolia tenuior*]. Small flowered sandwort. In fields, roadsides, and waste places about city. Naturalized from Europe. April-July.** Collected at Vancouver by Joseph Howell in 1884, at Lower Albina by Sheldon in 1902, and at Clackamas by Thomas Howell, undated (HPSU, OSC). | Exotic. Introduced 1875-1899. Occasional but locally common in our area on dry, exposed soils. N end of Sauvie Island (Marttala et al. 2002). |
| *Cerastium arvense* ssp. *arvense* | **Field chickweed. Infrequent in low ground and waste places. April-August.** Collected below Albina by Suksdorf in 1907 (WTU). Reed College (Van Dersal 1929). | Native. Occasional to common in upland prairie. It is not clear why it would be more common today than in Gorman's day. |
| *Cerastium arvense* ssp. *strictum* | **[*Cerastium arvense angustifolium*]. Narrow leaved chickweed. On rocky slopes. Elk Rock. April-August.** | Native, rare. No recent reports from our area. |

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| *Cerastium dubium* | Doubtful chickweed. Not listed by Gorman or Nelson. Collected at Vancouver by Pechanec in 1966 (WTU). | Exotic. Introduced 1950-1974. Occasional to locally common on mud flats of the Columbia River bottoms. Sometimes misidentified as *C. nutans*. Ramsey Lake, Sturgeon Lake, Sandy River delta (*Zika, 1992*, WTU), Frenchman's Bar (*Zika, 2003*, OSC, UBC, WTU). |
| *Cerastium fontanum* ssp. *vulgare* [*Cerastium vulgatum*] | **Large mouse-ear chickweed. Common on roadsides and waste places. Naturalized from Europe. April-August.** | Exotic. Introduced 1875-1899. Common in our area in open areas and as a garden pest. |
| *Cerastium glomeratum* [*Cerastium viscosum*] | **Mouse-ear chickweed. Common in gardens and cultivated ground. Naturalized from Europe. March-July.** Collected at Portsmouth by Flinn in 1916 (HPSU), and on ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Very common in our area in gardens and open areas. |
| *Cerastium nutans* | Nodding chickweed. Not listed by Gorman or Nelson. Collected at Portland by Foster in 1904 (WTU), and at Rooster Rock by Henderson in 1885 (HPSU, OSC), the latter beyond our limits. | Native, rare. No recent reports from our area. Some collections have been renamed both *C. dubium* and *C. pumilum*. |
| *Cerastium pumilum* | European chickweed. Not listed by Gorman or Nelson. Known from SW Oregon since 1974, and E Washington since 1961 (WTU). | Exotic, rare. Introduced 1975-1999. In our area known only from the Sandy River delta (*Zika, 1992*, OSC, WTU). Sometimes misidentified as *C. nutans*. |
| *Cerastium semidecandrum* | Fivestamen chickweed. Not listed by Gorman or Nelson. Known from Lane County since 1974, and from the coast since 1941 (OSC). | Exotic. Introduced 1975-1999. Scarce to locally common. Sidewalk crevices around NE 7th and 9th Avenues from Burnside S to SE Lincoln Street (*Marttala, 2005*), Sandy River delta (*Zika, 1992*, OSC, WTU), N end of Frenchman's Bar (Zika, 2003, WTU). |
| *Corrigiola litoralis* | Strapwort. Collected at Lower Albina by Suksdorf (Nelson 1921, as *C. littoralis*; Abrams and Ferris 1923-1960, as *C. littoralis*, where "well established at Portland...having come in no doubt with ballast;" Hitchcock et al. 1955-1969; Peck 1961, as *C. littoralis*, where "on waste ground about Portland"), but historical voucher specimens not found. | Exotic, rare. Introduced 1900-1924. In our area known ony from the Sandy River delta (*Zika, 1992*, WTU) and the shore of Hayden Island (*Zika, 2002*, WTU). |
| *Dianthus armeria* | **Deptford pink. Infrequent in fields and roadsides. Mt. Tabor, near Lents, etc. Annual adventive from Europe. May-August.** Collected at Mt. Tabor by Sheldon in 1902, and at Portland and Rocky Butte by Flinn in 1914 and 1915 (HPSU, OSC). | Exotic. Introduced 1875-1899. Occasional in our area. Lents, Oaks Bottom, and Springwater Corridor Trail near SE 140th (*Marttala*), Tualatin River NWR (Maffitt et al. 2005-2008). |
| *Dianthus barbatus* | **Sweet William. Garden escape infrequent in fields and waste places. Bertha and a few other places about Portland. Introduced from Europe. May-August.** Available commercially in the West since 1873, and sold locally as early as 1912 (Adams 2004). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Dianthus deltoides* | Maiden pink. Not listed by Gorman or Nelson. Not reported from Oregon, but first collected in Thurston County, Washington in 1934 (WTU). Grown commercially in the US since the 1790s (Adams 2004). | Exotic. Introduced 1925-1949. Smith and Bybee Lakes, and abandoned upland pastures in Clark County, where common (*Gaddis*). |

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| *Gypsophila scorzonerifolia* | Garden babysbreath. Not listed by Gorman or Nelson. Collected at Linnton by Suksdorf in 1912 (WTU). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Suksdorf's collection from Linnton, misidentified as *G. porrigens* (=*G. pilosa*), was the basis for the erroneous report of that species by Hitchcock et al. (1955-1969). |
| *Holosteum umbellatum* | Jagged chickweed. Not listed by Gorman or Nelson. Known from E Oregon since 1923, but not collected in the Willamette Valley until 2000 (OSC). A specimen collected at McMinnville by Wolfle in 1897 needs verification (LINF). | Exotic, rare. Introduced 2000-2008. Reported from Hayden Island and Troutdale (*Wilson*, OFP). Mostly E of the Cascades, presumably rafted down the Columbia River or brought in by rail. |
| *Lychnis coronaria* [*Silene coronaria*] | **Mullein pink. In cultivated fields and waste places about city. Introduced from Europe. June-September.** Reed College (Davies 1938). Available commercially in the West since 1873 (Adams 2004). | Exotic. Introduced 1875-1899. An escaped ornamental, common in dry yards and gardens, and occasional on disturbed ground in natural areas. |
| *Minuartia michauxii* [*Minuartia tenella*, *Arenaria stricta* var. *puberulenta*] | Michaux's stitchwort. Not listed by Gorman or Nelson. Collected at St. Helens by Joseph and Thomas Howell between 1876 and 1882, and at Rooster Rock by Drake in 1888 (HPSU, OSC). | Native, rare. St. Helens and Rooster Rock are somewhat beyond our limits, but the species should be sought in rocky habitats within the metro area. |
| *Moehringia lateriflora* [*Arenaria lateriflora*] | **Blunt leaved sandwort. In margin of woods around Portland. May-July.** Collected on Sauvie Island by Joseph Howell in 1881 (HPSU). | Native, rare. No recent reports from our area. Native E of the Cascades, but presumably introduced at Portland. Possibly rafted down the Columbia River. |
| *Moehringia macrophylla* [*Arenaria macrophylla*] | **Broad leaved sandwort. In coniferous woods. King's Heights, Macleay Park, Mt. Tabor, etc. May-July.** Reed College (Davies 1938). | Native. Occasional in oak woodlands and dry coniferous forests throughout our area. Leach Botanical Garden, Powell Butte, Kelly Butte, Forest Park, Fifth Plain wetland and Curtin Creek watershed near NE 72nd Avenue and St. Johns Road (*Gaddis*). |
| *Moenchia erecta* | Upright chickweed. Not listed by Gorman or Nelson. Known from Linn County since 1979, and from SW Oregon since the 1940s (OSC). | Exotic, rare. Introduced 1975-1999. Collected at St. Helens by Zika in 2003 (OSC), just beyond our limits. A number of collections have been made farther S in the Willamette Valley. |
| *Myosoton aquaticum* [*Stellaria aquatica*] | **[*Alsine aquatica*]. Water chickweed. Infrequent in wet ground and waste places. Lower Albina. Adventive from Europe. April-July.** Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Sheldon's specimen is the only known record from Oregon. |
| *Paronychia franciscana* | **[*Paronychia chilensis*]. Chile whitlow-wort. Prostrate, perennial weed, not uncommon on ballast grounds, roadsides, and waste places. Lower Albina, Vancouver, etc. Introduced from Chile. May-July.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. Native to Chile. Abrams and Ferris (1923-1960) indicated that earlier floras called this species *P. chilensis*, as Gorman did. The only other known records in Oregon were collected on the south coast by Peck in the 1920s. Its disappearance from our area may be related to pavement of roads and loss of heavy horse traffic (Liston 2009). |
| *Polycarpon tetraphyllum* | Fourleaf manyseed. Collected at Lower Albina by Sheldon in 1902 (OSC), and on ballast at Linnton by Nelson in 1915 or 1916 (Nelson 1917). | Exotic. Introduced 1875-1899. Locally common in several areas between NE 12th and Davis and SE 2nd and Madison Streets (*Marttala, 2003-2008*). |

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| *Sagina decumbens* ssp. *occidentalis* [*Sagina occidentalis*] | **Western pearlwort. On grassy slopes. Portland Heights, Oswego, etc. May, June.** Collected on Sauvie Island by Joseph Howell in 1886, at Oswego by Thomas Howell in 1889, at Elk Rock by Henderson in 1889, and at Lower Albina and Willamette Heights by Sheldon in 1902 (HPSU, OSC). | Native. Occasional in our area. Camassia Preserve, Union Station (*Zika, 1998*, OSC), and the inner SE industrial area near OMSI (*Marttala*). |
| *Sagina procumbens* | Birdeye pearlwort. A garden escape at Elk Rock, and collected at Portland by Mickle in 1925 (OSC; Nelson 1918a). | Exotic. Introduced 1900-1924. A common garden escape in disturbed areas of the urban core. |
| *Saponaria officinalis* | **Soapwort. Railroad tracks and roadsides about the city. Naturalized from Europe. June-September.** Known from elsewhere in the Willamette Valley since 1922 (OSC). Gorman (1916) thought it had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Exotic. Introduced 1875-1899. Occasional in our area on disturbed sites, often exposed river terraces with sandy or gravelly soil (*Newhouse*). |
| *Scleranthus annuus* | Annual knawel. Not listed by Gorman or Nelson. Collected near Damascus by Fleischman in 1948 and near Estacada by Cook in 1959. First collected elsewhere in the Willamette Valley in 1943 (OSC). | Exotic. Introduced 1925-1949. Occasional in our area on dry, disturbed sites. Cooper Mountain, St. Johns (*Kral*, HPSU), Sylvan (*Christy, 2008*). |
| *Silene antirrhina* | **Sleepy catchfly. Infrequent on rocky slopes. Elk Rock. May-September.** Collected near Portland by Joseph Howell in 1876 and by Henderson in 1884, at Mt. Tabor by an unknown collector in 1889, near Milwaukie by Thomas Howell in 1890, on ballast at Lower Albina by Sheldon in 1902, and at Laurelhurst by Flinn in 1911 (HPSU, OSC). | Native. Occasional to somewhat common on rocky outcrops and in upland prairie. Cooper Mountain, Camassia Preserve, Tualatin River NWR (*Maffitt, 2004*), Morand Property (*Maffitt, 2004*). Not relocated at Elk Rock (PPR 2004). More common now than in Gorman's day, presumably because of better documentation. |
| *Silene armeria* | Sweet William silene. Not listed by Gorman or Nelson. Collected at Forest Grove by Marsh between 1867 and 1890 (WTU), somewhat beyond our limits. | Exotic, rare. Introduced 1900-1924. In our area currently known only as a garden weed in Portland (*Groth, 1984*, OSC). |
| *Silene dichotoma* | Forked catchfly. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1906 (WTU). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Silene dioica* [*Lychnis dioica*] | Red catchfly. Not listed by Gorman or Nelson. Reported from Portland by Hitchcock et al. (1955-1969), but without collection data. Possibly based on a collection made at Gresham by Schuh in 1942 (OSC). | Exotic, rare. Introduced 1925-1949. No recent reports from our area. |
| *Silene douglasii* | **[*Silene columbiana*]. Bell-flowered campion. On rocky banks along Willamette River. May-August.** Collected several times along the Willamette River, on Elk Rock Island, and at Portland by Henderson between 1885 and 1888 (HPSU, OSC). | Native, rare. No recent reports from our area. |
| *Silene gallica* | **[*Silene anglica*]. English catchfly. Ballast grounds and waste places. Lower Albina. Rather rare. Adventive from Europe. April-July.** Collected at Portland by Henderson in 1881, and on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Silene latifolia* ssp. *alba* [*Silene latifolia*, *Lychnis alba*] | Bladder campion. Not listed by Gorman or Nelson. Collected near Portland by Tasker in 1913, and at Gresham by Schuh in 1942 (OSC). | Exotic. Introduced 1900-1924. Very common in our area on dry, disturbed sites. Salmon Creek at Pleasant Valley Park in Clark County (*Gaddis, 1995*). |

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| *Silene menziesii* | **[*Anotites menziesii*]. Menzies' campion. On Rock Island and other islands in the Willamette River above Milwaukie. May-August.** Collected at Elk Rock Island by Henderson in 1886 (OSC). | Native, rare. No recent reports from our area. |
| *Silene noctiflora* | Night-flowering silene. Not listed by Gorman or Nelson. Naturalized in a Portland garden (Soth 1933). Known from E Oregon since 1915, and in the Columbia Gorge since 1927 (OSC). | Exotic, rare. Introduced 1925-1949. No recent reports from our area. |
| *Silene scouleri* ssp. *scouleri* | **Scouler's campion. On moist brushy ground. Jonathan Moar place on Sauvie Island. May-July.** Collected at Fort Vancouver by Scouler in 1825 (Hooker 1829-1840; Hitchcock et al. 1955-1969) and on dry rocks at Milwaukie by Thomas Howell in 1881 (OSC). | Native, rare. No recent reports from our area. |
| *Silene vulgaris* [*Silene cucubalus*] | Maidenstears. Not listed by Gorman or Nelson. Collected on "gravelly prairie soil" at Reed College by Gorman in 1919, and at Oregon City by Hyslop in 1932 (OSC). | Exotic. Introduced 1900-1924. Frequent in our area in pastures and disturbed areas. |
| *Spergula arvensis* | **Corn spurry. Very common in fields, neglected gardens, and waste places about Portland. Naturalized from Europe. April-July.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840; Hitchcock et al. 1955-1969), on Sauvie Island by Joseph Howell in 1875 (HPSU), and on ballast at Linnton (Nelson 1917). | Exotic. Introduced 1825-1849. Very common on dredge spoils in the Rivergate area along Columbia Slough but less common elsewhere. Lower Salmon Creek watershed (*Gaddis*). |
| *Spergularia bocconii* | Boccone's sandspurry. Not listed by Gorman or Nelson. Collected at Lower Albina by Sheldon in 1902 and at Linnton by Suksdorf in 1916 (OSC, WTU; Hichcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Hichcock et al. (1955-1969) speculated that Sheldon collected it on ballast, but the specimens do not mention it. |
| *Spergularia diandra* | **[*Tissa diandra bracteata*]. Pink sand spurry. Rather rare on sandy stream banks near Portland. May-July.** Collected at Oswego by Thomas Howell in 1888, and on Hayden Island by Peck in 1922 (OSC). | Native, rare historically and rare today. In our area known only from Clark County. Mostly E of the Cascades. |
| *Spergularia echinosperma* | Bristleseed sandspurry. On mudflats along the Columbia River at Hayden Island (Nelson 1920a, as *S. salsuginea* var. *bracteata*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. In the US it is restricted to the SE US. |
| *Spergularia media* | Media sandspurry. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC; Hichcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Spergularia rubra* | **[*Tissa rubra*]. Sand spurry. Common on roadside lawns and waste places. Around Portland, Bridgeton, Columbia Beach, etc. May-July.** Collected numerous times in our area as early as 1877 (HPSU, OSC). On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1850-1874. Common throughout our area. |
| *Spergularia salina* var. *salina* [*Spergularia marina*] | Salt sandspurry. Collected on ballast at Lower Albina by Sheldon in 1902, and on ballast at Linnton (Nelson 1917, as *S. marina*). | Native, rare. No recent reports from our area. |
| *Spergularia villosa* | Hairy sandspurry. Not listed by Gorman or Nelson. Collected at Lower Albina by Sheldon in 1902 (OSC; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |

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| *Stellaria borealis* var. *sitchana* [*Stellaria calycantha* var. *sitchana*] | Boreal starwort. Not listed by Gorman or Nelson. Collected several times on Sauvie Island, Elk Rock Island, Oswego, Milwaukie, Willamette Heights by Howell, Henderson and Sheldon between 1877 and 1902 (OSC). | Native, rare. In our area known only from SW 205th and Baseline Road near Hillsboro (*Alverson, 1987*, OSC) and Green Mountain (*Habegger, 1998*, WTU). |
| *Stellaria calycantha* | **[*Alsine borealis*]. Northern chickweed. Low ground and bottom lands. Columbia and Willamette Rivers near Portland. May-July.** Collected on Sauvie Island by Joseph Howell in 1876 (HPSU). | Native. Common in moist woodlands throughout our area. |
| *Stellaria crispa* | **[*Alsine crispa*]. Crisp leaved chickweed. Rare in moist rich woods about the city. May-July.** Collected at Willamette Heights by Sheldon in 1902 (OSC). | Native, rare historically and rare today. In our area known only from Forest Park (PPR 2004), Fifth Plain forested wetlands, and SW of Battle Ground, the latter beyond our limits (*Gaddis*). |
| *Stellaria graminea* | Grasslike starwort. Not listed by Gorman or Nelson. Collected at Portland, probably by Henderson, in 1888 (OSC). | Exotic, rare. Introduced 1875-1899. In our area known only from Camassia Preserve. |
| *Stellaria longifolia* [*Stellaria calycantha* in part] | **[*Alsine longifolia*]. Long leaved starwort. In moist places about Oswego. April-July.** Collected at Oswego by Howell in 1889, and at Willamette Heights by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. To be sought in wet meadows or moist woods. |
| *Stellaria longipes* [*Stellaria longipes* var. *altocaulis*] | Longstalk starwort. Not listed by Gorman or Nelson. | Native, rare. In our area known only from NE 110th Street and Curtin Drive, NW 139th Street and 2nd Avenue, riparian forest along lower Salmon Creek in Clark County (*Gaddis*), and at the N end of Sauvie Island (Marttala et al. 2002). |
| *Stellaria media* | **[*Alsine media*]. Chickweed. Very common weed in fields, gardens, lawns, and waste places about the city. Naturalized from Europe. February-October.** On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Very common throughout our area. |
| *Stellaria nitens* | **[*Alsine nitens*]. Slender starwort. Moist ground. Swan Island and Ross Island. April-July.** Collected on Sauvie Island by the Howells between 1882 and 1890, at North Portland and Oswego by Henderson in 1882 and 1887, on Elk Rock Island by an unknown collector in 1889, and at the County Poor Farm by Sheldon in 1902 (HPSU, OSC). | Native, rare. Last seen in our area on Elk Rock Island (*Marttala, Brunkow & Poff, 1991*). |
| *Vaccaria hispanica* [*Vaccaria segetalis*] | **[*Saponaria vaccaria*]. Cow-herb. Infrequent in fields and waste places about city. Naturalized from Europe. June-August.** Collected near Hillsboro by Thomas Howell in 1881, on ballast at Lower Albina by Sheldon in 1902 (HPSU, OSC), at Linnton (Nelson 1917, as "rare"), in railroad yards at Portland (Nelson 1918a), and at East Portland by Thompson in 1925 (WTU). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |

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| **Celastraceae** | | |
| *Euonymus europaeus* | European spindletree. Not listed by Gorman or Nelson. | Exotic. Introduced 1975-1999. In our area known only from two sites along the Springwater Corridor Trail between SE 111th and SE 122nd Avenues (*Marttala, 1998*, *2006*), where at least 20 plants occur in various age classes. Possibly escaped from the Leach Botanical Garden, where planted. Occurrences at other known sites were probably planted and do not appear to be naturalizing (*Marttala*). |
| *Euonymus occidentalis* | **Western strawberry bush. Moist creek banks. Balch Creek** [Gorman and Sheldon 1905]**, St. Helens Road, and on creeks seven miles east of Vancouver. May-June.** Collected repeatedly around the metro area between 1885 and 1975 (OSC). | Native, rare. Scarce in our area. Camassia Preserve (Horvath 1993), Tryon Creek State Park (*Kimpo*), Wilsonville, and Lake Oswego (*Newhouse*), Macleay Park, Tualatin River NWR (Maffitt et al. 2005-2008), Willamette Narrows (Smyth 1999b), Salmon Creek watershed (*Gaddis*). |
| **Ceratophyllaceae** | | |
| *Ceratophyllum demersum* | **Hornwort. In ponds. East Portland, etc. May-July.** | Native. Common throughout our area. Burlington Bottoms, Sauvie Island, Columbia River, Ridgefield NWR. |
| **Chenopodiaceae** | | |
| *Atriplex hortensis* | Garden orache. Not listed by Gorman or Nelson. Collected at Oregon City by Inskeep in 1933 (OSC). | Exotic, rare. Introduced 1925-1949. No recent reports from our area. |
| *Atriplex patula* var. *patula* | Spear saltbush. On the sandy shore of Hayden Island (Nelson 1923b). Collected on ballast at Portland by Henderson in 1886, at Lower Albina by Suksdorf and Sheldon in 1900 and 1902, and at Linnton by Suksdorf and Gorman in 1910 and 1919, where "infrequent" (OSC, REED, WTU). | Native, rare. No recent reports from our area. It should be sought on Hayden Island. |
| *Atriplex prostrata* | Triangle orache. On ballast at Linnton (Nelson 1917, as *Atriplex patula* var. *hastata*). Collected at Portland by Henderson in 1889 and at Albina by Suksdorf in 1901 (OSC). | Native, rare. No recent reports from our area. Native to the coast but presumably introduced at Portland. |
| *Atriplex rosea* | Tumbling saltweed. Collected on rocky shores and "sandy waste ground" at Lower Albina by Peck in 1920 (OSC; Nelson 1921). It began to appear E of the Cascades around 1890 (Soth 1926). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Mostly E of the Cascades. |
| *Bassia scoparia* [*Kochia scoparia*] | Burningbush. Not listed by Gorman or Nelson. Known from E Oregon since 1929, but not seen in the Willamette Valley until 1997 (OSC). | Exotic, rare. Introduced 1975-1999. Reported from along Interstate 84 about 1 mile E of the Sandy River (*Wilson*, OFP), and along Interstate 5 between N Going Street and N Ainsworth Street (*Wilson et al*., OFP). Following roads and railroads. |
| *Chenopodium album* | **Lamb's quarters. A common weed in fields, gardens, roadsides, and waste places everywhere. Naturalized from Europe. May-September.** On ballast at Linnton, and "a troublesome garden weed" (Nelson 1917). | Exotic. Introduced 1875-1899. A common weed throughout our area. |

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| *Chenopodium ambrosioides* [*Dysphania ambrosioides*] | Mexican tea. Collected on fill at SE 3rd and Main Street by Flinn in 1917 (HPSU), on ballast at Linnton, and "occasional" on sand bars along the Willamette River (Nelson 1916, 1917). | Exotic. Introduced 1900-1924. Occasional to frequent on sand and soil banks along the Columbia and Clackamas rivers. SE 10th and Hawthorne, NE Martin Luther King between Davis and Everett (*Marttala*), N end of Sauvie Island (Marttala et al. 2002). |
| *Chenopodium botrys* [*Dysphania botrys*] | **Jerusalem oak. Infrequent on stream banks. Along Willamette River, about Bridgeton, Columbia Beach, etc. Naturalized from Europe. June-September.** Collected at Portland by Flinn in 1909 and 1911 (HPSU). Gorman (1916) thought it had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Exotic. Introduced 1900-1924. Occasional in our area on disturbed soils along river bottoms, roadsides, and waste places. |
| *Chenopodium glaucum* | **Oak leaved goosefoot. Waste places and sandy banks at head of Hayden Island. Infrequent. Naturalized from Europe. June-September.** On a sand bar in the Columbia River opposite Vancouver (Nelson 1916, 1918a). Gorman must have added this species to the proof sheets for his *Muhlenbergia* paper, because it was not in the original manuscript. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Mostly E of the Cascades on saline or alkaline soils. |
| *Chenopodium humile* [*Chenopodium rubrum* var. *humile*] | **Low goosefoot. An infrequent, dwarf plant on moist sand spits and sandy banks at the head of Hayden Island. June-October.** Collected by Flinn at the E end of Hayden Island, along Columbia Slough, and along the Columbia River in 1915 (HPSU). Gorman must have added this species to the proof sheets for his *Muhlenbergia* paper, because it was not in the original manuscript. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Chenopodium multifidum* | **[*Roubieva multifida*]. Cut-leaved goosefoot. On ballast grounds and waste places. Lower Albina. Adventive from Peru or Chile. May-September.** Collected at Portland and North Portland by Henderson in 1884 and 1885, on ballast at Lower Albina by Sheldon in 1902, and on ballast at Linnton by Nelson in 1922 (OSC; Nelson 1916, 1917, 1920a, 1923a; Hitchcock et al. 1955-1969; Peck 1961). Nelson thought it would persist in the regional flora, but Hitchock et al. (1955-1969) did not. | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Chenopodium murale* | **Nettle-leaved goosefoot. Infrequent on ballast grounds and waste places. Lower Albina. Adventive from Europe. June-September.** Collected on ballast at Portland by Henderson in 1883 and 1885, at Portland by Suksdorf in 1900, on ballast at Lower Albina by Sheldon in 1902, at the "eastside depot" by Flinn in 1915 (HPSU, OSC, REED, WTU), on ballast at Linnton and "along the Columbia River" (Nelson 1917), and at Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. Common throughout our area. |
| *Chenopodium polyspermum* var. *acutifolium* | Manyseed goosefoot. Not listed by Gorman or Nelson. Collected on ballast at Linnton by Suksdorf in 1912 (WTU). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |

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| *Chenopodium pumilio* | Clammy goosefoot. Collected on sand at Hayden Island by Nelson in 1922 (OSC; Nelson 1923b, as *C. carinatum*). | Exotic. Introduced 1900-1924. Occasional along the Clackamas River. |
| *Chenopodium subglabrum* [*Chenopodium leptophyllum*, *Chenopodium leptophyllum* var. *subglabrum*] | Smooth goosefoot. Not listed by Gorman or Nelson. | Native. Reported from Salmon Creek Road near Mill Creek in Clark County, but needing verification (*Gaddis*). |
| *Chenopodium vulvaria* | Stinking goosefoot. Not listed by Gorman or Nelson. Collected at Linnton by Suksdorf in 1911 (WTU). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Corispermum americanum* | **[*Corispermum hyssopifolium*]. Bug seed. Not uncommon on sand spits and sandy banks at head of Hayden Island. June to September.** Collected near the Interstate Bridge by Flinn in September 1915 (HPSU), and Gorman added it to his *Muhlenbergia* manuscript three months later. It was one of a number of species that he thought had come from E of the Cascades via the Columbia Gorge (Gorman 1916). Nelson (1918a) and Peck (1961) repeated the Hayden Island locality. | Native, rare. In our area known only from a weedy area on Hayden Island (*Chambers, 1992,* OSC), and the N end of Sauvie Island (Marttala et al. 2002). Based on specimen annotations, historical reports of *C. hyssopifolium* from the Portland area can be referred to *C. americanum*. Introduced 1875-1899. |
| *Corispermum pacificum* | Common bugseed. Collected on sandbars at Hayden Island by Thompson in 1927 (WTU). | Native, rare. Persisting at Hayden Island, the only known locality in our area (*Zika, 2002*, WTU). |
| *Rhagodia hastata* | **[*Chenopodium hastatum*]. Shrubby goosefoot. An introduced evergreen shrubby weed on ballast ground and waste places. Lower Albina. Adventive from Australia. July-September.** Nelson (1923a) also reported the occurrence at Lower Albina, and thought it would persist in the regional flora. | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. Hitchcock et al. (1955-1969) erroneously listed *Chenopodium hastatum* as a synonym of *Atriplex patula*, which is neither evergreen nor shrubby. *Rhagodia* is, as Gorman wrote correctly, a shrubby chenopod from Australia. |
| *Salsola kali* ssp. *pontica* | Russian thistle. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Salsola tragus* [*Salsola kali* var. *tenuifolia*] | **[*Salsola kali tenuifolia*]. Russian thistle. A pernicious weed becoming common in fields, vacant lots, and waste places around Portland, and on sand spits at the head of Hayden Island. Naturalized from Asia. June-September**. Collected on Hayden Island by Flinn and Peck in 1915 and 1922, on sand ballast at Lower Albina by Gorman in 1919, on ballast at Linnton (Nelson 1917), and at Oregon City by Cook in 1949 (OSC). Soth (1933) saw it "occasionally" in Portland but noted that it did not thrive. | Exotic, rare. Introduced 1900-1924. Reported from along Interstate 5 between the Interstate 84 junction and the Fremont Bridge (*Wilson et al*., OFP). |
| *Spinacia oleracea* | Spinach. On ballast at Linnton (Nelson 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area outside of vegetable gardens, where it is widely grown. Currently not known to have naturalized. |

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| **Clusiaceae** [Hypericaceae, Guttiferae] | | |
| *Hypericum anagalloides* | **Dwarf St. John's-wort. Wet places. Mouth of Balch Creek. June-August.** Collected at Portland by Henderson in 1882, near Mt. Scott by Sheldon in 1902, and at Lake Oswego by Ornduff in 1960 (OSC). | Native, rare. Scarce in our area. Clear Creek, Willamette Narrows, Peach Cove Fen (*Christy, 1996*; Smyth 1999b), Berry Botanic Garden (*Marttala*), less disturbed wetlands of Lacamas Creek and Salmon Creek watersheds (*Gaddis*). More common at higher elevations. |
| *Hypericum calycinum* | Aaron's beard. Not listed by Gorman or Nelson. Collected at Portland by Thompson in 1925 (WTU). | Exotic. Introduced 1900-1924. A common landscape and garden plant reproducing vegetatively from dumped garden debris, but not particularly invasive. |
| *Hypericum perforatum* | **Common St. John's-wort. Very common in fields, vacant lots, waysides, and waste places everywhere about Portland. Naturalized from Europe. Thirty years ago this species was comparatively rare in our limits, but at present it is one of our most common, noxious and troublesome weeds. May-September.** On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Very common throughout our area on disturbed sites. Listed as a Class B Noxious Weed by ODA, but not on the quarantine list. Seed may still be purchased on the internet. |
| *Hypericum scouleri* ssp. *scouleri* [*Hypericum formosum* var. *scouleri*] | **[*Hypericum scouleri*]. Scouler's St. John's-wort. Moist ground and open woods. St. Helens Road. June-August.** Collected a number of times around Portland between 1880 and 1935 (OSC, WTU). | Native. Occasional in wetlands throughout our area. Foley-Balmer Natural Area and Killin Wetland, the latter somewhat outside our limits. Formerly known from Reed College and Interlachen wetland. |
| **Commelinaceae** | | |
| *Commelina communis* | Asiatic dayflower. Not listed by Gorman or Nelson. Collected at Portland by Suksdorf in 1900 (WTU). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| **Convolvulaceae** | | |
| *Calystegia sepium* ssp. *angulata* [*Convolvulus sepium*] | **Wild morning-glory. Moist ground, fields, and waste places. Sauvie Island, about the old Indian campground. June-October.** Collected three times at Portland between 1889 and 1924 (OSC). Gorman (1916) thought it had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Exotic. Introduced 1875-1899. A common and pernicious weed throughout our area. It requires light and so is not a problem in forests. Native to E North America. |
| *Calystegia soldanella* [*Convolvulus soldanella*] | Seashore false bindweed. Not listed by Gorman or Nelson. | Native, rare. Reported from the Terminal 5 mitigation site near intersection of N Time Oil Road and N Rivergate Road (*Wilson*, OFP), where probably growing on sandy dredge spoils. Mostly restricted to coastal sand dunes. |
| *Convolvulus arvensis* | **Field bindweed. A pretty but troublesome weed along railroad tracks, East Portland, and in fields, vacant lots, and waste places. Quimby Street between 20th and 21st Streets, Columbia Park, Mt. Tabor, etc. Naturalized from Europe. May-August.** Collected on ballast at Portland by Henderson as early as 1886, at Lower Albina by Sheldon in 1902 (NY), and on ballast at Linnton, where "common" (OSC; Nelson 1917). | Exotic. Introduced 1875-1899. Common in vacant lots and fields. |

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| *Ipomoea hederacea* | **Ivy-leaved morning-glory. Occasional in filled ground and waste places. 28th and Thurman Streets, East Portland, and elsewhere about the city. Introduced from tropical America. June-September.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. Readily available on the internet as an ornamental. |
| *Ipomoea purpurea* | **Morning-glory. Occasional in filled ground and waste places. 28th and Thurman Streets and elsewhere around Portland. Introduced from tropical America. June-September.** Available commercially in the West since 1873 (Adams 2004). | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. Abrams and Ferris (1923-1960) and Hitchock et al. (1955-1969) indicated that it was an occasional to frequent garden escape and at least temporarily established in the area, but probably not persistent. |
| **Cornaceae** | | |
| *Cornus canadensis* [*Cornus unalaschkensis*] | Canadian dogwood, bunchberry. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840, as *C. suecica*), and at Forest Grove by Marsh between 1867 and 1890 (WTU), the latter somewhat beyond our limits. | Native, rare. In our area known only from Tualatin River NWR (Maffitt et al. 2005-2008). Reported from St. Mary's Woods (*Walthall*, OFP). More common at higher elevations in the Coast Range and Cascades. |
| *Cornus nuttallii* | **Western dogwood. Common on hillsides and in open coniferous woods. It is a prolific seeder and it is safe to say that the tree has quadrupled in numbers in this section in the past 30 years owing to the clearing away of the coniferous forest which has taken place within that period. City Park, Macleay Park** [Gorman and Sheldon 1905]**, Lewis and Clark Fair Grounds, Portland Heights, Mt. Tabor, etc. April-October.** Van Dersal (1929) found it "abundant throughout the region." Reed College (Davies 1938). | Native. Fairly common in forest edges throughout our area. Canyon Road, Kelly Butte, Powell Butte. Probably less common now than in Gorman's day because of urban development, recovery of cut-over forests, and its susceptibility to anthracnose. |
| *Cornus sericea* [*Cornus stolonifera*] | **[*Cornus occidentalis*]. Wooly-leaved cornel, western cornel. Wet steam banks. Barnes Road, St. Helens Road, Oswego, etc. April-June.** Macleay Park (Gorman and Sheldon 1905). Reed College (Van Dersal 1929). Available commercially in the West since 1894, and sold locally as early as 1912 (Adams 2004). | Native. Very common throughout our area. Typically in floodplain wetlands. |
| **Crassulaceae** | | |
| *Crassula aquatica* [*Tillaea aquatica*] | **Mud-bank pigmy-weed. Moist ground. Sauvie Island. June-September.** Collected several times on Sauvie Island between 1884 and 1927, and along Johnson Creek by Henderson in 1884 and 1885 (OSC, WTU). | Native. Common on moist sand, silt, and mudflats along the Columbia River, often within the freshwater intertidal zone. Ridgefield NWR. |
| *Sedum acre* | Goldmoss stonecrop. Not listed by Gorman or Nelson. Collected at Linnton by Suksdorf in 1912 (WS). Available commercially by at least 1875 (Adams 2004). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Sedum lanceolatum* | Spearleaf stonecrop. Not listed by Gorman or Nelson. | Native, rare. In NW Oregon, known only from just outside our limits at St. Helens (*Chambers, 2002*, OSC; Pierce 2003). More common E of the Cascades. |

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| *Sedum oreganum* | **[*Gormania oregana*]. Oregon stonecrop. On rocky places. Rocky Butte. May-July.** The collection at Rocky Butte was made by Sheldon in 1903 (OSC). | Native, rare. In our area, known only from Lewis and Clark State Park just E of the Sandy River delta (*Kemp, 1994*, OFP), on cliffs along the Sandy River just downstream from the Stark Street Bridge (*Maffitt, 2009*), and along Washougal River Road (*Gaddis*). Also further up the Sandy River, beyond our limits (*Marttala*). |
| *Sedum spathulifolium* | **Mealy stonecrop. On moist rocks. Elk Rock. May-July.** Collected at Elk Rock by Henderson in 1884 and 1888, and at Willamette Falls by Sheldon in 1902 and 1903 (OSC). Seen at Elk Rock by Marttala in 1976. | Native, rare. In our area known only from Camassia Preserve, and the N end of Sauvie Island (Marttala et al. 2002). More common further up the Sandy River drainage, beyond our limits. |
| *Sedum stenopetalum* | **[*Sedum douglasii*]. Douglas' stonecrop. On rocky ridges. Near Oswego and Rocky Point. May-July. [*Sedum uniflorum*]. One-flowered stonecrop. On rocks. North end of Elk Rock. May-July.** Collected at Elk Rock by Thomas Howell in 1880 and Sheldon in 1903, at Willamette Falls by Henderson in 1884, and on Sauvie Island by Howell in 1886 (OSC). "On rocks along the Willamette and Columbia rivers near Portland" (Howell 1897-1903, as *Sedum uniflorum*). | Native, rare. In our area known only from the N end of Sauvie Island (Marttala et al. 2002). Not relocated at Elk Rock (PPR 2004). |
| **Cucurbitaceae** | | |
| *Echinocystis lobata* | **[*Micrampelis lobata*]. Wild cucumber. Occasional in vacant lots and waste places. Climbing by tendrils over weeds, shrubbery, fences, etc. Adventive from northeastern United States. July-October.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. The species is similar to *Marah oreganus* and may have been confused with it. There are two recent reports of *E. lobata* from Marion County (*Wilson*, OFP), and an old report in Abrams and Ferris (1923-1960) as a sporadic escape from cultivation in the Willamette Valley. |
| *Marah oreganus* | **[*Micrampelis oregana*]. Oregon man root. Moist open woods and margins of fields. Oswego, Oswego Lake, Canyon Road, etc. April-June.** | Native. Occasional throughout our area. Johnson Creek, Powell Butte. Typically on untilled soil at the fringes of agricultural areas and woodlands. |
| **Cupressaceae** | | |
| *Calocedrus decurrens* | Incense cedar. Not listed by Gorman or Nelson. | Native. Occasional on drier slopes and more common southwards. Reported from the Terminal 5 mitigation site near intersection of N Time Oil Road and N Rivergate Road (*Wilson*, OFP), and along Interstate 5 between Durham and Bertha, and between the Interstate 84 junction and N Lombard Street (*Wilson et al*., OFP). |
| *Thuja plicata* | **Western red cedar, Pacific red cedar. On nearly all wooded slopes around Portland, but never occurring in pure stands. April, May.** Macleay Park (Gorman and Sheldon 1905). | Native. Very common in moist conifer woods. Over the past 1-2 years, disease or insects have killed sizeable stands of this species near Mt. Scott. Similar die-off has been observed in the southern Puget Sound and W of Snoqualmie pass, near North Bend, Washington. |

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| **Cuscutaceae** | | |
| *Cuscuta epithymum* | **Clover dodder. On clover and alfalfa near Milwaukie. Introduced from Europe. June-September.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Its disappearance is presumably linked to the decline in agriculture within the metro area. |
| *Cuscuta indecora* | Bigseed alfalfa dodder. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1910 (WTU). | Native, rare. No recent reports from our area. Its disappearance is probably linked to the decline in agriculture within the metro area. |
| *Cuscuta pentagona* [*Cuscuta arvensis*] | **Field dodder. On timothy, alfalfa, and other plants. Base Line Road, Section Line Road, etc. June-September.** Collected on Sauvie Island by Peck in 1926 (OSC). | Native, rare. In our area known only from the Steinborn Unit of the Tualatin River NWR (*Maffitt, Robinson*). Its scarcity is probably linked to the decline in agriculture within the metro area. |
| **Cyperaceae** | | |
| *Carex amplifolia* | Big-leaf sedge. Not listed by Gorman or Nelson. | Native, rare. Scarce in our area. Powell Butte (*Marttala*), Clear Creek (*Kimpo*). A population near Salmon Creek and Highway 99 in Clark County was filled for road construction (*Gaddis*). |
| *Carex aperta* | **Hay sedge. A slender, densely tufted plant forming extensive meadows on overflown bottom lands in the valley of the Columbia and its tributaries. Common about Columbia Slough etc. June-August.** Collected numerous times at Sauvie Island, Swan Island, Ross Island, and Bybee Slough between 1881 and 1963 (OSC, REED). Howell (1897-1903, as *C. bovina*) wrote that this sedge formed "extensive meadows of many acres...on lands that are overflown by the Columbia River in June." Piper and Beattie (1915) referred to it as "the common 'hay sedge' of the Columbia River bottoms." | Native. Not rare in our area but never plentiful. Occurring as scattered individuals or in small patches along the Columbia and Willamette rivers. Oaks Bottom (*Marttala*), Burlington Bottoms (*Christy, 1991*), Vancouver Lake lowlands (*Christy, 1992; Gaddis*), Smith and Bybee Lakes (*Alverson, 1987*), Sandy River delta (*Zika, 1992*). The "extensive meadows" of Gorman's day have disappeared because of farming of diked bottomlands and overwhelming competition from *Phalaris arundinacea*. Known remnant stands dominated by *C. aperta* are no larger than about 1 acre each, the best remaining at Smith and Bybee Lakes and the Vancouver Lake lowlands. Metro is restoring this community at Smith and Bybee Lakes. |
| *Carex aquatilis* var. *dives* [*Carex sitchensis*] | Sitka sedge. Not listed by Gorman or Nelson. Collected at Forest Grove by Lloyd in 1894 (UTC), somewhat beyond our limits. | Native, rare. In our area known only from Multnomah Channel (*Patrick*), Corral Creek (*Smyth*), and Killin Wetland (*Christy, 1991; Kimpo*). In Gorman's day, *C. aquatilis* var. *dives* was called *C. howellii*. |
| *Carex arcta* | Northern cluster sedge. Not listed by Gorman or Nelson. Collected at Elk Rock and Oregon City by Sheldon in 1902 (OSC, REED). | Native, rare. In our area known only from North Keys near Wilsonville, Rock Creek in Beaverton (*Alverson, 1987*, OSC), and NW of Ridgefield (*Burnett, 1987,* OSC), the latter somewhat beyond our limits. |
| *Carex arenaria* | Sand sedge. Collected on ballast at Linnton by Nelson and Suksdorf in 1916 and 1919 (OSC, WS, WTU; Nelson 1917). Nelson thought this was the first report of the species from Oregon. | Exotic, rare. Introduced 1900-1924. In our area known only from along the sandy E shore of Sauvie Island (*Zika, 2003*, OSC; Wilson et al. 2008). Native to Europe. |

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| *Carex athrostachya* | Slenderbeaked sedge. Not listed by Gorman or Nelson. Collected at Elk Rock by Sheldon in 1903, and near Forest Grove by Thompson in 1926, the latter somewhat beyond our limits (OSC, WTU). | Native. Occasional in our area. NE 185th and Marine Drive (Kral, 1997, HPSU), Arrowhead Creek, Smith and Bybee Lakes (*Gaddis, 2006*), Tualatin River NWR (*Maffitt, Marttala*), and Fifth Plain wetlands in Clark County (*Gaddis*). Reports from Tryon Creek State Park (*Bluhm*, *1996*, OFP) are suspect because suitable habitat appears to be lacking. |
| *Carex aurea* | **Golden-fruited sedge. Common in upland swales and wet meadows. Oswego, Woodlawn, etc. This species commonly occurs with *Spiraea douglasii*. June-July. [*Carex aurea celsa*]. Tall golden sedge. Upland swales and wet meadows. Oswego, Laurelhurst Park, St. Johns, etc. June, July.** Collected by Henderson, Sheldon and Howell around Portland, at the Car Works in East Portland, and on or near Mt. Scott between 1880 and 1903 (OSC, REED, UC). | Native, rare. No recent reports from our area. Plants are small and easily overlooked but are also probably poor competitors in urban wetlands. Most of the occurrences of *C. aurea* in our area have at one time or another been called *Carex hassei*, but the taxa are poorly differentiated. Until the identity of local specimens is better resolved, we follow Hitchcock et al. (1955-1969), Hitchcock and Cronquist (1976), and OFP in lumping *C. hassei* with *C. aurea*. |
| *Carex bolanderi* [*Carex. deweyana* var*. bolanderi, Carex deweyana* in part] | **Bolander's sedge. Moist copses. Sauvie Island and near Linnton. May-August.** Collected at Portland by Henderson in 1882 (OSC, REED). | Native. In moist woodlands, particularly in riparian stands. Along with *C. leptopoda*, this taxon was recently split from *C. deweyana.* Of specimens that have been annotated, *C. bolanderi* appears to be less common locally than *C. leptopoda*, and reportedly it matures later in the season than *C. leptopoda* (Wilson et al. 2008). |
| *Carex canescens* ssp. *canescens* | Silvery sedge. Not listed by Gorman or Nelson. Collected at Farmington by Rowe in 1978 (LCEU). | Native, rare. No recent reports from our area. |
| *Carex comosa* | Longhair sedge. Not listed by Gorman or Nelson. Collected on Sauvie Island, including the "floating islands" site, by Howell and Henderson in 1882, 1884, and 1887 (OSC, REED). | Native, rare. No recent reports from our area. Thought to have been extirpated in Oregon but rediscovered in Klamath County in 2003 (Wilson et al. 2008). Henderson's 1887 collection, labeled "S. Island," has been interpreted by some as Swan Island, but he collected many more species on Sauvie Island than on Swan Island. |
| *Carex cusickii* | Cusick's sedge. Not listed by Gorman or Nelson. Collected at the Car Works in East Portland by Henderson in 1879, and at Oswego Lake by Nelson in 1916 and Gorman and Peck in 1919 (OSC, WS). | Native, rare. In our area known only from Peach Cove Fen (*Christy, 1996; Smyth*), and Padden wetlands in Clark County (*Gaddis*). |
| *Carex densa* | **[*Carex vicaria*]. Rust colored sedge. Wet places. Oswego, south of Milwaukie, and about Vancouver. May-July.** Collected at Portland by Henderson in 1887 and Sheldon in 1902 (OSC). | Native. Occasional throughout our area in wet prairies. Springwater Corridor Trail at SE 109th Street (*Marttala*, *1968*, REED), Beaverton (*Alverson 1987*, OSC), Tualatin River NWR (*Maffitt, Marttala*), Green Mountain (*Habegger, 1998*, WTU) and three other sites in Lacamas and Salmon Creek watersheds (*Gaddis*). Often used in restoration because of plentiful seed production and high germination rate. |
| *Carex echinata* ssp. *echinata* [*Carex muricata*] | **[*Carex sterilis*]. Little prickly sedge. Fairly common in moist ground near Oswego. May-July.** | Native, rare. In our area known only from Camassia Preserve (*Trask & Abrams*, *2001*, HPSU). |

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| *Carex exsiccata* [*Carex vesicaria* var. *major*] | **[*Carex monile*]. Necklace sedge. Common on wet ground and bottom lands. Sauvie Island, Columbia Slough, etc. May-August. [*Carex mirata*]. Swale sedge. In swales and boggy ground. Oswego, Sauvie Island, etc. May-August.** Collected at Oregon City and near Mt. Scott by Sheldon in 1902 and 1903, and on Sauvie Island by Howell in 1880, Constance and Beetle in 1940, and Trainer in 1963, and N of Tonquin by Thompson in 1927, (OSC, REED, WS, WTU). | Native. Occasional to scarce in our area. Killin Wetland (*Christy, 1991*), Ridgefield NWR (*Christy, 1992*), Gales Creek, Johnson Creek, Peach Cove Fen (*Christy, 1996*), Hooten Wetland (*Kimpo*), Zenger Farm (*Marttala*), Green Mountain (*Habegger, 1998*, WTU), Barberton and Padden wetlands in Clark County (*Gaddis*). Usually overrun by *Phalaris arundinacea* except where perennially flooded. Gorman's "*Carex monile*" is *C. vesicaria* var. *monile*, native to E North America and not known to occur in Oregon (Wilson et al. 1999; Wilson et al. 2008). Presumably he was referring to *C. exsiccata* (= *C. vesicaria* var. *major*). |
| *Carex feta* | **Western sedge. Swales and wet ground. Oswego, Vancouver, etc. May-July.** Collected at Vancouver by Henderson in 1882 (REED). | Native. Occasional around Portland but common in Clark County (*Gaddis*). Oaks Bottom (*Marttala*), Springwater Corridor Trail near SE 113$^{th}$ (*Marttala*), Burlington Bottoms (*Christy, 1989*), Tualatin River NWR (*Maffitt, Marttala*), Ridgefield NWR (*Christy, 1992*), Cooper Mt. (*Kral, 1998*, HPSU), Shanghai Creek in Clark County (*Zika, 2001*, WTU). |
| *Carex hendersonii* | **[*Carex hendersoni*]. Henderson's sedge. Broad-leaved species in coniferous woods. Macleay Park, Laurelhurst Park, Willamette Heights, etc. June-August.** Collected on Sauvie Island by Thomas Howell in 1882 and by Thompson in 1928, and several times around Portland by Henderson between 1882 and 1889 (GH, type; NY, OSC, REED, WTU). | Native. Occasional to locally common in coniferous forests not overrun by *Hedera*. Forest Park (Houle 1996), Berry Botanic Garden, Powell Butte, Clackamas High School, Clackamas River, Mary S. Young State Park (*Marttala*), Tualatin River NWR (*Maffitt, Marttala*). Occasional in Clark County (*Gaddis*). |
| *Carex hirta* | Hammer sedge. Collected on ballast at Linnton by Nelson in 1916 (OSC; Nelson 1917; Wilson et al. 2008). He thought this was the first report of the species from Oregon. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Carex hoodii* | Hood's sedge. Not listed by Gorman or Nelson. Collected on the Willamette River near St. John's by Thompson in 1927 (WTU). | Native, rare. No recent reports from our area. More common at higher elevations in the Cascades and eastwards. |
| *Carex inops* ssp. *inops* [*Carex pensylvanica* var. *vespertina*] | Long-stolon sedge. Not listed by Gorman or Nelson. Collected on hills in East Portland by Henderson in 1884, N of Tonquin by Thompson in 1927, and along the Sandy River ca. 2 miles N of Firwood by Marttala in 1968, the latter beyond our limits (REED, WTU). | Native, rare. In our area known only from Iron Mountain Park in Lake Oswego (*Newhouse*). |
| *Carex interior* | Inland sedge. Not listed by Gorman or Nelson. Collected at the Car Works in East Portland by Henderson in 1888 (REED). | Native, rare. No recent reports from our area. More common E of the Cascades and in SW Oregon. It probably came to Portland by rail. |
| *Carex interrupta* | Greenfruit sedge. Not listed by Gorman or Nelson. Collected on Sauvie Island by Henderson in 1886, along the Sandy River by Henderson in 1889, at Elk Rock and Bybee Slough by Sheldon in 1903, and along the Sandy River ca. 2 miles N of Firwood by Marttala in 1970, the last beyond our limits (OSC, REED). | Native, rare. In our area known only from the Sandy River Delta (*Zika, 1992*, OSC) and Ridgefield NWR (*Christy, 1992*), the latter beyond our limits. Reportedly more common than generally thought (Wilson et al. 2008). |

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| *Carex kobomugi* | Japanese sedge. Not listed by Gorman or Nelson. Collected on sand ballast at Albina by Suksdorf in 1907 and 1912 (WS). | Exotic, rare. Introduced 1900-1924. Terminal 5 mitigation site near intersection of N Time Oil Road and N Rivergate Road (*Wilson et al., 2006*, OSC). Invading sand dunes along the coast (Wilson et al. 2008). |
| *Carex laeviculmis* | Smoothstem sedge. Not listed by Gorman or Nelson. Collected on Sauvie Island by Howell in 1880 (OSC). | Native, rare. The only recent record from our area is at Peach Cove (*Smyth, 1999*), but a voucher specimen has not been found and the record was probably misidentified. More typical of higher elevations in the Cascades and Coast Range. |
| *Carex lenticularis* var. *impressa* | Lakeshore sedge. Not listed by Gorman or Nelson. Collected on Swan Island by Henderson in 1882 (REED). | Native, rare. No recent reports from our area. More common at higher elevations in the Cascades. |
| *Carex lenticularis* var. *limnophila* [*Carex lenticularis* var. *lenticularis*] | Lakeshore sedge. Not listed by Gorman or Nelson. Collected on "muddy slough banks" and in an "overflowed meadow" on Hayden Island by Gorman and Nelson in 1917 (OSC; Nelson 1918a, as *Carex hindsii*). | Native, rare. No recent reports from our area. A coastal taxon presumably introduced temporarily in our area by shipping on the Columbia River. |
| *Carex lenticularis* var. *lipocarpa* [*Carex lenticularis* var. *lenticularis*] | **[*Carex decidua*]. Creek sedge. Stream banks. Balch Creek and in ravines, St. Helens Road. This species frequently grows in creeks where it is sometimes submersed for a month or more in spring and early summer. June-August.** Collected at the Car Works in East Portland by Henderson in 1883, along Columbia Slough by Sheldon in 1902, on Sauvie Island by Peck in 1922, and from a river bank near Lake Oswego by Peck in 1926. (OSC). | Native. Occasional to scarce in our area. Columbia River shoreline near Blue Lake (*Kimpo*), Oaks Bottom (*Marttala*), Green Mountain (*Habegger, 1998*, WTU), and several other sites in Lacamas and Salmon Creek watersheds (*Gaddis*). |
| *Carex leporina* [*Carex ovalis*] | Eggbract sedge. Not listed by Gorman or Nelson. Collected at or near Mt. Scott by Sheldon in 1903 (OSC). | Native. Frequent in our area on wet prairies. Powell Butte, Canemah Bluff (Smyth 1999a), Clear Creek, North Keys, Mt. Scott, Mt. Scott Creek and Phillips Creek E of SE 82nd Street (*Alverson, 1987*, OSC). Common in Clark County (*Gaddis*). Persisting despite competition from exotic pasture grasses. Previously thought to have been exotic but now considered native (Wilson et al. 2008). |
| *Carex leptopoda* [*Carex deweyana* ssp. *leptopoda, Carex deweyana*] | **Dewey's sedge. Coniferous woods. Sauvie Island, Swan Island, and near Linnton. May-August.** Collected at Milwaukie and near Boring by Suksdorf in 1893 and 1907 (WS), "near Oswego" by Heller in 1910 (Hitchcock et al. 1955-1969), and on Sauvie Island by Thompson in 1928 (UTC, WTU). | Native. In both bottomland hardwood forests and moist conifer forests. Powell Butte, Sauvie Island, Burlington Bottoms, Mt. Scott Creek and Phillips Creek E of SE 82nd Avenue (*Alverson, 1987*, OSC), Green Mountain (*Habegger, 1998*, WTU). Along with *C. bolanderi*, this taxon was recently split from *C. deweyana*. Of specimens that have been annotated, *C. leptopoda* apppears to be more common locally than *C. bolanderi,* and reportedly it matures earlier in the season than *C. bolanderi* (Wilson et al. 2008). |
| *Carex nudata* | Naked sedge. Not listed by Gorman or Nelson. Collected along the Sandy River by Henderson in 1884, and along the lower Tualatin River by Sheldon in 1903 (OSC). | Native, rare. Reported from Troutdale (*Wilson*, OFP). Very common on cobble bars and islands in the upper Clackamas River (*Gaddis*) and to be sought along the river within our limits. |

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| *Carex obnupta* | **[*Carex sitchensis*]. Black heads. Wet places. East Portland, Car Shops, Oak Grove, etc. A tall, stout evergreen species with noticeably dark purple to almost black spikes. May-August.** Collected several times around Portland between 1882 and 1912 (OSC, WS), and at Reed College (*Van Dersal*, REED, as *C. lyngbyei*). | Native. Common throughout our area. Powell Butte, Oaks Bottom, Sauvie Island, Johnson Creek drainage, Burlington Bottoms. Gorman called this sedge *C. sitchensis* (= *C. aquatilis* var. *dives*), but his description is clearly that of *C. obnupta*. In his day, *C. obnupta* was called *C. sitchensis* because of nomenclatural confusion between *C. sitchensis* Boott (an early synonym of *C. obnupta*) and *C. sitchensis* Prescott (today's *C. aquatilis* var. *dives,* which in Gorman's day was called *C. howellii*). Hitchcock et al. (1955-1969) apparently overlooked *C. sitchensis* Boott and *C. magnifica* Dewey when compiling synonyms for *C. obnupta*. |
| *Carex pachystachya* | **[*Carex festiva*]. Dark rusty sedge. Moist grassy places. Swan Island, Ross Island, etc. June, July.** Collected at Portland by Henderson in 1882, and several times in Sullivan's Gulch by Henderson, Drake, and Sheldon between 1885 and 1902 (OSC, REED, WS). | Native. Occasional to locally common in prairies and old fields on bottomlands. Sauvie Island, Powell Butte (*Brunkow & Marttala*), Springwater Corridor Trail near SE 113th (*Marttala*), Oaks Bottom (*Marttala*), Burlington Bottoms (*Christy*), Fifth Plain Prairie, Salmon Creek lowlands, Burnt Bridge Creek wetlands (*Gaddis*). In Gorman's day "*C. festiva*" included today's *C. haydeniana, C. microptera, C. pachystachya,* and *C. subfusca*. Varieties cited in Howell (1897-1903) and range maps in Wilson et al. (1999, 2008) indicate that Gorman was most likely referring to *C. pachystachya.* |
| *Carex pallescens* | Pale sedge. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1975-1999. In our area known only from Barberton and Padden wetland in Clark County (*Zika, 2003*, WTU; *Gaddis*; Wilson et al. 2008). Native to E North America and Europe with possibly native populations in NE Washington and N Idaho (Wilson et al. 2008). |
| *Carex pellita* [*Carex lanuginosa*] | **Woolly sedge. Fairly common in moist ground. Swan Island, Ross Island, etc. May-August.** Collected on Sauvie Island by Thomas Howell, Suksdorf, and Thompson in 1886, 1895, and 1928 (OSC, WTU). | Native, rare. Scarce in our area. Sandy River Delta (*Zika, 1992*, OSC), Green Mountain (*Habegger, 1998*, WTU), Barberton and Curtin Creek watershed near NE 72nd Avenue and St. Johns Road (*Gaddis*). Present at several sites not far beyond our limits. |
| *Carex pendula* | Pendulous sedge, drooping sedge. Not listed by Gorman or Nelson. | Exotic. Introduced 2000-2008. An escaped ornamental occurring in several wetlands and riparian forest in SW Portland (*Kimpo, 2005*, OFP), near SW Market and 19th Street (Marttala), and near Wilsonville (*Newhouse, 2006*). Potentially a serious pest in riparian forest (Wilson et al. 2008). Leaves are very similar to those of *Scirpus microcarpus.* |
| *Carex praticola* | Meadow sedge. Not listed by Gorman or Nelson. Collected at edge of pond 1 mile N of Gaston by Thompson in 1927 (WTU), somewhat beyond our limits. | Native, rare. Reported from Tryon Creek State Park (*Bluhm, 1996,* OFP) but without voucher specimen. |

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| *Carex pumila* | Dwarf sedge. Not listed by Gorman or Nelson. Collected on sand ballast at Albina by Suksdorf in 1912 and 1916 (MICH, WS, WTU; Wilson et al. 2008). | Exotic, rare. Introduced 1900-1924. No recent reports from our area and not found in Oregon since Nelson's report. |
| *Carex retrorsa* | Knotsheath sedge. Not listed by Gorman or Nelson. | Native, rare. In our area known only from near the Springwater Corridor Trail (*Marttala*). Also at Rooster Rock and near the N end of Sauvie Island (*Christy 1990*, *1992*), both slightly beyond our limits. |
| *Carex rossii* | **[*Carex umbellata*]. Matted sedge. Infrequent on dry ground. South end of Elk Rock. April-July.** Collected "on bluffs opposite Oswego" by Henderson and Drake in 1886, and along the Sandy River ca. 2 miles N of Firwood by Marttala in 1968, the latter beyond our limits (OSC, REED). | Native, rare historically and rare today. No recent reports from our area. Gorman's *Carex umbellata* is native to E North America and does not occur in Oregon (Wilson et al. 1999; Wilson et al. 2008). Gorman followed nomenclature used by Piper (1906), and most collections of *C. umbellata* cited in that work were later attributed to *C. rossii*. |
| *Carex scoparia* var. *scoparia* | Broom sedge. Not listed by Gorman or Nelson. Collected at Portland and Vancouver by Henderson in 1882, near Gresham by Suksdorf in 1919, and on bluffs near Willamette Falls by Constance and Beetle in 1940 (OSC, REED, WTU). | Native, rare. Tigard (*Alverson, 1987*, OSC), Ramsay Lake (*Halse, 2000*, OSC), Sandy River Delta (*Zika & Christy, 1992*, OSC), and near Shanghai Creek and NE 202nd Avenue in Clark County (*Zika, 2001*, WTU). Commercial seed supplies come from E North America and should not be used locally (Wilson et al. 2008). |
| *Carex stipata* var. *stipata* | **Awl-fruited sedge. Fairly common in moist open woods and wet ground. East Portland and about Oswego. May-July.** Collected at Portland by Henderson in 1882, and at Sullivan's Gulch by Sheldon in 1902 (OSC). Reed College (Davies 1938). | Native. Common on wet ground throughout region. Its success in urban wetlands is due in part to its high tolerance for flashy hydrologic conditions and ability to compete with introduced perennial grasses. |
| *Carex tribuloides* var. *tribuloides* | Blunt broom sedge. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. Scarce in our area. Sandy River delta, where originally identified as *C. feta* (*Zika & Weinmann, 2000*, WTU; Zika and Alverson 2005; Wilson et al. 2008). Native to E North America. |
| *Carex tumulicola* | Foothill sedge. Not listed by Gorman or Nelson. | Native, rare. Sporadic in mesic to dry prairies. Cooper Mountain (*Kral, 1997, 1998*, HPSU; *Kimpo, 2001*, HPSU; Wilson & Kral 1999), Willamette Narrows (Smyth 1999b), Jackson School Road (*Kimpo*), and Green Mountain (*Habegger, 1998*, WTU). |
| *Carex unilateralis* | One-sided sedge. Not listed by Gorman or Nelson. Collected at Hillsboro by Henderson, Gorman, Dickson, and Drake between 1882 and 1889, and at Elk Rock and Willamette Falls by Sheldon in 1902 (OSC, WTU). | Native. Frequent in shallow ditches and wet prairies. Oaks Bottom and Springwater Corridor Trail (*Marttala*), Green Mountain (*Habegger, 1998*, WTU), Shanghai Creek and NE 202nd Avenue (*Zika, 2001*, WTU). It is inexplicable why Gorman or Nelson did not list this relatively common species. |
| *Carex utriculata* [*Carex rostrata*] | Beaked sedge. Not listed by Gorman or Nelson. Collected on Sauvie Island by Henderson in 1882 and Thomas Howell in 1887, at Portland by Henderson in 1883, in "bogs near Portland" and at "McAllister's Lake" by Henderson in 1888, and in Sullivan's Gulch by Sheldon in 1902 (OSC, REED). | Native, rare. In our area known only from Green Mountain, the Salmon Creek lowlands, St. Johns Sink, and LaCenter Bottoms, the last beyond our limits (*Gaddis*). Common at higher elevations in the Cascades. |

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| *Carex vulpinoidea* | Fox sedge. Not listed by Gorman or Nelson. Collected near Vancouver by Thompson in 1926 (WTU). | Native, rare. Scarce in our area. Arrowhead Creek, Tualatin, Mt. Scott Creek and Phillips Creek E of SE 82nd Street (*Alverson, 1987*, OSC), Sandy River delta (*Zika, 1992,* OSC). Known previously from Troutdale and Interlachen (*Kral; Sears*, WTU). More common in the Columbia Gorge and eastwards. |
| *Cyperus aggregatus* | Inflatedscale flatsedge. Not listed by Gorman or Nelson. Collected on sand ballast at Linnton by Nelson in 1919 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Cyperus dubius* [*Mariscus dubius*] | Flatsedge. On ballast at Linnton in 1916 (Nelson 1917, as *Cyperus kyllingaeoides*), but not surviving at the winter. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and no voucher specimens have been found. Native to Asia and Africa. |
| *Cyperus eragrostis* | Tall flatsedge. Not listed by Gorman or Nelson. Known from southern Oregon since 1919, but not collected in the Willamette Valley until 1952 (OSC). | Exotic, rare. Introduced 1950-1974. Occasional in our area on wet sites along Columbia Slough. The most common introduced perennial *Cyperus*, sometimes mistaken for *Scirpus microcarpus* because of its similar leaves. Native to California but creeping northwards. |
| *Cyperus erythrorhizos* | **Red rooted cyperus. Wet ground near Oswego, borders of ponds at Bridgeton, Columbia Beach, Hayden Island, etc. July-September.** Collected at the Howell farm and at the mouth of the Willamette River by Henderson in 1885, at Linnton by Thompson in 1924 and Peck in 1926, and on Sauvie Island by Trainer in 1963 (OSC, WTU). | Native. Common on mudflats and wetlands. Columbia River bottoms, Smith and Bybee Lakes, Sauvie Island, Oaks Bottom (*Marttala*), Beggar's-tick Wildlife Refuge, Killin Wetland and Burlington Bottoms (*Christy, 1991*), E bank of Willamette River just S of Hawthorne Bridge (*Marttala, 2008*). Some of our material has the compact inflorescencs of *C. squarrosus* but matches *C. erythrorhizos* in other key characters. |
| *Cyperus esculentus* | Yellow nutsedge. Not listed by Gorman or Nelson. Collected at Linnton by Thompson in 1927, as a garden weed in North Portland by Sprowls in 1952, and at Oregon City by Cook in 1958 (OSC, WTU). | Exotic. Introduced 1900-1924. In our area an occasional weed of agricultural fields and moist disturbed sites, including constructed wetlands. Oaks Bottom (*Marttala*), Tomahawk Island, lower Salmon Creek wetlands (*Gaddis*). Not as common as other exotic perennial species of *Cyperus*. |
| *Cyperus odoratus* | Fragrant flatsedge. Collected on sand ballast at Linnton by Nelson in 1915 (OSC; Nelson 1916, 1917, as *C. ferax*). Nelson (1917) indicated that it did not survive the winter. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Native to eastern North America. |
| *Cyperus schweinitzii* [*Cyperus lupulinus* ssp. *lupulinus*] | Schweinitz's flatsedge. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Oaks Bottom (PPR 2004; *Marttala*). It could also be present at Smith and Bybee Lakes, where a number of annual and perennial species of *Cyperus* occur but have not been investigated. |
| *Cyperus squarrosus* [*Cyperus aristatus*] | **Awned cyperus. In muddy and sandy banks. Along Willamette River, along Columbia River near Vancouver, Columbia Beach, Hayden Island, etc. Faintly fragrant in drying. June-September.** Collected at the mouth of the Willamette River by Henderson in 1885, and on Sauvie Island by Thompson in 1926 (OSC, WTU). | Native. Common in our area on mudflats and wetlands. Columbia River, Sandy River Delta, Smith and Bybee Lakes. |

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| *Cyperus strigosus* | Strawcolored flatsedge. Not listed by Gorman or Nelson. Collected at Willamette Falls by Sheldon in 1903 (OSC). | Native. Dominant in our area on exposed mudflats along the lower Willamette and Columbia rivers. Oaks Bottom, Multnomah Channel, Smith and Bybee Lakes. |
| *Dulichium arundinaceum* | **Hollow stem. Moist boggy ground near Oswego. July-October.** Collected on Sauvie Island by Henderson in 1882 and 1888 (OSC). | Native, rare. In our area known only from Peach Cove Fen (*Christy, 1996*). |
| *Eleocharis acicularis* | **Needle spike rush. Wet ground, Columbia Slough. June-September.** Collected near Fort Vancouver by Tolmie (Hooker 1829-1840), on Sauvie Island by Howell in 1877, in "marshes below Portland" by Henderson in 1881, and on or near Mt. Scott by Sheldon in 1902 (OSC, WTU). | Native. Occasional to frequent in wetlands throughout our area. Sauvie Island, shores of the Columbia River, Peach Cove Fen (*Christy, 1996*), Green Mountain (*Habegger, 1998*, WTU), Barberton and Curtin Creek watershed near NE 119th Street (*Gaddis*). |
| *Eleocharis bella* | Beautiful spikerush. Not listed by Gorman or Nelson. Collected at Columbia Beach by Gorman in 1915 (WTU). | Native, rare. No recent reports from our area. Probably overlooked locally and statewide because of its similarity to *E. acicularis*. |
| *Eleocharis obtusa* [*Eleocharis ovata*] | **Ovoid spike rush. Moist ground and about springs. Oswego. June-September.** Collected repeatedly throughout our area as early as 1883 (OSC). | Native. Frequent in wetlands throughout our area. Sauvie Island, Oaks Bottom, Burlington Bottoms, Ridgefield NWR, Springwater Corridor Trail near SE 115th (*Marttala*). It germinates readily on exposed mudflats and tolerates large fluctuations in water levels. Specimens from our area that were identified as *E. ovata* have all been renamed *E. obtusa*. |
| *Eleocharis palustris* | **Tall spike-rush. Moist ground. Mocks Bottom. July-September.** Collected "below Portland" by Henderson in 1881, at Lower Albina and near Mt. Scott by Sheldon in 1902 and 1903, and at Holcomb Road and Redland Road by French in 1961 (OSC). | Native. Common in many emergent wetlands throughout our area. Sauvie Island, Oaks Bottom, Burlington Bottoms, Peach Cove Fen. It tolerates large fluctuations in water levels and water quality. |
| *Schoenoplectus acutus* var. *occidentalis* [*Scirpus acutus* var. *occidentalis*] | **[*Scirpus occidentalis*]. Tule. In wet boggy ground near Oswego and along St. Helens Road below Linnton. June-September.** Collected on Sauvie Island by Henderson in 1882 (OSC). | Native, rare. No recent reports from our area. Gorman may have been referring to softstem bulrush, *S. tabernaemontani*, as the two species are frequently confused. Historically, *S. acutus* var. *occidentalis* may have been scarce in W Oregon except along the coast and in the lower Columbia River estuary, but it has been widely planted for wildlife habitat. |
| *Schoenoplectus fluviatilis* [*Bolboschoenus fluviatilis*, *Scirpus fluviatilis*] | River bulrush. Not listed by Gorman or Nelson. Collected at Millionaire Lake on Sauvie Island by Trainer in 1964 (OSC). | Native, rare. Reported from a created wetland near Beaverton, at Evergreen Street crossing at Rock Creek (*Alverson, 1987*, OFP), but without a voucher specimen. Also just beyond our limits at Ridgefield NWR (*Christy 1992*; *Zika, 2000*, WTU). Usually occurring only as sterile shoots. |
| *Schoenoplectus maritimus* [*Bolboschoenus maritimus*, *Scirpus maritimus*] | Cosmopolitan bulrush. Not listed by Gorman or Nelson. | Native, rare. In our area known only from a created wetland near the Evergreen Street crossing at Rock Creek, near Beaverton (*Alverson, 1987*, OSC) and Ridgefield NWR (*Christy, 1992*). More common in coastal salt marshes and alkali marshes E of the Cascades. |
| *Schoenoplectus mucronatus* | Bog bulrush. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. In our area known only from just beyond our limits at Ridgefield NWR (*Engler, 2002*, WTU). |

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| *Schoenoplectus pungens* var. *pungens* | American three-square. Not listed by Gorman or Nelson. | Native, rare. In our area known only from one site along Columbia Slough (*Barlow*, *2001*, HPSU), but becoming more common downriver below Longview. Long confused with *S. americanus* that in Oregon is restricted to the SE part of the state. *S. pungens* occurs in coastal brackish and interior alkaline waters, and intermittently along the Columbia River between the Snake River and Astoria. |
| *Schoenoplectus tabernaemontani* [*Scirpus tabernaemontani, Scirpus validus*] | Softstem bulrush. Not listed by Gorman or Nelson. Collected on Sauvie Island by the Howells in 1877 and 1887, and by Leach in 1929 (OSC). | Native. Common in our area in deepwater emergent habitats, and a frequent volunteer in constructed retention ponds. It is inexplicable why Gorman did not report it, unless he had it confused with *S. acutus*. |
| *Scirpus cyperinus* | Woolly sedge. Not listed by Gorman or Nelson. First collected in Oregon on Deer Island in Columbia County by Trainer in 1963 (OSC), beyond our limits. | Exotic. Introduced 1950-1974. Occasional but probably increasing in our area. Sandy River Delta (*Zika & Christy*, 1992), Multnomah Channel (*Kral*, *1997*, HPSU), SE Portland, and downriver beyond our limits at Ridgefield NWR (*Christy, 1992*), Sauvie Island, and Scappoose Bay (*Christy, 2005*). Mostly in lowlands, but recently found at the upper Bull Run Reservoir, just over 1,000 feet elevation (*Newhouse, 2005*). |
| *Scirpus microcarpus* | **Panicled bulrush, small-fruited bullrush. Creek banks and moist woods. Macleay Park** [Gorman and Sheldon 1905]**, Laurelhurst Park, etc. June-September.** Collected at Portland by Henderson in 1882 and 1889, and at Willamette Falls by Sheldon in 1902 (OSC). | Native. Common on seasonally or perennially wet soils in both shady and exposed areas. Often a volunteer in swales and impoundments in heavily urbanized areas. |
| *Scirpus pallidus* | Pale bulrush. Not listed by Gorman or Nelson. | Native, rare. In our area known only from NE 185th and Marine Drive (*Kral*, *1997*, HPSU) and NE 6th and Marine Drive, near Columbia Slough (*Zika, 2000*, OSC). |
| **Dennstaedtiaceae** [*Pteridium* formerly in Polypodiaceae] | | |
| *Pteridium aquilinum* var. *pubescens* | **[*Pteridium aquilinum pubescens*]. Western bracken. Common in open woods everywhere around Portland. July, August.** Macleay Park (Gorman and Sheldon 1905). On ballast at Linnton (Nelson 1917, as "*Pteris aquilina* var. *pubescens*"). | Native. Common throughout our area. This early seral species is probably less common than it was in Gorman's time because of competition from *Rubus armeniacus* and encroachment of forest on formerly open habitats. |
| **Dipsacaceae** | | |
| *Dipsacus fullonum* [*Dipsacus sylvestris*] | **Wild teasel. Waysides, vacant lots, and waste places. Corner of Stout and Yamhill Streets, Upshur Street, St. Helens Road, Guilds Lake, etc. Naturalized from Europe. June-August.** Grown commercially beginning about 1860 (Appendix B) and probably grown earlier at Fort Vancouver, but not mentioned by Taylor (1992). "Common" in the Willamette Valley (Gilbert 1917), and "abundant" in the Portland area (Van Dersal 1929). | Exotic. Introduced 1850-1874. Very common throughout our area. Problematic in agricultural areas, seasonally wet prairies, and floodplain wetlands with silty but not clayey soil. |

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| **Dryopteridaceae** [*Athyrium* formerly in Polypodiaceae] | | |
| *Athyrium filix-femina* ssp. *cyclosorum* [*Athyrium filix-femina* var. *cyclosorum*] | Lady fern. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1881 and 1888 (OSC, REED). Reed College (Davies 1938). Seen at Elk Rock by Marttala in 1976. | Native. Common in moist to wet places throughout our area. Peach Cove Fen, Burlington Bottoms, Forest Park (Houle 1996), Powell Butte (*Marttala*), Reed College canyon (Moreira and Stafford 1996). It is inexplicable why Gorman or Nelson did not list this species. |
| *Cystopteris fragilis* | **[*Filix fragilis*]. Bladder fern. Common on shady cliffs. Balch Creek. June, July.** Collected at Rocky Butte by Gorman and Sheldon in 1903, at Willamette Falls by Sheldon in 1903, at Portland by Flinn in 1915 (OSC), and at Oswego and N of Tonquin by Thompson in 1926 or 1927 (WTU). Henderson, Gorman, Drake, and Leach also collected it along the Sandy River, probably on the cliffs on the E side of the river at the edge of our limits, between 1885 and 1927. "Abundant" in Macleay Park (Van Dersal 1929). A site in West Linn was destroyed during construction of Interstate 205 in 1970-1975 (*Marttala*). | Native, rare. In our area known only from Mt. Talbert (*Kimpo*), Camassia Preserve, Hardscrabble Quarry (Weber et al. 1999; Christy et al. 2007), and along the Sandy River near the Stark Street Bridge. Also at N end of Sauvie Island (Marttala et al. 2002) and St. Helens (Christy and Alverson 2001), both beyond our limits. Not found in the 2004 Portland Parks survey. Possibly present at Powell Butte, needing verification. |
| *Dryopteris arguta* | **Western wood fern. Dry rocky ridges near Milwaukie. June, July.** Collected at Elk Rock by Sheldon in 1902, at Oregon City by Foster in 1905, at Oswego by Gorman in 1919 and Leach in 1935, and at MacCleay Park by VanDersal in 1928, and the S shore of Lake Oswego by Sundberg in 1977 (OSC, REED, WTU). A site in West Linn was destroyed during construction of Interstate 205 in 1970-1975 (*Marttala*). | Native, rare. In our area known only from Cooper Mountain, Camassia Preserve, and Oaks Bottom. |
| *Dryopteris expansa* [*Dryopteris austriaca*] | **[*Dryopteris spinulosa dilatata*]. Glandular wood fern. Stream banks and dense, moist woods. Balch Creek, St. Helens Road. June, July.** Collected on or near Mt. Scott by Sheldon in 1902 (OSC). Reed College (Van Dersal 1929, as *D. dilatata*; Davies 1938). | Native. Scarce to locally frequent in our area. Forest Park (Houle 1996, as *D. austriaca*; *Gaddis*; PPR 2004), Powell Butte (*Marttala*). It should be common in better-quality mesic forests. |
| *Polystichum imbricans* [*Polystichum munitum var. imbricans*] | Narrowleaf swordfern. Not listed by Gorman or Nelson. | Native, rare. In our area known only from the Tonquin Scablands, where seen on SW-facing cliffs along Rock Creek (*Alverson, 1990*). To be sought at Cooper Mountain. |
| *Polystichum munitum* | **Christmas fern, sword fern. Common in coniferous woods. Macleay Park** [Gorman and Sheldon 1905] **etc. June-August.** Collected repeatedly in the metro area between 1880 and 1915 (OSC, REED, WTU). | Native. Ubiquitous around Portland. Often the only nonwoody survivor in areas infested with *Hedera helix* and *H. hibernica*. |
| *Woodsia scopulina* | **Western woodsia. Common on shady cliffs. Rocky Butte and Willamette River. June-August.** Collected at Willamette Falls by Sheldon in 1903 (OSC). | Native, rare. No recent reports from our area. |
| **Elatinaceae** | | |
| *Bergia texana* | **Texas bergia. Stream banks on Sauvie Island and along Willamette River, and pond banks at Bridgeton, Columbia Beach, etc. May-July.** | Native, rare. No recent reports from our area. |

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| *Elatine chilensis* | **[*Elatine americana*]. Waterwort. Moist ground and margins of ponds. Sauvie Island. May-August.** Collected on Mocks Bottom in North Portland and in sloughs along the Willamette River "below Portland" by Henderson in 1883 and 1884, and on Sauvie Island by Thomas Howell in 1889 and by Thompson in 1927 (OSC, WTU). | Native. Occasional to locally abundant on intertidal mud flats along most of the Columbia River below Bonneville Dam. *E. americana* is restricted to E North America, and collections from our area have been renamed *E. chilensis*. |
| **Equisetaceae** | | |
| *Equisetum arvense* | **Field horsetail. Moist ground. Guilds Lake, Swan Island etc. March-May, sterile May and June.** Collected at Portland by Henderson in 1881, along Balch Creek by Sheldon in 1903, and on ballast at Linnton, where "common throughout" (OSC; Nelson 1917). | Native. Very common throughout region in seasonally moist to wet, disturbed ground. Sometimes a troublesome weed. |
| *Equisetum* × *font-queri* | Hybrid horsetail. Not listed by Gorman or Nelson. | Native. A hybrid currently known from Hillsboro (*Confer, 1987*, OSC), just beyond our limits. The parent species are *E. palustre* and *E. telmateia.* The hybrid is not well known and its distribution and abundance in our area is uncertain. |
| *Equisetum hyemale* var. *affine* [*Equisetum hyemale*] | **[*Equisetum robustum*]. Large scouring rush. Wet places and stream banks. Willamette River. April-August. [*Equisetum hyemale*]. Scouring rush. Stream banks and wet places. Macleay Park, Mt. Tabor etc. April-August.** Collected at Albina by Sheldon in 1903 and in a "bog" near the Flouring Mills at Albina by Thompson in 1927 (OSC, WTU). | Native. Occasional in our area in seasonally moist to wet riparian forest, mature stands of cottonwood, dredge spoils, ditches, banks of roads and railroads (*Gaddis, Marttala*), and both natural and created wetlands (Magee et al. 1999). Forest Park (PPR 2004), N end of Sauvie Island (Marttala et al. 2002, Springwater Corridor Trail at SE 130$^{th}$, etc. (*Marttala*), several sites in Lacamas and Salmon Creek watersheds (*Gaddis*). |
| *Equisetum laevigatum* | Smooth scouring-rush. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1922 (OSC), and near Vancouver by Thompson in 1926 (WTU). | Native, rare. No recent reports from our area. |
| *Equisetum palustre* var. *americanum* | Marsh horsetail. Not listed by Gorman or Nelson. Collected by Thompson near Vancouver in 1926 and at Lower Albina near the Flouring Mills in 1927 (WTU). | Native, rare. In our area known only from a small wetland near Aloha High School (*Alverson, 1990,* OSC), two sites in the Salmon Creek waterrshed (*Gaddis*), and the Tualatin River NWR (Maffitt et al. 2005-2008). Reported from Tryon Creek State Park (*Bluhm, 1996*, OFP). |
| *Equisetum telmateia* | **Large horsetail. Wet places and moist creek banks. Balch Creek** [*Sheldon*, 1903; OSC, REED]**, Fulton, Lower Albina, etc. April-July.** Collected at South Portland by Henderson in 1881, and at Elk Rock by Dickson in 1888. | Native. Frequent throughout our area in seasonally moist, disturbed areas, ditches, roadsides, and on banks of rivers, sloughs, and railroads. |
| *Equisetum variegatum* | Northern scouring-rush. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1903 (WTU). | Native, rare. No recent reports from our area. |

| **Ericaceae** | | |
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| *Arbutus menziesii* | **Madroña. Hillsides and open woods. Albina, Oswego, Oak Grove, etc. April-June.** Collected at Portland by Henderson in 1886 and 1889, at Albina by Sheldon and Suksdorf in 1902 and 1907, and N of Tonquin by Thompson in 1927 (OSC, WTU). Along the banks of the Willamette River near Portland, where "rather rare" (Van Dersal 1929). | Native. Occasional to locally frequent throughout our area in dry mixed conifer woodlands and on dry open bluffs. There is some concern that the fungus *Nattrassia mangiferae* is causing a decline in madrone throughout its range. |
| *Arctostaphylos columbiana* | **[*Arctostaphylos tomentosa*]. Bristly manzanita. Open woods about Clackamas. April-June.** Gorman (undated #1) indicated that this was the only manzanita occurring naturally near Portland, and noted (Gorman undated #2) that it tended to disappear when woods were cleared for cultivation. Collected near Forest Grove by Leach in 1928 (OSC), beyond our limits. Seen on the S side of Kelly Butte by Marttala in the 1970s. | Native, rare. No recent reports from our area. Usually with *Arbutus menziesii*. |
| *Arctostaphylos* × *media* | Media manzanita. Not listed by Gorman or Nelson. Collected near Oswego by Howell in 1892, and in the "Portland area" by Irvine in 1958 (OSC). | Native, rare. No recent reports from our area. A naturally-occurring hybrid between *A. columbiana* and *A. uva-ursi,* treated as a synonym of *A. uva-ursi* by Hitchcock et al. (1955-1969). The hybrid is not well known and its distribution and abundance in our area is uncertain. |
| *Arctostaphylos uva-ursi* | **Kinnikinnick. Open woods, foot of Oswego Lake. Its presence in the above locality may possibly be due to the fact that this spot was in olden days the site of an Indian camping and fishing ground. April-June.** Collected by Henderson on Elk Rock Island in 1885 and on "bluffs near Oswego" [undated], "near Portland" by Howell in 1887, along the Sandy River near the Stark Street Bridge by Peck in 1926, and in East Portland by Thompson in 1926 (OSC, WTU). On a specimen collected in 1919, Gorman described the Lake Oswego locality as being on the S side of the lake, on "rocky slopes and open woods" (OSC). | Native, rare. Widely planted as an ornamental, but few natural occurrences are known. Camassia Preserve (Horvath 1993), Willamette Narrows (*Kimpo*). More common further up the Clackamas and Sandy river drainages, beyond our limits (*Marttala*). |
| *Chimaphila umbellata* | **Prince's pine. In coniferous woods. St. Helens Road, Oswego, etc. May-July.** | Native, rare. No recent reports from our area, and not found during the 2004 Portland Parks survey. Reported from St. Marys Woods (*Walthall*, OFP), but needing verification. Present farther up the Sandy River, beyond the limits of our area (*Poff & Marttala*). |
| *Gaultheria shallon* | **Salal. Common in open coniferous woods. Macleay Park** [Gorman and Sheldon 1905]**, Mt. Tabor, Mt. Scott, Cornell Road, Canyon Road, etc. April-June.** Collected repeatedly in the metro area between 1880 and 1916 (HPSU, OSC). | Native. Frequent to common throughout our area in drier coniferous woods. |
| *Hemitomes congestum* | Gnome plant. Not listed by Gorman or Nelson. Collected at Portland in 1925 by an unidentified botanist, and at Clackamas by Peck in 1927 (WTU). | Native, rare. No recent reports from our area. |

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| *Monotropa hypopithys* [*Monotropa hypopitys, Hypopitys monotropa*] | Pinesap. Not listed by Gorman or Nelson. Collected near Forest Grove by Craig in 1897 (OSC), beyond our limits. | Native, rare. No recent reports from our area. Also spelled *M. hypopitys*. |
| *Monotropa uniflora* | **Indian pipe. In shady woods. Macleay Park** [Gorman and Sheldon 1905]**, St. Helens Road, Mt. Scott, etc. May-July.** Collected several times in the metro area between 1880 and 1905 (HPSU, OSC). Van Dersal (1929) found it "rather rare" in our area. | Native. Occasional in conifer forests throughout our area. Forest Park (Houle 1996), Leach Botanical Garden, Berry Botanic Garden, Kelly Butte, Hoyt Arboretum (*Christy*). |
| *Pyrola asarifolia* ssp. *asarifolia* [*Pyrola asarifolia* var. *asarifolia*] | **[*Pyrola incarnata*]. Round leaved wintergreen. In coniferous woods. Cornell Road and St. Helens Road. May-July.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and on or near Mt. Scott by Sheldon in 1902 (OSC). | Native, rare. In our area known only from Forest Park (Houle 1996) and Hardscrabble Quarry (Weber et al. 1999). Not found during the 2004 Portland Parks survey. |
| *Pyrola asarifolia* ssp. *bracteata* [*Pyrola asarifolia* var. *bracteata*] | Pink wintergreen. Not listed by Gorman or Nelson. Collected in woods at Portland by Henderson in 1882 and 1886, at Macleay Park by Sheldon in 1902 (OSC), and at SW 11$^{th}$ and College Street by Allmen (undated but before 1915; HPSU). | Native, rare. No recent reports from our area. Allmen's locality is now the median of Interstate 405 adjacent to Portland State University. |
| *Pyrola picta* [*Pyrola aphylla*] | **Leafless wintergreen. In coniferous woods. Barnes Road, King's Heights, Mt. Scott, etc. May-July.** Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840), by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), near Portland by Thomas Howell and Freeman in 1880 and 1886, at Montavilla by Gorman in 1904, at Macleay Park (Gorman and Sheldon 1905), and at the end of the Rose City car line (*Flinn*, *1914-1917*, HPSU). | Native, rare. No recent reports from our area, and not found during the 2004 Portland Parks survey. None of the historical Portland specimens are leafy. See comments under *Pyrola chlorantha* in Excluded Taxa at the end of this catalog. |
| *Vaccinium caespitosum* [*Vaccinium cespitosum*] | **[*Vaccinium arbuscula*]. Dwarf huckleberry. Open pine woods near Beaverton. May, June.** Collected in prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and at Willamette Falls by Henderson in 1885 (OSC). | Native, rare. Known in our area only from Camassia Preserve. The "open pine woods" near Beaverton were mixed oak and pine woodland and savanna, now engulfed by suburban development, although many pines survive. |
| *Vaccinium corymbosum* | Highbush blueberry. Not listed by Gorman or Nelson. Probably cultivated locally since at least 1900. | Exotic, rare. Introduced 1975-1999. In our area known only from Peach Cove Fen (*Christy, 1996*). Escaped from cultivation and dispersed by birds. |
| *Vaccinium ovatum* | **Evergreen huckleberry. Open woods near foot of Oswego Lake. April-June.** Gorman (undated #2) indicated that the "patch" of this species at Lake Oswego was the only one known to him inland from the coast. Van Dersal (1929) wrote that it did not occur in the Portland area. | Native, rare. In our area there is a single occurrence in Forest Park, but it is unclear whether it was planted. It is a popular ornamental. More common in the Coast Range and to a lesser extent in the Cascades. |

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| *Vaccinium parvifolium* | **Red huckleberry. In coniferous woods. Macleay Park** [Gorman and Sheldon 1905]**, Lewis and Clark Fair Grounds, Mt. Tabor, Mt. Scott, St. Helens Road, etc. April, May.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840) and repeatedly around Portland between 1880 and 1949 (OSC, WTU). Reed College (Van Dersal 1929). | Native. Common in coniferous forest in the Portland area, but rare in Clark County (*Gaddis*). Powell Butte, Leach Botanical Garden, Berry Botanic Garden. |
| **Euphorbiaceae** | | |
| *Acalypha australis* | Asian copperleaf. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1900 (WTU). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Chamaesyce glyptosperma* [*Euphorbia glyptosperma*] | **Ridge-seeded spurge. In sandy soil and on sand banks. Willamette River, University Park, etc. June-September.** Collected along the Columbia River near the Interstate Bridge by Flinn in 1915, and on Hayden Island by Gorman in 1917 (OSC). | Native. Very common in our area on sand bars, disturbed banks, and dry streambeds. |
| *Chamaesyce maculata* [*Euphorbia supina*] | Spotted sandmat. Not listed by Gorman or Nelson. | Native. Common on dry sites with thin soils, such as roadsides and gravel beds, and on sand along the Columbia and Willamette rivers. |
| *Chamaesyce serpyllifolia* [*Euphorbia serpyllifolia*] | **Thyme-leaved spurge. Grassy glades along Willamette River, Bridgeton, Columbia Beach, Hayden Island, etc. May-September.** Collected at University Park by Sheldon in 1902, at Columbia Beach by Flinn in 1915, and along Jackson Creek N of Farmington by Peter in 1979 (HPSU, OSC). | Native, rare. In our area known only from the N end of Sauvie Island (Marttala et al. 2002). Mostly E of the Cascades. |
| *Croton setigerus* [*Eremocarpus setigerus*] | **[*Piscaria setigera*]. Turkey mullein. On ballast grounds and along railroad tracks. Lower Albina and East Portland. Native of eastern Oregon and California, adventive here. May-July.** | Native, rare. No recent reports from our area, and voucher specimens from our area not found. More common in SW Oregon and E of the Cascades. |
| *Euphorbia crenulata* | **Toothed spurge. On Rock Island, Willamette River opposite Elk Rock, and at Willamette Falls. Rare here. May-September.** Collected several times on rocky or gravelly banks by Howell, Henderson, and Drake in Milwaukie, East Portland, and Albina, between 1880 and 1892 (OSC). Gorman (1916) noted that it also occurred on other unspecified islands in the Willamette River. | Native, rare historically and rare today. No recent reports from our area, and not relocated during the 2004 Portland Parks survey. |
| *Euphorbia cyparissias* | Cypress spurge. Not listed by Gorman or Nelson. Collected at Forest Grove by Thompson in 1926 (WTU), somewhat beyond our limits but to be sought in the metro area. | Exotic. Introduced 1925-1949. No recent reports from our area. Probably a garden escape. |
| *Euphorbia helioscopia* | **Waterweed. Ballast grounds and waste places. Lower Albina, East Portland, etc. Adventive from Europe. May-September.** Collected at Lower Albina by Sheldon in 1902, on the "rocky shore of the Willamette" (OSC; Nelson 1920a). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |

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| *Euphorbia lathyris* [*Euphorbia lathyrus*] | Moleplant. In an old field at Tualatin (Nelson 1918a, as *Euphorbia lathyrus*), along a railroad 10 miles E of Portland (Lawrence, 1918, OSC), and SE of Reed College (French, 1962, OSC). | Exotic. Introduced 1900-1924. Aggressive and well distributed in our area. Willamette Bluffs, Columbia Slough (CWMA 2004). Occasional on roadsides and persisting from old garden plantings. |
| *Euphorbia peplus* | **[*Euphorbia peploides*]. On ballast grounds and waste places. Lower Albina, etc. Adventive from Europe. June-September.** Reed College (Davies 1938). Collected several times in our area between 1953 and 1957 (OSC). | Exotic. Introduced 1875-1899. Occasional to locally common in our area often as a garden weed. SE Portland (*Marttala*). Gorman's *E. peploides* is a European species not recorded from North America, and presumably he was referring to *E. peplus.* |
| **Fabaceae** [Leguminosae] | | |
| *Albizia julibrissin* | Silktree. Not listed by Gorman or Nelson. Grown in the United States since the 1740s, and available commercially since at least the 1890s (Adams 2004). | Exotic, rare. Introduced 1875-1899. Occasionally reproduciing from seed but not surviving the winter. West Slope (*Christy, 2000*). Naturalized from California to Florida, north to Illinois and New York, and invasive in some areas. |
| *Amorpha fruticosa* | False indigo. Not listed by Gorman or Nelson. Available commercially in the West since 1880, and sold locally as early as 1912 (Adams 2004). | Exotic. Introduced 1875-1899. Locally abundant on upper beaches and cutbanks along the Columbia River (*Christy, 1992*; Marttala et al. 2002). Becoming common along the entire length of river in Oregon and Washington (Glad and Halse 1993). Native to central and E North America. |
| *Anthyllis vulneraria* | Common kidneyvetch. Not listed by Gorman or Nelson. On ballast at Linnton (Nelson 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Arachis hypogaea* | Peanut. Not listed by Gorman or Nelson. Peanuts became popular in the United States after the Civil War. We presume that they arrived in Portland between 1875 and 1899, but more research is needed to determine when they became generally available locally. | Exotic, rare. Introduced 1875-1899. Occasional in our area. West Slope (*Christy, 2007*), Crystal Springs Rhododendron Gardens (*Christy, 2007*). Planted by birds and squirrels, originating from bird feeders and casual feeding of same. Not known to set seed or survive the winter. |
| *Cytisus multiflorus* | White spanishbroom. "Common in cultivation about Portland, and well established in a dry pasture three miles E of Tualatin" (Nelson 1920a). Collected "near Tualatin" by Peck in 1919, where "escaped and established," at SW 121st Avenue and Scholls Ferry Road in Tigard by Foster in 1978, and at Sherwood by Hartford in 1978 (HPSU, OSC; Peck 1961). Peck's site near Tualatin may have been the same locality as Nelson's. | Exotic. Introduced 1900-1924. Sporadic on roadsides throughout our area, mostly naturalized but occasionally planted as a landscape shrub. |
| *Cytisus scoparius* | **Broom. Common on sandy soil, rocky slopes, and waste places. Mt. Tabor, East Portland, and along the Willamette River. At first hailed with delight for its bright yellow flowers, it has in late years increased so rapidly as to become a troublesome weed in some places. Naturalized from Europe. April-July.** Gorman (undated #2) reported it "on river banks between Portland and Oregon City," and (Gorman undated #1) characterized it as "a dangerous weed already become a pest in N.W. Oregon." | Exotic. Introduced 1875-1899. Common throughout our area and a terrible invasive pest. |

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| *Glycyrrhiza lepidota* | American licorice. Not listed by Gorman or Nelson. The closest historical specimen was collected at Rooster Rock by Thomas Howell in 1899 (OSC). | Native, rare. In our region, documented only at Multnomah Channel. Mostly E of the Cascades. Howell's specimen at Rooster Rock presumably rafted down the Columbia River. |
| *Lathyrus aphaca* | Yellow pea. Not listed by Gorman or Nelson. Collected at Mollala by Fick as early as 1928 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. A population occurred near Clackamas Town Center in the 1980's but has disappeared (*Marttala*). |
| *Lathyrus hirsutus* | Caley pea. Reported from Portland by Sheldon (Nelson 1920a). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. More common further south in the Willamette and Umpqua Valleys. |
| *Lathyrus holochlorus* | Thinleaf pea. Not listed by Gorman or Nelson. Collected at Forest Grove by Henderson in 1883, at Eagle Creek by Suksdorf in 1925, and somewhere in Washington County by Thompson in 1926 (OSC, WTU). | Native, rare. In our area known only from upland prairie at Cooper Mountain (Wilson & Kral 1999), near Peach Cove (ORNHIC, 2007), at Willamette Narrows (*Riggs, 2007*), and near Hagg Lake (*Robinson, 2006*), the last somewhat beyond our limits. |
| *Lathyrus japonicus* | Beach pea. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1916 (WTU), where probably on sand ballast. | Native, rare. No recent reports from our area. Common on dunes along the coast. |
| *Lathyrus latifolius* | Everlasting pea. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Benton County as early as 1916 (OSC). Available commercially in the West since 1880 (Adams 2004). | Exotic. Introduced 1875-1899. A garden escape, increasingly common in our area and very persistent on roadsides, in yards, and waste places. Forest Park, Harbor View, Willamette Moorage, Camassia Preserve, West Slope. |
| *Lathyrus nevadensis* | **[*Lathyrus nuttallii*]. Nuttall's pea. Open woods. Mt. Scott, Milwaukie, Risley Station, etc. April-June.** Collected on Sauvie Island by Thomas Howell in 1886, near Oswego by Henderson in 1886 and 1887, and on Mt. Scott by Sheldon in 1903 (OSC, REED). | Native. Common in our area in oak woodlands, and less frequent in open mixed forest. |
| *Lathyrus nissolia* | Grass pea. Not listed by Gorman or Nelson. Collected at Hillsboro by Lewis in 1979 (OSC). | Exotic, rare. Introduced 1975-1999. No recent reports from our area. |
| *Lathyrus polyphyllus* | **Forest pea, leafy wild-pea. In coniferous woods. Macleay Park** [Gorman and Sheldon 1905]**, Willamette Heights, Mt. Tabor, Mt. Scott, etc. April-June.** Collected repeatedly around Portland between 1880 and 1934 (HPSU, OSC). | Native. Occasional in coniferous woods throughout our area. Forest Park (Houle 1996), SE 149$^{th}$ and Foster (*Marttala*). |
| *Lathyrus sphaericus* | Grass pea. Not listed by Gorman or Nelson. Collected at Forest Grove by Burkhart (OSC), probably in the 1950s, somewhat beyond our limits. | Exotic, rare. Introduced 1950-1974. No recent reports from our area but probably present. |
| *Lathyrus sylvestris* | Flat pea. Not listed by Gorman or Nelson. Collected at Portland by Thompson in 1929 (WTU). | Exotic, rare. Introduced 1925-1949. No recent reports from our area but probably present. |
| *Lathyrus torreyi* | **Torrey's pea. Infrequent in open woods near Clackamas. April-June.** Collected at Clackamas by Howell in 1895 (OSC). | Native, rare historically and rare today. No recent reports from our area. |
| *Lathyrus vestitus* | Wild pea. Not listed by Gorman or Nelson. Collected near Gaston by Thompson in 1927 (WTU), beyond our limits. | Native, rare. No recent reports from our area. |
| *Lotus aboriginus* [*Lotus crassifolius* var. *subglaber*] | Rosy bird's-foot trefoil. Not listed by Gorman or Nelson. Collected along Balch Creek by Suksdorf in 1925 (WTU). | Native, rare. No recent reports from our area. |

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| *Lotus corniculatus* | Bird-foot trefoil. Collected at Albina by Suksdorf in 1903 and on sand ballast at Linnton by Suksdorf and Gorman in 1916 and 1920, where it "varies greatly in frequency in successive years but has never entirely disappeared" (WTU; Nelson 1917, 1920a, 1923a). Nelson predicted it would persist in the regional flora. | Exotic. Introduced 1875-1899. A common weed in mesic sites. Planted widely for wildlife food and erosion control in the 1960s. It tolerates a range of hydrologic conditions. Often confused with *L. pedunculatus*, which has more flowers per inflorescence and occurs in wetter sites (*Newhouse*). |
| *Lotus micranthus* | **[*Hosackia parviflora*]. Small-flowered hosackia. Infrequent in open places. Oswego, Milwaukie, etc. May, June.** Collected at Portland by Henderson in 1888, at Lower Albina by Sheldon in 1902, and at Forest Grove by Thompson in 1926 (OSC, WTU). | Native. Occasional to locally common throughout our area on exposed sites with shallow soils. Several sites in Clark County (*Gaddis*), N end of Sauvie Island (Marttala et al. 2002). More common than in Gorman's day, presumably because of better documentation. |
| *Lotus nevadensis* var. *douglasii* | **[*Hosackia decumbens*]. Yellow shoe strings. Glades** [openings]**. Head of Barnes Road. May-June.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840), and at Oswego by Henderson in 1887 and 1888 (OSC, WTU). | Native, rare. No recent reports from our area. |
| *Lotus pedunculatus* [*Lotus uliginosus*] | Big trefoil. Not listed by Gorman or Nelson. Collected on Sauvie Island by Anderson in 1961 (HPSU). | Exotic, rare. Introduced 1950-1974. In our area known only from the Knez Wetland (*unnamed collector, 2000*, OSC) and Tualatin Hills Nature Park (*Bluhm*, OFP). Often confused with *L. corniculatus*, which has fewer flowers per inflorescence and occurs in drier sites (*Newhouse*). |
| *Lotus pinnatus* | **[*Hosackia bicolor*]. Water hosackia. In wet places and ditches. Gladstone, etc. May-July.** Collected along the Columbia River near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840), at the summit of Elk Rock by Henderson in 1889, along Ashdale Road by Gorman in 1919, and at Oregon City by Schramel in 1956 (OSC, REED). Reed College (Davies 1938). | Native. Occasional in our area. Camassia Preserve, near Hillsboro (*Halse, 1998*, OSC, UTC, WTU), Green Mountain (*Habeggar, 1998*), upper Cougar Creek wetlands in Clark County (*Gaddis*), West Linn (*Handley, 2001*, HPSU, as *L. formosissimus*), and St. Helens (Christy and Alverson 2001), the last beyond our limits. |
| *Lotus unifoliolatus* [*Lotus purshianus* var*. purshianus*] | **[*Hosackia americana*]. Bird foot trefoil. Rocky places, sand bars, and sandy soil along Willamette River. June-October.** Collected by Nuttall along the Columbia and Willamette rivers and near Willamette Falls in 1834-1835 (Hitchcock et al. 1955-1969), and several times around Portland between 1881 and 1926 (OSC, WTU). | Native. Abundant on sandy banks and dredge spoils near the Columbia River, and in prairies. |
| *Lupinus albicaulis* | **White-stemmed lupine. On sand banks and bars near St. Johns. April-June.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840; Hitchcock et al. 1955-1969), on Sauvie Island by Henderson in 1881, and opposite Oswego in 1888 by Drake (OSC). | Native, rare. In our area known only from plantings at restoration or enhancement sites. Seed from the mid-Willamette Valley is available commercially. |
| *Lupinus albifrons* | Silver lupine. Not listed by Gorman or Nelson. Collected on the Willamette River near Oregon City by Thomas Howell in 1877, and several times on a sandy island below Oregon City by Henderson in 1884 and 1885 (OSC, REED). | Native, rare. No recent reports from our area. The historical material was incorrectly identified as *L. chamissonis*. |

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| *Lupinus arbustus* [*Lupinus argenteus* ssp. *argenteus* var. *laxiflorus, Lupinus argenteus* var. *argenteus*, *Lupinus laxiflorus*] | **[*Lupinus laxiflorus*] Slender silky lupine. In fields and waste places about Oswego. April-June.** Collected at Albina by Henderson in 1889, at Lower Albina and along the Willamette below Portland by Sheldon in 1902, and at Oswego Lake by Peck in 1919 (OSC). | Native, rare. No recent reports from our area. More common E of the Cascades, but with several authentic specimens from W Oregon. Douglas' type specimen, reportedly collected near Fort Vancouver in 1825-1827 (Hitchcock et al. 1955-1969), is thought to have been collected in Klickitat or Wasco County, Washington (Liston 2009). |
| *Lupinus bicolor* | Miniature lupine. Not listed by Gorman or Nelson. Collected near Oswego by Henderson in 1887 and Drake in 1889, in Sullivan's Gulch and Fulton by Sheldon in 1902, and at Elk Rock by Heller in 1910, (OSC, REED, WTU). | Native, rare. Occasional in our area. Cooper Mountain (*Kimpo, 2001*, HPSU), West Linn (*Turriaga, 2001*, LINF), Middle and lower Burnt Bridge Creek drainage, and in the Interstate 205 median near Salmon Creek in Clark County (*Gaddis*). |
| *Lupinus latifolius* | **[*Lupinus columbianus*]. Meadow lupine. Infrequent in meadows, glades, and open woods about Portland, St. Johns, and Vancouver. April-June.** Collected at Clackamas by Thomas Howell in 1889, at New Era by Leach in 1931, and at Lake Grove by Detling in 1956 (OSC, WTU). | Native, rare historically and rare today. In our area known only from Clear Creek. |
| *Lupinus lepidus* | **Prairie lupine. Along railroad tracks. Albina and East Portland, where it is probably introduced, and in open places about Vancouver where it is undoubtedly native. April-June.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840), along the Willamette River by Henderson and Thomas Howell in 1888 and 1889, and near Canby by Henderson and Leach in 1888 and 1931 (OSC, WTU). | Native, rare. In our area known only from a few degraded prairie remnants in Orchards, Clark County, near NE 76th Street and NE 117th Avenue (*Alverson, 1983*). |
| *Lupinus polycarpus* [*Lupinus micranthus*] | **Small-flowered lupine. Infrequent in open places along the Willamette River. April-June.** Collected several times around Portland between 1886 and 1940 (OSC, WTU). Reed College (Van Dersal 1929). | Native, rare historically. In our area scarce to locally abundant. Powell Butte, Springwater Corridor Trail near SE 111th (*Marttala*), N end of Sauvie Island (Marttala et al. 2002), Parkway ponds near Vancouver Mall (*Gaddis, 1995*), Rivergate dredge spoils (*Kimpo*), Cooper Mountain (*Kral, 1998*, HPSU), Hillsboro (*Johnstone, 1998*, LINF). |
| *Lupinus polyphyllus* | **Blue pod. In glades** [openings]**. Mt. Tabor, Mt. Scott, Milwaukie, Oswego, Oregon City, etc. April-June.** Collected several times around Portland between 1880 and 1931 (OSC, WTU). Available commercially in the West since 1880, and sold locally as early as 1912 (Adams 2004). | Native. Frequent around our area in open places beyond the urban core. Gresham, Springwater Corridor Trail near SE 114th Street (*Marttala*), Clackamas. Also further up the Sandy River and at Scholls, beyond our limits. |
| *Lupinus rivularis* | Riverbank lupine. Not listed by Gorman or Nelson. Collected at Oregon City by Leach in 1931, and at Oswego Lake by Detling in 1956 (OSC). | Native. Occurring naturally in our area in the North Keys region of the Tonquin Scablands. Planted at several restoration sites, using a mid-Willamette Valley ecotype. |
| *Medicago lupulina* | **Yellow trefoil. Not uncommon in fields and waste places. Lewis and Clark Fair Grounds, Mt. Tabor, etc. Adventive from Europe. April-July.** Collected at Lower Albina by Sheldon in 1902, on ballast at Linnton by Suksdorf in 1911 and Gorman in 1919 (Nelson 1917), and at Gresham by Dennis in 1954 (OSC, WTU). | Exotic. Introduced 1875-1899. Common throughout our area as a garden weed and on disturbed soils. |

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| *Medicago minima* | Bur medic. On ballast at Linnton, where "covering the ground in dense mats of considerable extent" (Nelson 1921, 1923a; Hitchcock et al. 1955-1969). Nelson predicted it would persist in the regional flora. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Medicago polymorpha* [*Medicago hispida*] | **Bur clover. Infrequent in fields and waste places. Lower Albina, etc. Adventive from Europe. May-July.** Collected at Portland by Henderson in 1885, and on ballast at Linnton, "common" (Nelson 1917). | Exotic. Introduced 1875-1899. A common weed in our area in waste places. |
| *Medicago sativa* | **Alfalfa. Common on roadsides, vacant lots, and waste places about the city. Introduced from Europe. May-July.** On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. More or less common throughout our area, particularly in heavily urbanized areas. |
| *Medicago turbinata* | Southern medic. Not listed by Gorman or Nelson. Collected at Linnton by Suksdorf (Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Melilotus indicus* | **[*Melilotus indica*]. Yellow melilot. Infrequent in vacant lots and waste places. Lower Albina, etc. Adventive from Eurasia. May-July.** Collected in Portland streets and on ballast in 1881 and 1885 by Henderson, at Albina by Suksdorf in 1899 and 1900, and on ballast at Linnton (OSC, WTU; Nelson 1923a). Nelson predicted it would persist in the regional flora. He knew of several other sites in Oregon and thought the species was invading from the south. | Exotic, rare. Introduced 1875-1899. No recent reports from our area. The current common name for *M. indicus* is annual yellow sweetclover. |
| *Melilotus officinalis* [*Melilotus albus, Melilotus alba*] | **Yellow sweet clover. Infrequent but gradually spreading on moist ground and waste places. Lower Albina, South Portland, etc. Naturalized from Europe. [*Melilotus alba*]. White melilot. Not uncommon on moist ground and waste places, and gradually spreading not only in Portland but in other parts of the state. Naturalized from Europe. April-June.** Collected a number of times on ballast and "waste ground" at Albina and Linnton, between 1899 and 1927 (HPSU, OSC, WTU). Reportedly "common" and reaching heights of seven to ten feet (Nelson 1917, 1920a, 1923a). Nelson predicted it would persist in the regional flora. Van Dersal (1929) found it "abundant" along roadsides near the Columbia River. | Exotic. Introduced 1875-1899. Occasional to common on roadsides throughout our area. Frequently used in roadside wildflower mixes, though considered a serious pest in other parts of the country. Until recently, yellow and white forms were considered separate species, but are now treated as a single taxon. |
| *Mimosa asperata* | Puerto Rico sensitive-briar. On ballast at Linnton (Nelson 1916, 1917). Nelson (1917) indicated that the species did not survive the winter. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Onobrychis viciaefolia* | **Hen's bill. Fields and waste places near Vancouver. Adventive from Europe. May-July.** Historical voucher specimens not found. | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Restricted to E of the Cascades, presumbly reaching our area by the Columbia River or by rail. |
| *Ononis arvensis* | **Spiny root-harrow. A recent immigrant here but already established to some extent on roadsides and waste places. Willamette Heights, Blytheswood, etc. Adventive from Mediterranean. May-July.** On ballast at Linnton (Nelson 1917, 1920a). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |

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| *Ononis repens* | Common restharrow. Not listed by Gorman or Nelson. Collected on ballast at Linnton by Gorman in 1919 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Pueraria montana* var. *lobata* [*Pueraria lobata*] | Kudzu. Not listed by Gorman or Nelson. Available commercially in the West since 1911, and sold locally as early as 1912 (Adams 2004). | Exotic, rare. Introduced 1900-1924. First reported from Clackamas County, SW Portland, and Vancouver in 2000 and 2001 (ODA 2001). Some of the few known sites were planted, and others were established from dumped yard waste (*Myers-Shenai*). All known occurrences of this notoriously invasive species are being controlled by ODA. |
| *Robinia pseudoacacia* | Black locust. Not listed by Gorman or Nelson. Collected at Hillsboro by Neu in 1958, where planted as an ornamental, but probably naturalized in Lane County as early as 1936 (OSC). Available commercially in the West since 1880, and sold locally as early as 1912 (Adams 2004). | Exotic. Introduced 1875-1899. Occasional in our area usually near old homesteads, but thought to be increasing. Johnson Creek (*Newhouse, 1992*), Reed College canyon (Moreira and Stafford 1996). It persists and spreads by root sprouts and seeds (*Kimpo, Gaddis*). |
| *Rupertia physodes* [*Psoralea physodes*] | **Western psoralea. In brush land and margins of woods. Mt. Scott, Milwaukie, Oak Grove, etc. May-July.** Collected at Oregon City, Milwaukie, and Elk Rock by Henderson between 1881 and 1889, at Portland by Flinn in 1914, and at Beaverton by Thompson in 1926 (HPSU, OSC, REED, WTU). Van Dersal (1929) found it "not abundant." | Native, rare. In our area known only from Cooper Mountain and Camassia Preserve. Formerly known from SE 128th and Ramona, and present further up the Sandy River drainage, outside of our area (*Marttala*). |
| *Securigera varia* [*Coronilla varia*] | Purple crownvetch. On ballast at Linnton (Nelson 1917, 1923b). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. An escaped ornamental established at several sites farther S in the Willamette Valley. |
| *Thermopsis montana* [*Thermopsis rhombifolia*] | Golden-pea thermopsis. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Shanghai Creek near NE 202nd Avenue in Vancouver (*Zika, 2001*, WTU). |
| *Trifolium albopurpureum* | Rancheria clover. Not listed by Gorman or Nelson. Collected at Sherwood by MacColman in 1975 (HPSU, as *T. macraei*). | Native, rare. No recent reports from our area. |
| *Trifolium arvense* | **Rabbit foot clover. Infrequent on roadsides and waste places. Willamette Heights, Blytheswood, etc. Naturalized from Europe but native of Arabia. May-September.** Collected at Albina by Suksdorf in 1907, on Willamette Heights by Gorman in 1912, and on ballast at Linnton by Gorman and Nelson (OSC, WTU; Nelson 1917). | Exotic. Introduced 1900-1924. A common weed throughout our area on droughty, well-drained sites. Rivergate dredge spoils, Elk Rock Island, Burlington Bottoms, N end of Sauvie Island (Marttala et al. 2002). |
| *Trifolium bifidum* | Notchleaf clover. Not listed by Gorman or Nelson. Collected near the Tualatin Plains by Howell in 1880 (OSC). | Native, rare. In our area known only from Cooper Mountain. |
| *Trifolium campestre* [*Trifolium procumbens*] | **Low hop clover. Common in fields, lawns, and roadsides. Lewis and Clark Fair Grounds, East Portland, Mt. Tabor, etc. Naturalized from Europe. May-September.** Collected several times around Portland, Sauvie Island, Oswego, Rocky Butte, and Oregon City by Henderson, Thomas Howell, and Sheldon between 1880 and 1903 (HPSU, OSC, REED), and on ballast at Linnton, where "occasional" (Nelson 1917). | Exotic. Introduced 1875-1899. Common in our area on disturbed and cultivated ground. |

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| *Trifolium ciliolatum* | **Fringed clover. In moist grassy places. Willamette Falls. May-July.** | Native, rare. No recent reports from our area, and voucher specimens not found. More common further south. |
| *Trifolium dubium* | **[*Trifolium aureum*]. Hop clover. Not uncommon in fields and waste places around the city. Naturalized from Europe. April-September.** Collected on Sauvie Island and at Oregon City by Howell in 1884 and 1896, N of Portland by Henderson in 1888, and at Lower Albina and on Rocky Butte by Sheldon in 1902 and 1903 (OSC). Reed College (Van Dersal 1929; Davies 1938). | Exotic. Introduced 1875-1899. Very common throughout our area in lawns, gardens, waste places, and natural areas. Oaks Bottom, Springwater Corridor Trail (*Marttala*), Beggar's-tick Wildlife Refuge, N end of Sauvie Island (Marttala et al. 2002). Gorman called this *Trifolium aureum*, which in Oregon is known only from Umatilla County (Liston 2009). Presumably, because he called it "hop clover" and had already accounted for the similar and common *Trifolium campestre*, he must have been referring to *Trifolium dubium*. |
| *Trifolium eriocephalum* | **Woollyhead clover. Open grassy places at head of Barnes Road. May-July.** Collected near Fort Vancouver by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), at Hillsboro by Howell in 1882, and at Forest Grove by Thompson in 1926 (OSC, WTU). | Native, rare. In our area known only from Cooper Mountain, where it occurs on thin, exposed soils with other native annual clovers. Farther S in the Willamette Valley it occurs on deeper prairie soils (*Alverson*). |
| *Trifolium fragiferum* | Strawberry clover. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from E Oregon since 1921 and first reported from W Oregon in 1968 (OSC). | Exotic. Introduced 1950-1974. Occasional on disturbed or developed sites. Tualatin River NWR (Maffit et al. 2005, OFP), SE 11$^{th}$ and Taylor Streets (*Christy 2008*). A common component of seed mixes. |
| *Trifolium hybridum* | **Alsike clover. Not uncommon in fields and waste places. Lewis and Clark Fair Grounds, Mt. Tabor, etc. Introduced from Europe. April-October.** Collected in Macleay Park by Sheldon in 1903, at Portland by Flinn in 1910, on ballast at Linnton, and "a frequent escape" (HPSU, OSC; Nelson 1917). Reed College (Van Dersal 1929; Davies 1938). | Exotic. Introduced 1875-1899. Common throughout our area in dry open areas, fields, lawns, and gardens. Less frequent in natural areas. |
| *Trifolium incarnatum* | Crimson clover. Not listed by Gorman or Nelson. First collected in our area near Farmington by J.T. Howell in 1952 (OSC). | Exotic. Introduced 1925-1949. Fairly common in our area along roadsides or other disturbed areas. Sometimes seeded in roadside mixes, and as a cover crop in gardens. |
| *Trifolium longipes* | Longstalk clover. Not listed by Gorman or Nelson. Collected on "moist prairies of the Columbia River as far W as the Willamette River" by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area, and voucher specimens not found. Common at higher elevations in the Cascades and to a lesser extent in the Coast Range. |
| *Trifolium macraei* | Chilean clover. Not listed by Gorman or Nelson. Collected at Sherwood by MacColman in 1975 (HPSU). | Native, rare. No recent reports from our area. |
| *Trifolium microcephalum* | **Smallhead clover. Fields, roadsides, and wet places. Milwaukie, Risley Station, etc. April-June.** Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840), and several times around the metro area between 1874 and 1902 (REED, OSC). | Native. Common throughout our area in dry open areas and fields. |

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| *Trifolium microdon* | **Cup clover. Hillsides, railroad tracks, and waste places. Lower Albina, etc. Native of western Oregon but may be introduced here. April-June.** Collected at Oswego and near Portland by Howell in 1880 and 1886 (OSC). | Native, rare. No recent reports from our area. A specimen so named at HPSU collected at Cooper Mountain (*Kral, 1998*) appears to be *T. microcephalum*. |
| *Trifolium oliganthum* | Fewflower clover. Not listed by Gorman or Nelson. Collected on dry prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969). | Native, rare. Known from just beyond our limits on basalt outcrops at St. Helens (*Newhouse*) and at the N end of Sauvie Island (Marttala et al. 2002). To be sought in similar habitat in the metro area. |
| *Trifolium plumosum* | Plumed clover. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Elk Rock Island and Harbor View. More common E of the Cascades. |
| *Trifolium pratense* | **Red clover. Common in fields, roadsides, and waste places about the city. Naturalized from Europe. April-October.** First planted at Fort Vancouver in 1831 (Taylor 1992; Appendix B). Collected several times around the metro area between 1881 and 1938 (OSC; Nelson 1917; Van Dersal 1929; Davies 1938). | Exotic. Introduced 1825-1849. Very common throughout our area on disturbed soils. |
| *Trifolium repens* | **White clover. Common in fields, roadsides, and waste places about city. Introduced from Europe. April-November.** First planted at Fort Vancouver in 1831 (Taylor 1992). Collected several times around the metro area between 1881 and 1938 (HPSU, OSC; Nelson 1917, where "abundant;" Van Dersal 1929; Davies 1938). | Exotic. Introduced 1825-1849. Very common throughout our area in agricultural fields, lawns, and waste places. Often with *Lotus corniculatus*. |
| *Trifolium squamosum* [*Trifolium maritinum*] | **[*Trifolium maritimum*]. Salt marsh clover. Infrequent on ballast grounds and waste places, Lower Albina, etc. Native of marshes in Great Britain and Ireland. Adventive from Europe. May-September.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Trifolium subterraneum* | Subterranean clover. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Benton and Polk counties since 1940 and 1944, respectively (OSC). | Exotic. Introduced 1950-1974. Common throughout our area. An aggressive increaser in dry, disturbed sites and lawns. More drought tolerant than *T. repens*. |
| *Trifolium variegatum* | **White tip clover. Infrequent in wet rocky places. Oswego, Risley Station, etc. May-August.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), at Elk Rock by Henderson in 1889, near Oregon City by Howell in 1889 and 1899, at Willamette Falls by Sheldon in 1902, and N of Tonquin by Thompson in 1927 (OSC, REED). | Native, rare historically and rare today. In our area known only from Cooper Mountain (*Kral, 1997*, HPSU). Very infrequent on thin, exposed soils in association with other native annual trifoliums. |
| *Trifolium vesiculosum* | Arrowleaf clover. Not listed by Gorman or Nelson. | Exotic. Introduced 1975-1999. Reported from the Terminal 5 mitigation site near intersection of N Time Oil Road and N Rivergate Road (*Wilson*, OFP), and between Lower Boones Ferry Road and Nyberg Road along Interstate 5 (*Otting et al.,* OFP). The nearest voucher is from Yamhill County (*Halse, 1987*, OSC), well beyond our limits. |

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| *Trifolium willdenovii* [*Trifolium obtusiflorum, Trifolium tridentatum*] | **Three-toothed clover. Infrequent in open places. Fulton, Oswego, etc. May-August.** | Native, rare historically and rare today. In our area known only from Cooper Mountain (*Kral, 1998*; *Kimpo 2001*, HPSU, all as *T. tridentatum*). PLANTS and Hickman (1993) treat Hitchcock's *T. tridentatum* as a synonym of *T. willdenovii*, while OFP treats it as a synonym of *T. obtusiflorum*. To complicate matters further, Hitchcock treated *T. willdenovii* (an annual) as a synonym of T. *wormskioldii* (a perennial). |
| *Trifolium wormskioldii* [*Trifolium wormskjoldii*] | **[*Trifolium fimbriatum*]. Beach clover. In grassy glades** [openings] **about Oswego. May-August.** Historical voucher specimens not found. | Native, rare. No recent reports from our area. St. Helens (Pierce 2003), slightly beyond our limits. A possible occurrence at Cooper Mountain has not been verified. |
| *Ulex europaeus* | **Furze, gorse. Open woods. Willamette Heights, Mountain View, Riverside, etc. Introduced from Europe. February-July.** Gorman (undated #1) indicated that *Ulex* was infrequent in Portland. On ballast at Linnton, where "two or three vigorous specimens have persisted," although rare elsewhere (Nelson 1917, 1923a). Nelson predicted it would persist in the regional flora, but did not expect it to become as invasive as *Cytisus scoparius*. Van Dersal (1929) found it "not abundant" in our area. | Exotic, rare. Introduced 1875-1899. Thankfully, no recent reports from our area. |
| *Vicia americana* | **American vetch. Common in open woods everywhere around Portland. March-June. [*Vicia truncata*]. Blunt leaved vetch. Not uncommon in open woods about city. April-June.** Collected several times around the metro area between 1880 and 1938 (OSC; Gorman and Sheldon 1905, as *V. truncata*; Van Dersal 1929; Davies 1938). | Native. Very common in our area in open woods and clearings. |
| *Vicia cracca* | Bird vetch, tufted vetch. Not listed by Gorman or Nelson. Van Dersal (1929) found it "not abundant, but forming pure stands where it does occur." | Exotic. Introduced 1925-1949. Very common in our area on dry, disturbed sites. SE Portland (*Marttala*), Troutdale (*Wilson and Brainerd*, OFP), Terminal 5 mitigation site near intersection of N Time Oil Road and N Rivergate Road (*Wilson*, OFP). Sometimes confused with *Vicia villosa* (Liston 2009). |
| *Vicia hirsuta* | **Hairy vetch. Fields, roadsides, and waste places around Portland. Naturalized from Europe. May-August.** Collected near Fort Vancouver by Douglas in 1825-1827, where "probably introduced" (Hooker 1829-1840, as *Ervum hirsutum*), at Albina and Lower Albina by Suksdorf and Sheldon between 1902 and 1910, and near Tualatin by Hitchcock in 1951 (OSC, WTU). | Exotic. Introduced 1825-1849. Common throughout our area. |
| *Vicia nigricans* ssp. *gigantea* [*Vicia nigricans* var. *gigantea*, *Vicia gigantea*] | **Giant vetch. In open woods. Macleay Park** [Gorman and Sheldon 1905]**, Mt. Tabor, Mt. Scott, etc. April-June.** | Native, rare. Infrequent in our area in open forests. Forest Park (Houle 1996), Hardscrabble Quarry (Weber et al. 1999). The species *nigricans* has sometimes been spelled "*nigracans*." |

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| *Vicia sativa* ssp. *nigra* [*Vicia sativa* var. *angustifolia*] | **Tares,** vetch**. Common in fields and waste places around Portland. Introduced from Eurasia. April-July.** Collected near Fort Vancouver by Douglas in 1825-1827, where "probably an introduced plant" (Hooker 1829-1840), and cultivated there in 1844 (Taylor 1992). Collected several times around the metro area between 1880 and 1934 (OSC, WTU; Nelson 1917, as *V. angustifolia*). | Exotic. Introduced 1825-1849. Very common throughout our area on dry, disturbed sites. |
| *Vicia sativa* ssp. *sativa* | Garden vetch. Not listed by Gorman or Nelson. Collected at Portland by Flinn in 1905 (OSC), and S of Hagg Lake by Andrieu in 1978 (LINF), the latter beyond our range. | Exotic. Introduced 1900-1924. Distribution in our area uncertain because of confusion with *Vicia sativa* ssp. *nigra.* |
| *Vicia tetrasperma* | Lentil vetch. Not listed by Gorman or Nelson. Collected at Lower Albina by Sheldon in 1902 (OSC). | Exotic. Introduced 1875-1899. Very common in our area on dry sites. A problematic weed of wet and upland prairie. |
| *Vicia villosa* | Winter vetch; hairy vetch. Collected several times around the metro area between 1908 and 1951 (OSC, WTU; Nelson 1918a, as *V. dasycarpa*). | Exotic. Introduced 1900-1924. Common in our area on dry roadsides and in waste areas. Widely promoted in the 1960s as a ground cover for erosion control, and seed is readily available on the internet. |
| **Fagaceae** | | |
| *Chrysolepis chrysophylla* var. *chrysophylla* [*Castanopsis chrysophylla*] | Giant chinquapin. Not listed by Gorman or Nelson. Collected at Estacada by Peck in 1925 and at Hillsboro by Burkhart in 1954, the former somewhat beyond our limits (OSC). | Native, rare. No recent reports from our area. Reported from St. Mary's Woods (*WalthalII,* OFP). |
| *Lithocarpus densiflorus* | Tanoak. Not listed by Gorman or Nelson. | Native, rare. In our area apparently limited to Hoyt Arboretum, where reproducing by seed from planted stock (*Christy, 2008*). Native to Douglas County and southward, naturalizing in Portland. Like *Umbellularia*, it is being dispersed locally by birds and squirrels from ornamental plantings. Not known if planted elsewhere in our area. |
| *Quercus garryana* | **Western white oak, Pacific post oak, Oregon white oak. Open glades and open fir woods. Lewis and Clark Fair Grounds, South Portland, Fulton, Oregon City Road, etc. April, May.** Collected on "plains" near Fort Vancouver by Douglas, Gairdner, and Tolmie, where "plentiful" (Hooker 1829-1840). Collected several times around the metro area between 1884 and 1926 (OSC, WTU; Gorman and Sheldon 1905). | Native. In our area occasional to common on bluffs and rocky flats along the Willamette River from St. Johns to Oregon City, and in deeper soils in the Tualatin and Clackamas River drainages. Mt. Scott, Powellhurst, Gilbert, Rose City Park (*Brunkow*). Most occurrences are small stands, often overgrown with *Abies grandis*, *Crataegus monogyna*, and *Pseudotsuga menziesii*. |
| *Quercus robur* | English oak. Not listed by Gorman or Nelson. Grown in the US since since colonial times (Adams 2004). | Exotic. Introduced 1875-1899. Widely planted as an ornamental, and reproducing in several places from seed dispersed by birds and squirrels. Sellwood bluffs above Oaks Bottom (*Schiller, 2009*), Hoyt Arboretum (*Christy, 2009*). Some commercaial stock supplied for restoration work has been mislabeled as *Quercus garryana* (*Kimpo, 2009*). Naturalized in Seattle (Jacobson 2001). An invasive noxious weed in NE US. |

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| *Quercus rubra* | Red oak. Not listed by Gorman or Nelson. Available commercially in the West since 1907 (Adams 2004). | Exotic. Introduced 1900-1924. Seedlings of 1-3 years planted by squirrels and jays are common in our area. Naturalized saplings and mature trees have not been documented. Vancouver Lake (*Zika, 2002*, WTU). |
| **Frankeniaceae** | | |
| *Frankenia pulverulenta* | **Trailing sea heath. On ballast grounds and waste places. Lower Albina, etc.** [It] **has made its appearance in Portland within the last few years but has not yet become fully established. Adventive from Europe. May-August.** Collected at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Reportedly invasive in Utah and Australia, usually on highly saline soils. |
| **Fumariaceae** | | |
| *Corydalis scouleri* | Scouler's fumewort. Not listed by Gorman or Nelson. Collected "in the darkest places" near Willamette Falls by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), on Scappoose Creek by Henderson in 1881, and W of Forest Grove by Thompson in 1916, the latter two both beyond our limits (OSC, WTU). | Native, rare. In our area known only from Clear Creek (Smyth 1999c) and Dodge Park (*Poff, Brunkow & Marttala*), the latter just beyond our limits. Planted near Gabriel Park (*Poff*) and the E base of Powell Butte (*Brunkow, Marttala*) but not known if still surviving there. |
| *Dicentra formosa* | **[*Bikukulla formosa*]. Western bleeding-heart. Moist ground and stream banks. Balch Creek, St. Helens Road, etc. April-June.** Collected several times in the metro area between 1887 and 1916 (HPSU, OSC). | Native. Common on moist ground in coniferous forests and on highly organic soils in wet riparian areas (*Gaddis*). |
| *Fumaria officinalis* | Drug fumitory. Not listed by Gorman or Nelson. Collected at Hillsboro by Goodin and another unnamed collector in 1909 and 1910 (OSC), and at Forest Grove by Thompson in 1926 (WTU). | Exotic, rare. Introduced 1900-1924. In our area, known only from Aloha (*Smith, 2005*, OSC). |
| *Pseudofumaria lutea* [*Corydalis lutea*] | Rock fumewort. A garden escape at Elk Rock (Nelson 1918a, 1918b; Hitchcock et al. 1955-1969). | Exotic. Introduced 1900-1924. Escaped at several sites in urban portions of our area. |
| **Gentianaceae** | | |
| *Centaurium erythraea* [*Centaurium umbellatum*] | **[*Erythraea centaurium*]. Garden centaury. On freshly disturbed soil, waste places, and along railroad tracks. Arlington Heights, Portland Heights, Albina, etc. Naturalized from Europe. Possibly a garden escape here. June-August.** Collected several times in the metro area between 1909 and 1932 (OSC, WTU). | Exotic. Introduced 1900-1924. Frequent in pastures, abandoned lots, prairie remnants, and weedy lawns. Oaks Bottom, West Slope (*Christy, 1989*), N end of Sauvie Island (Marttala et al. 2002). |
| *Centaurium muehlenbergii* | Muehlenberg's centaury. Not listed by Gorman or Nelson. Collected at Hillsboro in 1883 by an unidentified botanist, probably either Henderson or Howell (OSC). | Native, rare. In our area known only from Fifth Plain Prairie and Parkway Ponds near Vancouver Mall, Clark County (*Gaddis*). |
| *Gentiana sceptrum* | **Tall gentian. On moist grassy slopes, Mt. Scott, and on moist ground near Vancouver. July-September.** Collected in "low moist soil" near Fort Vancouver by Douglas in 1825-1827, where "plentiful" (Hooker 1829-1840; Hitchcock et al. 1955-1969). The Mt. Scott collection was made by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. |

| **Geraniaceae** | | |
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| *Erodium cicutarium* | **Alfilaria. Common weed in fields, roadsides, and waste places. Lower Albina, St. Johns, Mt. Tabor, Sandy Boulevard, etc. Naturalized from Europe. Late February-July.** Collected several times around the metro area between 1881 and 1917 (OSC, WTU; Nelson 1917, where "abundant"). | Exotic. Introduced 1875-1899. Very common throughout our area on dry, disturbed roadsides and other sites. Commonly with *Cardamine hirsuta* and weedy geraniums. |
| *Erodium moschatum* | Musky stork's bill. On ballast at Linnton (Nelson 1917). Reported from Eugene by Bradshaw (1920). | Exotic, rare. Introduced 1900-1924. No recent reports from our region. It has also disappeared from Eugene (Simpson et al. 2002). |
| *Geranium bicknellii* | **Bicknell's cranesbill. In fields, vacant lots, and waste places around Portland. April-September.** Collected on Mt. Tabor by Gilkey in 1934 (OSC). | Native. Throughout our area on disturbed ground. |
| *Geranium carolinianum* | **Carolina cranesbill. Common in fields, lawns, roadsides, and waste places around Portland. April-September.** Collected several times around the metro area between 1884 and 1938 (HPSU, OSC, WTU; Van Dersal 1929, where "common;" Davies 1938). | Native. Common in disturbed soils around our area. |
| *Geranium columbinum* | Longstalk cranesbill. Not listed by Gorman or Nelson. Collected 3 mi S of Hillsboro by J.T. Howell in 1952 (OSC, WTU). | Exotic. Introduced 1900-1924. Common in our area on shady, disturbed sites. |
| *Geranium dissectum* | **Cut-leaved cranesbill. Common weed in fields, waysides, and waste places around Portland and throughout the Willamette Valley generally. Naturalized from Europe. May-September.** Collected several times around the metro area between 1886 and 1926 (HPSU, OSC, WTU). On "cultivated ground around the mouth of the Willamette River" (Howell 1897-1903). | Exotic. Introduced 1875-1899. Common throughout our area. |
| *Geranium lucidum* | Shining geranium. Not listed by Gorman or Nelson. Not collected in our area until 1985, but first collected in Yamhill County in 1971 (OSC). | Exotic. Introduced 1975-1999. Occasional to locally abundant in dry or mesic coniferous and deciduous woods, gardens, and shady roadsides. Willamette Narrows (*Kimpo, 2005*), NW Portland (*Liston, 2005*, OSC), E bank of Willamette River S of Burnside Bridge (*Marttala, 2007*), Portland Heights (*Christy, 2008*), Hoyt Arboretum (*Christy, 2008*), Washougal (Legler et al. 2008). Highly invasive in deciduous and coniferous woods. |
| *Geranium molle* | **Spreading cranesbill. Fields, lawns, and roadsides about the city. Not common. Adventive from Europe. April-September.** Collected several times around the metro area between 1884 and 1938 (HPSU, OSC, WTU; Davies 1938). | Exotic. Introduced 1875-1899. Common throughout our area. |
| *Geranium oreganum* | **Oregon geranium. On Rock Island in Willamette River opposite Elk Rock. May-September.** Collected several times by Henderson, Drake, and Gorman at Milwaukie, Oswego, and on the Tualatin Plains between 1881 and 1891 (OSC). | Native, rare. In our area known only from Camassia Preserve (Horvath 1993) and Cooper Mountain (Wilson & Kral 1999), where it is scarce. Not relocated at Elk Rock (PPR 2004). |

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| *Geranium pusillum* | **Small cranesbill. A weed in lawns, waysides, and grassy places everywhere around Portland. Naturalized from Europe. April-September.** Collected several times around the metro area between 1885 and 1938 (HPSU, OSC; Davies 1938). | Exotic. Introduced 1875-1899. In moist open woodlands and fields throughout our area. |
| *Geranium pyrenaicum* | **Meadow geranium. Recently introduced weed on ballast grounds and waste places. Lower Albina, East Portland, and Riverdale. Adventive from Europe. May-September.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. The PLANTS database indicates that it does not occur in Oregon, but it is present in California. |
| *Geranium robertianum* | Herb Robert, stinky Bob. Not listed by Gorman or Nelson. Collected along SW Montgomery Drive near Vista Avenue by Ornduff in 1960 (OSC). Reported by Hitchcock et al. (1955-1969) as "rapidly spreading" in some areas, including Portland. | Exotic. Introduced 1950-1974. Common to abundant in moist or dry coniferous and deciduous woods, gardens, and shady roadsides throughout our area. Highly invasive in deciduous or coniferous woods. |
| *Geranium viscosissimum* | Sticky purple geranium. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Elk Rock Island (PPR 2004). Mostly E of the Cascades. |
| **Grossulariaceae** | | |
| *Ribes bracteosum* | **Stink currant, large leaved currant, glaucous currant. Moist stream banks. Balch Creek** [Gorman and Sheldon 1905; Gorman undated #2] **and creeks along St. Helens Road. April-June.** Collected several times around the metro area between 1879 and 1905 (HPSU, OSC). | Native, rare. In our area known only from Forest Park in three or four canyons that were never logged because of steep topography. Reported from Tryon Creek State Park (*Bluhm, 1996*, OFP). |
| *Ribes divaricatum* | **Western wild gooseberry. On low ground. Along Willamette River near Portland, Sauvie Island, etc. April, May.** Collected several times around the metro area between 1879 and 1938 (OSC; Davies 1938). | Native. Occasional to locally abundant in our area often with cottonwood. Columbia Slough (*Kimpo*), Reed College canyon, N end of Sauvie Island (Marttala et al. 2002), Clark County. Rarely fruiting. |
| *Ribes lacustre* | Prickly currant. Not listed by Gorman or Nelson. | Native, rare. In our area known from Multnomah Channel and Tualatin River NWR (Maffitt et al. 2005-2008). More common in the Cascades and Coast Range. |
| *Ribes lobbii* | **Lobb's gooseberry. Open woods. South Portland, Oswego, etc. March-May.** Gorman (undated #2) reported it from the same localities, in open woods and roadsides. Collected several times around the metro area between 1880 and 1910 (OSC, WTU). | Native, rare. No recent reports from our area. |
| *Ribes oxyacanthoides* ssp. *cognatum* [*Ribes oxyacanthoides* var. *cognatum, Ribes cognatum*] | Stream currant. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Green Mountain (*Habegger, 1998*, WTU). |
| *Ribes sanguineum* | **Red flowered currant. Common on hillsides and in open woods everywhere around Portland. February-May.** Collected several times around the metro area between 1880 and 1938 (HPSU, OSC; Gorman and Sheldon 1905; Van Dersal 1929; Davies 1938). | Native. Occasional in the Portland area in open mixed conifer and oak woodlands, but inexplicably absent from Clark County (*Gaddis*). Reed College canyon (Moreira and Stafford 1996), N end of Sauvie Island (Marttala et al. 2002). Usually occurring as single individuals. Probably less common now than in Gorman's day because of recovery of cutover forest. |

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| **Haloragaceae** | | |
| *Myriophyllum aquaticum* [*Myriophyllum brasiliense*] | Parrotfeather. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Clatsop County as early as 1952 (OSC). | Exotic. Introduced 1950-1974. A noxious aquatic weed, probably distributed throughout our area but under-reported. Bridgeton Slough, Mays Lake, parts of the Columbia Slough, Smith and Bybee Lakes (*Gaddis*). Listed as a Class B Noxious Weed by ODA, but still sold commercially for aquatic gardens. |
| *Myriophyllum hippuroides* | **Western water milfoil. In ponds and marshes. Columbia Slough. May-August.** Collected several times on Sauvie Island, "marshes below Portland," and in Columbia Slough by Howell, Henderson, and Sheldon between 1881 and 1902 (OSC). | Native, rare. Infrequent in seasonally flooded ponds. Columbia River bottomlands, Springwater Corridor Trail near SE 190th (*Marttala*), and Burlington Bottoms (*Christy, 1992*). |
| *Myriophyllum sibiricum* [*Myriophyllum spicatum* var. *exalbescens*] | Shortspike watermilfoil. Not listed by Gorman or Nelson. Collected once on Hayden Island opposite Vancouver by Henderson in 1888 (OSC). Listed by Van Dersal (1929) but without collection data. | Native, rare. No recent reports from our area. |
| *Myriophyllum spicatum* var. *spicatum* | Eurasian watermilfoil. Not listed by Gorman or Nelson. First collected in our area in 1981, but known from elsewhere in Oregon since 1972 and probably overlooked for many years (OSC). | Exotic. Introduced 1950-1974. Abundant in the Columbia River and its floodplain rivers and lakes. Sauvie Island and Blue Lake (*Halse, 1981,* OSC), where it still occurs despite control efforts. |
| **Hippocastanaceae** | | |
| *Aesculus hippocastanum* | Horse chestnut. Not listed by Gorman or Nelson. Available commercially in the West since 1873, and sold locally as early as 1912 (Adams 2004). Collected at Forest Grove by Thompson in 1926, just beyond our limits (WTU). | Exotic. Introduced 1875-1899. Escaped ornamental common in yards and natural areas around our area, sprouting from seeds cached by squirrels. Usually occurring as single individuals but occasionally forming monocultures that exclude native species. |
| **Hippuridaceae** | | |
| *Hippuris vulgaris* | **Mare's tail. In ponds and small lakes. Mirey Lake, Sauvie Island, etc. April-July.** | Native, rare. In our area known only from Ridgefield NWR (*Pfauth*). |
| **Hydrangeaceae** | | |
| *Philadelphus lewisii* | **[*Philadelphus gordonianus*]. Western syringa, mock orange, wild syringa. Open woods. Portland Heights, head of Jefferson Street, Cornell Road, Mt. Tabor, etc. May-July.** Collected several times around the metro area between 1880 and 1925 (HPSU, OSC, WTU, UTC; Gorman and Sheldon 1905). | Native. Occasional in dry oak or mixed oak-conifer forest, less common in pure conifer stands. Rocky Butte (*Brunkow*), Springwater Corridor Trail near SE 124th Street, Interstate 84 near Lloyd Center exit (*Marttala*), Forest Park (*Christy*, *2008*). Salmon Creek drainage of Clark County (*Gaddis*). |
| *Whipplea modesta* | **Trailers. Infrequent in forests near Linnton. May-July.** Collected at South Portland by Henderson in 1882 and "near Portland" by Howell in 1886 and 1887 (OSC). | Native, rare. In our area known only from Tualatin River NWR (*Maffitt*). |
| **Hydrocharitaceae** | | |
| *Egeria densa* [*Elodea densa*] | South American waterweed. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but first collected in Marion County in 1934 (OSC). | Exotic. Introduced 1925-1949. Occasional in our area but abundant where found. In sloughs and lakes. Upper Burnt Bridge Creek (*Gaddis*). |
| *Elodea canadensis* | Canadian waterweed. Not listed by Gorman or Nelson. | Native. Occasional to locally common in sloughs and lakes around our area. Columbia Slough, Burlington Bottoms, Blue Lake. Often regarded as a nuisance plant. |

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| *Elodea nuttalli* | Western waterweed. Not listed by Gorman or Nelson. Collected three times on Sauvie Island by Thomas Howell between 1877 and 1885, and in ponds "opposite Vancouver" by Henderson in 1888 (OSC, REED). | Native, rare. In our area known only from one site on Columbia Slough near NE 92nd Street. It is probably more common here but overllooked because of its similarity with *E. canadensis*. |
| **Hydrophyllaceae** | | |
| *Hydrophyllum occidentale* | Western waterleaf. Not listed by Gorman or Nelson. Collected at McMinnville by Gross in 1952 (OSC), and 10 miles W of Gaston by Matthews in 1978 (LINF), both beyond our limits. | Native, rare. Reported from Pittock Bird Sanctuary (OFP), but voucher specimens not found. More common in the Coast Range and Cascades, but occasional in the Willamette Valley and to be sought on the west side or our area. |
| *Hydrophyllum tenuipes* | **Oregon water-leaf. Moist woods. Macleay Park** [Gorman and Sheldon 1905, as *H. virginicum*]**, St. Helens Road, etc. April-July.** Collected several times in the metro area between 1880 and 1925 (OSC, WTU). | Native. Common in moist coniferous and deciduous forest throughout our area. Often tall enough to persist in areas infested with *Hedera*. |
| *Nemophila menziesii* var. *atomaria* | Baby blue eyes. Not listed by Gorman or Nelson. Collected on Tualatin Plains by Henderson in 1881 (OSC), and at Forest Grove by Jackson in 1886 (WTU). | Native, rare. No recent reports in the wild from our area, but sometimes included in "meadow in a can" seed mixes that survive 1-2 years before disappearing. |
| *Nemophila parviflora* | **Small-flowered nemophila. Open woods. Macleay Park** [Gorman and Sheldon 1905, as *N. micrantha*]**, St. Helens Road, etc. April-June.** Collected at Fort Vancouver by Douglas in 1825-1827 (Hitchcock et al. 1955-1969), and several times in the metro area between 1881 and 1929 (OSC; Van Dersal 1929). | Native. Common in coniferous woods throughout our area. Forest Park (Houle 1996), Powell Butte, Kelly Butte, Kelly Creek, Foster Road, Mt. Talbert, Gales Creek, Willamette Narrows, N end of Sauvie Island (Marttala et al. 2002), many sites in Clark County (*Gaddis*). |
| *Nemophila pedunculata* | **[*Nemophila densa*]. Dwarf nemophila. In open "pole oak" groves. Oswego, etc. April-June.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hitchcock et al. 1955-1969). | Native. Occasional in open oak woodlands and prairie remnants. Sauvie Island. |
| *Phacelia heterophylla* | **Coiled phacelia.** Collected on Willamette Heights by Sheldon in 1902 (OSC) and reported from Macleay Park (Gorman and Sheldon 1905), none with varietal status indicated. Seen at Elk Rock by Marttala in 1976. | Native. Occasional on grassy balds and bluffs in our area. Springwater Corridor Trail SE of Powell Butte (*Marttala*), Clackamas River Island (*Kimpo*), and Willamette Narrows (*Kimpo*). |
| *Phacelia linearis* | **Menzie's phacelia. Dry ground and in open woods. Macleay Park, St. Helens Road, etc. April-June.** Collected at Oswego on dry soil by Drake and Dickson in 1892 and Thomas Howell in 1893 (OSC). | Native, rare. No recent reports from our area. |
| *Phacelia mutabilis* [*Phacelia heterophylla* var. *pseudohispida; Phacelia nemoralis* var. *mutabilis* ] | Changeable phacelia. Not listed by Gorman or Nelson. Collected at NW 22nd and Pettygrove by Gorman and Henderson in 1918 (OSC). | Native, rare. No recent reports from our area. More common at higher elevations in the Cascades. See note on nomenclature and distribution below in *Phacelia nemoralis* ssp*. nemoralis*. |

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| *Phacelia nemoralis* ssp*. nemoralis* | Shade phacelia. Not listed by Gorman or Nelson. Collected several times in the metro area between 1881 and 1940 (OSC, WTU). | Native. Common in our area in floodplain forest and drier deciduous forest. Columbia Slough, N end of Sauvie Island (Marttala et al. 2002), SE Foster Road near 149th Street (*Marttala*), Clark County (*Gaddis*). Nomenclature of *Phacelia nemoralis* is in flux and not all specimens appear to have been annotated recently, so local distributions of ssp*. nemoralis*, ssp. *oregonensis*, and even *P. mutabilis* (formerly *P. nemoralis* var. *mutabilis*) are not entirely clear. |
| *Phacelia nemoralis* ssp. *oregonensis* | Oregon phacelia. Not listed by Gorman or Nelson. Collected near Gresham by J.T. Howell in 1931, and at Willamette Falls by Constance and Beetle in 1940 (OSC). | Native. Reported from Tualatin Hills Nature Park (*Bluhm*, OFP). See note on nomenclature and distribution above in *Phacelia nemoralis* ssp*. nemoralis*. |
| *Phacelia tanacetifolia* | Lacy phacelia. Not listed by Gorman or Nelson. Collected in the "East Portland Hills" by Henderson in 1882, and near Forest Grove by Henderson in 1883, the latter beyond our limits (OSC). | Exotic, rare. Introduced 1875-1899. In our area known only from the dry banks of a created wetland along Columbia Slough (*Kimpo, 2001*). |
| **Iridaceae** | | |
| *Iris pseudacorus* | Paleyellow iris. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found. First collected in Oregon in 1994 (OSC) and in Washington in 1974 (WTU), but probably in cultivation since at least 1950. Seen at Elk Rock by Marttala in 1976. | Exotic. Introduced 1950-1974. Occasional to locally common and a troublesome weed along the Columbia and Willamette rivers. Multnomah Channel, Sauvie Island (*Christy, 1992*; Marttala et al. 2002), Smith and Bybee Lakes (*Gaddis*). An escaped ornamental and planted widely. Problematic along Columbia Slough. |
| *Iris tenax* | **Purple flag. Very common in fields and roadsides. Portland Heights, East Portland, Mt. Tabor, Mt. Scott, etc. Occasionally found with white flowers. March-May.** Collected several times in our area between 1880 and 1917 (HPSU, OSC, WTU). *Iris tenax* var. *gormanii*, not recognized by the PLANTS database, was collected repeatedly around Scoggins Creek near Gaston by Gorman, Peck, Thompson, Leach, and Rogers between 1923 and 1939 (OSC; Wilson 2003). It is beyond our limits but to be sought within our area. | Native. Occasional. Forest Park (Houle 1996), Hoyt Arboretum, Cooper Mountain, Camassia Preserve, Kelly Butte, Tualatin River NWR (*Maffitt*), and a few rocky outcrops in the E part of the region. More common farther up the Sandy River drainage, beyond our limits (*Marttala*). It has lost habitat to urban development and forests encroaching on sunny openings. *Iris tenax* var. *gormanii* still occurs around Henry Hagg Lake in the Scoggins Valley (*Maffitt, Robinson, 2005*), but has not been found closer to our area. |
| *Iris tenuis* | Clackamas iris. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1881 (GH) and in Washington County by Henderson in 1884 (Foster 1937, Lenz 1959). | Native, rare. No recent reports from our area. Recent treatments restrict it to the Clackamas and Molalla river drainages just beyond our limits, and do not cite the Henderson specimens from Portland or Washington County. Online sources do not indicate if these specimens have been renamed. |

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| *Sisyrinchium idahoense var. idahoense* [*Sisyrinchium angustifolium*] | **Idaho blue-eyed grass. Low ground and grassy meadows near Vancouver. April-June. [*Sisyrinchium birameum*]. Branched blue-eyed grass. In wet meadows and swamps near Vancouver. April-June.** Collected several times in our area between 1881 and 1926 (OSC, WTU). | Native. Occasional in wet prairie. Camassia Preserve, Gresham Woods, Tualatin River NWR (Maffitt et al. 2005-2008), Green Mountain (*Habegger, 1998*, as var. *occidentale,* WTU), Fifth Plain Prairie, Orchards area prairies (*Gaddis*). Formerly at Interlachen wetland (*Kimpo*) and along Springwater Corridor Trail near SE 111th, the latter covered with fill and developed in the 1980's (*Marttala*). Most early collections named *S. bellum*, including those of Flinn at HPSU, are are *S. idahoense*, and the two are still frequently confused. *S. bellum* is more common farther S in the Willamette Valley (*Zika*). |
| **Isoetaceae** | | |
| *Isoetes nuttallii* | **Nuttall's quillwort. Open fields along ditches. Gladstone. May-July.** Collected near Gladstone and Oswego by Henderson in 1885 and 1887, and by Thomas Howell in 1894 (OSC, REED). Gorman (1916-1917) also listed an unidentified *Isoetes* from ponds opposite Oswego, which was probably also *I. nuttallii*. | Native, rare. In our area known only from Lacamas Park (*Alverson, 2005*) and St. Helens (Christy and Alverson 2001; Pierce 2003), the latter beyond our limits. Typical of vernal pools and depressions in basalt scabland or balds, but hard to find because of its resemblance to other grasslike emergent species. |
| **Juncaceae** | | |
| *Juncus acuminatus* | Tapertip rush. Not listed by Gorman or Nelson. Collected on Sauvie Island by Henderson in 1882 (OSC). | Native, rare. Scarce to locally abundant in our area. Clear Creek (*Kral, 1997*, HPSU), Ramsey Lake (*Sivam, 2000*, OSC), Smith and Bybee Lakes (*Gaddis, 2006*), and several sites in Clark County (*Gaddis*). |
| *Juncus anthelatus* [*Juncus tenuis* var. *anthelatus*] | Giant path rush. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1975-1999. In our area known only from Green Mountain (*Habegger, 1998*, WTU). Native to E North America. |
| *Juncus articulatus* | Articulated rush. Not listed by Gorman or Nelson. | Native, rare. Uncommon in our area. Milwaukie (*Blowers and Ellenberg, 1993*, HPSU), Government Island (*Spencer, 1995*, HPSU), Powell Butte, Multnomah Channel, North Keys. |
| *Juncus balticus* ssp. *ater* [*Juncus balticus* var. *montanus*] | Baltic rush. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1882, and along a railroad in Tualatin by Peck in 1919 (OSC). | Native, rare. No recent reports from the Portland area, but with many occurrences in Clark County (*Gaddis*). More common along the coast and E of the Cascades. Here we follow Snogerup et al. (2002) and OFP instead of PLANTS, the latter lumping this and ssp. *littoralis* (Hitchcock's var. *vallicola*) under *J. arcticus* ssp. *littoralis*). Zika (2006c) provided a regional key using the revised nomenclature. |
| *Juncus bufonius* | **Toad rush. Common along roadsides everywhere. May-August.** Collected at Portland by Henderson in 1882 and Sheldon in 1902 (OSC). | Native. Occasional to locally abundant in disturbed wetlands throughout our area. Burlington Bottoms, Oaks Bottom, N end of Sauvie Island (Marttala et al. 2002), Smith and Bybee Lakes and Clark County (*Gaddis*), Scappoose Bay (*Christy*). |

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| *Juncus covillei* | **[*Juncus falcatus*]. Creek bank rush. Infrequent in moist springy places. Balch Creek, Oswego. June, July.** Collected on cliffs of the Willamette River at Oregon City and near Oswego by Henderson in the 1880's, and on the banks of the Tualatin River and at Willamette Falls by Sheldon in 1902 and 1903 (OSC). | Native, rare historically and rare today. No recent reports from our area. The specimens collected by Henderson and Sheldon, all originally named *J. falcatus*, were later reannotated to *J. covillei* var. *covillei*. *J. falcatus* is a coastal species and there are no verified records from the metro area. |
| *Juncus effusus* ssp. *effusus* [*Juncus effusus* var. *effusus*] | **Common rush, bog rush. Common in ditches and bogs. East Portland, St. Helens Road, etc. June, July.** Collected on Sauvie Island by Trainer in 1963 (OSC). Macleay Park (Gorman and Sheldon 1905). | Exotic. Introduced 1900-1924. Very common in our area. In most urban wetlands it outcompetes native species by forming dense monotypic stands that tolerate large fluctuations in hydroperiod. Hitchcock et al. (1955-1969) were incorrect in stating that *J. effusus* ssp. *effusus* does not occur in North America. It was not documented in Oregon until 1929 and not in the metro area until 1963, but we suspect that at least some of the historical Portland-area reports of *J. effusus* (Gorman and Sheldon 1905; Gorman 1916-1917) refer to ssp. *effusus* and not the native ssp. *pacificus*. Zika (2003a, 2006c) provided keys using revised nomenclature. |
| *Juncus effusus* ssp. *pacificus* [*Juncus effusus* var. *pacificus*] | Pacific rush. Not listed by Gorman or Nelson and presumably within their broader concept of *Juncus effusus*. Collected in marshes below Portland by Henderson in 1881, and on Willamette Heights in "hills back of City Park" by Sheldon in 1902, the latter the type specimen (GH, NY, OSC). | Native, rare. Rare in urban zones but more frequent in agricultural fringes. Gresham Woods, Cooper Mountain, Clark County (*Gaddis*). Less likely than *J. effusus* ssp. *effusus* to form monotypic stands. Zika (2003a, 2006c) provided keys using revised nomenclature. |
| *Juncus effusus* ssp. *solutus* | Lamp rush. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1975-1999. In our area known only from NE Vancouver (*Zika, 2002*, WTU). Native to E North America. Zika (2003a, 2006c) provided keys using revised nomenclature. |
| *Juncus ensifolius* | **Sword leaved rush, large-headed rush. In wet places. South Portland and East Portland. June, July.** Collected at Portland by Thomas Howell and probably by Henderson as early as 1882, by Sheldon on Willamette Heights in 1902, and at Macleay Park (OSC; Gorman and Sheldon 1905, as *J. xiphioides*). | Native. Occasional throughout our area. Powell Butte, Clear Creek (*Kral, 1997*, HPSU), Clark County (*Gaddis*). Seed from hand-collected and commercial sources is sometimes used for enhancement work. |
| *Juncus hemiendytus* | **[*Juncus triformis*]. Pacific rush. Roadsides. East Portland, Albina, etc. May-July.** Collected at St. Helens by Thomas Howell in 1887, somewhat beyond our limits (OSC). | Native, rare. No recent reports from our area. Howell's specimen from St. Helens was originally named *J. triformis*, but the latter has not been documented from Oregon. |

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| *Juncus hesperius* [*Juncus effusus* var. *bruneus*, *Juncus effusus* var. *gracilis* in part] | Common name not available. Not listed by Gorman or Nelson and presumably within their broader concept of *Juncus effusus*. Collected at "edge of marsh" on Willamette Heights by Sheldon in 1902, and by Suksdorf at Boring in 1919 (OSC, WTU). | Native, rare. In our area known only from Vancouver (*Zika*, WTU). Here we follow Snogerup et al. (2002) and OFP instead of PLANTS, the latter recognizing *J. hesperius* as *J. effusus* var. *bruneus*. To confuse matters further, Hitchcock and Cronquist (1976) lumped *J. effusus* var. *bruneus* under *J. effusus* var. *gracilis*, which PLANTS recognizes as *J. effusus* var. *gracilis* but which Snogerup et al. (2002) and OFP recognize as *J. laccatus*. The var. *gracilis* of Hitchcock and Cronquist therefore contained both *J. hesperius* and *J. laccatus* and should be ignored. Zika (2006c) provided a regional key using the revised nomenclature. |
| *Juncus laccatus* [*Juncus effusus* var. *gracilis* in part] | Shiny rush. Not listed by Gorman or Nelson and presumably within their broader concept of *Juncus effusus*. | Native, rare. In our area known ony from Fifth Plain Prairie in Clark County (*Zika, 2002*, WTU). For its tortured nomenclatural path, see discussion under *Juncus hesperius*. |
| *Juncus longistylis* | Long-styled rush. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Camassia Preserve. More common E of the Cascades. |
| *Juncus nevadensis* var. *nevadensis* | **[*Juncus dubius*] Marsh rush. Infrequent in moist ground. Lower Albina and East Portland. June, July.** Collected on Sauvie Island by Thomas Howell in 1882 (WTU). | Native, rare. In our area known only from Green Mountain (*Habegger, 1998*, WTU). Howell's specimen was originally named *Juncus dubius* but later renamed *J. nevadensis* var. *nevadensis*. |
| *Juncus oxymeris* | **Bog rush. Infrequent in marshy ground. South Portland. May-July.** Collected several times at East Portland by Henderson, Thomas Howell, Drake, and Gorman between 1886 and 1891, and at St. Johns by Sheldon in 1902 (OSC, REED). | Native. Occasional around our area, especially to the S and E. Sauvie Island, Burlington Bottoms, Multnomah Channel, Lower Clackamas River, Arrowhead Creek, Clark County. More common than in Gorman's day, presumably because of better documentation. |
| *Juncus patens* | Spreading rush. Not listed by Gorman or Nelson. Collected at Elk Rock and Riverdale by Sheldon in 1903 (OSC). | Native. Common in wet prairie remnants throughout our area. Cedar Mill, Tualatin Plains, Powell Butte, Mt. Talbert, Lacamas Creek (OSC; Zika 2002), Salmon Creek watershed (*Gaddis*). Sheldon's specimens were originally named *J. tenuis* and *J. occidentalis*, but were later renamed *J. patens*. |
| *Juncus tenuis* | **Slender rush. Common on roadsides and moist ground. East Portland, etc. May-August. [*Juncus occidentalis*]. Western rush. Infrequent on moist ground. East Portland, Mt. Scott, etc. May-July.** Collected several times in the Portland area between 1882 and 1892 (OSC). | Native. Common on roadsides and moist ground throughout our area. Oaks Bottom, Sauvie Island, Burlington Bottoms. Use of the species in restoration and enhancement work may have increased its abundance in our area over the last few decades. |
| *Juncus torreyi* | Torrey's rush. Not listed by Gorman or Nelson. Collected on Sauvie Island by Henderson in 1889 (REED). | Native, rare. In our area known only along the Columbia River bottoms E of the Portland Airport, where seen at Interlachen (*Kral & Christy, 1994*), NE185$^{th}$ Street and Marine Drive (*Kral, 1997*, HPSU). More common E of the Cascades. |

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| *Luzula comosa* [*Luzula campestris* var. *congesta*] | **[*Juncoides comosum macranthum*]. Long flowered wood rush. Fields and open woods. Portland Heights, South Portland, and Fulton. May-July.** Collected at Gladstone Park by Howell in 1895 (OSC). | Native, rare. No recent reports from our area, but probably present unless completely displaced by the introduced *L. multiflora*. |
| *Luzula multiflora* ssp. *multiflora* [*Luzula campestris* var. *multiflora*] | Common woodrush. Not listed by Gorman or Nelson. Collected repeatedly on Sauvie Island, Mt. Scott, Rocky Butte, and around Portland by Howell, Henderson, Sheldon, and Flinn between 1875 and 1912 (HPSU, OSC). Reed College (Van Dersal 1929, as *Juncoides campestre*; Davies 1938). | Exotic. Introduced 1850-1874. Common in our area in a variety of habitats and elevations. Canemah Bluff (Smyth 1999a), Cooper Mountain, Green Mountain, Fifth Plain Prairie (*Gaddis*). |
| *Luzula parviflora* | **[*Juncoides parviflorum*]. Forest wood rush. Not uncommon in open woods. Portland Heights, Canyon Road, etc. Not uncommon. June, July.** Collected on Sauvie Island, Rocky Butte, Wilamette Heights, and around Portland by Howell, Henderson, Sheldon, and Flinn between 1875 and 1912 (HPSU, OSC). Reed College (Van Dersal 1929; Davies 1938). | Native. Occasional in our area. Camassia Preserve, Mt. Talbert, Clear Creek, upper Salmon Creek watershed (*Gaddis*), and possibly Berry Botanic Garden. Commonly misidentified as *L. divaricata*, which is endemic to California (*Zika*). |
| **Lamiaceae** [Labiatae] | | |
| *Agastache occidentalis* | Western giant hyssop. Not listed by Gorman or Nelson. Collected on Rocky Butte by Flinn in 1916 (OSC). | Native, rare. No recent reports from our area. |
| *Ballota nigra* | **Black hoarhound. Ballast grounds and waste places. Lower Albina, etc. Adventive from Europe. June-September.** Collected at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Clinopodium douglasii* [*Satureja douglasii*] | **[*Micromeria chamissonis*]. Yerba buena. Common in open woods. Willamette Heights, Germantown Road, Logie Trail, etc. May-July.** Seen at Elk Rock by Marttala in 1976. | Native. Common in remnant oak woodlands in the Portland area, but rare in Clark County (*Gaddis*). Morand Property. More abundant in coniferous forest farther up the Sandy River, beyond our limits. |
| *Glechoma hederacea* | **[*Glecoma hederacea*]. Ground ivy. Vacant lots and waste places. McMillen's Addition, East Portland, South Portland, etc. Naturalized from Europe. April-July.** Collected near Portland by Henderson as early as 1880 (OSC). | Exotic. Introduced 1875-1899. Common throughout our area. Typically in shady moist soils under alder, maple, or cottonwood. Powell Butte, Burlington Bottoms. |
| *Lamium amplexicaule* | **Henbit. Moist grassy slopes, waste and cultivated places. South Portland, East Portland, Mt. Tabor, etc. Naturalized from Europe. March-October.** Collected near Portland by Henderson as early as 1888 (OSC). | Exotic. Introduced 1875-1899. Common throughout our area in moist soils. |
| *Lamium maculatum* | Spotted henbit. Not listed by Gorman or Nelson. Collected in gardens at Portland by Henderson in 1882, and in "waste lots" at East Portland by Thompson in 1926 (OSC, WTU). | Exotic. Introduced 1875-1899. Planted widely as an ornamental and escaping, but naturalized occurrences are poorly documented. Tualatin River NWR (*Maffitt*). Often with variegated leaves. |
| *Lamium purpureum* | Purple deadnettle. Not listed by Gorman or Nelson. First collected in our area at Portland by Andrews in 1933, but known from Marion County as early as 1910 (OSC). | Exotic. Introduced 1925-1949. A common garden and roadside weed throughout our area. Often with *Holcus lanatus*. |
| *Leonurus cardiaca* | **Motherwort. Sandy soil. Sauvie Island. Naturalized from Europe. June-September.** Collected at the mouth of the Willamette River by Henderson as early as 1885 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. A common weed of barnyards, which have disappeared from our area. |

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| *Lycopus americanus* | **Cut-leaved water hoarhound** [also "hoarhound"]**. In wet ground. Fulton, Oregon City, etc. June-October.** Collected on Sauvie Island by Howell in 1886, at Oregon City by Sheldon in 1902, and at the Leach house in Portland in 1934 (OSC). | Native. In our area known only from Willamette Narrows, Peach Cove Fen (*Christy, 1996*; Smyth 1999b), and Salmon Creek upstream from Mill Creek in Clark County (*Gaddis*). Formerly at Reed College, and present beyond our limits at Oxbow Park (*Marttala*). |
| *Lycopus asper* | Rough bugleweed. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Camassia Preserve (Horvath 1993) and Hooten Wetland (*Kimpo*). |
| *Lycopus uniflorus* | **Bugle-weed. Low ground and wet places. South Portland, Oswego, etc. June-September.** Collected on Sauvie Island by Henderson and Howell in 1882 and 1884, and in Sullivan's Gulch by Sheldon in 1902 (OSC). Reed College (Van Dersal 1929). | Native, rare. In our area known only from Smith and Bybee Lakes (*Gaddis, 2006*), NE 78th Street and Andresen in Clark County (*Gaddis*), along the Clackamas River (Kimpo), and Oxbow Park (*Marttala*), the last beyond our limits. |
| *Marrubium vulgare* | **White hoarhound. Vacant lots and waste places. Albina, East Portland, etc. Naturalized from Europe. June-September.** On ballast at Linnton, and "not uncommon" (Nelson 1917). | Exotic. Introduced 1875-1899. Occasional in disturbed, dry sites. More common E of the Cascades. |
| *Melissa officinalis* | **Garden balm. Vacant lots and waste places. Albina, South Portland, etc. Naturalized from Europe. May-August.** Collected on Willamette Heights by Sheldon in 1902, and on ballast at Linnton, where "abundant" (OSC; Nelson 1917). Gorman (1916) thought it had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Exotic. Introduced 1875-1899. A common garden weed throughout our area, but never forming extensive stands. Powell Butte, Oaks Bottom, West Slope (*Christy*). |
| *Mentha arvensis* [*Mentha canadensis*] | **[*Mentha canadensis*]. American wild mint. A pungently but not unpleasantly scented plant common in low ground and moist meadows. Oak Grove, Columbia Slough, Fulton, etc. June-September.** | Native. Frequent on wet soils of islands and floodplains along the Willamette and Columbia rivers. |
| *Mentha pulegium* | Pennyroyal. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Lane County by Nelson as early as 1911 (OSC). | Exotic. Introduced 1900-1924. Common and invasive in seasonally flooded wetlands throughout our area. |
| *Mentha spicata* | **Spearmint. Infrequent in moist ground and stream banks. South Portland, Guilds Lake, Vancouver, etc. Naturalized from Europe. July-September.** Collected at Portland by Gorman in 1924 (OSC). | Exotic. Introduced 1900-1924. Occasional on moist ground throughout our area. Oaks Bottom, Powers Marine Park, Fulton Park. |
| *Mentha suaveolens* | Apple mint. Not listed by Gorman or Nelson. Collected at Portland by Sheldon in 1902, and at Sleepy Hollow by Leach in 1934 (OSC). | Exotic. Introduced 1875-1899. Occasional in our area as a garden escape. Aloha (*Halse, 2004*, OSC). |
| *Mentha* × *piperita* [*Mentha piperita*] | Peppermint. Not listed by Gorman or Nelson. Collected along Canyon Road and at NW 14th and Overton by Gorman in 1919, and at "Sleepy Hollow" by Leach in 1934 (OSC). | Exotic. Introduced 1900-1924. A common kitchen and homeopathic herb of wet, disturbed ground. Lower Powell Butte, Camassia Preserve, and Columbia Slough. Moderately invasive. |
| *Mentha* × *villosa* [*Mentha* × *villosa* var. *alopecuroides*, *Mentha alopecuroides*] | Stinkymint. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Marion County by Nelson as early as 1918 (OSC). | Exotic. Introduced 1900-1924. Its distribution and abundance in our area is uncertain because of hybrid origin. Tualatin River NWR (Maffitt et al. 2005-2008). |

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| *Nepeta cataria* | **Catnip. Vacant lots and waste places. Goldsmith's Addition, Albina, East Portland, etc. Naturalized from Europe. June-September.** Collected at the Howell farm on Sauvie Island, probably by Henderson, in 1889 (OSC). | Exotic, rare. Introduced 1875-1899. Scarce in our area. Tualatin River NWR (Maffitt et al. 2005-2008). A common weed of barnyards, which have disappeared from our area. |
| *Origanum vulgare* | Oregano. Not listed by Gorman or Nelson. Collected at Estacada by Peck in 1926 (OSC), beyond our limits. | Exotic. Introduced 1900-1924. An occasional garden escape and yard weed, but lacking voucher specimens from the metro area. West Slope (*Christy, 1989-2008*). It is not clear if Peck's specimen was naturalized or of garden origin, and vouchers of naturalized specimens from Washington and BC were not collected until the 1990s. However, oregano has long been grown in local gardens and we presume it naturalized here long ago. Listed as invasive in BC. |
| *Physostegia parviflora* [*Dracocephalum nuttallii*] | **Western lions-heart. Wet meadows. St. Johns, Columbia Slough, Sauvie Island, Lake River, etc. A showy, red-purple flower, blooming as the high water recedes in late June and July. June-August.** Peck (1961) also cited Sauvie Island. | Native, rare. No recent reports from our area. |
| *Prunella vulgaris* ssp. *lanceolata* [*Prunella vulgaris* var. *lanceolata*] | Lance selfheal. Not listed by Gorman or Nelson. | Native. Less frequent in our area than *P. vulgaris* ssp. *vulgaris.* It occurs mostly in undeveloped areas and is not uncommon in deciduous woods. |
| *Prunella vulgaris* ssp. *vulgaris* [*Prunella vulgaris* var. *vulgaris*] | **Heal-all. Common in fields, lawns, vacant lots, and waste places everywhere about Portland. April-October.** First collected in our area at Milwaukie by Norman in 1955 (OSC). | Exotic. Introduced 1875-1899. Ubiquitous in lawns, gardens, and agricultural fields. |
| *Scutellaria angustifolia* | Narrowleaf skullcap. Not listed by Gorman or Nelson. Collected near Forest Grove by Henderson in 1884, somewhat beyond our limits (OSC). | Native, rare. No recent reports from our area. |
| *Scutellaria antirrhinoides* | **Tufted skullcap. Moist ground and stream banks. Oswego, etc. June-August.** Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840; Hitchcock et al. 1955-1969), and at Willamette Falls by Sheldon in 1903 (OSC). | Native, rare. No recent reports from our area. The specimens collected by Sheldon at Willamette Falls were originally named *S. galericulata* but later renamed *S. antirrhinoides*. A species of rocky habitats occurring here at the N edge of its range. |
| *Scutellaria galericulata* | **Marsh skullcap. Wet places. Swan Island, etc. June-September.** Collected by Howell "near Portland" but the specimen is undated (OSC). | Native, rare. Reported from the Tualatin Hills Nature Park, but otherwise not known from our area. Specimens collected by Sheldon at Willamette Falls were originally named *S. galericulata* but were later renamed *S. antirrhinoides*. |

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| *Scutellaria lateriflora* | **Mad-dog skullcap. Wet places, Swan Island. June-September.** Collected in "marshes below Portland" by Henderson in 1881, and at Oregon City by Sheldon in 1902 (OSC). | Native, rare. In our area known only from Green Mountain (*Habegger, 1998*, WTU), the N end of Sauvie Island (Marttala et al. 2002), Barberton (*Gaddis, 2003*, but not relocated in 2004 or 2005), and on the E bank of the Willamette River S of the Hawthorne Bridge (*Marttala 2008, 2009*). Henderson's site could have been Swan Island, as cited by Gorman. Occurrences at Reed Island, Rooster Rock, and up the Clackamas River (*Enders*) are just beyond our limits. Often overrun by reed canary grass (*Newhouse*). |
| *Stachys chamissonis* var. *cooleyae* [*Stachys cooleyae*] | **[*Stachys ciliata*]. Tall hedge nettle. Moist ground. Macleay Park** [Gorman and Sheldon 1905, as *S. palustris*]**, Cornell Road, St. Helens Road, etc. April-June.** Van Dersal (1929) reported it as abundant. | Native. Frequent in moist forested areas. Forest Park (Houle 1996), Berry Botanic Garden. |
| *Stachys mexicana* | **[*Stachys pubens*]. Hairy hedge nettle, small-flowered woundwort. Moist ground. Oregon City, etc. April-June.** Collected at Portland by Henderson in 1880 and 1888, at Oregon City by Sheldon in 1902, at Macleay Park (Gorman and Sheldon 1905), and Mt. Scott by Thompson in 1926 (OSC, WTU). Van Dersal (1929) found it to be less common than *S. chamissonis* var. *cooleyi*. | Native. Frequent in moist forested areas. Often confused with *S. chamissonis* var. *cooleyae*. |
| *Stachys rigida* | **[*Stachys bullata*]. Rusty hedge-nettle. Dry soil. Oswego, etc. April-June.** Collected repeatedly around our area between 1875 and 1924 (OSC). | Native. Occasional in our area. Fifth Plain Prairie and Barberton in Clark County, but needing verifications (*Gaddis*). Hitchcock et al. (1955-1969) indicated that the *S. bullata* of Piper (1906) probably represented *S. rigida*. Gorman no doubt followed nomenclature in Piper's flora, as it was the most recent available for the Pacific Northwest. |
| *Trichostema lanceolatum* | Vinegarweed. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Douglas in 1825-1827 (Hitchcock et al. 1955-1969), and at Forest Grove by Marsh between 1867 and 1890 (WTU), the latter somewhat beyond our limits. | Native, rare. Cooper Mountan (*Kimpo, 2001*, HPSU). St. Helens (Pierce 2003), slightly beyond our limits. Restricted to upland prairie. |
| *Trichostema oblongum* | Oblong bluecurls. Not listed by Gorman or Nelson. Collected in "low grassy pastures" near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840; Hitchcock et al. 1955-1969), at St. Helens by Joseph Howell in 1876, and at Willamette Falls by Thomas Howell and Sheldon in 1902 (OSC). | Native, rare. In our area known only from Camassia Preserve, Cooper Mountain, and the Tualatin River NWR (Maffit et al. 2005-2008). |

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| **Lauraceae** | | |
| *Umbellularia californica* | California bay laurel. Not listed by Gorman or Nelson. First collected in our area at Oak Grove by Powne in 1969 (COCC). | Native. Occasional but increasing throughout the metro area. Camassia Preserve, North Keys, West Slope (*Christy, 2003*), Waud Bluff (*Zika, 2004*, WTU), Hoyt Arboretum (*Christy, 2005*). Native to Douglas County and southward, it is also established in Lane and Benton counties, and is documented from Tacoma, Washington (*Zika, 2004*, WTU). Like *Lithocarpus*, it is being dispersed locally by birds and squirrels from ornamental plantings. |
| **Lemnaceae** | | |
| *Lemna gibba* | Swollen duckweed. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1886 (OSC). Reed College (Van Dersal 1929), but not relocated by Davies (1938). | Native, rare. No recent reports from our area. |
| *Lemna minor* | Common duckweed. Not listed by Gorman or Nelson. Colleced at Lower Albina by Sheldon in 1902 (OSC). At Reed College and "abundant throughout this region" (Van Dersal 1929; Davies 1938). | Native. Ubiquitous in wetlands throughout our area. It is inexplicable why Goman didn't list *L. minor* that today is so much more common than *L. trisulca*. Perhaps more recent eutrophication of urban wetlands has favored the proliferation of *L. minor* at the expense of *L. trisulca*. Piper and Beattie (1915) described *L. minor* as common and *L. trisulca* as rare, as they are today. |
| *Lemna trisulca* | **Ivy leaved duckweed. Common in ponds. East Portland, Oswego, Oak Grove, etc. June-August.** | Native. Occasional in our area. Gorman's common name for this species, also used by Peck (1961), indicates that he identified it correctly. |
| *Spirodela polyrrhiza* | **Greater duckweed. In ponds. Guilds Lake, South Portland, Oswego, etc. June-August.** | Native. Common throughout our area. Springwater Corridor Trail near Beggar's-tick Wildlife Refuge (*Marttala*), Oaks Bottom, Sauvie Island, Ridgefield NWR, Peach Cove Fen, Burlington Bottoms, Morand property (Maffitt et al. 2005-2008). |
| *Wolffia columbiana* | Water-meal. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Smith Lake (*Christy, 1991*), Sauvie Island (*Pfauth*), and Clark County (*Zika, 2000*, WTU). Probably more widespread but overlooked. |
| **Lentibulariaceae** | | |
| *Utricularia macrorhiza* [*Utricularia vulgaris*] | **Greater bladderwort. In ponds, Sauvie Island. May-August.** | Native, rare. In our area known only from Peach Cove Fen (*Christy, 1996*). |
| *Utricularia minor* | Lesser bladderwort. Not listed by Gorman or Nelson. Reed College (Van Dersal 1929). | Native, rare. No recent reports from our area, and voucher specimens not found. More common at higher elevations and along the coast. |

| **Liliaceae** | | |
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| *Allium acuminatum* | **Western wild onion. Infrequent on stream banks. Willamette River. May, June.** Collected at Willamette Falls by Sheldon in 1903, at Oregon City by Lenzie in 1919, and at St. Helens by Gorman in 1919 (COCC, OSC). | Native, rare historically and rare today. Reported from Lewis and Clark State Park (*Kemp*, OFP), and to be sought in dry prairie at Cooper Mountain. Last seen about 1985 in Clackamas, now paved over (*Poff & Marttala*). Present at St. Helens, somewhat beyond our limits (Christy and Alverson 2001). |
| *Allium amplectens* | **[*Allium attenuifolium*]. Slender leaved onion. Infrequent on rocky cliffs. Elk Rock. May, June.** Collected at Elk Rock and Milwaukie by Henderson in 1887 and 1888, and at Oswego by an unnamed botanist in 1899 (OSC, REED). | Native, rare historically and rare today. In our area known only from Cooper Mountain (Wilson & Kral 1999; *Kimpo*). |
| *Allium cernuum* | **Nodding wild onion. On rocky cliffs near the mouth of Sandy River. June, July.** Collected on along the Willamette River near Oregon City by Jessup in 1877 (OSC). | Native, rare. No recent reports from our area. Possibly still present in Clackamas. |
| *Allium nigrum* | Black garlic. Not listed by Gorman or Nelson. Collected at Hillsboro by Burkhart in 1959 (OSC), just beyond our limits. | Exotic, rare. Introduced 1950-1974. This is the only report for this species occurring as an escape in our area. |
| *Allium vineale* | Wild garlic. Not listed by Gorman or Nelson. Historical vouchers from our area not found, but first collected on the coast in 1921 and elsewhere in the Willamette Valley in 1952. | Exotic. Introduced 1925-1949. Occasional in our area and persistent unless the bulbs are dug. West Slope (*Christy, 1989*) and Terminal 5 mitigation site near intersection of N Time Oil Road and N Rivergate Road (*Wilson*, OFP). |
| *Asparagus officinalis* | **Asparagus. An occasional escape from cultivation. In waste places. Lower Albina, Macadam Road, etc. Introduced from Europe. April-June.** On ballast at Linnton, where "rather infrequent," and on wet soil along Columbia River near Portland (Nelson 1917; Van Dersal 1929). | Exotic. Introduced 1900-1924. Occasional in our area and persistent unless removed. |
| *Brodiaea coronaria* ssp. *coronaria* [*Brodiaea coronaria*] | **[*Hookera coronaria*]. Large flowered wild hyacinth. Infrequent in dry open places. Oswego, Willamette Falls, etc. May-June.** The Willamette Falls collection was made by Flinn in 1906 (HPSU). | Native, rare historically and rare today. Now known only from Camassia Preserve (Horvath 1993), Elk Rock Island (PPR 2004), Cooper Mountain (Wilson & Kral 1999), the N end of Sauvie Island (Marttala et al. 2002), and Tualatin River NWR (*Maffitt, 2006*). A former locality in Clackamas has been paved over (*Poff & Marttala*). |
| *Brodiaea elegans* ssp. *hooveri* [*Brodiaea elegans*] | Harvest brodiaea. Not listed by Gorman or Nelson. Collected at Willamette Falls by Sheldon and Thomas Howell in 1902, and Constance and Beetle in 1940 (OSC). | Native, rare. In remnant wet prairies in Willamette Narrows (Smyth 1999b), Canemah Bluff (Smyth 1999a), and Clear Creek (Smyth 1999c). |

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| *Calochortus tolmiei* | **Tolmie's cat's ear tulip. Infrequent in open woods and river banks. Near Milwaukie. May, June. [*Calochortus purdyi*]. Purdy's cat's-ear tulip. Grassy slopes. Tualatin Valley and along railroad between Portland and Dundee. Not quite within our limits. May, June.** Collected by Henderson on the Oregon City Road in 1883, and by Thomas Howell in Gladstone Park, but the specimen is undated (OSC, REED). Seen in the 1960's on Seine Creek Road in Washington County (*Marttala*). Gorman (1904) noted that *Calochortus* was much less abundant in the Portland area than *Erythronium.* | Native, rare historically and rare today. In our area known only from Cooper Mountain (Wilson & Kral, 1999; *Kimpo, 2005*). Known from several sites to the SW just beyond our limits, where it becomes more plentiful. Readily available from commercial bulb growers. |
| *Camassia leichtlinii* ssp*. suksdorfii* [*Camassia leichtlinii* var*. suksdorfii*] | **[*Quamassia leichtlinii*]. Leichtlin's camas. Infrequent about margin of woods, Gladstone. This plant blooms about the time the flowers of *Q. quamash* are disappearing. May, June.** Collected near Oswego by Henderson in 1884, at Elk Rock by Sheldon in 1903, at Risley Station by Gorman in 1904, and along Lacamas River by Blodgett in 1910 (HPSU, OSC). | Native, rare historically and rare today. Infrequent throughout our area in remnant wet prairies, often intermixed with *C. quamash*. Camassia Preserve (Horvath 1993), Clear Creek (*Kimpo*), Lacamas Creek watershed (*Gaddis*), and near the E base of Powell Butte, where probably planted (*Brunkow*). Most of a population near Clackamas Town Center was paved over in the 1980's, but a remnant persists near the 82nd Avenue entrance (*Marttala*). |
| *Camassia quamash* ssp*. maxima* [*Camassia quamash* var*. maxima*] | **[*Quamassia quamash*]. Camas. Fairly common in moist rich ground, open woods, and fields. Sellwood, Milwaukie, Happy Hollow Road etc. April, May.** Collected on Sauvie Island, near Lents, at Oswego, Mt. Scott, Fulton, and Milwaukie by Thomas Howell, Henderson, Sheldon, and Flinn between 1882 and 1918 (HPSU, OSC). | Native. Occasional to locally abundant throughout our area on shallow-soiled basalt outcrops and remnants of wet prairie. Along the Willamette River, Tonquin Scablands, St. Helens, Clear Creek, Cooper Mountain, North Clackamas Park, a few sites in Clark County (*Gaddis*). A site on Springwater Corridor Trail near SE 111th was covered with fill and developed in the 1980's (*Marttala*). |
| *Clintonia uniflora* | **Forest lily. In coniferous woods. Linnton, St. Helens Road, Bertha, etc. Formerly in Macleay Park. April-June.** Reported from Fort Vancouver by Douglas, Scouler, and Tolmie (Hooker 1829-1840), and collected at Portand by an unnamed botanist.in 1877 (OSC). | Native, rare. Known from one remnant old-growth stand at the edge of Forest Park (*Kimpo*), and reported from St. Mary's Woods (*Walthall*, OFP). |
| *Convallaria majalis* | European lily of the valley. Not listed by Gorman or Nelson. Available commercially in the West since 1873, and sold locally as early as 1912 (Adams 2004). | Exotic, rare. Introduced 1875-1899. Widely grown as an ornamental. Naturalized in Forest Park (*Christy, 2008*, HPSU) along Wildwood Trail, but remote from roads or habitation where planting or dumping of garden debris would be expected. |
| *Dichelostemma capitatum* ssp. *capitatum* [*Brodiaea pulchella*] | **[*Hookera pulchella*]. Tall wild hyacinth. Dry open places. Oswego, etc. Not common. April, May.** Collected at Willamette Falls by Sheldon in 1903 (OSC). | Native, rare historically and rare today. No recent reports from our area. |

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| *Dichelostemma congestum* [*Brodiaea congesta*] | Clustered brodiaea. Not listed by Gorman or Nelson. Collected near Albina by Freeman in 1888, Oregon City and Cornell Road by Flinn in 1905 and 1907, at Forest Grove by Thompson in 1926, and at Hillsboro by Warren in 1955 (HPSU, OSU, REED, WTU). | Native. Occasional. Elk Rock, Cooper Mountain (*Kral, 1997*, HPSU), Hardscrabble Quarry (Weber et al. 1999), Green Mountain (*Habegger, 1998*, WTU), Camassia Preserve (*Trask & Abrams, 2001*, HPSU, as *D. capitatum*), Tonquin Scablands (Galen 2002), Morand Property (*Maffitt, 2006*), Tualatin Valley NWR (*Maffitt, 2009*), and St. Helens (Pierce 2003), the last beyond our limits. |
| *Disporum hookeri* [*Prosartes hookeri*] | **[*Disporum oreganum*]. Oregon fairy bells. Not uncommon in open woods. Macleay Park** [Gorman and Sheldon 1905, as *D. majus*]**, St. Helens Road, etc. April, May.** Collected numerous times around the metro area between 1880 and 1919 (HPSU, OSC). Reed College (Van Dersal 1929). | Native. Frequent in relatively undisturbed conifer forest. Forest Park (Houle 1996), Leach Botanical Garden, Cooper Mountain (*Kral, 1998*, HPSU), Berry Botanic Garden, Powell Butte, Reed College canyon (Moreira and Stafford 1996). |
| *Disporum smithii* [*Prosartes smithii*] | **Angular fruited fairy bells. Infrequent in moist coniferous woods, St. Helens Road, etc. April, May.** Collected at Portland by Henderson in 1888, and at Macleay Park by Flinn and Suksdorf in 1905 and 1907 (OSC, WTU; Gorman and Sheldon 1905, as *D. menziesii*). Reed College (Van Dersal 1929; Davies 1938). | Native. Uncommon but distributed throughout our area in both oak woodland and conifer forest. Leach Botanical Garden, Berry Botanic Garden, Forest Park (Houle 1996; *Gaddis*), Green Mountain (*Habeggar, 1998*), Clark County (*Gaddis*). |
| *Erythronium oregonum* ssp. *leucandrum* [*Erythronium oregonum* in part] | Giant white fawnlily. Gorman and Nelson did not recognize the two subspecies because they had not yet been described. Reported from Beaverton by Gilkey (Applegate 1935). | Native, rare. Currently known only from Camassia Preserve (*Alverson, 2008*) but to be sought in the S and SW portions of our area. This form, with pale anthers and creamy tepals, occurs mainly in the Willamette, Umpqua, and Rogue River valleys. The ranges of the two subspecies overlap in the metro area and Gorman may have seen both taxa. |
| *Erythronium oregonum* ssp. *oregonum* [*Erythronium oregonum* in part] | **[*Erythronium giganteum*]. Cream colored adder's-tongue. Fields and open woods. Brooklyn, Sellwood, Elk Rock. Common along Oregon City Road (east side). April, May.** Collected at Portland by Thomas Howell in 1887, at Elk Rock by Henderson, Drake, and Sheldon between 1884 and 1902, on the S side of Oswego Lake by Gorman in 1918, and at Oregon City by Leach in 1932 (OSC, WTU). | Native. Occasional to locally abundant in less developed areas of the Tualatin and Clackamas River drainages, often in oak woodland. Forest Park (Houle 1996), Morand Property (*Maffit, 2003*), Kelly Butte (*Alverson, 2008*). Many former sites have been overrun with conifers, English ivy, or exotic grasses. This form, with white tepals and yellow anthers, occurs from our area N to British Columbia. Gorman's common name more accurately describes ssp. *leucandrum.* |
| *Fritillaria affinis* [*Fritillaria lanceolata*] | **Checkered lily. Not uncommon in open woods. Near City Park, Canyon Road, Fulton, etc. Frequent under scrub oaks. May-July.** Collected near Fort Vancouver by Douglas and Tolmie (Hooker 1829-1840, as *F. lanceolata*), on Sauvie Island by Joseph Howell in 1876, in East Portland by Henderson in 1887, at Elk Rock by Drake in 1888, and along the Willamette River in Clackamas County by Cusick (HPSU, OSC). Van Dersal (1929) called it "rare in our limits." | Native, rare. In our area known only from Green Mountain (*Habegger, 1998*, WTU), Cooper Mountain (Wilson & Kral 1999), and the Morand Property (*Maffitt, 2007*). In oak woodland with a relatively intact native herb layer. |

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| *Hyacinthoides* spp. | English, Spanish, and hybrid bluebell. Not listed by Gorman or Nelson. | Exotic. Introduced 1900-1924. Common throughout our area but voucher specimens not found. Long-lived garden ornamentals, spreading vegetatively from dumping of yard waste. Several species and hybrids (e.g., *H. hispanica, H. non-scripta, H*. × *variabilis*) are probably present here and are reported from elsewhere in the Willamette Valley (OFP) and Seattle (Jacobson 2001). Our estimate of when it was introduced is probably conservative. |
| *Lilium columbianum* | **[*Lilium parviflorum*]. Western tiger lily. Not uncommon in open woods. Near Council Crest, Rocky Butte, Bertha. June-July.** Collected at Portland by Henderson and Sweetser in 1886 and 1905, at Elk Rock by Henderson in 1888, and on Cornell Road and at Mt. Scott by Sheldon in 1902 and 1903 (OSC). "Abundant" in the Portland area (Van Dersal 1929). | Native. Occasional in our area in coniferous forest and open shrubland where not overrun by *Hedera*. Forest Park (Houle 1996), near E base of Powell Butte, Clark County near NE 162nd and Fourth Plain Boulevard (*Gaddis*), and the Morand Property (*Maffitt, 2009*). Many former sites have been lost to development, and many trailside occurrences seem to be knocked down or decapitated by passersby or deer. More common further up the Sandy River drainage, beyond our limits. |
| *Lilium washingtonianum* ssp. *purpurascens* [*Lilium washingtonianum* var. *purpurascens*] | Washington lily. Not listed by Gorman or Nelson. Collected by Henderson on "sandy banks and fields" at Milwaukie in 1884, and in "moist, sandy copses" at Elk Rock in 1887, and on the E bank of the Willamette "above Oswego" in 1889 (OSC). | Native, rare. No recent reports from our area. More common at higher elevations in the Cascades, but there is an undated specimen from Salem at WTU. |
| *Maianthemum dilatatum* | **[*Unifolium kamtschaticum*]. Wild lily of the valley, false lily-of-the-valley. Common in coniferous woods. Macleay Park** [Gorman and Sheldon 1905, as *Unifolium dilatatum*]**, St. Helens Road, etc. May, June.** Collected several times around the metro area between 1880 and 1902 (OSC). Reed College (Van Dersal 1929, as *Unifolium dilatatum*; Davies 1938). | Native. Common in moist coniferous forest throughout our area. Its abundance has declined over time because of competition from *Hedera helix* and *H. hibernica*. Powell Butte, Mt. Scott, Forest Park (Houle 1996). |
| *Maianthemum racemosum* ssp. *amplexicaule* [*Smilacina racemosa*] | **[*Vagnera racemosa*] Wild spikenard. Open woods and rocky slopes. Rocky Butte, Linnton Road, etc. Not uncommon. April, June. [*Vagnera* amplexicaulis]. Western wild spikenard. Moist woods near Portland according to Sheldon, but we have not seen the specimens. April, May.** Collected several times around Portland between 1881 and 1903 (OSC, WTU). Reed College (Davies 1938, as *Smilacina amplexicaulis*). | Native. Common throughout our area in conifer forest not infested by *Hedera*. Forest Park (Houle 1996), Kelly Butte, Powell Butte (*Marttala*). |
| *Maianthemum stellatum* [*Smilacina stellata*] | **[*Vagnera sessilifolia*]. Western Solomon's seal. Not uncommon in moist woods. Macleay Park, St. Helens Road, etc. April, May.** Collected several times around Portland between 1882 and 1915 (HPSU, OSC). Reed College (Davies 1938, as *Smilacina sessilifolia*). | Native. Common throughout our area in moist coniferous forest not infested with *Hedera*. |

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| *Muscari* spp. | Armenian and common grape hyacinth. Not listed by Gorman or Nelson. | Exotic. Introduced 1900-1924. Common throughout our area but with few voucher specimens. Camassia Preserve (*Zika, 1986*, OSC). Long-lived garden ornamentals, spreading vegetatively from dumping of yard waste. *M. armeniacum*, *M. botryoides*, and possibly a variety of cultivars probably are all present here. Naturalized elsewhere in the US by 1930 (Adams 2004) and no doubt introduced earlier, our estimate for the metro area is probably conservative. |
| *Stenanthium occidentale* [*Anticlea occidentalis*] | **[*Stenanthella occidentalis*]. Grass leaved lily. Infrequent on rocky cliffs. Elk Rock, Multnomah Falls etc. May-July.** Collected along the Sandy River by Henderson in 1882 (OSC). | Native, rare historically and rare today. Reported from Lewis and Clark State Park (*Kemp*, OFP). Not relocated at Elk Rock (PPR 2004). Also present further up the Sandy River, beyond our limits (*Poff & Marttala*). |
| *Streptopus amplexifolius* | **Large twisted stalk, clasping-leaved twisted stalk. Stream banks. Balch Creek** [Gorman and Sheldon 1905]**, St. Helens Road, etc. April-June.** Collected at Portland by Henderson in 1880 and 1886, and at Macleay Park by Flinn and Suksdorf in 1907 (OSC, WTU). Reed College (Van Dersal 1929). | Native. Occasional in coniferous forests on the W side of our area. Pittock Bird Sanctuary (*McKiernan, 1982*, HPSU), Forest Park (Houle 1996; *Christy*, *2008*). |
| *Streptopus lanceolatus* var. *curvipes* [*Streptopus roseus* var*. curvipes*] | **Small twisted stalk. Damp woods. St. Helens Road. Rather rare in vicinity of Portland. April-June.** | Native, rare historically and rare today. No recent reports from our area, and voucher specimens not found. More common at higher elevations in the Cascades and Coast Range. |
| *Trillium albidum* [*Trillium parviflorum*] | **[*Trillium chloropetalum*]. Mottle leaved wake robin. Moist woods, meadows, and rill banks. Mt. Scott, Happy Hollow Road, Oswego, Oswego Lake, etc. April, May.** Collected along the Sandy River by Henderson in 1881 (OSC), somewhere along the Willamette River by Cusick, but undated (OSC), along Johnson Creek near Mt. Scott by Blodgett in 1910 (HPSU). Van Dersal (1929) found it "very rare" in our area. | Native, rare. Known in our area from Camassia Preserve, Tualatin River NWR (Maffitt et al. 2005-2008), Powell Butte, Aloha near Farmington Road (*Gaddis, 1986*), NW Laidlaw Road near 137th Avenue (*Gaddis, 1989*), at several sites in Clark County, and suspected on the Morand Property (*Maffitt*). St. Helens (Christy and Alverson 2001), slightly beyond our limits. Reported from the Tualatin Hills Nature Park (*Bluhm*, OFP). Formerly known from Tideman Johnson Park and Clackamas, but the latter site was paved over (*Poff & Marttala*). Disappearing even in protected sites over the last 15 years (*Gaddis*). *Trillium chloropetalum* is restricted to California. |
| *Trillium ovatum* | **Large wake robin, western wake-robin. Very common in moist coniferous woods everywhere around Portland. April, May.** Collected near Fort Vancouver by Gairdner and Tolmie in 1833-1835, where "abundant" (Hooker 1829-1840, as *T. obovatum* in part), and around Portland by Henderson and others between 1881 and 1916 (HPSU, OSC). Gorman (1904) found it "very abundant" around Portland. Macleay Park (Gorman and Sheldon 1905). | Native. Still very common around Portland, even in areas infested with *Hedera helix* and *H. hibernica*. |

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| *Triteleia grandiflora* var. *howellii* [*Triteleia grandiflora* ssp. *howellii*, *Brodiaea howelli*] | Howell's triteleia. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Troutdale (*Wilson*, OFP). |
| *Triteleia hyacinthina* [*Brodiaea hyacinthina*] | **[*Calliprora hyacinthina*]. White wild hyacinth. Wet places. Linnton, Oswego, Willamette Falls, etc. Not uncommon. Frequently but erroneously called "white camas." April, May.** Collected on Sauvie Island by Joseph Howell in 1884, at Elk Rock by Henderson in 1888, at Willamette Falls by Sheldon in 1902, and "open rocky slopes" S of Oregon City by Thompson in 1926 (HPSU, OSC, REED). | Native. In wet prairie at Camassia Preserve, Elk Rock Island (*Marttala, Brunkow & Poff, 1991*), Cooper Mountain (*Kral, 1997*, HPSU, as *T. grandiflora*), Morand Property (*Maffitt*), Green Mountain (*Habegger, 1998*, WTU), NE 162nd Avenue and Fourth Plain Boulevard (*Gaddis*). Also along the Sandy River, in the Willamette Narrows, and at the N end of Sauvie Island (Marttala et al. 2002), just beyond our limits. |
| *Veratrum californicum* var. *caudatum* | **Pacific white hellebore. Infrequent in open moist ground. Milwaukie. Infrequent. May-July.** Collected several times at Portland, Fulton, Milwaukie, and Camas by Howell, Henderson, Drake, Gorman, and Thompson between 1888 and 1927 (OSC, WTU). | Native. Infrequent in moist deciduous forests throughout our area. Mary S. Young State Park (*Marttala*), Morand Property (*Maffitt*), and several sites in Clark County (*Gaddis*). Formerly along Springwater Corridor Trail near SE 157th in the 1990's (*Marttala*). Rarely flowering. |
| *Veratrum viride* [*Veratrum viride* var. *eschscholtzii*] | False hellebore. Not listed by Gorman or Nelson. Collected near Portland by Irvine in 1958 (OSC). | Native, rare. In our area known only from Multnomah Channel and Hardscrabble Quarry (Weber et al. 1999). |
| *Zigadenus venenosus* [*Toxicoscordion venenosum*] | **[*Zygadenus venenosus*]. Poison camas. Moist open ground. Oswego and Willamette Falls. April-June.** Collected near Clackamas by Henderson in 1882, and at Willamette Falls by Sheldon in 1903 (OSC, REED). | Native, rare. In our area known only from Camassia Preserve, Green Mountain (*Gaddis*), and St. Helens (Christy and Alverson 2001), the last beyond our limits. |
| **Limnanthaceae** | | |
| *Floerkea proserpinacoides* | **False mermaid. Under ash trees. Head of Sauvie Island. April-June.** Collected several times on Sauvie Island by Howell between 1875 and 1887, and along Lake River by Suksdorf in 1894 (OSC, WTU). "Únder ash trees in moist places about the mouth of the Willamette River" (Howell 1897-1903). | Native, rare. Scarce in our area. Sandy River delta (*Zika, 1992*, OSC). |
| **Linaceae** | | |
| *Linum grandiflorum* | Flowering flax. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. In our region, reported from recent work at Cooper Mountain, but voucher specimens not found. |
| *Linum usitatissimum* | **Common flax. Infrequent in fields, roadsides, and waste places. Lewis and Clark Fair Grounds, Mt. Tabor, Sandy Boulevard, etc. Introduced from Europe. May-September.** First planted at Fort Vancouver in 1831 (Taylor 1992; Appendix B). Collected at NW 12th Avenue and Quimby Street by Gorman in 1917, and at South Portland by Thompson in 1925 (OSC, WTU). | Exotic, rare. Introduced 1825-1849. No recent reports from our area. |
| **Lycopodiaceae** | | |
| *Lycopodium clavatum* | **Running pine. Moist coniferous woods and ravines. St. Helens Road. Rare here. June, July.** Collected at Portland by Reinke in 1958 (OSC). | Native, rare historically and rare today. No recent reports from our area. |

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| **Lythraceae** | | |
| *Ammannia robusta* | **[*Ammannia coccinea*]. Long leaved ammannia**, sessile toothcup**. Borders of aestival-receding ponds near Columbia Beach. Not uncommon. June-September.** *Ammannia* is one of eight genera that Gorman added to his manuscript of the *Muhlenbergia* paper in December 1915. Collected on wet ground along the edges of ponds near the Interstate Bridge by Flinn in 1915 (OSC). | Native, rare. No recent reports from our area. Voucher specimens for Gorman's *A. coccinea* (= *A. coccinea* ssp. *coccinea*) have not been found, but Flinn's specimen of *A. robusta* (= *A. coccinea* ssp. *robusta*) is at OSC and Gorman may have been referring to that specimen. |
| *Lythrum hyssopifolium* | **Pale loosestrife. Vacant lots and waste places. Lower Albina, etc. Native of North America but adventive from Europe here. June-September.** On ballast at Linnton (Nelson 1917). | Exotic, rare. Introduced 1875-1899. SE Lambert Street at Johnson Creek (associated with specimen of *Juncus tenuis*, *Alverson, 1987*, OSC). It is smaller than *L. salicaria* and has pale pink or lavender flowers rather than hot pink. |
| *Lythrum portula* [*Peplis portula*] | Spatula leaf purslane. Not listed by Gorman or Nelson. Not known from Oregon (Marion County) until 1980, and from Washington in 1982 (OSC, WTU). | Exotic. Introduced 1975-1999. Occasional to locally common in disturbed wetlands and wet silt or sand along the Columbia River. Sandy River Delta (*Kemp & Jolley, 1982*, OSC), Smith Lake (*Alverson, 1997*, OSC), Farmington Road and Kinnamon (*Smith, 2005*, OSC). |
| *Lythrum salicaria* | Purple loosestrife. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Polk and Yamhill counties as early as 1952 and 1957 (OSC). Established on Ross Island by 1979 (Marttala). | Exotic. Introduced 1925-1949. Occasional to locally abundant in emergent wetlands throughout our area. Highly invasive, but many populations have been reduced by pulling, herbicides, mowing, and use of biocontrol insects. |
| *Rotala ramosior* | Lowland rotala. Not listed by Gorman or Nelson. Collected on Sauvie Island by Thomas Howell in 1887, and on sand bars and edges of ponds along the Columbia River by Flinn in 1915 (OSC). | Native, rare. No recent reports from our area. |
| **Malvaceae** | | |
| *Abutilon theophrasti* | **Velvet leaf. Roadsides, vacant lots, and waste places about the city. Naturalized from India. July-October.** Collected at Linnton by Suksdorf in 1910, and at McMinnville by Gross in 1928 (OSC; Laferriere et al. 1993). | Exotic. Introduced 1875-1899. Frequent in agricultural areas and abandoned urban lots, often growing from cracks in pavement. |
| *Malva moschata* | **Musk mallow. Infrequent in fields and waste places. Lower Albina, University Park, St. Johns, Montavilla, Sandy Boulevard, etc. Naturalized from Europe. May-September.** Collected at Portand by Sheldon in 1902 and at NW Raleigh Street by Gorman in 1924 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area, but probably present. A common ingredient in commercial wildflower seed mixes and naturalized throughout the Pacific Northwest. |
| *Malva neglecta* | **[*Malva rotundifolia*]. Running mallow. Roadsides, vacant lots, and waste places. Lewis and Clark Fair Grounds, Lower Albina, Mt. Tabor, etc. Naturalized from Europe.** Collected at Portland and on ballast Linnton by Gorman in 1914 and 1919 (OSC). | Exotic. Introduced 1875-1899. A common weed throughout our area. Known from Baker and Klamath counties as early as 1886 but not collected in the Willamette Valley until 1914. |

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| *Malva parviflora* | **[*Malva borealis*]. Bull mallow. Infrequent in fields, roadsides, and waste places. Lower Albina, etc. A harmless weed sparingly adventive from Europe. May-November.** Collected at Portland by Henderson in 1885, and on Sauvie Island by Anderson in 1961 (HPSU). | Exotic. Introduced 1875-1899. Occasional in our area on roadsides and disturbed sites. |
| *Malva sylvestris* | **High mallow. Infrequent on roadsides and waste places around Portland. Probably a garden escape. Introduced from Europe. May-September.** Collected at SW 21st Street and Washington by Gorman in 1920, and at NW 24th and Vaughn by Ornduff in 1960(OSC). | Exotic. Introduced 1900-1924. Occasional on disturbed sites throughout our area. NE 10th and Flanders, Lents, and the Interstate 205 bike path (*Marttala*). |
| *Modiola caroliniana* [*Modiola multifida*] | Carolina bristlemallow. Reported from ballast at Linnton (Nelson 1916, 1917, as *M. multifida*), but he expressed some doubt about its identity. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Sida spinosa* | **Prickly sida. On ballast grounds and waste places. Lower Albina, etc. Adventive from tropical America. May-September.** "On the ballast ground at Portland" (Howell 1897-1903). | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. |
| *Sidalcea campestris* | **Large rose mallow. Grassy glades near Gladstone. June-August.** Collected repeatedly in the metro area between 1882 and 1940 (HPSU, OSC, WTU; Hitchcock et al. 1955-1969). | Native. Occasional in our area, usually in open oak woodland. Pleasant Valley near SE 190th Avenue (*Brunkow*; *Kemp, 1980*, OSC), Beaverton (*Glad, 1985*, OSC), Cooper Mountain, Camassia Preserve, Morand Property (*Maffitt*), Tualatin Valley NWR (*Maffitt, 2008*), and NE Tigard. |
| *Sidalcea hirtipes* | Hair-stemmed checker mallow. Not listed by Gorman or Nelson. | Native, rare. In our area known from a few sites in Clark County and at St. Helens (Pierce 2003), the latter beyond our limits. Found by Hitchcock on Goodwin Road near Green Mountain, but not relocated in recent searches (*Gaddis*). |
| *Sidalcea nelsoniana* | Nelson's checkermallow. Not listed by Gorman or Nelson. Reported from Portland (Hitchcock et al. 1955-1969) but without collection data. | Native, rare. In our area known only from near Midway (*Glad, 1986*, OSC) and the Lovejoy property (*Kimpo, 2006*), both slightly beyond our limits in SW Washington County. Planted in three units of the Tualatin Valley NWR in 2007 (*Maffitt, 2008*). |
| *Sidalcea oregana* | **Oregon rose mallow. Moist places on open plains. Tualatin Valley. June-September.** | Native, rare. No recent reports from our area, and voucher specimens not found. More common southwards and E of the Cascades. |
| **Marsileaceae** | | |
| *Marsilea vestita* | **Hairy four-leaved clover. Wet sandy banks. Willamette River, Bridgeton, Hayden Island, etc. May-July.** Collected near the confluence of the Willamette and Columbia rivers by Henderson in 1882, on Sauvie Island by Thomas Howell in 1885, and along the Columbia River by Flinn in 1916 and 1917 (HPSU, OSC, REED). | Native. Locally abundant on wet sandy beaches along the Columbia River (*Christy*). |
| **Menyanthaceae** | | |
| *Menyanthes trifoliata* | **Buckbean. In ponds and marshes. Mirey Lake, Sauvie Island. May-July.** | Native, rare. In our area known only from Peach Cove Fen (*Christy, 1996*; *Smyth*). |

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| **Molluginaceae** [*Mollugo* formerly in Aizoaceae] | | |
| *Mollugo verticillata* | **Carpet-weed. On moist roadsides, sand bars, and river banks. Willamette River, Oswego, Columbia Beach, Hayden Island, etc. Naturalized from Mexico and South America. May-September.** Collected on Sauvie Island by Joseph Howell in 1876 (HPSU), at the mouth of the Willamette by Henderson in 1882 (OSC), at Lower Albina by Sheldon in 1902 (OSC), and at Linnton by Thompson in 1926 (WTU). Gorman (1916) thought it had moved into the Portland area from E of the Cascades via the Columbia Gorge. | Exotic. Introduced 1850-1874. Occasional along roadsides and on sand and cobble bars along the Columbia and Willamette rivers. |
| **Moraceae** | | |
| *Humulus lupulus* | **Common hop. Occasional on alluvial banks, fence corners, and waste places. Lewis and Clark Fair Grounds, etc. Escaped from cultivation. Introduced from Europe. July, August. Fruiting in September.** Historical voucher specimens from our area not found, but first documented as naturalized (Polk County) in 1922 (OSC). | Exotic, rare. Introduced 1900-1924. In our area not currently known outside of cultivation. |
| *Morus alba* | White mulberry. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but documented as naturalized in the 1950s both upriver and downriver along the Columbia. | Exotic, rare. Introduced 1925-1949. In our area known outside of cultivation only from the Sandy River Delta (*Newhouse, 1992*, OSC), but probably established in several places. Cultivated elsewere in the US by at least the 1880s (Adams 2004). |
| **Najadaceae** | | |
| *Najas flexilis* | **[*Naias flexilis*]. Slender naiad. On bars in Willamette River below Portland. May, June.** Collected several times on Sauvie Island and at the confluence of the Columbia and Willamette rivers by Henderson and Thomas Howell between 1883 and 1886 (OSC, REED). | Native, rare. No recent reports from our area. |
| *Najas guadalupensis* ssp. *guadalupensis* | Southern waternymph. Not listed by Gorman or Nelson. Collected on Sauvie Island by Henderson in 1880 (OSC). | Native, rare. No recent reports from our area. At OSC it occurs in a mixed collection with *N. flexilis* (Halse 2009). |
| **Nymphaeaceae** [*Brasenia* transferred to Cabombaceae] | | |
| *Nuphar lutea* ssp. *polysepala* [*Nuphar polysepala*, *Nuphar polysepalum*] | **[*Nymphaea polysepala*]. Western pond lily. Common in ponds. The Oaks, Sellwood, Oak Grove, Oswego Lake, etc. May-September.** Collected in ponds along the Willamette River by Henderson in 1881, on Sauvie Island by Henderson and Howell in 1882 and 1886, and at Oswego by Gorman in 1918 (OSC, REED). | Native. Occasional in our area in relatively undisturbed ponds. Camassia Preserve, Peach Cove Fen, Smith and Bybee Lakes, Sauvie Island. |
| *Nymphaea odorata* | American white waterlily. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Linn County as early as 1946 (OSC). | Exotic, rare. Introduced 1925-1949. In our area known only from Blue Lake. A showy but invasive species native to E North America. Planted in many lakes in W Oregon, where it forms a monoculture on the surface of the water. Often listed as a nuisance species in the Pacific Northwest. |

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| **Oleaceae** | | |
| *Fraxinus latifolia* | **[*Fraxinus oregana*]. Oregon ash. Moist ground, stream banks, and swales. North Portland, Macleay Park, Bybee Slough, Oak Grove, etc. In pioneer days it was not uncommon on the moist ground of Couch's Addition. April, May.** Collected several times around Portland between 1883 and 1926 (OSC, WTU). | Native. Common throughout our area. |
| *Ligustrum vulgare* | European privet. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected on "waste ground" at Salem by Nelson as early as 1922 (OSC). Available commercially in the West since 1873 (Adams 2004). | Exotic. Introduced 1875-1899. An escaped ornamental, occasional in our area in dry coniferous woods. |
| *Syringa vulgaris* | Common lilac. Not listed by Gorman or Nelson. Seen at Elk Rock by Marttala in 1976. Available commercially in the West since 1855 and sold locally as early as 1912 (Adams 2004). | Exotic. Introduced 1850-1874. Occasional in our area an escaped ornamental. Kelly Butte. |
| **Onagraceae** | | |
| *Camissonia andina* | Blackfoot River evening primrose. Reported from the "muddy shore" of Hayden Island (Nelson 1920a, as *Sphaerostigma andinum*). | Native, rare. No recent reports from our area, and voucher specimens not found. Native E of the Cascades, but presumably rafted down the Columbia River. |
| *Camissonia cheiranthifolia* | Beach primrose, beach suncup. Not listed by Gorman or Nelson. | Native, rare. In our area known only from the E end of the road on Tomahawk Island, where presumably on sand (*Wilson*, OFP). |
| *Chamerion angustifolium* ssp. *circumvagum* [*Chamerion angustifolium* var. *canescens*, *Epilobium angustifolium*] | **[*Chamaenerion angustifolium, Epilobium spicatum*]. Fireweed, great willow-herb. Common in brulés** [burns], **open woods, and waste places. Albina, Cornell Road, St. Helens Road, etc. May-September.** Collected several times around Portland between 1880 and 1925 (HPSU, OSC, WTU; Gorman and Sheldon 1905). On ballast at Linnton, where "very common" (Nelson 1917). | Native. Common throughout our area on disturbed ground along roadsides, in gardens, and in open woods. |
| *Circaea alpina* ssp. *pacifica* [*Circaea pacifica, Circaea alpina* var. *pacifica*] | **Pacific enchanter's nightshade. Moist woods. Macleay Park** [Gorman and Sheldon 1905]**, St. Helens Road, Mount Tabor, Sandy Boulevard, etc. June, July.** Collected several times around Portland between 1880 and 1903 (OSC). Reed College (Van Dersal 1929). | Native. Common throughout our area in moist coniferous forest and oak-ash riparian forest (*Gaddis*). |
| *Clarkia amoena* ssp. *lindleyi* | **[*Godetia amoena*]. Summer beauty. In fields and open places near Milwaukie. May-July.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *Oenothera lindleyi*), at Milwaukie by Suksdorf in 1896 (WTU), and along the Willamette River below Portland by Sheldon in 1902 (OSC). | Native, rare. In our area known only from Mt. Talbert (*Kimpo, 2006*, HPSU). Specimens so named at HPSU from Cooper Mountain (*Kral, 1997*; Wilson & Kral 1999) are not *C. amoena*. |
| *Clarkia gracilis* ssp. *gracilis* | **[*Godetia epilobioides*]. Wooly evening-primrose. Open woods. Oregon City, west side.** Collected at East Portland by Henderson in 1888, and at Willamette Falls by Sheldon in 1903 (OSC). | Native, rare. No recent reports from our area. Sheldon's specimen of *C. epilobioides* was later renamed *C. gracilis*. *Clarkia epilobioides* is a California species (Chambers 2009). |

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| *Clarkia pulchella* | **Lobed clarkia. Ballast grounds, waste places, and along railroad tracks. Albina, East Portland, etc. Native of eastern Oregon and Washington, but introduced here. May-July.** | Native, rare. No recent reports from our area, and voucher specimens not found. Mostly E of the Cascades. |
| *Clarkia purpurea* ssp*. purpurea* | **[*Godetia lepida*]. Glossy stemmed evening primrose. Open woods. Willamette Heights. May-July.** | Native, rare. Now In our area known only from Camassia Preserve (Horvath 1993), and at St. Helens (Pierce 2003), the latter beyond our limits. |
| *Clarkia purpurea* ssp*. quadrivulnera* [*Clarkia quadrivulnera*] | **[*Godetia quadrivulnera*]. Western evening primrose. Open rocky places. Rocky Butte and near Oswego. May-July. [*Godetia tenella*]. Delicate evening-primrose. On rocky places about Oswego. May-July.** Collected at the Car Works in East Portland by Henderson in 1884, at Lower Albina by Sheldon in 1902, at Gladstone by Sweetser in 1905, and at Willamette Falls by Constance and Beetle in 1940 (OSC). | Native, rare. In our area known only from Cooper Mountain (*Kimpo, 2001*, HPSU). |
| *Clarkia purpurea* ssp. *viminea* [*Clarkia viminea*] | **[*Godetia viminea*]. Farewell to spring. Fields and open places about Milwaukie. May-July.** | Native, rare. No recent reports from our area, and voucher specimens not found. More common in SW Oregon. |
| *Clarkia rhomboidea* | **Tall clarkia. On dry ridges in open woods. St. Helens Road. May-July.** Collected at Portland by Flinn in 1905 (HPSU). In dry woodland on Parrett Mountain (Nelson 1920a). | Native, rare. Reported from near Petes Mountain, just beyond our limits (*Alverson*). Nelson's report from Parrett Mountain is just beyond our limits. It occurs in oak woodland and upland prairie. |
| *Epilobium anagallidifolium* [*Epilobium alpinum*] | **[*Epilobium oregonense*]. Violet willow herb. Wet boggy ground. St. Helens Road. May-August. May-August.** | Native, rare. No recent reports from our area. |
| *Epilobium brachycarpum* [*Epilobium paniculatum*] | **Panicled willow-herb, northern willow-herb. Open woods. St. Helens Road, etc. May-September.** Collected at Fort Vancouver by Scouler in 1825 (Hitchcock et al. 1955-1969), at Portland by Suksdorf in 1901, on Willamette Heights by Sheldon in 1902, in Macleay Park (Gorman and Sheldon 1905), and along Canyon Road by Gilkey in 1935 (OSC, WTU). | Native. Widespread but never abundant in our area. On dry, exposed soils in natural areas as well as in heavily developed sites. |
| *Epilobium ciliatum* ssp*. ciliatum* [*Epilobium watsonii* in part] | Fringed willowherb. Collected several times around Portland between 1882 and 1980 (HPSU, OSC, WTU). On ballast at Linnton, where "very common" (Nelson 1917, as *E. adenocaulon*). Reed College (Van Dersal 1929). | Native. Probably common in our area but rarely distinguished from *E. ciliatum* ssp. *watsonii* because of their similarity and unresolved taxonomy. |
| *Epilobium ciliatum* ssp. *glandulosum* [*Epilobium glandulosum*] | Fringed willowherb. Not listed by Gorman or Nelson. | Native, rare. Currently In our area known only from Camassia Preserve, but its abundance and distribution is unclear because of confusion with *E. ciliatum* ssp. *watsonii*. Distinguished from *E. ciliatum* ssp. *watsonii* primarily by the occurrence of turions. Hitchcock et al. (1955-1969) described it as being "unusually variable." |
| *Epilobium ciliatum* ssp*. watsonii* [*Epilobium watsonii* in part] | **[*Epilobium franciscanum*]. Pacific willow herb. Moist ground and muddy places. Willamette Heights, Canyon Road, St. Helens Road, etc. May-August.** | Native. Very common in our area on moist soils. |

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| *Epilobium densiflorum* [*Boisduvalia densiflora*] | **Tall boisduvalia. Wet places. Mt. Scott and along Willamette River. May-July.** Collected near Portland by Thomas Howell in 1886, at Oregon City by Elmer in 1901, at Mt. Scott and Elk Rock by Sheldon in 1902 and 1903 (OSC). | Native. Occasional in wet areas throughout the region. Powell Butte, Fifth Plain Prairie (*Gaddis*). |
| *Epilobium foliosum* | Leafy willowherb, California willowherb. Not listed by Gorman or Nelson. Collected on or near Mt. Scott by Sheldon in 1903 (OSC). | Native, rare. No recent reports from our area. |
| *Epilobium lactiflorum* [*Epilobium alpinum* var*. lactiflorum*] | Milkflower willowherb. Not listed by Gorman or Nelson. | Native, rare. Reported from St. Helens (Pierce 2003), somewhat beyond our limits but possibly occurring elsewhere in the metro area. |
| *Epilobium minutum* | **Small willow herb. Common on rocky slopes. Elk Rock. May-August.** Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840) and several times in the metro area between 1886 and 1902 (OSC, WTU). Macleay Park (Gorman and Sheldon 1905, as *E. foliosum*). | Native, rare. In our area known only from St. Johns (*Kral, 1996*, HPSU). Not relocated at Elk Rock (PPR 2004). |
| *Epilobium palustre* | Marsh willowherb. Not listed by Gorman or Nelson. | Native, rare. In our area known only from the Curtin Creek watershed near NE 72nd Avenue and St. Johns Road (*Gaddis*). |
| *Epilobium pygmaeum* [*Boisduvalia glabella*] | **Slender boisduvalia. In ditches along railroad tracks near Clackamas Station. May-July.** | Native, rare. No recent reports from our area. |
| *Epilobium torreyi* [*Boisduvalia stricta*] | **Narrow leaved boisduvalia. Roadsides and open rocky places. City Park, near Oswego, etc. May-July.** Collected on the Tualatin Plains by Henderson in 1882, and on Willamette Heights by Sheldon in 1902 (OSC). | Native, rare. No recent reports from our area. |
| *Ludwigia grandiflora* ssp*. hexapetala* [*Ludwigia hexapetala, Jussiaea uruguayensis*] | Water primrose. Not listed by Gorman or Nelson. Reported from along the Columbia River "below Portland" (Hitchcock et al. 1955-1969, as *J. uruguayensis*). Historical voucher specimens from our area not found. The label of a specimen collected in Benton County in 1955 indicates that it originated from the contents of an aquarium dumped in a slough about 1940 (OSC). | Exotic. Introduced 1925-1949. Occasional in our area. Smith and Bybee Lakes and along the lower Columbia Slough. A pest in both flowing and impounded water. Specimens previously named *J. uruguayensis* in W Oregon and Washington have all been renamed *L. hexapetala*, which has smaller flowers (*Zika*). |
| *Ludwigia palustris* | **[*Isnardia palustris*]. Water purslane. In ditches and wet banks. Swan Island, Fulton, Columbia Beach, Hayden Island, Oregon City, etc. May-Oct.** Collected repeatedly around the metro area between 1884 and 1918 (OSC). | Native. Common in seasonally flooded wetlands throughout our area. Beggar's-tick Wildlife Refuge, Oaks Bottom, Sauvie Island, Peach Cove Fen, Burlington Bottoms, Clark County. |
| *Oenothera affinis* | **[*Oenothera berteroana*]. Chile evening primrose. Ballast grounds and waste places. Lower Albina, etc. Adventive from Chile. May-August.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. Native to Chile. |
| *Oenothera biennis* | **[*Oenothera strigosa*]. Tall evening primrose. Stream banks. Willamette River, Sauvie Island, etc. May-August.** Collected repeatedly from St. Johns to Troutdale between 1884 and 1919 (OSC). On a sand bar in the Columbia River at Hayden Island, opposite Vancouver (Nelson 1918a, as *Onagra strigosa*). Van Dersal (1929, as *O. biennis stragosa*) found it "especially" common near the Columbia River. | Native. Common throughout our area on disturbed soils. Gorman's *Oenothera strigosa* is now more narrowly interpreted as *O. villosa* ssp. *strigosa*, and is much less common in our area than *O. biennis*. |

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| *Oenothera flava* | Yellow evening-primrose. Not listed by Gorman or Nelson. | Native, rare. In our region, known only from Multnomah Channel. |
| *Oenothera glazioviana* [*Oenothera erythrosepala*] | Evening primrose. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Coos County as early as 1939 (OSC). | Exotic. Introduced 1925-1949. Occasional in our area on dry roadsides. |
| *Oenothera grandiflora* | **Large flowered evening primrose. Occasional in filled or freshly disturbed ground and waste places. Corner of 19th and Morrison Streets, etc. Adventive from southeastern United States. June-September.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Oenothera mollissima* | Argentine evening-primrose. On ballast at Linnton (Nelson 1917, 1920a). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Oenothera pallida* | **[*Anogra pallida*]. White stemmed evening primrose. On sand spits and sandy banks at head of Hayden Island. May-September.** Nelson (1918a) reported it from the same locality. *Anogra* is one of eight genera that Gorman added to his *Muhlenbergia* manuscript in December 1915, indicating that *O. pallida* might have been a recent arrival in Portland. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Common E of the Cascades. |
| *Oenothera villosa* ssp. *strigosa* [*Oenothera strigosa; Oenothera biennis* in part] | Hairy evening primrose. Collected at Troutdale by Schatz in 1955, and at Sauvie Island by Trainer in 1963 (OSC). | Native. Occasional in our area along the Columbia River. Troutdale, Hayden Island, and Tomahawk Island (*Wilson*, OFP). |
| **Ophioglossaceae** | | |
| *Botrychium multifidum* | **[*Botrychium sialifolium*]. Western grape fern. Moist ground near the car shops. May, June.** | Native, rare. In our area known only from Camassia Preserve (Horvath 1993), Tryon Creek State Park (*Bluhm*, *1996,* OFP), and Tualatin Hills Nature Park (*Bluhm*, OFP). Present farther up the Sandy River beyond our limits (*Poff & Marttala*). |
| **Orchidaceae** | | |
| *Calypso bulbosa* | **[*Cytherea bulbosa*]. Calypso. In leaf mould and mossy open woods. Macleay Park** [Gorman and Sheldon 1905, where "a few can still be found"]**, east of Gladstone, west of Oswego. April, May.** Collected at Portland and Oregon City by Henderson in 1880 and 1885, on Willamette Heights by Drake in 1892, at Clackamas by an unknown botanist in 1895, at Gladstone Park by Flinn in 1908, and in the Tualatin Valley by Leach in 1928 (HPSU, OSC). Seen on Powell Butte in the 1960s (*Marttala*). | Native, rare. In our area known only from Clackamas River Bluffs (Christy et al. 2007; *Kimpo*), Mt. Talbert, and Clear Creek (*Kimpo*). Reported from St. Mary's Woods near Beaverton (*Walthall*, OFP). St. Helens (Pierce 2003), somewhat beyond our limits. Its rarity here may be due in part to herbivory by the European brown slug (*Poff*). |

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| *Cephalanthera austiniae* [*Eburophyton austiniae*] | **White orchid. Rare in open woods. Mt. Scott. Formerly on Mt. Tabor. May-July.** Collected on Mt. Tabor by Henderson in 1889, in the West Hills by Detling, Thomas, and Trinkham in 1933 (OSC). | Native, rare historically and rare today. Marquam Nature Park (*Gaddis, 2006*), Forest Park, Powell Butte, Tryon Creek State Park, and Hoyt Arboretum near Knight and Fairview streets (PPR 2004). |
| *Corallorhiza maculata* | **Large coral root. Moist open woods. Mt. Tabor, Mt. Scott, West Portland. May, June.** Collected several times at Mt. Tabor by Gorman, Henderson, Flinn, and Sheldon between 1888 and 1906 (HPSU, OSC) and at Macleay Park by Van Dersal in 1928 (REED). Reported from St. Mary's Woods and the Leach Botanical Garden about 1970. | Native, rare. In our area known only from Forest Park (PPR 2004; *Christy, 2008*). St. Helens (Pierce 2003) and further up the Sandy River (*Marttala*), both beyond our limits. |
| *Corallorhiza mertensiana* | Pacific coralroot. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Scouler or Tolmie (Hooker 1829-1840). | Native, rare. No recent reports from our area. |
| *Corallorhiza striata* var. *striata* | **Striped coral root. Coniferous woods. Mt. Tabor, Mt. Scott, etc. May, June.** Collected at Mt. Tabor by Henderson and Flinn in 1889 and 1905, near Oswego by an unidentified botanist in 1892, and "near Montavilla" by Gorman in 1904 (HPSU, OSC). | Native, rare. Scarce in our area. Seen once in Forest Park (PPR 2004), and at Camassia Preserve. A site in the upper Burnt Bridge Creek drainage in Clark County was cleared for development in the late 1990s (*Gaddis*). |
| *Cypripedium montanum* | **Western lady's slipper. Coniferous woods. Oswego and at old quarry, Park Place. April-June.** Collected near Oswego by Gorman and Henderson in 1887, at Macleay Park by Van Dersal in 1925, and at Ladd Hill Road and Parrett Mountain Road by MacColman in 1975 (HPSU, OSC, REED). Of six specimens seen in the West Hills in the 1920's, two were collected in 1925, and only two remained in 1928 (Van Dersal 1929). | Native, rare. No recent reports from our area. Historical habitats included "dry hillsides," "woods and thickets," and "sandy soil." |
| *Epipactis gigantea* | **Stream orchid. Infrequent in moist springy places. Near mouth of Tualatin River, along Clackamas River between Eagle Creek and Estacada, etc. June-August.** Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840), and at Clackamas by Riggs in 1907 (OSC). | Native, rare historically and rare today. No recent reports from our area. |
| *Epipactis helleborine* | Broadleaf helleborine. Not listed by Gorman or Nelson. Not known from Oregon until 1985 but established in the Willamette Valley by 1989 (OSC). | Exotic, rare. Introduced 1975-1999. In our area known only from Smith and Bybee Lakes (*Gaddis, 2006*) and along Columbia Slough (*Stewart, 2006*), where becoming well established. |
| *Goodyera oblongifolia* | **[*Peramium decipiens*]. Western rattlesnake plantain. Not uncommon in coniferous woods. Macleay Park** [Gorman and Sheldon 1905, as *Peramium menziesii*, where "once fairly plentiful, now quite rare"]**, St. Helens Road, Mt. Tabor, Mt. Scott, etc. July, August.** Collected at Fort Vancouver by Scouler in 1825 (Hitchcock et al. 1955-1969), on Sauvie Island by Thomas Howell in 1887, and on W side of Powell Butte by Marttala in the 1960s (OSC). | Native. Throughout our area but sparse. It appears to be more common in the West Hills and in forests in the NE part of our area than in areas farther S. Mt. Talbert, East Buttes, Clackamas River Bluffs (Christy et al. 2007; *Kimpo*), St. Helens (Pierce 2003), and Dodge Park (*Poff & Marttala*), the latter two beyond our limits. |

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| *Listera caurina* | Northwestern twayblade. Not listed by Gorman or Nelson. | Native, rare. Reported from St. Mary's Woods (*Walthall*, OFP) but voucher specimens not found. We include it here as presumably present in our area because it is not easily confused with *L. cordata*. |
| *Listera cordata* | **[*Ophrys cordata*]. Heart leaved tway blade. Moist coniferous woods near Linnton. May-July.** | Native, rare. In our area known only from an old-growth remnant near Forest Park. None was seen during the 2004 Portland Parks survey. More common farther up the Sandy River drainage, beyond our limits. |
| *Piperia elegans* [*Habenaria elegans*] | **Forest orchis. Open woods. Opposite Oswego. May-July.** Collected near Fort Vancouver by Tolmie in 1833-1840 (Hooker 1829-1840, as *Platanthera elegans*). | Native, rare. In our area known only from Camassia Preserve (*Trask & Abrams, 2001*, HPSU). |
| *Piperia unalascensis* [*Habenaria unalascensis*] | **[*Piperia unalaschensis*]. Slender orchis. Dry ridges in coniferous woods. Near Linnton. May-July.** Collected at Portland by Freeman in 1887, and at East Portland by Thompson in 1925 and 1926 (OSC, WTU). | Native, rare. Reported from Camassia Preserve, but voucher specimens not found. Present further up the Sandy River drainage, beyond our limits. |
| *Platanthera dilatata* var. *leucostachys* [*Habenaria dilatata* var. *leucostachys*] | **[*Limnorchis leucostachys*]. Large white bog orchis. Boggy ground near Oswego. May-July.** Collected near Fort Vancouver by Douglas, Scouler, and Tolmie (Hooker 1829-1840), in "bogs about Portland" by Henderson in 1881 and 1884, (OSC, WTU). | Native, rare. No recent reports from our area. |
| *Spiranthes porrifolia* | Creamy lady's tresses. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Smith and Bybee Lakes (*Gaddis, 2006*). |
| *Spiranthes romanzoffiana* | **[*Ibidium romanzoffianum*]. Ladies' tresses. Moist or boggy ground. Above Oswego and on Canyon Road near old County Poor Farm. June-August.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *S. cernua*). | Native, rare. In our area known only from Camassia Preserve, the Steinborn Unit of Tualatin River NWR (*Roberts, Maffitt*, *2008*), and St. Helens (Christy and Alverson 2001), the latter beyond our limits. |
| **Orobanchaceae** | | |
| *Orobanche fasciculata* | Clustered broomrape. Not listed by Gorman or Nelson. | Native, rare. In our area known only from dry sites on Cooper Mountain, where it usually parasitizes *Eriophyllum lanatum*. |
| *Orobanche minor* | Hellroot. On ballast at Linnton (Nelson 1921) and at Fisher in Clark County (Hitchcock et al. 1955-1969). Collected at Portland by Perrin and Waddell in 1923 and 1927, on Mt. Tabor by Constance and Beetle in 1940, near Troutdale by Pierson in 1953, and at Gresham by Vaughan in 1963 (OSC, WTU; Peck 1961). | Exotic. Introduced 1900-1924. Occasional in our area. Powell Butte, SE Bush Avenue (*Kierstead, 1984*, OSC), near Wilsonville (*Gingrich, 1998*), Sauvie Island (*Worth, 2001*, OSC), and Clackamas and Washington counties (ODA 2001). In our area, it has been reported from *Daucus*, *Fragaria*, *Hypochaeris radicata, Trifolium pratense, and Trifolium repens*. A federally-listed noxious weed, and Listed by ODA as a Class B Noxious Weed. |
| *Orobanche uniflora* [*Orobanche uniflora* var. *occidentalis, Orobanche uniflora* var. *purpurea* | **[*Thalesia uniflora*]. One-flowered cancer-root. Moist rocky banks. Oswego, Oregon City, etc. Parasitic on roots of *Tellima grandiflora* and other plants. April-October.** Collected at Oregon City by Henderson in 1885, on Sauvie Island by Howell in 1886, and at Elk Rock by Gorman in 1917 (OSC). Van Dersal (1929) considered it rare. A site in West Linn was destroyed during construction of Interstate 205 in 1970-1975 (*Marttala*). | Native, rare. In our area known only from Cooper Mountain, where it parasitizes *Saxifraga*. |

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| **Oxalidaceae** | | |
| *Oxalis corniculata* | Creeping woodsorrel. Not listed by Gorman or Nelson. Collected in dry meadows and hillsides around Portland by Henderson in 1884 (HPSU, OSC). | Exotic. Introduced 1875-1899. Widespread in our area as a lawn and garden weed. SE Portland (*Marttala*), Berry Botanic Garden (*Poff*), West Slope (*Christy*). Specimens so named at HPSU collected on Sauvie Island by Joseph Howell are *O. suksdorfii*. |
| *Oxalis dillenii* | Dillen's wood sorrel. Not listed by Gorman or Nelson. Collected as a lawn weed in SW Portland by Schlesinger in 1956 (OSC). | Exotic, rare. Introduced 1950-1974. No recent reports from our area, but probably confused with *O. corniculata* and more widespread than indicated. |
| *Oxalis oregana* | **Oregon wood sorrel. In moist shady woods. Cornell Road, St. Helens Road, etc. April-June.** Collected several times in the metro area between 1887 and 1928 (OSC). | Native. Occasional to locally common in coniferous forests in our area. West Hills, Mary S. Young State Park (*Marttala*), and Clark County. Displaced by *Hedera helix* and *H. hibernica*. |
| *Oxalis stricta* | **Fragrant wood sorrel. Ballast grounds and waste places. Lower Albina, etc. Adventive from the eastern states. Fragrant.** | Native. In our area more common in cultivated fields and container nurseries than in native habitats. One specimen was seen in Keller Woodland during a 2004 survey. |
| *Oxalis suksdorfii* | **Western yellow wood-sorrel, Suksdorf's wood-sorrel. A rather handsome native "weed," not uncommon in open woods, waysides, cut banks, and borders of fields. Albina, East Portland, Mt. Tabor, Mt. Scott, Division Street, etc. Blooms all summer. April-November.** Collected several times around the metro area between 1881 and 1911 (OSC, WTU). Macleay Park, where "common" (Gorman and Sheldon 1905). Reed College (Davies 1938). | Native. Occasional but less frequent than *O. oregana*. Oaks Bottom, Leach Botanical Garden, Powell Buttte, Tualatin River NWR (*Maffitt*), Tryon Creek State Park (*Bluhm*, OFP), Cooper Mountain (*Kral, 1997* & *Kimpo 2001*, HPSU), Camassia Preserve (*Trask & Abrams*, 2001, HPSU). |
| *Oxalis trilliifolia* | **Tall wood sorrel, small-flowered wood-sorrel. Infrequent on moist creek banks. Balch Creek** [Gorman and Sheldon 1905, where "much rarer" than *O. suksdorfii*]**, Holbrook Creek, Logie Trail, etc. April-June.** Collected along the Willamette River by Henderson in 1888, and at Portland by Sweetser in 1905 (OSC). | Native, rare historically and rare today. Forest Park (*Christy, 2008*). More common in the Cascades and Coast Range. |
| **Papaveraceae** | | |
| *Eschscholzia californica* | **[*Eschscholtzia californica*]. California poppy. Vacant lots and waste places. Goldsmith's Addition, East Portland, etc. Introduced from California. May-June. [*Eschscholtzia douglasii*]. Douglas' poppy. Open glades near Gladstone. May, June.** Collected a number of times around Portland between 1888 and 1924 (OSC). On ballast at Linnton, where "very common" (OSC; Nelson 1917). Available commercially in the West since 1874 (Adams 2004). | Native. Frequent on roadsides and abandoned lots throughout our area. Collections by Douglas from 1825-1827 indicate that it is native to our area, probably once restricted to gravel bars along rivers and grassy bluffs. Roadside populations are most likely introduced, as it is a common ingredient in seed mixes used by state and local right of way managers. |
| *Glaucium flavum* | Yellow hornpoppy. On ballast at Linnton (Nelson 1920a). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. An escape from flower gardens. |

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| *Meconella oregana* | White fairypoppy. Not listed by Gorman or Nelson. Collected on prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area. Currently restricted to the Columbia Gorge and SW Oregon, where rare. |
| *Papaver argemone* | Long pricklyhead poppy. On ballast at Linnton (Nelson 1917). Historical voucher specimens from W Oregon not found. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Papaver dubium* | Blindeyes. Collected on ballast at Linnton by Nelson in 1922 (OSC; Nelson 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Papaver rhoeas* | **Field poppy. Ballast grounds and waste places. Lower Albina. Adventive from Europe. May-July.** | Exotic, rare. Introduced 1875-1899. Reported from Interstate 5 between NE Holladay and NE Broadway streets (*Newhouse et al*. OFP), where probably planted from a "meadow in a can" seed mix, otherwise known here only from cultivation. Voucher specimens of naturalized plants not found. Known to reproduce in gardens and no doubt capable of escaping (*Marttala*). |
| *Papaver somniferum* | Opium poppy. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Gorman's report of *P. rhoeas* from Lower Albina may be based on Sheldon's specimen of *P. somniferum*, but until a voucher of the former is found we list both species. |
| **Pedaliaceae** [Martyniaceae] | | |
| *Proboscidea louisianica* | Ram's horn. Not listed by Gorman or Nelson. Collected on Baseline Road in Portland by Gorman in 1923 (OSC), escaped from cultivation. | Exotic, rare. Introduced 1925-1949. In our area currently known only from cultivation, as no recent reports or voucher specimens of naturalized plants have been found. |
| **Phytolaccaceae** | | |
| *Phytolacca americana* | American pokeweed; pokeberry. Not listed by Gorman or Nelson. Collected near Hillsboro by Baron in 1961 (OSC). | Exotic, rare. Introduced 1950-1974. Sparsely distributed in our area and currently not abundant. Columbia Slough (*Kimpo*), SE Portland, where planted as an ornamental or pot herb and escaping occasionally (*Christy, Marttala, 2006*). |
| **Pinaceae** | | |
| *Abies grandis* | **Lowland fir, great silver fir. Occurs in moderate quantities in all coniferous woods around Portland, and numerous trees are still to be found in vacant lots throughout the city. April, May.** Collected at Portland by Henderson in 1885 and Sheldon in 1902 (OSC). Rare in Macleay Park, a few near the upper end of Balch Creek Canyon (Gorman and Sheldon 1905). Reed College (Van Dersal 1929; Davies 1938), where possibly planted. | Native. Occasional to locally frequent throughout our area. Coniferous forest and dense oak woodland where fire has been excluded. The balsam wooly adelgid may have reduced its numbers since Gorman's day. |
| *Cedrus deodara* | Deodar cedar. Not listed by Gorman or Nelson. Grown in the United States since the 1830s, available commercially in the West since 1892, and sold locally since at least 1912 (Adams 2004). | Exotic, rare. Introduced 1875-1899. Reproducing by seed from planted stock. West Slope (*Christy, 1998*). Widely planted as an ornamental throughout our area, but not known if reproducing elsewhere, and not seen reproducing at Hoyt Arboretum (Moeller 2008). |

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| *Pinus contorta* var. *latifolia* | **[*Pinus murrayana*]. Lodgepole pine. Common on sandy slopes near Troutdale. April, May.** Cartee (1854) recorded lodgepole pine from Broughton Bluffs, just E of the Sandy River Delta. Collected on the Sandy River by Henderson in 1884, at Troutdale by Sheldon in 1903 (Sheldon 1904, as *P. contorta* var. *hendersoni*), and on hillsides at Bertha by Gorman in 1906 (OSC). | Native, rare. No recent reports from our area. The specimens from Troutdale and Bertha, if not planted, refute Gorman's earlier assertions (Gorman 1900) that lodgepole pine does not occur below 1500 feet, or that ponderosa pine was the only pine growing naturally within the city limits. Cartee's report (1854) cannot possibly refer to planted material. Sheldon identified his Troutdale material as var. *hendersoni* (= var. *contorta*, shore pine), but these were renamed in 1999 as var. *latifola*. In contrast to Flora of North America and the PLANTS database, Oliphant (1992) demonstrated that lodgepole pine in Oregon consists of only var. *latifolia*, and that var. *murrayana* does not occur in the state. |
| *Pinus ponderosa* | **[*Pinus ponderosa benthamiana*]. Foothills yellow pine. Common near the car shops. April, May.** A slip of paper in one of Gorman's notebooks records a voucher specimen (*Gorman 3724*, herbarium unknown) from "moist rich slopes and open woods" in Tigard, collected 30 March 1916. | Native. Occasional throughout our area, with higher frequency on the Tualatin Plains. Pure stands occur in the Tigard area, and historically it may have formed pine forests as well as pine woodland and savanna. There are also pockets of pine in the Johnson Creek watershed near SE 82nd. |
| *Pseudotsuga menziesii* | **[*Pseudotsuga mucronata*]. Douglas fir, Douglas spruce. Common in all coniferous woods around Portland. April, May.** Collected at Portand by Henderson in 1883 and by Sheldon in 1902 (NY, OSC). The most plentiful and largest tree in Macleay Park (Gorman and Sheldon 1905). | Native. Abundant throughout our area in coniferous forest. |
| *Tsuga heterophylla* | **Western hemlock. Common in fir woods. Macleay Park, Mt. Tabor etc. April, May.** Collected at Portland by an unknown botanist in 1889, and in Macleay Park by Sheldon in 1902 (NY; Gorman and Sheldon 1905). | Native. Still common in our area but seemingly scarcer near the urban core and possibly sensitive to local air quality. |
| **Plantaginaceae** | | |
| *Plantago aristata* | Largebracted plantain. Not listed by Gorman or Nelson. Collected at Clackamas by Thomas Howell in 1894 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Plantago coronopus* | Buckhorn plantain. Collected on ballast at Linnton by Suksdorf in 1916 (WTU; Nelson 1917). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Restricted to the coast. |
| *Plantago elongata* | **Slender plantain. Moist places in early spring near Gladstone. May-August.** | Native, rare. No recent reports from our area. |
| *Plantago lanceolata* | **Rib-grass, English plantain, Fool's timothy. A very common and troublesome weed in fields, lawns, meadows, pastures, and waste places everywhere around Portland. Naturalized from Europe. May-October.** Collected several times in our area between 1880 and 1925 (OSC). On ballast at Linnton (Nelson 1917, 1918b). | Exotic. Introduced 1875-1899. Ubiquitous in our area. Nelson (1918b) reported *P. lanceolata* var. *lanuginosa*, a wooly form sometimes treated as *P. dubia* but not recognized in North America. |
| *Plantago major* | **Common plantain. A common weed in fields, meadows, and waste places around Portland. May-September.** Collected several times in our area between 1881 and 1927 (OSC, WTU). On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1875-1899. Ubiquitous in the Portland area, less so in Clark County (*Gaddis*). |

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| *Plantago psyllium* | Sand plantain. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1975-1999. Occasional in our area on sandy beaches. Hayden Island (*Zika, 2002*, WTU) and N end of Sauvie Island (Marttala et al. 2002). |
| *Plantago pusilla* | Dwarf plantain. Not listed by Gorman or Nelson. Collected repeatedly around the metro area between 1883 and 1903 (OSC, WTU). | Exotic. Introduced 1875-1899. Camassia Preserve, Tomahawk Island (Walker, 2000, OFP), N end of Sauvie Island (Marttala et al. 2002), Kelley Point Park (Wilson, 2006, OFP). Also in the Columbia Gorge, beyond our limits. |
| **Poaceae** [Gramineae] | | |
| *Achnatherum caudatum* | Chilean ricegrass. Collected on ballast at Linnton by Nelson in 1915 (OSC; Nelson 1916, 1917, 1918c, 1919a, as *Stipa littoralis*; Abrams and Ferris 1923-1960, as *Stipa littoralis*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Achnatherum lemmonii* var. *lemmonii* [*Achnatherum lemmonii* ssp. *lemmonii*, *Stipa lemmonii*] | Lemmon's needlegrass. Not listed by Gorman or Nelson. | Native, rare. In our region, known only from Cooper Mountain (*Kral, 1998*, HPSU; Wilson & Kral 1999), where it occurs in open grassland and on rocky outcrops. |
| *Achnatherum occidentale* [*Stipa occidentalis*] | Western needlegrass. Not listed by Gorman or Nelson. | Native, rare. In our region, known only from Cooper Mountain (*Kimpo, 2001*, HPSU), where it occurs in open grassland and on rocky outcrops. |
| *Agropogon littoralis* [*Agropogon lutosus*, *Agrostis stolonifera* × *Polypogon monspeliensis*] | Coast agropogon. On ballast at Linnton (Nelson 1917, as *Polypogon littoralis*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. A hybrid between *Agrostis stolonifera* and *Polypogon monspeliensis*. |
| *Agrostis aequivalvis* | **Slender bent grass. Infrequent on moist slopes. Mt. Scott. June-August.** Historical voucher specimens from our area not found. | Native, rare historically and rare today. No recent reports from our area. Along with the very similar *A. humilis* (= *A. thurburiana*), restricted to higher elevations in the Cascades. |
| *Agrostis canina* | Velvet bentgrass. Not listed by Gorman or Nelson. Collected on Sauvie Island by Joseph Howell in 1875, and at Willamette Falls by Henderson in 1884 (OSC). | Exotic, rare. Introduced 1850-1874. No recent reports from our area. |
| *Agrostis capillaris* [*Agrostis tenuis*] | Colonial bentgrass. Not listed by Gorman or Nelson. Collected at an uspecified location in Multnomah County by Sprowls in 1956, but collected elsewhere in the Willamette Valley as early as 1953 and evidently well established in many counties during that decade (OSC). | Exotic. Introduced 1925-1949. Common throughout our area in moist meadows. |
| *Agrostis capillaris* × *stolonifera* | Hybrid bentgrass. Not listed by Gorman or Nelson. Collected at Oregon City by Inskeep in 1935 (OSC). | Exotic. Introduced 1925-1949. No recent reports from our area, but easily overlooked and probably well established. |
| *Agrostis exarata* | **[*Agrostis asperifolia*]. Northern red top. Infrequent in moist ground. East Portland, Albina, Columbia Beach, Hayden Island, etc. June, July.** Collected several times at Portland, South Portland, Sauvie Island, Elk Rock, Sullivan's Gulch, Gresham, and Milwaukie by Henderson, the Howells, Sheldon, and Suksdorf between 1875 and 1912 (OSC, REED, WTU). | Native. Frequent in our area along Columbia Slough and in the Willamette, Tualatin, and Clackamas River basins. Used in enhancement and restoration efforts throughout the region. More common than in Gorman's day, presumably because of better documentation. |

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| *Agrostis microphylla* | **Small leaved bent grass. A small annual, infrequent in open woods near Oswego. June, July.** Collected at Hillsboro by Howell in 1880 and Henderson in 1882, and at Willamette Falls by Henderson in 1885 (OSC, REED). | Native, rare historically and rare today. No recent reports from our area. |
| *Agrostis oregonensis* | Oregon bentgrass. Not listed by Gorman or Nelson. Collected at Portland by Sheldon, undated (OSC). | Native, rare. No recent reports from our area. |
| *Agrostis pallens* [*Agrostis diegoensis*] | **Leafy bent grass. A slender perennial occurring sparingly on rocky slopes. Elk Rock. June-August.** Collected 3 miles S of Wilsonville by Nelson in 1919 (OSC). | Native, rare historically and rare today. In our area known only from Camassia Preserve (*Trask & Abrams, 2001*, HPSU). |
| *Agrostis scabra* | **[*Agrostis hyemalis*]. Rough hair grass. A slender perennial on sandy river banks near Brooklyn. June-August.** Collected at St. Johns by Sheldon in 1902, and at Oswego by Peck in 1926 (OSC). | Native, rare. In our area known only from Cooper Mountain, where common (Wilson & Kral 1999). *Agrostis hyemalis* is restricted to E North America, and presumably Gorman was referring to *Agrostis scabra*. |
| *Agrostis stolonifera* [*Agrostis alba*] | **Red top. Common in waste places. Albina and East Portland. Naturalized from Europe here, but native northward. June-August. [*Agrostis depressa*]. Creeping bent grass. Not uncommon on moist sandy banks about Bridgeton, Columbia Beach, etc. June-September.** Collected repeatedly around the metro area between 1877 and 1940 (OSC, WTU). On ballast at Linnton (Nelson 1917, as *A. alba, A. alba* var. *maritima,* and *A. stolonifera*). Reed College (Davies 1938, as *A. stolonifera*). | Exotic. Introduced 1850-1874. Common throughout our area in lawns, gardens, and wetlands. The "*Agrostis alba"* of Linnaeus was actually *Poa nemoralis*, but the "*A. alba"* of many later authors is a synonym of *A. stolonifera*. |
| *Aira caryophyllea* | **Silvery hair grass. In fields, vacant lots, and waste places around Portland. Naturalized from Europe. June-August.** Collected several times around the metro area between 1881 and 1926 (OSC, WTU). | Exotic. Introduced 1875-1899. Abundant in both disturbed natural areas and urban sites. |
| *Aira elegans* [*Aira caryophyllea* var. *capillaris*] | Annual silver hairgrass. Not listed by Gorman or Nelson. Collected on ballast at Albina by Suksdorf in 1907 (WTU). | Exotic. Introduced 1900-1924. No recent reports from our area, but probably present. |
| *Aira praecox* | Yellow hairgrass. Not listed by Gorman or Nelson. Collected on the coast as early as 1919 (OSC). | Exotic, rare. Introduced 1900-1924. In our area known only from Camassia Preserve (Horvath 1993; *Trask & Abrams, 2001*, HPSU) and the N end of Sauvie Island (Marttala et al. 2002). Mostly coastal. |
| *Alopecurus aequalis* | Shortawn foxtail. Collected at Portland by Thomas Howell in 1881, in Sullivan's Gulch by Henderson in 1883, on ballast at Linnton by Nelson in 1916 (OSC; Nelson 1917, where "not uncommon in wet places," as *Alopecurus aristulatus*), and on Sauvie Island by Thompson in 1926 (WTU). | Native. Occasional in seasonally-flooded wetlands in our area. Government Island, Multnomah Channel, Oaks Bottom, Rockwell wetland in Clark County (*Gaddis*). |
| *Alopecurus carolinianus* | Carolina foxtail. Not listed by Gorman or Nelson. Collected by Nelson on sand at Hayden Island in 1915, and in a dried pond in railroad yards at Lower Albina in 1920 (OSC). | Exotic. Introduced 1900-1924. No recent reports from our area, but probably present. Native to E North America. |

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| *Alopecurus geniculatus* | **Marsh foxtail. In wet places along the Columbia and Willamette rivers. June-August.** Collected at Portland and Lower Albina by Sheldon in 1902, and at Linnton by Nelson in 1916 (OSC, REED). | Exotic. Introduced 1875-1899. Occasional to common in our area. Tualatin and Clackamas Rivers basins, Burlington Bottoms, Lacamas and Salmon Creek watersheds (*Gaddis*). Long thought to have been native, and used frequently for wetland enhancement and restoration projects, it is now thought to be introduced even in remote locations . |
| *Alopecurus myosuroides* | Slender meadow foxtail. Collected on ballast at Linnton by Nelson in 1916 (OSC; Nelson 1917, as *Alopecurus agrestis*). | Exotic. Introduced 1900-1924. Occasional in our area. Oaks Bottom, N end of Sauvie Island (Marttala et al. 2002). |
| *Alopecurus pratensis* | Meadow foxtail. Not listed by Gorman or Nelson. Collected at Hillsboro by Thomas Howell in 1883 (OSC). | Exotic. Introduced 1875-1899. Common and highly invasive in seasonally moist fields, prairies, and meadows. It continues to be available commercially for erosion control and forage. |
| *Ammophila arenaria* ssp. *arenaria* | European beachgrass. Collected on ballast at Linnton by Nelson in 1915 and 1922, and by Suksdorf and Thompson in the 1920's (OSC, WTU; Nelson 1916, 1917, 1919a, 1920a, 1923a). Nelson predicted it would persist in the regional flora and that that it would be very difficult to eradicate. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. This is the common introduced and invasive grass on sand dunes along the coast. |
| *Anthoxanthum odoratum* | **Sweet vernal grass. Infrequent in lawns and waste places. Naturalized from Europe. Very fragrant in drying. May-July.** Reported by Gilbert (1917) as common in the Willamette Valley. The earliest known specimens from our area were collected at Vancouver by Suksdorf in 1908 (WTU). | Exotic. Introduced 1900-1924. Common on dry sites, roadsides, and in pastures throughout our area. |
| *Apera interrupta* [*Agrostis interrupta*] | Dense silkybent. Not listed by Gorman or Nelson. Collected on ballast at Linnton by Suksdorf in 1925 (WTU), presumably the basis for the report from Portland in Hitchcock et al. (1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. More common E of the Cascades, particularly in waste areas. |
| *Apera spica-venti* [*Agrostis spica-venti*] | Loose silkybent. Not listed by Gorman or Nelson. Collected at Lower Albina by Sheldon in 1902 (Hitchcock et al 1955-1969) and on ballast at Linnton by Suksdorf in 1912 (WTU; Nelson 1916). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. This herbicide-resistant bentgrass is reportedly an aggressive invader. |
| *Arrhenatherum elatius* var. *bulbosum* [*Arrhenatherum elatius* ssp. *bulbosum*] | Tall oatgrass. Not listed by Gorman or Nelson. Collected at Gresham by Sommer in 1950, in Tigard by an unknown collector in 1956, and in Cornelius by Tapp in 1957 (OSC). | Exotic. Introduced 1925-1949. Common in pastures and waste places throughout our area. Problematic in upland prairie remnants on deeper soils where it aggressively outcompetes native species. The var. *bulbosum* appears to have arrived later in our area than var. *elatius*. |
| *Arrhenatherum elatius* var. *elatius* [*Arrhenatherum elatius* ssp. *elatius*] | **Tall oat grass. Tall perennial and fairly good forage grass in fields and waste places around Portland. Naturalized from Europe. May-July.** Collected at Portland by Henderson as early as 1882 (OSC, REED). Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. Common in pastures and waste places throughout our area. As problematic as var. *bulbosum*. |

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| *Arthraxon hispidus* | Small carpgrass, jointhead grass. Not listed by Gorman or Nelson. A voucher specimen collected by Suksdorf was "raised from young plants" collected on ballast at Portland (US; Hitchcock et al. 1955-1969; Kiger 1971). Presumably collected 1900-1924. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. An invasive pest in eastern North America. |
| *Avena barbata* | Slender oat. Not listed by Gorman or Nelson. Collected on Sauvie Island by Howell in 1883, and at Albina by Suksdorf in 1902 (OSC, WTU). | Exotic. Introduced 1875-1899. Occasional on roadsides and other disturbed sites. Troutdale (*Wilson*, OFP). Grown commercially as a cover crop and foodstuff. |
| *Avena fatua* | **Wild oats. Common in fields and waste places around Portland. Naturalized from Europe. June-August. [*Avena fatua glabrata*]. Smooth wild oats. A common, more or less troublesome weed in fields, roadsides and waste places around Portland. Naturalized from Europe. June-August.** Collected at Lower Albina by Sheldon in 1902 (OSC). | Exotic. Introduced 1875-1899. Somewhat common around Portland, but not persisting for more than a few years. Commonly introduced with straw mulch or roadside seed mixes. Becoming more persistent in the southern Willamette Valley (*Newhouse*). |
| *Avena sativa* | Common oat. First planted at Fort Vancouver in 1825 (Taylor 1992). On ballast at Linnton, as "a common escape" (Nelson 1917). | Exotic. Introduced 1825-1849. Escaping occasionally around our area on roadsides and dry disturbed areas. Does not tend to persist for more than a few growing seasons. |
| *Beckmannia syzigachne* | **[*Beckmannia erucaeformis*]. Slough grass. Tall erect perennial common in ditches at Oswego and wet places about Oswego Lake. May-August.** Collected near Hillsboro by Howell in 1877, along the Tualatin River by Henderson in 1882, in Oregon City by an unidentified botanist in 1891, and at the SW end of Oswego Lake by French in 1962 (OSC). | Native. Occasional in wet areas around Portland. Seen recently along the Springwater Corridor Trail at SE 115th (*Marttala*). Frequently planted for restoration and enhancement work, perhaps making it more abundant than it was historically. Old specimens from our area named *B. erucaeformis*, native to Europe, were later renamed *B. syzigachne*. |
| *Brachypodium distachyon* | Purple false brome. Not listed by Gorman or Nelson. Collected on ballast at Albina by Suksdorf in 1902 (WTU; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Brachypodium sylvaticum* | False brome. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Eugene as early as 1939 (OSC). | Exotic. Introduced 1925-1949. Established at several sites along the Clackamas River, the Willamette Narrows (Smyth 1999b), Boeckman Creek in Wilsonville (*Newhouse*), and the Clear Creek drainage (*Kimpo*). Reportedly the most invasive woodland and forest species ever to have been introduced into the Willamette Valley (*Newhouse*). |
| *Briza minor* | Little quakinggrass. Not listed by Gorman or Nelson. Historical voucher specimens from our area not seen, but collected in Benton County as early as 1914 (OSC). | Exotic. Introduced 1900-1924. Occasional on disturbed sites. Oaks Bottom Wildlife Refuge (PPR 2004). |
| *Bromus arenarius* | Australian brome. Not listed by Gorman or Nelson. Collected on ballast at Albina by Suksdorf in 1908 (WTU; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Bromus arvensis* [*Bromus japonicus*] | **Field chess. Infrequent in fields and waste places around Portland. Adventive from Europe. June-August.** Collected on ballast at Albina by Suksdorf in 1907 (WTU; Hitchcock et al. 1955-1969, Hitchcock and Cronquist 1976, as *B. japonicus*). | Exotic. Introduced 1900-1924. Frequent in our area on dry sites. Problematic on dry prairies where it prevents germination of native seeds. |

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| *Bromus briziformis* [*Bromus brizaeformis*] | Rattlesnake brome. Collected on ballast at Linnton by Nelson in 1919 and 1922 (OSC; Nelson 1923a, as "apparently not elsewhere established in the Willamette Valley"). He thought it would persist in the regional flora. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Bromus carinatus* | **Pyramidal brome grass. Infrequent in moist sandy soil. Lower Albina. Short-lived perennial here. May-July.** Collected several times around Portland between 1882 and 1934 (OSC). On ballast at Linnton, where "abundant" (Nelson 1917), and at Reed College, where "common" (Van Dersal 1929; Davies 1938). | Native. Probably common on roadsides and in pastures throughout our area, but local distribution is uncertain because of previous inclusion of *B. marginatus*. Often used in enhancement and restoration projects. |
| *Bromus catharticus* var. *catharticus* | Rescuegrass. Not listed by Gorman or Nelson. Collected by Suksdorf on ballast at Albina between 1902 and 1912, and at Linnton in 1910 and 1917 (WS). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Bromus ciliatus* | Fringed brome. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1882 (OSC). | Native, rare. No recent reports from our area. |
| *Bromus diandrus* ssp. *rigidus* [*Bromus rigidus*] | Ripgut brome. Collected by Suksdorf at Milwaukie in 1893 and at Albina in 1907 and 1912, and on or near Mt. Scott by Sheldon in 1903 (OSC, WTU). On ballast at Linnton, where "not infrequent" (Nelson 1917, as *B. villosus*). Reed College (Van Dersal 1929, Davies 1938, as *B. rigidus*). | Exotic. Introduced 1875-1899. Well distributed on dry sites throughout our area. Particularly problematic on several upland prairie sites where it outcompetes native forbs and grasses. |
| *Bromus hordeaceus* ssp. *hordeaceus* [*Bromus mollis*] | **Soft chess. Infrequent in fields and vacant lots around Portland. Adventive from Europe. June-August.** Collected along Balch Creek by Sheldon in 1903, at Albina and Portland by Suksdorf in 1910, and on ballast at Linnton by Nelson in 1915 or 1916, where "very common" (Nelson 1917). | Exotic. Introduced 1875-1899. Ubiquitous in dry fields, yards, and roadsides. Problematic in dry prairies where it prevents germination of native seeds. |
| *Bromus inermis* | Smooth brome. Collected on ballast at Linnton by Nelson in 1916 (OSC; Nelson 1917). He thought this was the first record from the state. | Exotic. Introduced 1900-1924. Frequent in our area on dry sites. Problematic on dry prairies where it prevents germination of native seed. |
| *Bromus madritensis* | Compact brome. Not listed by Gorman or Nelson. Collected on ballast at Albina by Suksdorf in 1912 (WTU), presumably the basis for the report from "near Portland" in Hitchcock et al. (1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Hitchcock et al. (1955-1969) found North American material difficult to separate from *B. rubens*. |
| *Bromus marginatus* [*Bromus carinatus* in part] | **Coarse brome grass. Common in coarse tufts in fields and waste places. May-July.** Collected at Linnton by Nelson in 1916 and by Suksdorf in 1925 (OSC, WTU). | Native. Probably common on roadsides and in pastures throughout our area, but local distribution is uncertain because of previous confusion with *B. carinatus*. Often used in enhancement and restoration projects. |
| *Bromus orcuttianus* | Orcutt's brome. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Camassia Preserve (Horvath 1993; *Trask & Abrams, 2001*, HPSU). More common E of the Cascades. |
| *Bromus racemosus* [*Bromus commutatus*] | Bald brome. Not listed by Gorman or Nelson. Collected at Lower Albina and Mt. Scott by Sheldon in 1903, and at Tualatin by Nelson in 1916 (OSC). | Exotic. Introduced 1875-1899. Probably common on roadsides and in pastures throughout our area, but local distribution is uncertain because of previous confusion with *B. hordeaceus*. |

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| *Bromus rubens* | Red brome. Collected at Albina by Suksdorf in 1912, on ballast at Linnton by Nelson in 1916, and at Tualatin by Peck in 1919 (OSC, WTU; Nelson 1917, where "rare in waste places" and "a waif"; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. More common E of the Cacades, where a weed. |
| *Bromus secalinus* | **Chess. Common in fields and waste places around Portland. A rather troublesome annual weed in grain fields and meadows. Naturalized from Europe. May-August.** Collected at Portland by an unnamed botanist in 1888, on Willamette Heights by Sheldon in 1902, on ballast at Linnton (OSC; Nelson 1917), and at Reed College (Van Dersal 1929), though not relocated there by Davies (1938). | Exotic. Introduced 1875-1899. Now ubiquitous on dry sites and roadsides. |
| *Bromus sitchensis* | Sitka brome. Not listed by Gorman or Nelson. It is not clear why there are no voucher specimens older than Trainer's collection from Sauvie Island in 1963 (OSC). | Native. Common in our area on moist to dry sites, both riparian and upland. Seeds are grown commercially and used frequently in restoration work around the region. Farther S, replaced in uplands by *B. marginatus* (*Newhouse*). |
| *Bromus sterilis* | **Barren brome grass. Moist ground and waste places. Lower Albina, St. Johns, etc. Adventive from Europe. May-June.** Collected in "hills west of Portland" and at Elk Rock by Suksdorf in 1906 and 1925 (WTU). Reed College (Davies 1938). | Exotic. Introduced 1900-1924. Ubiquitous on dry sites and roadsides. Problematic in dry prairies where it prevents germination of native seeds. |
| *Bromus tectorum* | Cheatgrass. Reported from ballast at Linnton (Nelson 1917, where "rare in waste places"), at Portland (Soth 1933, where "very common"), and at Reed College (Davies 1938). | Exotic. Introduced 1900-1924. Frequent and locally abundant in our area on dry sites. Cooper Mountain, East Buttes, inner SE industrial area (*Marttala*), N end of Sauvie Island (Marttala et al. 2002). Problematic on dry prairies where it prevents germination of native seed. Much less common than other annual weedy bromes. |
| *Bromus vulgaris* | **[*Bromus eximius umbraticus*]. Western brome grass. Infrequent in open woods. Macleay Park and on grassy slopes, Elk Rock. May, June.** Near Portland (*Henderson, 1882*, OSC), Reed College (Van Dersal 1929), but not relocated there by Davies (1938). | Native. Occasional in our area in open woods. Cooper Mountain (*Kral, 1998*, HPSU), Camassia Preserve (*Trask & Abrams*, *2001*, HPSU), Forest Park (*Christy*, *2008*). More common than in Gorman's day, presumably because of better documentation. |
| *Calamagrostis canadensis* | **Blue joint grass. Fairly common perennial in wet ground. Columbia Slough. June-August.** Collected at Swan Island by Henderson, undated, but presumably from the 1880s (OSC). | Native, rare. In our area known only from Camassia Preserve (Horvath 1993). |
| *Cenchrus longispinus* | Mat sandbur. Collected on ballast at Linnton by Nelson in 1916 (OSC; Nelson 1917, 1919a, as *Cenchrus carolinianus*, where "doubtless introduced here from tropical America"). | Exotic, rare. Introduced 1900-1924. Lotus Island Park on Tomahawk Island (*Newhouse, 1997*, OSC), Hayden Island (*Zika, 2002*, OSC). |
| *Chloris radiata* | Radiate fingergrass. Collected on ballast at Linnton by Nelson in 1915 (OSC; Nelson 1916, 1917, 1919a; Abrams and Ferris 1923-1960; Hitchcock 1950; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. A Caribbean species. |
| *Cinna latifolia* | **Slender wood reed grass. A slender perennial in moist open woods near Oswego. July-September.** Reed College (Davies 1938). | Native, rare. In our area known only from the Springwater Corridor Trail at SE 115$^{th}$, and Reed College (*Marttala*). |

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| *Cladoraphis cyperoides* [*Eragrostis cyperoides*] | Bristly lovegrass. Collected on ballast at Linnton by Peck in 1915, where reportedly well established (OSC; Nelson 1916, 1917, 1919a). However, Nelson (1917) indicated that the species did not survive the winter. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Coleanthus subtilis* | Mossgrass. Collected several times on Sauvie Island by Thomas Howell, Henderson, Gorman, and Peck between 1883 and 1922, on the shore of Hayden Island by Nelson in 1919, and on a sandbar near Vancouver by Thompson in 1927 (OSC, WTU; Howell 1897-1903; Nelson 1920b). | Native, rare. Last seen in our area by Adolf Ceska in the early 1990's, near Oak Island on Sauvie Island, just beyond our limits. Attempts to relocate it have been unsuccessful. Hitchcock et al. (1955-1969) considered it a "European weed introduced but persistent," but more recent analysis suggests that it is a rare native species. |
| *Cortaderia jubata* | Purple pampas grass. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected on the coast as early as 1959 (OSC). | Exotic. Introduced 1950-1974. Occasional in our area as a garden escape and probably increasing. Mile 10-11 along Interstate 84 (*Wilson*, OFP), Bonny Slope (*Christy, 2005*). Spreading vegetatively from dumping of garden debris. Increasing in Lane County (Simpson et al. 2002) and invasive in California. |
| *Crypsis alopecuroides* [*Heleochloa alopecuroides*] | Foxtail pricklegrass. Not listed by Gorman or Nelson. Collected by Peck and Thompson on "filled land" and riverbanks near Linnton in 1926 and 1927, and by Masterson on Government Island in 1950 (OSC, WTU). | Exotic, rare. Introduced 1925-1949. Occasional in our area but probably overlooked. Beggar's-tick Wildlife Refuge (*Marttala*, *1997*) and near Oak Island on Sauvie Island (*Ceska*, early 1990's), the latter just beyond our limits. It is inexplicable why Peck (1961) did not include this species because he collected it here in 1926. |
| *Cynodon dactylon* | Bermudagrass. Collected several times on ballast at Lower Albina, Linnton, and Portland between 1900 and 1927 (OSC, WTU; Nelson 1917, 1919a). | Exotic. Introduced 1875-1899. Common on disturbed sites around our area. In the 1960's this grass was widely promoted as a lawn grass. |
| *Cynosurus cristatus* | Crested dogtail. Not listed by Gorman or Nelson. Collected on waste lots around Portland by Thompson in 1927 (OSC, WTU). | Exotic, rare. Introduced 1925-1949. In our area known only from Whipple Creek watershed, W of Clark County Fairgrounds, near NW 184$^{th}$ Street and NW 11$^{th}$ Avenue (*Gaddis, 1999*, HPSU). Scattered throughout W Oregon and probably present elsewhere in our area. |
| *Cynosurus echinatus* | Bristly dogstail grass. Historical voucher specimens from our area not found, but known from Eugene since 1919 (Nelson 1919a, 1921; Bradshaw 1920, 1921, Wynd 1926). | Exotic. Introduced 1900-1924. Common throughout our area on dry roadsides and thin soils. |
| *Dactylis glomerata* | **Orchard grass. A fair forage grass in fields and waste places around Portland. Naturalized from Europe. June-August.** Collected several times in the Portland area between 1883 and 1936 (OSC, WTU). "Very common" on ballast at Linnton (Nelson 1917). Characterized by Gilbert (1917) as "abundant" in the Willamette Valley. Reed College (Van Dersal 1929; Davies 1938). | Exotic. Introduced 1875-1899. Very common throughout the area, where it occurs over a range of moisture and lighting conditions. |

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| *Danthonia californica* | **[*Pentameris californica*]. Western wild oat grass. In fields and waste places near Oswego. May-July.** Collected "near Portland" by Howell (undated), at Willamette Falls by Sheldon in 1903, and at Vancouver by Suksdorf in 1908 (OSC, WTU). | Native. Occasional in our area in several prairie remnants in the Tualatin, Willamette and Clackamas River drainages. Green Mountain (*Habegger, 1998*, WTU), Barberton, and Fifth Plain Prairie (*Gaddis*), Camassia Preserve (*Trask & Abrams 2001*, HPSU). It has been reduced by competing exotic grasses and fire suppression. |
| *Danthonia intermedia* | Timber oatgrass. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Camassia Preserve (Horvath 1993), but voucher specimens not found. More common at higher elevations in the Cascades and eastwards. |
| *Danthonia spicata* | Poverty oatgrass. Collected on top of rocky cliff on S side of Oswego Lake (OSC; Nelson 1922, as *D. pinetorum*). | Native, rare. In our area known only from Camassia Preserve (*Alverson*). More common at higher elevations in the Cascades, but rare. |
| *Deschampsia caespitosa* [*Deschampsia cespitosa*] | **Tufted hair grass. Open glades and wet ground along Columbia Slough. June-July.** Collected on Sauvie Island by Joseph Howell as early as 1875, and near Boring by Suksdorf in 1903 (OSC, WTU). | Native. Frequent in our area but seldom occurring as a dominant. Natural populations are known from Sauvie Island, Tigard, the Sunnyside wetland near the Interstate 205 radio towers, and several other sites. Seeds and container material are available commercially, and it is planted widely in restoration and enhancement work. |
| *Deschampsia danthonioides* | **[*Deschampsia calycina*]. Tickle grass. Slender annual on dry slopes and poor soil, East Portland, Oswego, etc. May-July.** Collected on "low plains" near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *Aira danthonioides*), near Portland by Howell in 1886, and at Lower Albina by Sheldon in 1902 (OSC). | Native. Frequent in the area on both dry and wet soils. Often used in restoration projects. |
| *Deschampsia elongata* | Slender hairgrass. Not listed by Gorman or Nelson. Collected several times on Sauvie Island and around Portland by Howell and Henderson between 1877 and 1886, along Cornell Road by Sheldon in 1902 (OSC, REED), and on ballast at Linnton, where "very common" (Nelson 1917). | Native. Common in our area in wet to moist sites. Used widely in restoration and mitigation projects, with seed from the Willamette Valley. It may be more abundant now than historically. |
| *Desmazeria rigida* [*Scleropoa rigida*] | Ferngrass. Not listed by Gorman or Nelson. Suksdorf collected seed from plants he found on ballast at Linnton, and grew a voucher specimen in his home garden in 1920 (OSC). This was probably the same locality reported by Hitchcock et al. (1955-1969) as being "near Portland." | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Dichanthelium acuminatum* var. *fasciculatum* [*Panicum acuminatum* ssp. *fasciculatum*, *Panicum occidentale*] | Western panicgrass. Not listed by Gorman or Nelson. Collected at Hillsboro by Thomas Howell and Henderson in 1882, on the Tualatin Plains by Henderson in 1882, along the Sandy River by Henderson in 1883, and along the Willamette River and on Mt. Scott by Sheldon in 1902 (OSC, REED). | Native, rare. In our area known only from Camassia Preserve (Horvath 1993) and Lacamas Creek Park (*Gaddis*). |

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| *Dichanthelium oligosanthes* var. *scribnerianum* [*Panicum oligosanthes* ssp. *scribnerianum, Panicum scribnerianum*] | **Scribner's panic grass. On sandy hillsides above Inman-Poulson Lumber Co.'s mill and near St. Johns, Brooklyn, etc. June-August.** Collected on Sauvie Island by Thomas Howell in 1880, at Milwaukie by Vasey in 1884, at Elk Rock Island by Henderson in 1886, and at Lower Albina and Willamette Falls by Sheldon in 1902 and 1903 (OSC). | Native. Occasional along the Columbia and lower Willamette rivers. More common E of the Cascades. |
| *Digitaria ischaemum* | Smooth crabgrass. Not listed by Gorman or Nelson. Collected at Portland by Gorman in 1925, where "not uncommon, a troublesome weed in lawns and fields," and by Steele in 1958 (OSC). | Exotic. Introduced 1900-1924. No recent reports from our area, but presumably well established and overlooked. |
| *Digitaria sanguinalis* | Hairy crabgrass. Collected on Sauvie Island by Thomas Howell in 1886, on ballast at Albina by Suksdorf in 1903 (WTU), on ballast at Linnton by Suksdorf in 1914 (WTU) and Nelson in 1915 (OSC), when "beginning to appear in lawns" (Nelson 1917). A series of collections from the 1950s document its spread throughout the area. | Exotic. Introduced 1875-1899. Common throughout our area on heavily disturbed sites. |
| *Distichlis spicata* | Saltgrass. On ballast at Linnton, and "common along the coast" (Nelson 1917). | Native, rare. No recent reports from our area. Restricted to saline and alkaline soils on the coast and arid interior, and never likely to have occurred in our area under natural conditions. |
| *Echinochloa colona* [*Echinochloa colonum*] | Jungle rice. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. In our area known only from West Union Farm (*Reynolds, 2003*, HPSU). |
| *Echinochloa crus-galli* [*Echinochloa crusgalli*] | **Barnyard grass. In yards, fields and waste places around Portland. Naturalized from Europe. Grows freely in moist, rich ground, but in lawns and fields is eventually crowded out by other grasses. June-September.** Collected several times in our area between 1882 and 1927 (OSC, WTU). | Exotic. Introduced 1875-1899. Common on disturbed soil throughout our area. In wetlands, it establishes well on mud flats and sand bars in mid to late summer, after water levels have receded. |
| *Echinochloa crus-pavonis* | Gulf cockspur grass. Not listed by Gorman or Nelson. Collected on ballast at Albina by Suksdorf in 1900 (WTU). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Echinochloa muricata* var. *microstachya* | Rough barnyardgrass. Collected on Hayden Island by Nelson in 1921 (GH, OSC; Nelson 1922, as *E. muricata* var. *occidentalis*). | Native, rare. No recent reports from our area. Mostly E of the Cascades, but possibly still here and mistaken for *E. crus-galli*. |
| *Eleusine indica* | **Yard grass. Yards, railroad tracks and waste places. Albina and East Portland. Naturalized from tropical Europe and Asia. June-September.** Collected on ballast at Linnton by Nelson in 1915 (OSC; Nelson 1917). | Exotic. Introduced 1875-1899. Occasional in our area. |
| *Eleusine tristachya* | **[*Eleusine coracana*]. Tall yard grass. Ballast ground and waste places. Lower Albina. Coarse annual, taller than *E. indica*. Naturalized from tropical Europe and Asia. June-September.** Collected on ballast at Linnton by Nelson in 1915 (OSC; Nelson 1917, 1919a), and reported from Albina prior to 1919 (Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |

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| *Elymus alaskanus* ssp. *latiglumis* [*Agropyron caninum* in part] | **[*Agropyron biflorum*]. Northern wheat grass. Infrequent along railroad tracks and waste places. Oregon City. Introduced here, as it belongs from Washington northward and eastward. May-August.** Collected at Linnton by Suksdorf in 1914 (WTU; Hitchcock et al. 1955-1969). Reed College (Davies 1938). | Native, rare. No recent reports from our area. More common at higher elevations in and E of the Cascades, but potentially rafted down the Columbia River. Gorman's stated distribution was based on Piper (1906), but it is now known to extend S to California (Cronquist et al. 1977). |
| *Elymus glaucus* var. *glaucus* [*Elymus glaucus* ssp. *glaucus*] | Blue wildrye. Collected at Portland by Henderson as early as 1882 (OSC, REED). Very common on ballast at Linnton (Nelson 1917). Reed College (Van Dersal 1929; Davies 1938). | Native. Common throughout our area in dry forests and woodlands. Often the primary grass in commercial native seed mixes. |
| *Elymus repens* [*Agropyron repens*] | Quackgrass. Collected at Oregon City by Sheldon in 1902, on ballast at Linnton by Suksdorf and Nelson in 1911 and 1915, and on Sauvie Island by Thompson in 1927 (OSC, WTU; Gilbert 1917; Nelson 1917). Piper and Beattie (1915), Gilbert, and Nelson all noted that it was not abundant W of the Cascades, indicating that it may have been a recent arrival. Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. Ubiquitous in our area and a pernicious weed in both gardens and natural areas. |
| *Elymus semicostatus* [*Agropyron semicostatum*] | Drooping wildrye. Not listed by Gorman or Nelson. Reported from ballast "near Portland" by Hitchcock et al. (1955-1969). Presumably from Albina or Linnton, collected by Suksdorf, Nelson, or Sheldon. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Elymus trachycaulus* ssp. *subsecundus* [*Agropyron caninum* var. *unilaterale*] | Slender wheatgrass. Not listed by Gorman or Nelson. Collected at Oregon City by Sheldon in 1902 (OSC). | Native, rare. In our area known only from Multnomah Channel (Adolfson 2000) and Camassia Preserve (Horvath 1993). |
| *Eragrostis curvula* | Weeping lovegrass. Not listed by Gorman or Nelson. First collected in Oregon (Union and Benton Counties) in 1990 (OSC, WTU). | Exotic, rare. Introduced 1975-1999. Scarce in our area. Junction of NE 33rd Drive and NE Marine Drive (*Zika & Weinmann, 2000*, OSC, WTU), Tomahawk Island (*Wilson*, OFP). See also Jacobson et al. (2001). |
| *Eragrostis hypnoides* | **Creeping meadow grass, moss grass. Smooth annual not infrequent on muddy stream banks. Willamette River at Oregon City, Columbia River at Bridgeton, Columbia Beach, Vancouver. May-September.** Collected several times on Sauvie Island by Thomas Howell and Henderson between 1878 and 1887, and at Linnton by Thompson in 1926 (WTU). | Native. Occasional in our area on drying beds of seasonal ponds. SW Burnham and Main Street in Tigard (*Confer, 1987*, OSC), Ridgefield NWR (*Christy, 1989*), Sandy River Delta, Camassia Preserve (*Trask & Abrams, 2001*, HPSU), Beggar's-tick Wildlife Refuge, N end of Sauvie Island (Marttala et al. 2002). |
| *Eragrostis lutescens* | Sixweeks lovegrass. Collected on Hayden Island by Nelson in 1922 (OSC; Nelson 1923b). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Native to California, primarily in the Sierra Nevada foothills and San Joaquin Valley. |
| *Eragrostis mexicana* ssp. *virescens* [*Eragrostis orcuttiana*] | Mexican lovegrass. Collected with other maritime grasses at Linnton by Nelson in 1915, and in Gresham by Towne and Purnell in 1950 (OSC; Nelson 1916, 1917, 1919a; Hitchcock et al. 1955-1969). Nelson (1917) indicated that it did not survive the winter. | Exotic, rare. Introduced 1900-1924. In our area known only from Troutdale (*Wilson*) and a farm near Canby (*McReynolds, 1990*, OSC), the latter somewhat beyond our limits. |
| *Eragrostis pectinacea* var. *pectinacea* | Tufted lovegrass. Reported from a sand bar at Hayden Island (Nelson 1920a, as *E. caroliniana*). | Exotic, rare. Introduced 1900-1924. In our area known only from Tomahawk Island (*Confer, 1987*, OSC). Native to California, thriving on disturbed sites. |

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| *Eragrostis pilosa* [*Eragrostis multicaulis*] | Indian lovegrass. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1907 (WTU), presumably the basis for the report from ballast in Hitchcock et al. (1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Eriochloa villosa* | Hairy cupgrass. Not listed by Gorman or Nelson. Reported from ballast "near Portland" (Hitchcock 1950; Hitchcock et al. 1955-1969) but without collection data. Presumably collected at Albina or Linnton by Suksdorf, Nelson, or Sheldon, before 1925. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Festuca californica* | California fescue. Not listed by Gorman or Nelson. Collected "near Portland" by Howell in 1886, and on the Tualatin Plains but without date or collector (OSC). | Native, rare. No recent reports from our area. A specimen with this name from Cooper Mountain (*Kral, 1998*, HPSU) is incomplete and clearly not *F. californica*. |
| *Festuca idahoensis* ssp. *idahoensis* | Roemer's fescue. Not listed by Gorman or Nelson. | Native, rare. In our area known only from upland prairie at Cooper Mountain (*Kral, 1998*, HPSU; Wilson & Kral 1999) and Smith and Bybee Lakes (*Gaddis, 2008*, HPSU). These specimens have sometimes been reported as *F. idahoensis* ssp. *roemeri* (= *F. roemeri*) and need critical study. The latter was reported from St. Helens (Christy and Alverson 2001; Pierce 2003), beyond our limits. |
| *Festuca occidentalis* | Western Fescue. Not listed by Gorman or Nelson. Collected several times at Oregon City, Portland, and Sauvie Island by Henderson, Thomas Howell, Vasey, and Thompson between 1885 and 1928 (OSC, REED, WTU). Reed College (Davies 1938). | Native, rare. Known in our region only from dry coniferous forest at Cooper Mountain (*Kral, 1998*, HPSU), Mt. Talbert (*Kimpo*), Forest Park (*Christy, 2008*), and St. Helens (Christy and Alverson 2001), the last beyond our limits. |
| *Festuca rubra* ssp. *fallax* [*Festuca rubra* ssp. *commutata*] | Chewings fescue. Not listed by Gorman or Nelson. First collected near our area in Clackamas County in 1953. | Exotic. Introduced 1925-1949. Common in our area on disturbed sites, and usually a major component of commercial lawn seed mix. Troutdale, Kelley Point Park (*Wilson,* OFP). |
| *Festuca rubra* ssp. *rubra* [*Festuca rubra* var. *rubra*] | Red fescue. Reported from ballast at Linnton, as "perhaps introduced but undoubtedly indigenous in many places (Nelson 1917)." | Native. Well distributed around our area in lawns and commonly naturalized on disturbed soils. Most material was probably introduced in commercial seed mixes. Green Mountain (*Habegger, 1998*, WTU) and several other remnants of wet praire (*Gaddis*). |
| *Festuca subulata* | Bearded fescue. Not listed by Gorman or Nelson. Collected around Portland by Henderson in 1882, on Sauvie Island by Thomas Howell and Henderson in 1886 and 1887, at Macleay Park and Mt. Scott by Sheldon in 1902 and 1903 (OSC, REED). Reed College (Van Dersal 1929; Davies 1938). | Native, rare. In our area known only from near Keller Woods (*Alverson, 1990*). |
| *Festuca subuliflora* | Crinkle-awn fescue. Not listed by Gorman. Collected at Lake Grove by Nelson in 1916 (OSC). | Native, rare. In our area known only from Mill Creek in Clackamas County. |
| *Glyceria borealis* | **[*Panicularia borealis*]. Slender manna grass. Slender aquatic perennial in very wet ground and shallow ponds around Oswego. May-July.** | Native, rare. In our area known only from Multnomah Channel, Burlington Bottoms (*Christy, 1989*), Killin Wetland (*Christy, 1991*), and NE 78$^{th}$ and Andreson in Clark County (*Gaddis, 1996*). |

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| *Glyceria fluitans* | Water mannagrass. Not listed by Gorman or Nelson. Collected by Thomas Howell on Sauvie Island in 1887, and by Leiberg near Wapato Lake in 1882, the latter beyond our limits (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Glyceria grandis* | **[*Panicularia americana*]. Tall manna grass. Rare in wet places. South Portland. June-August.** Collected at the Car Shops in East Portland by Henderson in 1883 (REED). | Native. Occasional in our area. Beaverton (*Alverson, 1987*, OSC), Multnomah Channel, Coffee Lake, Oaks Bottom, and Springwater Corridor Trail near SE 115$^{th}$ (*Marttala*). More common than in Gorman's day, presumably because of better documentation. |
| *Glyceria leptostachya* | Davy mannagrass. Not listed by Gorman or Nelson. Collected by Henderson at Gaston and on the Sandy River as early as 1882, and by Trainer at Scappoose in 1964 (OSC), at or just beyond our limits. | Native. Occasional in our area but probably overlooked. Tigard and Beaverton (*Alverson, 1987*, OSC), where associated with constructed wetlands. |
| *Glyceria occidentalis* | Northwestern mannagrass. Not listed by Gorman or Nelson. Collected at Wapato Lake by Henderson in 1882 (OSC), beyond our limits. | Native. Present at many sites in our area in Clark County (*Gaddis*), but no recent reports from around Portland. Green Mountain (*Habegger, 1998*, WTU). |
| *Glyceria striata* [*Glyceria elata*] | **[*Panicularia nervata*]. Nerved manna grass. Tall aquatic perennial, infrequent in wet places and on stream banks around Oswego. May-August.** Reed College (Van Dersal 1929, as *Panicularia elata*; Davies 1938). | Native. Occasional to common in wooded wetlands and riparian areas throughout our area. More frequent on the W side of our area. More common than in Gorman's day, presumably because of better documentation. |
| *Hierochloe occidentalis* | **[*Savastana macrophylla*]. Large vanilla grass. Infrequent in open woods around Portland. April-June.** Collected on Sauvie Island by Thomas Howell in 1883, and in hills near Sauvie Island by Henderson in 1885 (OSC, REED). | Native, rare historically and rare today. Forest Park along Wildwood Trail SW of Firelane 7 (*Gaddis, 2008*). |
| *Holcus lanatus* | **Mesquite** [Gorman], velvet grass**. Downy perennial in fields, old meadows, and waste places around Portland. Naturalized from Europe. June, July.** Collected repeatedly in our area as early as 1882 (OSC, WTU). On ballast at Linnton (Nelson 1917), where "one of our commonest grasses." At Reed College and "abundant in and around Portland" (Van Dersal 1929, as *Notholcus lanatus*; Davies 1938). | Exotic. Introduced 1875-1899. Ubiquitous in mesic meadows and waste areas throughout our area. Problematic in remnant prairies, especially in areas with deeper soils. |
| *Holcus mollis* | Creeping velvet grass. Not listed by Gorman or Nelson. Historical voucher specimens not found, but known from the Willamette Valley (Marion County) since 1921. Collected Molalla by Crandal in 1946, and at Beaverton by Wagner in 1976 (OSC, HPSU), the former somewhat beyond our limits. | Exotic. Introduced 1925-1949. Occasional in our area but probably overlooked. Bonny Slope (*Christy, 2005*), Wapato Lake (*Merrifield*, OFP), and Molalla (*Carrithers, 2001*, OSC), the last two beyond our limits. |
| *Hordeum brachyantherum* | **[*Hordeum nodosum*]. Meadow barley. Infrequent in moist ground. Columbia Slough. Evidently a perennial here. April-June.** Collected in Portland by Henderson in 1886 (OSC). | Native. Occasional to locally common throughout our area. Powell Butte, Oaks Bottom, Sauvie Island, Burlilngton Bottoms, Ridgefield NWR, Tualatin River NWR (*Maffit & Olson*, OFP). Probably more common now than in Gorman's day because of its widespread use in erosion control and restoration or enhancement work. It tolerates a wide variety of hydrologic regimes. |
| *Hordeum depressum* | Dwarf barley. Not listed by Gorman or Nelson. Collected near Portland but undated, probably in the 1880s (OSC). | Native, rare. No recent reports from our area. |

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| *Hordeum jubatum* | Foxtail barley. Collected on ballast at Lower Albina by Sheldon in 1903, on Hayden Island and on ballast at Linnton by Nelson in 1915 (OSC), where "probably introduced, but indigenous in other localities" (Nelson 1917). | Native. Common in our area on roadsides and other dry sites with thin soils. |
| *Hordeum marinum* ssp. *gussonianum* [*Hordeum geniculatum*] | Mediterranean barley. Collected on ballast at Portland by Sheldon in 1902, and at Linnton by Nelson in 1915 (OSC; Nelson 1917, as *Hordeum maritimum*). | Exotic. Introduced 1875-1899. Common in our area on roadsides and in dry sites. |
| *Hordeum murinum* ssp. *glaucum* [*Hordeum glaucum*] | Smooth barley. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. In our area known only from the N end of Sauvie Island (Marttala et al. 2002), just beyond our limits. Mostly E of the Cascades. |
| *Hordeum murinum* ssp*. leporinum* [*Hordeum leporinum*] | Leporinum barley. Collected on ballast at Lower Albina by Sheldon in 1902, and at Linnton by Nelson in 1915 or 1916, where "very common" (OSC; Nelson 1917). | Exotic. Introduced 1875-1899. Common in our area on dry sites. |
| *Hordeum pusillum* | **Little barley. Small annual in waste places. Lower Albina and East Portland. Probably introduced here from eastern Oregon. May-July.** | Native. Common in our area in dry waste areas. |
| *Imperata cylindrica* | Cogongrass. Reported from ballast at Portland (Hitchcock 1950; Hitchcock et al. 1955-1969, where "probably not established anywhere in our area"). Presumably collected at Lower Albina or Linnton by Suksdorf, Sheldon, or Nelson before 1925. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. Native to Asia and an invasive pest in warmer parts of the world. An ornamental cultivar is widely available and potentially invasive. |
| *Koeleria macrantha* [*Koeleria cristata*] | **Crested Koeler grass. Tufted perennial on sandy river banks. Oswego. May-July.** Collected at Portland and Milwaukie by Thomas Howell in 1877, and at Forest Grove by Thompson in 1926 (OSC, WTU), the latter somewhat beyond our limits. | Native, rare. In our area known only from Cooper Mountain (*Kral, 1998*, HPSU), where sparse, presumably because of fire suppression. |
| *Leersia oryzoides* | Rice cutgrass. Not listed by Gorman or Nelson. | Native. Occasional in wetlands in our area but more common in less disturbed sites around the periphery. Sauvie Island, Ridgefield NWR (*Christy, 1989*), Peach Cove Fen (*Christy 1996*), Killin Wetland (*Christy, 1991*), Smith and Bybee Lakes, Multnomah Channel, Hooten Wetland. |
| *Leptochloa fusca* ssp. *fascicularis* [*Leptochloa fascicularis* in part] | Loose-flowered sprangletop. Not listed by Gorman or Nelson. Collected at Hayden Island and Albina by Thompson in 1927 (WTU). | Exotic, rare. Introduced 1925-1949. No recent reports from our area. |
| *Leptochloa fusca* ssp. *uninervia* [*Leptochloa fascicularis* in part] | Mexican sprangletop. Not listed by Gorman or Nelson. Collected on railroad ballast in North Portland by Henderson in 1887 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Leymus cinereus* [*Elymus cinereus*] | **[*Elymus condensatus*]. Smooth lyme grass. Tall, densely tufted perennial, not uncommon in moist bottom land. Columbia Slough. May-August.** Collected at Albina by Suksdorf in 1909 (WTU). | Native, rare. No recent reports from our area. Gorman presumably was referring to *Leymus cinereus*, which in contrast to *L. condensatus* was more likely to have occurred on bottomlands and would have fit with other species from our area that are more common E of the Cascades. *L. cinereus* is very similar to *L. condensatus* and was lumped with it in earlier floras (Cronquist et al. 1977). |

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| *Leymus mollis* | American dunegrass. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1916 (WTU). | Native, rare. No recent reports from our area. This species is strictly coastal, and it may have been introduced in sand ballast. |
| *Leymus triticoides* [*Elymus triticoides*] | Beardless wildrye. Not listed by Gorman or Nelson. Collected on Sauvie Island by Howell in 1885 (OSC, WTU). | Native, rare. No recent reports from our area. More common on alkaline soil E of the Cascades, and presumably rafted down the Columbia River. |
| *Lolium perenne* ssp. *multiflorum* [*Lolium multiflorum*] | Italian ryegrass. Collected several times around Portland between 1882 and 1934, and on ballast at Linnton, where "very common" (OSU, WTU; Nelson 1917). Reed College (Van Dersal 1929; Davies 1938). Collected intermittently in Portland since the 1930's (OSC). | Exotic. Introduced 1875-1899. Common in our area on disturbed sites, typically in vernally moist areas. Linnton (*Wilson, 1993*, OSC), N end of Sauvie Island (Marttala et al. 2002). Sometimes introduced from straw. |
| *Lolium perenne* ssp. *perenne* [*Lolium perenne*] | **Rye grass. Short lived perennial, common in fields, roadsides and waste places around Portland. Naturalized from Europe. April-July.** First planted at Fort Vancouver in 1831 (Taylor 1992). Collected at Lower Abina by Sheldon in 1902 and 1903, on ballast at Linnton, where "very common," and at East Portland by Thompson in 1926 (OSC, WTU; Nelson 1917). | Exotic. Introduced 1825-1849. Common in our area in wet disturbed areas. Frequently used in lawns and erosion control. Sometimes problematic in restoration sites but generally not as bad as *Alopecurus pratensis*, *Phalaris arundinacea*, and *Holcus lanatus*. |
| *Lolium rigidum* [*Lolium strictum*, *Lolium subulatum*] | Wimmera ryegrass. Not listed by Gorman or Nelson. Collected at Linnton by Suksdorf in 1916 (WTU), presumably the basis of the report in Hitchcock et al. (1955-1969) as a ballast waif "near Portland." | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Lolium temulentum* | **Bearded darnel. Tall annual, infrequent in fields and waste places, rather regarded as a weed by farmers. Naturalized from Europe. May-July.** Collected at Lacamas Lake by Henderson in 1884, and N of Gaston by Thompson in 1927 (REED, WTU), the latter beyond our limits. | Exotic. Introduced 1875-1899. Frequent in fields and other areas with open exposure. |
| *Melica bulbosa* | Oniongrass. Collected at Forest Grove by Henderson in 1884 (OSC), somewhat beyond our limits. | Native, rare. Reported from Forest Park (Houle 1996) but voucher specimens not found. To be sought in the metro area. |
| *Melica geyeri* | Geyer's oniongrass. Not listed by Gorman or Nelson. As above, collected at Forest Grove by Henderson in 1884 (REED). | Native, rare. To be sought in the metro area. |
| *Melica harfordii* | **Harford's melic grass. Infrequent on rocky slopes. Elk Rock and near Linnton. May-July.** Collected several times on "open hillsides," "wooded hillsides," and on "moist rocky ground" around Portland by Henderson, Vasey, and Gorman between 1882 and 1884 (OSC, WTU). | Native, rare historically and rare today. No recent reports from our area. |
| *Melica smithii* | Smith's melic grass. Not listed by Gorman or Nelson. | Native, rare. In our area known only from North Keys, Corral Creek. A drought-tolerant species found primarily E of the Cascades. |
| *Melica subulata* | **[*Festuca subulata*]. Wood fescue. Moist open woods. Macleay Park and St. Helens Road. May-July.** Collected at Portland by Henderson in 1882 and N of Tonquin by Thompson in 1927 (OSC, WTU). Reed College (Van Dersal 1929; Davies 1938). | Native. Common but never abundant in moist woods throughout our area. Reed College, Berry Botanic Garden, Powell Butte, Camassia Preserve (*Trask & Abrams, 2001*, HPSU). |
| *Muhlenbergia richardsonis* | Mat muhly. Collected on Hayden Island by Nelson in 1920 (OSC; Nelson 1921, as *M. squarrosa*). | Native, rare. No recent reports from our area. More common in montane wetlands, particularly E of the Cascades. |

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| *Nassella chilensis* | Chilean tussockgrass. Reported from ballast at Linnton (Nelson 1917, 1919a; Abrams and Ferris 1923-1960; Hitchcock et al. 1955-1969). Nelson (1917) indicated that it did not survive the winter. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. This is the only report of this species from North America. |
| *Panicum capillare* [*Panicum capillare* var. *occidentale*] | **Witch grass. In fields, yards and cultivated grounds around Portland. June-September.** Collected on Swan Island and in a "sandy marsh below Portland" by Henderson in 1881 and 1882, and N of the Forestry Building by Thompson in 1927 (OSC, WTU). | Exotic. Introduced 1875-1899. Occasional to common in waste places and abandoned farmland around our area. Frequent on dredge spoils in the Rivergate area. |
| *Panicum dichotomiflorum* | Fall panicum. Not listed by Gorman or Nelson. Historical voucher specimens not found. The earliest collection from elsewhere in the Willamette Valley is 1982 (OSC). | Exotic. Introduced 1975-1999. Occasional to locally common. Common in inner SE Portland, occasional in inner NE Portland. Common along the Interstate 205 bicycle path S of Foster Road, and S of the Springwater Corridor Trail and W to SE 92nd Avenue (*Marttala*). Salmon Creek Greenway, Clark County (*Zika 2002*, OSC). Native to E North America. |
| *Panicum miliaceum* ssp. *miliaceum* | Broomcorn millet. Not listed by Gorman or Nelson. Collected in sandy rail yards at Lower Albina by Nelson in 1920 (OSC). | Exotic. Introduced 1900-1924. Occasional in our area and probably originating from bird seed mixes. |
| *Parapholis incurva* | Curved sicklegrass. Collected on ballast at Linnton by Suksdorf and Nelson in 1916 (OSC, WTU; Nelson 1917 & 1919a, as *Lepturus incurvatus*), and reported from ballast at Albina (Hitchcock 1950; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Pascopyrum smithii* [*Agropyron smithii*] | **[*Agropyron occidentale*]. Western blue joint. Erect perennial in meadows and bottomlands about Columbia Slough. May-July.** | Native, rare. No recent reports from our area, and voucher specimens not found. Mostly E of the Cascades. |
| *Paspalum dilatatum* | Dallisgrass. Collected on sand ballast at Linnton by Nelson in 1915 (OSC; Nelson 1916, 1917, 1919a). Nelson (1917) indicated that it did not survive the first winter. | Exotic, rare. Introduced 1900-1924. Rare in our area and probably just a waif. In a roadside ditch at SW 185th and Highway 26 (*Kral, 2000*, OSC). |
| *Paspalum distichum* | **Knot grass. Moist sandy ground. Columbia Slough. This grass is native in the southeastern states to California, but introduced along the banks of the lower Columbia River in Oregon and Washington. July.** Collected on Sauvie Island (where "introduced at Howell's") by Thomas Howell and Henderson in 1885, along Columbia Slough by Sheldon in 1902, and on ballast at Linnton by Nelson in 1915 (HPSU, OSC). | Exotic. Introduced 1875-1899. Occasional in wetlands in our area. Sauvie Island, Sandy River Delta (*Zika & Christy, 1992*), Ridgefield NWR (*Christy, 1992*), Columbia Slough, Beggar's-tick Wildlife Refuge. |
| *Phalaris aquatica* | Bulbous canarygrass. Not listed by Gorman or Nelson. Collected on sand ballast by Nelson at Linnton in 1916, and at Scappoose by Walrod in 1957 (OSC), the latter slightly beyond our limits. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |

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| *Phalaris arundinacea* [*Phalaris arundinacea* var. *arundinacea*] | **Reed canary grass. Infrequent in moist ground on Swan Island etc. June, July. Collected on ballast at Linnton, and "not common in the Willamette Valley" (Nelson 1917).** Collected repeatedly on Sauvie Island and Swan Island by the Howells and Henderson between 1875 and 1894, at Linnton by Nelson in 1916, and at East Portland by Thompson in 1925 (OSC, WTU). | Exotic. Introduced 1850-1874. Ubiquitous in wetlands in our area. Breeding programs using exotic genotypes of this grass were already underway in Gorman and Nelson's day, but cultivars had not been widely distributed. Critical study may reveal whether the oldest voucher specimens represent native genotypes and collections made after 1920 represent exotic cultivars. Still grown commercially in the Willamette Valley. |
| *Phalaris brachystachys* | Shortspike canarygrass. Reported from ballast at Linnton (Nelson 1917, 1919a; Abrams and Ferris 1923-1960). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Phalaris canariensis* | **Canary grass. In waste places. Lower Albina and East Portland. Naturalized from Europe. May-July.** Collected at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Phalaris caroliniana* | Carolina canarygrass. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Phalaris minor* | Littleseed canarygrass. Collected on ballast at Linnton by Suksdorf in 1910 and by Nelson in 1916 (OSC, WTU; Nelson 1917, 1918a, 1919a; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Phalaris paradoxa* | Hood canarygrass. Collected on ballast at Linnton by Nelson in 1916 (OSC; Nelson 1917, 1919a, as *Phalaris paradoxa* var. *praemorsa*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Phleum arenarium* | Sand timothy. Not listed by Gorman or Nelson. Collected on ballast at Albina by Suksdorf in 1907 and 1910 (OSC, WTU; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Phleum paniculatum* | British timothy. Not listed by Gorman or Nelson. Reported from ballast "near Portland" (Hitchcock 1950; Hitchcock et al. 1955-1969) but without collection data. Presumably collected at Albina or Linnton by Suksdorf, Sheldon, or Nelson, before 1925. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Phleum pratense* | **Timothy. Common in fields and old meadows around Portland. Naturalized from Europe. Some American authors regard this species as native. It certainly is not so in Oregon and Washington. June, July.** First planted at Fort Vancouver in 1825 (Taylor 1992), and collected there by Gairdner in 1833-1835 (Hooker 1829-1840). Collected at Portland by Henderson in 1883, on ballast at Linnton by Nelson in 1910, where "a common escape," and at East Portland by Thompson in 1926 (OSC, WTU; Nelson 1917). | Exotic. Introduced 1825-1849. Common in old fields and meadows throughout our area, and widely planted for hay. Powell Butte. |
| *Phleum subulatum* | Italian timothy. Not listed by Gorman or Nelson. Reported from ballast "near Portland" (Hitchcock 1950; Hitchcock et al. 1955-1969) but without collection data. Presumably collected at Albina or Linnton by Suksdorf, Sheldon, or Nelson, before 1925. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |

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| *Phragmites australis* [*Phragmites communis*] | Common reed. Not listed by Gorman or Nelson. Collected on Sauvie Island by Joseph or Thomas Howell in 1877 (OSC; Rigg 1931). | Native, rare. No recent reports from our area, but present along the Columbia River below Longview and E of the Cascades. Both native and exotic genotypes are present in the Northwest (Saltonstall et al. 2004) and our populations need critical review. The Howell specimen was collected so early that it may have been the native ssp. *americanus*. |
| *Pleuropogon refractus* | **[*Pleuropogon refractum*]. Tufted side beard. Infrequent on moist banks. Balch Creek and Linnton Road. June-August.** Collected in and S of Portland by Henderson and Thomas Howell in 1881 and 1886, and at Macleay Park by Sheldon in 1902 (OSC, WTU). | Native, rare historically and rare today. No recent reports from our area. |
| *Poa annua* | **Annual blue grass. Common in fields and waste places around Portland. Naturalized from Europe. April-October.** Columbia River bottomlands (Appendix B). Collected on Sauvie Island by Thomas Howell in 1881, at Portland by Henderson in 1882, and on ballast at Linnton by Suksdorf in 1916, and "abundant on lawns" (OSC, WTU; Nelson 1917). | Exotic. Introduced 1875-1899. Very common throughout our area on moist, disturbed soils. |
| *Poa bulbosa* | Bulbous bluegrass. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Linn County as early as 1930 (OSC). | Exotic. Introduced 1925-1949. Widespread and locally common in our area on disturbed ground. |
| *Poa compressa* | **Canada blue grass. Common in old pastures, fields and waste places around Portland. Naturalized from Europe. May-September.** Collected at Portland by Henderson in 1883, at Lower Albina and Rocky Butte by Sheldon in 1903, on ballast at Linnton, and at Oswego Lake by Rose in 1936 (OSC, WTU; Nelson 1917). | Exotic. Introduced 1875-1899. Very common throughout our area. |
| *Poa howellii* | **Pale green spear grass. Densely tufted perennial on rocky slopes. Elk Rock and in open woods near Oswego. May-July.** Collected "north of Portland" by Thomas Howell in 1881, along Cornell Road by Henderson in 1883, in "hills about Albina" in 1884, and near Oregon City in 1885. Also collected on Willamette Heights by Sheldon in 1902, and at Oswego by Peck and Thompson in 1919 and 1928 (OSC, REED, WTU). | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). Henderson's 1883 specimen from Cornell Road (REED) contains some material close to *Poa kelloggii*, more typical of California and SW Oregon (Chambers 2006). Until identity of these forms is resolved, we include them here under *P. howellii*. |
| *Poa laxiflora* | Looseflower bluegrass. Not listed by Gorman or Nelson. Collected on Sauvie Island by Thomas Howell in 1886 (OSC, WTU). | Native, rare. No recent reports from our area. |
| *Poa nervosa* | **Smooth spear grass. Tall perennial, infrequent in open places and rocky slopes. Elk Rock etc. May-July.** Collected several times in our area from the lower Sandy River, Riverdale, and around Elk Rock between 1884 and 1926 (OSC). | Native, rare historically and rare today. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). |

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| *Poa palustris* | **[*Poa triflora*]. Fowl meadow grass. Common on moist slopes and in bottoms. Columbia Slough. June-August.** Columbia River bottomlands (Appendix B). Collected several times around our area between 1881 and 1938, and on ballast at Linnton where "should be regarded as introduced" (OSC, WTU; Nelson 1917). Reed College (Davies 1938). | Exotic. Introduced 1875-1899. Very common in our area in wetlands and moist riparian forest. |
| *Poa pratensis* | **Blue grass. Variable perennial and valuable forage grass. Common in fields, meadows and waste places everywhere. May-August.** Collected at Hillsboro and on the Tualatin Plains by Thomas Howell in 1880 and 1881, at Portland by Henderson in 1882, at Fulton by Sheldon in 1902, and on ballast at Linnton, where "a common escape" (OSC; Nelson 1917). | Exotic. Introduced 1875-1899. Very common in our region in seasonally wet prairie and moist meadows. |
| *Poa secunda* [*Poa secunda* ssp. *juncifolia*, *Poa secunda* ssp. *secunda, Poa gracillima, Poa sandbergii, Poa scabrella*] | **Slender spear grass. Densely tufted perennial, infrequent on rocky cliffs and slopes. Near Oswego. June-August. [*Poa multnomae*]. Multnomah blue grass. The type of this grass was collected by C.V. Piper in 1904 at Multnomah Falls, which is somewhat beyond our range, but the species undoubtedly extends into our limits. June-July. [*Poa alcea*]. Rock spear grass. Infrequent on rocky slopes. Elk Rock. Type collected here by C.V. Piper June 3, 1904. May-July.** Collected on "dry bluffs" at Willamette Falls and Lacamas Lake by Henderson between 1883 and 1885, at Elk Rock by Henderson, Piper, Suksdorf, and Nelson between 1884 and 1925, at Willamette Falls by Henderson in 1885, at Oswego Lake by Nelson in 1916, and on ballast at Linnton by Nelson and Suksdorf in 1916 (OSC, REED, US, UTC; Nelson 1917, 1918c, 1919a, as *P. alcea*; Hitchcock et al. (1955-1969). Piper (1905, as *P. alcea*; US - type) described it as "abundant" at Elk Rock. | Native, rare historically and rare today. Known only from St. Helens (Christy and Alverson 2001; Pierce 2003), slightly beyond our limits. Not relocated at Elk Rock (PPR 2004). The most common form on rocky outcrops and balds in our area was *Poa scabrella*. |
| *Poa trivialis* | Rough bluegrass. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902, at Linnton by Suksdorf in 1910, and at East Portland by Thompson in 1926 (OSC, WTU). | Exotic. Introduced 1875-1899. Well distributed in our area on moist, disturbed soils, particularly in riparian areas, including ash forest. |
| *Polypogon fugax* | **[*Polypogon littoralis*]. Water beard grass. Wet ground. Lower Albina and South Portland. May-August.** Collected at Lower Albina by Sheldon in 1902 and on sand ballast at Linnton by Nelson in 1916 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Specimens previously identified as *P. interruptus* were recently renamed *P. fugax*. |
| *Polypogon monspeliensis* | **Beard grass. Wet ground. North Portland, Lower Albina, Columbia Beach, Hayden Island, etc. Naturalized from Europe in the Atlantic states, but native in Oregon and Washington. May-August.** Collected on sand at Hayden Island by Nelson in 1915 (OSC), on ballast at Linnton, where "not infrequent" (Nelson 1917), and on Sauvie Island by Trainer in 1963 (OSC). | Exotic. Introduced 1875-1899. Occasional on wet, sandy soils. Rivergate area and Springwater Corridor Trail at SE 122nd (*Marttala*). Contrary to Gorman, it is now treated as exotic throughout North America. |

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| *Polypogon viridis* | Beardless rabbitsfoot grass. Reported from wet sand along the Columbia River at Hayden Island, opposite Vancouver (Nelson 1923b, as *Agrostis verticillata*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. Known to hybridize with species of *Agrostis*. Mostly E of the Cascades. |
| *Pseudoroegneria spicata* [*Agropyron spicatum*] | **Wheat bunchgrass. Ballast ground and waste places. Lower Albina. Densely tufted perennial, undoubtedly introduced here from east of the Cascade Mountains. May-July.** | Native, rare. No recent reports from our area. Mostly E of the Cascades. |
| *Puccinellia distans* | Weeping alkaligrass. Not listed by Gorman or Nelson. Reported from Portland (Abrams and Ferris 1923-1960) and "ballast-dumping grounds near Portland" (Hitchcock et al. 1955-1969), but without collection data. Presumably collected at Albina or Linnton by Suksdorf, Sheldon, or Nelson, before 1925. | Native, rare. No recent reports from our area, and historical voucher specimens not found. More common on moist alkaline soil E of the Cascades. |
| *Puccinellia festuciformis* | **[*Festuca hastii*]**. [Gorman did not cite a common name for this species]. **A ballast waif, on ballast and about railroad tracks, Lower Albina. Adventive from Europe. May-August.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. Native to Europe and Asia. |
| *Rostraria cristata* [*Koeleria phleoides*] | Mediterranean hairgrass. Not listed by Gorman or Nelson. Reported from Portland (Abrams and Ferris 1923-1960; Hitchcock 1950; Hitchcock et al. 1955-1969, "where apparently not persistent"). Presumably collected at Albina or Linnton by Suksdorf, Sheldon, or Nelson before 1925. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Schedonorus phoenix* [*Schedonorus arundinaceus*, *Festuca arundinacea*] | Tall fescue. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but first collected in Oregon (Benton County) in 1955 (OSC). | Exotic. Introduced 1950-1974. Ubiquitous in our area. A major grass seed crop and planted in lawns and pastures throughout the Willamette Valley. Very problematic in management and restoration of natural areas. |
| *Schedonorus pratensis* [*Festuca pratensis*] | **[*Festuca elatior*]. Meadow fescue. Common in fields, vacant lots and waste places around Portland. Naturalized from Europe. June-August.** Collected at Portland by Henderson in 1882, and at Willamette Heights by Sheldon in 1902 (OSC, REED). | Exotic. Introduced 1875-1899. Common throughout our area. |
| *Secale cereale* | Cereal rye. First planted at Fort Vancouver in 1841 (Taylor 1992). Collected in rail yards at Lower Albina by Nelson in 1919, where "a frequent escape," and on Sauvie Island by Trainer in 1963 (OSC; Nelson 1920a). | Exotic. Introduced 1825-1849. Occasional along roadsides where it germinates from straw or cover crop seed. Usually persisting only a few years. |
| *Setaria italica* | Foxtail bristlegrass. Not listed by Gorman or Nelson. Collected on ballast at Albina by Suksdorf in 1899 and 1900 (WS, WTU; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Setaria parviflora* [*Setaria geniculata*] | Marsh bristlegrass. Collected on sand ballast at Linnton by Nelson in 1916 (OSC; Nelson 1917, 1919a, as *Setaria imberbis*; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Setaria verticillata* | Hooked bristlegrass. Not listed by Gorman or Nelson. First known in Oregon from Wasco County in 1956 (OSC). | Exotic, rare. Introduced 1975-1999. Known from one recent sighting in SE Portland. Mostly E of the Cascades, and much less common than *S. viridis*. |

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| *Setaria viridis* var. *major* | Green bristlegrass. Not listed by Gorman or Nelson, but probably included in the concept of *S. viridis* var. *viridis*. Collected on sandy fill in railroad yards at Lower Albina by Nelson in 1920 (OSC). | Exotic. Introduced 1900-1924. Current distribution is uncertain because of inclusion with *S. viridis* var. *viridis.* |
| *Setaria viridis* var. *viridis* | **[*Chaetochloa viridis*]. Green foxtail. In yards and fields around Portland. Naturalized from Europe. June, August.** Collected along railroad tracks at Whitwood Court by Nelson in 1915 (OSC), and at Albina by Thompson in 1927 (WTU). | Exotic. Introduced 1875-1899. Occasional to common in our area. Springwater Corridor Trail and elsewhere on the E side of Portland. |
| *Sorghum halepense* | Johnson grass. Not listed by Gorman or Nelson. Collected on Hayden Island by Thompson in 1927, and on Welch Road near Gresham by Sprawls in 1961 (OSC, WTU). | Exotic, rare. Introduced 1925-1949. Infrequent on agricultural waste areas. |
| *Sporobolus cryptandrus* | Sand dropseed. Muddy shore of Hayden Island, opposite Vancouver (OSC; Nelson 1918a). | Native, rare. No recent reports from our area. More common E of the Cascades. |
| *Sporobolus indicus* [*Sporobolus poiretii*] | Smut grass. Not listed by Gorman or Nelson. Reported as a ballast waif "near Portland" by Hitchcock et al. (1955-1969). Presumably from Albina or Linnton, collected by Suksdorf, Sheldon, or Nelson. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Taeniatherum caput-medusae* [*Elymus caput-medusae*] | Medusahead. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but collected in Douglas County by Howell as early as 1887, and in the Willamette Valley (Lane County) by Nelson in 1915 (OSC). | Exotic. Introduced 1900-1924. Occasional in our area on dry sites and roadsides. |
| *Thinopyrum intermedium* [*Thinopyrum intermedium* ssp. *barbulatum, Agropyron intermedium*] | Intermediate wheatgrass. Collected on ballast at Linnton by Nelson in 1915 (OSC; Nelson 1916, 1917, 1919a, 1921, as *Agropyron glaucum*; Abrams and Ferris 1923-1960, as *Agropyron glaucum*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Thinopyrum junceiforme* [*Thinopyrum junceum, Agropyron junceum* ] | Thickspike wheatgrass. Collected on ballast at Linnton by Gorman in 1919 (OSC; Nelson 1916, 1917, 1919a, as *Agropyron junceum*; Abrams and Ferris 1923-1960, as *Agropyron junceum*; Hitchcock et al. 1955-1969, as *Agropyron junceum*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Thinopyrum pycnanthum* [*Agropyron pungens*] | Tick quackgrass. Reported from ballast at Linnton (Nelson 1917, 1919a; Abrams and Ferris 1923-1960; Hitchcock et al. 1955-1969). Nelson thought this was a first report for the state. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Torreyochloa pallida* var. *pauciflora* [*Puccinellia pauciflora*] | **[*Panicularia pauciflora*]. Smooth manna grass. Smooth aquatic perennial, not rare in shallow ponds around Oswego. May-August.** Collected a number of times on Sauvie Island and in "marshes near Portland and Oregon City" by Howell, Henderson, and Constance & Beetle between 1875 and 1940 (OSC, REED, UTC, WTU). | Native, rare. In our area known only from Camassia Preserve (*Trask & Abrams, 2001*, HPSU). |
| *Triplasis purpurea* | Purple sandgrass. Not listed by Gorman or Nelson. First collected in W Washington in 1990 (WTU). | Exotic, rare. Introduced 1975-1999. In our area known only from the sandy shore of Hayden Island (*Zika, 2002*, WTU) and the N end of Sauvie Island (*Maxwell, 1995*, OSC), the latter slightly beyond our limits. |

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| *Trisetum canescens* | **Hoary false oat. Occurs sparingly on rocky slopes about Elk Rock and along Willamette River near Oswego. May-August.** Collected on Sauvie Island by Thomas Howell in 1882 (UTC), in Portland by Henderson and Vasey in 1882 (OSC), and in a "waste place" in East Portland by Thompson in 1926 (WTU). | Native, rare historically. Common in dry coniferous forest and rocky outcrops. Elk Rock, Cooper Mountain, Camassia Preserve. Gorman indicated that *T. canescens* was less weedy than *T. cernuum*, but Thompson's specimen from East Portland indicates the opposite. Their concepts may have differed as *T. canescens* has sometimes been treated as a variety of *T. cernuum.* |
| *Trisetum cernuum* | **Narrow false oat. Along railroad tracks and in waste places, Lower Albina. Undoubtedly introduced here from eastern Oregon or Washington. June-September.** Collected on or near Mt. Scott by Sheldon and Thompson in 1903 and 1926 (OSC, WTU). | Native, rare. No recent reports from our area. |
| *Triticum aestivum* | Common wheat. First planted at Fort Vancouver in 1825 (Taylor 1992). On ballast at Linnton, and "a common escape" (Nelson 1917, as *Triticum vulgare*). Collected in rail yards at Lower Albina by Nelson in 1922 (OSC). | Exotic. Introduced 1825-1849. Commonly used as a cover crop on roadsides and restoration sites. Not known to persist beyond the first few years of establishment. |
| *Urochloa mutica* | Para grass. Reported from sand ballast at Linnton (Nelson 1916, 1917, 1919a, as *Panicum barbinode*). Nelson (1917) indicated that it did not survive its first winter. | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Vulpia bromoides* [*Festuca bromoides*] | Brome fescue. Not listed by Gorman or Nelson. Collected several times around our area between 1902 and 1925 (OSC, WTU). | Exotic. Introduced 1875-1899. Common along dry roadsides and waste areas. Camassia Preserve, Cooper Mountain, N end of Sauvie Island (Marttala et al. 2002). Often with other introduced annual bromes. |
| *Vulpia microstachys* [*Festuca microstachys*] | **Western fescue. Slender annual in open woods. Macleay Park and St. Helens Road. May-August.** Collected at East Portland by Henderson in 1884 (OSC), and on top of a rocky cliff N of Tonquin by Thompson in 1927 (OSC). | Native, rare. Troutdale Industrial Area (*Wilson & Brainerd*, OFP). Gorman's common name of "western fescue" is not to be confused with *Festuca occidentalis*. |
| *Vulpia myuros* [*Festuca myuros*] | **Squirrel tail fescue. Common in fields and waste places around Portland. Naturalized from Europe. May-July.** Collected on Hayden Island by Scouler in 1825 (Hooker 1829-1840, as *Festuca myurus*), at Portland by Henderson in 1882, and on ballast at Lower Albina and Linnton by Sheldon and Nelson, where "very common—appears as if introduced" (OSC; Nelson 1917, as *Festuca megalura*). | Exotic. Introduced 1825-1849. Common in waste places throughout our area. |
| *Vulpia octoflora* [*Festuca octoflora*] | **Slender fescue. Slender tufted annual in open woods. Macleay Park and St. Helens Road. May-July.** | Native, rare. Wapato conservation easement (*Merrifield*, OFP). Native to upland prairies. |
| *Zea mays* | Indian corn, maize. Not listed by Gorman or Nelson. First planted at Fort Vancouver in 1825 (Taylor 1992). | Exotic, rare. Introduced 1825-1849. Occasional in our area. West Slope (*Christy, 2005, 2008*). Originating from bird feeding stations and planted by birds and squirrels. Plants are not known to set seed or survive the winter. |

| **Polemoniaceae** | | |
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| *Collomia grandiflora* | **Large flowered collomia. Open woods. Near Oswego, Cornell Road, etc. June, July.** Collected several times in Portland, Oregon City, Oswego, and Hillsboro between 1879 and 1956 (OSC). Van Dersal (1929) considered it "rare in our limits." Seen along Springwater Corridor Trail at SE 130th by Marttala in the 1960's. | Native. Occasional in open oak woodlands with relatively undisturbed forb layers. Cooper Mountain (*Kral, 1997, 2000*, HPSU), Clackamas River Island (Moehler 2005), upland prairie near Fifth Plain wetlands (*Gaddis*). |
| *Collomia heterophylla* | **Thin leaved collomia. Open woods. Macleay Park** [Gorman and Sheldon 1905]**, Cornell Road, St. Helens Road, etc. April, May.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840; Hitchcock et al. 1955-1969), and several times around Portland between 1879 and 1958 (HPSU, OSC). Soth (1933) called it a weed in her garden. Seen on Powell Butte by Marttala in the 1960's. | Native, rare. Infrequent in dry conifer forest, oak woodland, and prairies. Cooper Mountain (*Kral, 1997*, HPSU), Forest Park (*Christy 2008*). St. Helens (Christy and Alverson 2001; Pierce 2003), and further up the Sandy River (*Marttala*), both beyond our limits. |
| *Gilia capitata* | **Blue gilia, narrow-leaved gilia. Open places. Macleay Park** [Gorman and Sheldon 1905]**, Cornell Road, St. Helens Road, etc. May, June.** Collected by Douglas near Fort Vancouver in 1825-1827 (Hitchcock et al. 1955-1969), several times around Portland between 1888 and 1940, and on ballast at Linnton, where "very common" (HPSU, OSC, WTU; Nelson 1917). Reed College, where "common" (Van Dersal 1929). Seen on Kelly Butte by Marttala in the 1960's. | Native. Occasional in our area. St. Johns (*Kral, 1997*, HPSU), Cooper Mountain (*Kral, 1997*, HPSU), Springwater Corridor Trail near Beggar's-tick Wildlife Refuge (*Marttala*). More common further up the Sandy River drainage, beyond our limits. A commercial seed source from an ecotype on Cooper Mountain was developed several years ago, and has been used in restoration and enhancement projects throughout the region. |
| *Leptosiphon bicolor* [*Linanthus bicolor*] | **Slender gilia. Open grassy places. East Portland, South Portland, Willamette Falls, etc. May, June.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), at St. Helens by Joseph Howell in 1876, and several times around Portland by Drake and Henderson between 1884 and 1889 (OSC). | Native. Common and successful on disturbed soils in prairies and on rocky outcrops. Cooper Mt., Camassia Preserve. |
| *Microsteris gracilis* [*Phlox gracilis*] | **[*Gilia gracilis*]. Entire leaved gilia. Common in open grassy places everywhere around Portland. April, May.** Collected near Fort Vancover by Douglas in 1825-1827 (Hooker 1829-1840, as *Collomia gracilis*), on the Tualatin Plains and the banks of the Willamette in Portland by Henderson in 1881-1882, and on Willamette Heights by Sheldon in 1902 (OSC). | Native, rare. In our area known only from Clear Creek and the Lovejoy property (*Kimpo*). |
| *Navarretia intertexta* | **Spiny gilia. Wet places. About Oswego and South Portland. May-July.** Collected at Willamette Falls by Howell and Sheldon in 1902 (OSC). | Native, rare. In our area known only from St. Helens (*Christy, 2004*) and near Banks, both somewhat beyond our limits. Probably present in the local flora. |
| *Navarretia squarrosa* [*Gilia squarrosa*] | **Skunkweed. Common on roadsides and waste places about Portland. May-July.** Collected along roads in the Tualatin Plains by Henderson in 1882 (OSC). | Native. Common in our area on dry, disturbed soils. Rivergate, Clackamas and Tualatin River Floodplain. |
| *Navarretia tagetina* | Marigold pincushionplant. Not listed by Gorman or Nelson. | Native, rare. In our area known only from upland prairie on Cooper Mountain (Wilson & Kral 1999). Its distribution is not clear because of confusion with other species of *Navarretia*. |

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| *Phlox maculata* | **Wild sweet william. Stream banks and moist ground below Vancouver, etc. Native of the eastern states, but a garden escape here. June-September.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area outside of cultivation. A popular garden perennial since the 1730s, with as many as 800 named cultivars derived from either hybrids between *P. maculata* and *P. paniculata*, or from *P. paniculata* alone (Adams 2004). |
| *Phlox paniculata* | **Garden phlox. In grassy vacant lots and waste places. Corner of 17th and Irving Streets, corner of 20th and Overton Streets, Albina, etc. Native of eastern United States, now well established in the Willamette Valley opposite Harrisburg, but a garden escape here. June-September.** | Exotic, rare. Introduced 1875-1899. No recent reports from our area outside of cultivation. See note under *P. maculata* about cultivars. |
| **Polygonaceae** | | |
| *Eriogonum compositum* | **Wooly leaved eriogonum. Infrequent in dry, rocky places. Elk Rock. May-July.** Collected at Oregon City by Marsh between 1867 and 1890 (WTU). | Native, rare historically and rare today. In our area known only from Willamette Narrows. Not relocated at Elk Rock (PPR 2004). |
| *Eriogonum nudum* | Naked buckwheat. Not listed by Gorman or Nelson. Collected on sand bars along the Sandy River near Troutdale by Henderson in 1881 and by Flinn in 1915 (HPSU, OSC). | Native, rare. No recent reports from our area, but possibly just overlooked. |
| *Polygonum amphibium* var. *emersum* [*Persicaria amphibia, Polygonum coccineum*] | **[*Persicaria oregana*]. Western water knotweed. Not uncommon in wet ground. Lower Albina, Mocks Bottom, Columbia Slough, etc. June-August. [*Persicaria emersa*]. Swamp knotweed. In shallow water and wet ground. Elk Rock, etc. June-September.** Collected several times around our area between 1880 and 1927 (OSC, WTU). | Native. Occasional to locally abundant in ponds and sloughs on the Columbia and Willamette River floodplains. Columbia Slough, Smith and Bybee Lakes, Vancouver Lake lowlands, lower Salmon Creek in Clark County, Oaks Bottom, Burlington Bottoms, Tualatin River NWR (*Maffitt*). Stands at the edges of wetlands are often overrun by reed canary grass, so most occurrences that we see today are aquatic. |
| *Polygonum arenastrum* [*Polygonum aviculare* ssp. *depressum*] | Oval-leaf knotweed. Not listed by Gorman or Nelson. Historical specimens from our area not found, but known from further up the Sandy River since 1968 (OSC). | Exotic. Introduced 1950-1974. Near SE 48th and Stark Street (*Zika, 1995*, OSC), near Troutdale Airport (Wilson, 2002, OFP). Very similar to *P. aviculare* and undoubtedly overlooked and widespread (*Newhouse*). |
| *Polygonum aviculare* | **Knotgrass; doorweed. Common about door yards and waste places everywhere. Naturalized from Europe. May-October.** Collected several times in our area between 1880 and 1903, and on ballast at Linnton (OSC; Nelson 1917). | Exotic. Introduced 1875-1899. Very common in our area on gravel, cracked pavement, and compacted soils. Very similar to *P. arenastrum* and some reports are probably that species (*Newhouse*). |
| *Polygonum baldschuanicum* | Bukhara fleeceflower, lace vine, silver lace vine, Russian-vine, Chinese fleecevine. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 1950-1974. Bluffs above Oaks Park (*Brehm, 1968,* REED; Zika and Alverson 2005), and along SE 108th Street just N of Powell Boulevard (*Marttala, 2008*). |

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| *Polygonum* × *bohemicum* [*Fallopia* × *bohemica, Polygonum sachalinense* × *cuspidatum*] | Hybrid Japanese knotweed, Bohemian knotweed. Not listed by Gorman or Nelson. Historical voucher specmens from our area not found, but known from Linn County as early as 1957 (OSC). | Exotic. Introduced 1950-1974. An escaped ornamental, occasional in our area but its distribution is not clear because of confusion with its more common parent species *P. cuspidatum* and *P. sachalinense* (Zika and Jacobson 2003). Differentiated from the parent forms by its intermediate leaf size, leaf base, and hairs on the undersides of leaves. Known from several locations in the Columbia Slough, the Fanno and Tryon watersheds, and Scappoose (*Zika, 2003*, OSC). |
| *Polygonum convolvulus* var. *convolvulus* [*Fallopia convolvulus*] | **[*Bilderdykia convolvulus*]. Black bindweed. A troublesome weed, not uncommon in cultivated fields, gardens, and waste places around Portland. Naturalized from Europe. June-September.** Collected several times in our area between 1902 and 1934, and on ballast at Lower Albina and Linnton, where "common" (OSC, WTU; Nelson 1917). Reed College (Van Dersal 1929; Davies 1938). | Exotic. Introduced 1875-1899. Well distributed locally but not common, and most populations are small. Very problematic in several areas including Sellwood Bluffs and along Skyline Boulevard. It is sometimes mistaken for *Calystegia sepium*. |
| *Polygonum cuspidatum* [*Fallopia japonica*] | Japanese knotweed. Not listed by Gorman or Nelson. First collected in our area at Gresham by Sprowls in 1965 (OSC). Reed College (Davies 1938, as *P. sieboldii*), but not clear if planted or naturalized. | Exotic. Introduced 1950-1974. An escaped ornamental, well-distributed in our area but not as widespread as *P. sachalinense* or *P.* × *bohemicum*. Control methods have been successful and in most watersheds it can still be eliminated. |
| *Polygonum douglasii* ssp. *douglasii* | Douglas' knotweed. Not listed by Gorman or Nelson. Collected on or near Mt. Scott by Sheldon in 1902 (OSC). | Native, rare. In our area known only from the floodplain of Fifth Plain Creek in Clark County (*Zika, 2002*, WTU). |
| *Polygonum douglasii* ssp. *majus* [*Polygonum majus*] | Large knotweed. Not listed by Gorman or Nelson. Collected at Elk Rock by Henderson in 1884 (OSC). | Native, rare. No recent reports from our area, but possibly just overlooked. |
| *Polygonum douglasii* ssp. *nuttallii* [*Polygonum nuttallii*] | Nuttall's knotweed. Not listed by Gorman or Nelson. Collected at St. Helens by Thomas Howell in 1882 and 1883, slightly beyond our limits (OSC). | Native, rare. In our area known only from the N end of Sauvie Island (Marttala et al. 2002). |
| *Polygonum douglasii* ssp. *spergulariiforme* [*Polygonum spergulariaeforme*] | **Spurry knotweed. Infrequent in sandy places. Lower Albina. May-October.** Collected several times at St. Helens by the Howells between 1876 and 1888, at Willamette Falls by Sheldon in 1903, and along E Stark Street by Flinn in 1909 (HPSU, OSC). | Native, rare historically and rare today. In our area known only from Camassia Preserve (Horvath 1993; *Trask & Abrams, 2001*, HPSU), Green Mountain (*Habegger, 1998*, WTU), and St. Helens (Pierce 2003), the last beyond our limits. |
| *Polygonum hydropiper* [*Persicaria hydropiper*] | **[*Persicaria hydropiper*]. Smartweed. Moist ground. Mocks Bottom, etc. June-September.** Collected several times in our area between 1881 and 1926 (OSC). On ballast at Linnton and "common" (Nelson 1917). Reed College (Davies 1938). | Exotic. Introduced 1875-1899. Common on wet soils throughout our area. |
| *Polygonum hydropiperoides* [*Persicaria hydropiperoides*] | **[*Persicaria hydropiperoides*]. Mild water pepper. Wet places. Oregon City. June-September.** Collected in marshes "below Portland" by Henderson in 1881 (OSC). | Native. Common on wet soils throughout our area. Sauvie Island, Beggar's-tick Wildlife Refuge, Peach Cove Fen, Burlington Bottoms, Clark County. |

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| *Polygonum lapathifolium* [*Persicaria lapathifolia*] | **[*Persicaria lapathifolia*]. Pale knotweed. Wet ground. University Park, etc. Naturalized from Europe. June-September. [*Persicaria lapathifolia nodosa*]. Wet places. Lower Albina. June-September.** Collected at Lower Albina by Sheldon in 1902, and along the Columbia River by Flinn in 1916 and Thompson in 1927 (HPSU, OSC, WTU). | Exotic. Introduced 1875-1899. Common on moist soils throughout our area. Camassia Preserve (*Trask & Abrams, 2001*, HPSU), N end of Sauvie Island (Marttala et al. 2002). |
| *Polygonum persicaria* [*Persicaria maculosa*] | **[*Persicaria persicaria*]. Lady's thumb. Moist ground. Lower Albina, Mocks Bottom, Columbia Slough, Oregon City. Naturalized from Europe. May-September.** Collected several times around our area between 1881 and 1935, including ballast at Linnton, where "abundant" (OSC, WTU; Nelson 1917). "Fairly common" and at Reed College (Van Dersal 1929; Davies 1938). | Exotic. Introduced 1875-1899. Common on moist soils throughout our area. Oaks Bottom, inner SE Portland (*Marttala*), and Clark County (*Gaddis*). |
| *Polygonum polygaloides* ssp. *kelloggii* | **Milkwort knotweed. Infrequent in depressions. Tualatin Plains. June-September.** Nelson (1918b) reported that Thomas Howell collected *P. polygaloides* ssp. *confertiflorum* at St. Helens, but the only voucher specimen from near our area was collected at St. Helens by an unknown botanist ("J.F.C.") in 1876, annotated as ssp. *kelloggii* in 2005 (OSC). | Native, rare historically and rare today. No recent reports from our area. Gorman did not indicate a subspecies. |
| *Polygonum polystachyum* [*Persicaria wallichii*] | Cultivated knotweed. Not listed by Gorman or Nelson. Collected at Beaver Creek by Hilands in 1959 (OSC, WTU), just beyond our limits. Known from Polk County as early as 1934 (OSC). | Exotic. Introduced 1925-1949. No confirmed reports from our area. A specimen from Multnomah Channel that was recently identified as this was later determined to be *P. sachalinense* (*Myers-Shenai*). |
| *Polygonum punctatum* [*Persicaria punctatum*] | **[*Persicaria punctata*]. Dotted smartweed. Wet places. University Park, etc. May-September.** Collected at University Park and Oregon City by Sheldon in 1902, and on Sauvie Island by Thompson in 1927 (OSC, WTU). | Native, rare. In our area known only from the N end of Sauvie Island (Marttala et al. 2002), and along Salmon Creek upstream from Mill Creek in Clark County (*Gaddis, 1996*). |
| *Polygonum ramosissimum* var. *prolificum* [*Polygonum ramosissimum*] | Bushy knotweed. Sandy soil in rail yards at Lower Albina (Nelson 1920a, as *P. prolificum*). | Native, rare. No recent reports from our area. |
| *Polygonum sachalinense* [*Fallopia sachalinensis*] | Giant knotweed. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Marion County as early as 1941 and from Coos County in 1937 (OSC). | Exotic. Introduced 1925-1949. An escaped ornamental, occasional to locally abundant in waste areas, roadsides, and riparian areas. Very invasive and difficult to eradicate. Known from several locations including Columbia Slough and SW Portland. |
| *Rumex acetosella* | **Sheep sorrel. A common weed in fields, roadsides, and waste places everywhere. Naturalized from Europe. May-September.** Collected at Portland by Henderson and Evans in 1880, 1884, and 1888. Also on ballast at Linnton, where "very abundant—a pernicious weed" (OSC; Nelson 1917). | Exotic. Introduced 1875-1899. Ubiquitous in our area on disturbed sites. |

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| *Rumex aquaticus* var. *fenestratus* [*Rumex occidentalis*] | **Western dock. Not uncommon in moist woods. Swan Island, Ross Island, etc. May-September.** Collected at Portland by Henderson in 1882, on ballast at Linnton by Nelson in 1915 or 1916, and in ditches near Vancouver by Thompson in 1930 (OSC, WTU; Nelson 1917). | Native. Occasional in wet areas throughout our area. Forest Park (Houle 1996, as *R. occidentalis*), Camassia Preserve, Burlington Bottoms, and formerly at Interlachen wetland. |
| *Rumex conglomeratus* | Clustered dock. Collected on ballast at Linnton by Nelson in 1915 or 1916, where "infrequent," and by Peck in 1926 (OSC; Nelson 1917). | Native. Occasional in disturbed wetlands. Magee et al. (1999) found it in 17 of 96 natural and constructed wetlands. N end of Sauvie Island (Marttala et al. 2002). More common than in Gorman's day, presumably because of better documentation. |
| *Rumex crispus* | **Curly dock. Common in yards, cultivated ground, and waste places about Portland. Naturalized from Europe. May-August.** Collected several times around our area between 1882 and 1927 (OSC, WTU). On ballast at Linnton, where "abundant" (Nelson 1917). | Exotic. Introduced 1875-1899. Common on disturbed sites throughout our area. |
| *Rumex dentatus* [*Rumex dentatus* ssp. *klotzschianus*] | Toothed dock. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. In our region, known only from Willamette Narrows. |
| *Rumex frutescens* [*Rumex cuneifolius*] | **[*Rumex maricola*]. Chile dock. On ballast grounds and waste places. Lower Albina. Adventive from Chile. May-August.** Reportedly collected on ballast "near Portland" by Suksdorf, and at Linnton by Nelson (Nelson 1917, 1921; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area, and voucher specimens not found. More common in SE Oregon. |
| *Rumex maritimus* | **[*Rumex maritimus fuegianus*]. Coast dock. On sand spits and sandy banks about Columbia Beach, head of Hayden Island, etc. Not uncommon. July-October.** Gorman must have added this species to the proof sheets for his *Muhlenbergia* paper, because it was not in the original manuscript. The specimens were collected by Flinn in 1915 (OSC). | Native, rare. No recent reports from our area. Introduced 1875-1899. |
| *Rumex obtusifolius* | **Broad leaved dock. On bottom lands. Mocks Bottom and about Vancouver. Naturalized from Europe. May-August.** Collected on Sauvie Island by Henderson in 1882, on ballast at Linnton by Nelson in 1915 or 1916, and at NW 27th and Upshur streets by Gorman in 1924 (OSC; Nelson 1917, where "common about dwellings"). | Exotic. Introduced 1875-1899. Common on disturbed sites throughout our area. |
| *Rumex salicifolius* | **Willow leaved dock. Infrequent on bottom lands near Milwaukie. May-September.** Collected on the Howell farm at Sauvie Island by Henderson in 1882 (OSC). | Native, rare historically and rare today. Infrequent in wet soil throughout our area. |
| *Rumex sanguineus* | Redvein dock. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but first collected in the Willamette Valley (Eugene) in 1905 (OSC). | Exotic, rare. Introduced 1900-1924. In our area known only from the N end of Sauvie Island (Marttala et al. 2002). More frequent farther S. |

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| **Polypodiaceae** [Some genera have been transferred to new families: *Asplenium*→Aspleniaceae; *Blechnum*→Blechnaceae; *Pteridium*→Dennstaedtiaceae; *Athyrium, Cystopteris, Dryopteris,* and *Polystichum, Woodsia*→Dryopteridaceae; *Adiantum, Cryptogramma,* and *Pentagramma* (*Pityrogramma*)→Pteridaceae] | | |
| *Polypodium amorphum* [*Polypodium montense*] | Irregular polypody. Not listed by Gorman or Nelson. Collected "west of Camas" by Thompson in 1932 (WTU). The nearest other locality is Multnomah Falls, where collected by Leach in 1927 (OSC). | Native, rare. No recent reports from our area. Separated from *P. hesperium* of the Cascades and Coast Range by its toothed, contorted stem scales and modified sporangia with glandular hairs. |
| *Polypodium glycyrrhiza* | **[*Polypodium occidentale*]. Licorice fern. Common on rocks, logs, maple and ash trees. Macleay Park and in moist gulches along St. Helens Road, Bybee Slough etc. June, July.** Collected numerous times around our area between 1876 and 1927 (OSC, WTU). | Native. Common throughout our area. |
| **Pontederiaceae** | | |
| *Heteranthera dubia* | Grassleaf mudplantain. Not listed by Gorman or Nelson. Collected on Sauvie Island by Howell in 1877 and 1886 (OSC; Peck 1961). | Native, rare. No recent reports from our area. |
| **Portulacaceae** | | |
| *Calandrinia ciliata* | **[*Calandrinia caulescens*]. Red maids. On moist sandy ground. At Gillihan's** [on] **Sauvie Island. April-May. Flowers sparingly in Portland.** Collected on Sauvie Island by Howell in 1885 and 1887, and at the mouth of the Willamette River by Henderson in 1885 (OSC, REED, US). | Native, rare. No recent reports from our area. |
| *Claytonia exigua* ssp. *glauca* [*Montia perfoliata* in part] | Serpentine springbeauty. Not listed by Gorman or Nelson. Collected at Forest Grove by Henderson in 1884, and 6 miles NW of Gaston by Peck in 1927 (OSC), both somewhat beyond our limits. | Native, rare. No recent reports from our area. Though Forest Grove and Gaston are outside of our area, this species should be sought closer to Portland. |
| *Claytonia parviflora* [*Montia perfoliata* in part] | **[*Montia parviflora*]. Indian lettuce. Low ground, particularly under deciduous trees. Mt. Tabor, Swan Island, etc. April-July.** Collected several times in our area between 1881 and 1919 (OSC). | Native. Common in moist forest throughout our area. |
| *Claytonia perfoliata* ssp. *perfoliata* [*Montia perfoliata*] | **Spanish lettuce. Low ground, particularly under deciduous trees, also on moist roadsides and sloping banks. Mt. Tabor, Barnes Road, etc. March-July.** Collected by Flinn at Portland (undated) and Rocky Butte in 1913 (HPSU). | Native. Common throughout our area in moist coniferous and deciduous forests. |
| *Claytonia rubra* [*Montia perfoliata* in part] | **[*Montia rubra*]. Ruby montia. Under coniferous trees. J. Moon place, Sauvie Island. April-July.** Collected on the Sandy River by Henderson in 1884, "opposite Oswego" by Howell in 1893, and on Rocky Butte by Flinn in 1910 (HPSU, OSC). | Native. Probably common in our area but distribution uncertain because of its long-time inclusion as a synonym of *Montia perfoliata* by Hitchcock et al. (1955-1969). |
| *Claytonia sibirica* [*Montia sibirica, Claytonia heterophylla, Montia sibirica* var. *heterophylla* ] | **Northern miner's lettuce, western spring beauty, wild lettuce. Common in moist ground and open woods around Portland. March-June.** Collected several times around our area between 1879 and 1936 (HPSU, OSC, REED; Gorman and Sheldon 1905). | Native. Common throughout our area in moist coniferous forests. |

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| *Montia dichotoma* | **Branching montia. Roadsides and open places. Along Barnes Road, Springville Road, etc. April-June.** Collected near the confluence of the Willamette and Columbia rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), at Gladstone by Thomas Howell in 1889, and at Forest Grove by Henderson or Thomas Howell in (OSC). | Native, rare. In our area known only from West Linn (*Newhouse, 2000*, OSC) and St. Helens (Pierce 2003), the latter beyond our limits. Easily overlooked. |
| *Montia diffusa* | **Spreading montia. Common on brulés** [burns] **about Portland, Oswego, etc. April-June.** Collected "a few miles above Fort Vancouver," presumably along the Columbia River, by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and at a number of sites from Sauvie Island to Rocky Butte and S to Oswego between 1887 and 1919 (HPSU, OSC, REED). | Native, rare. Documented in recent years from several sites in the East Buttes, primarily beyond our limits. |
| *Montia fontana* | **Blinking chickweed. In ditches and wet roadsides. East Portland, Fulton, etc. April-June. [*Montia hallii*]. Hall's montia. Wet ground. Gladstone and southward. This species** [*Montia hallii*] **apparently differs little from *M. fontana*. April-June.** Collected at numerous sites from Forest Grove to Troudale and S to Clackamas between 1882 and 1926 (OSC, REED, WTU). | Native. Occasional and easily overlooked because of early flowering and ephemeral habit. Seasonally wet prairies or on shallow soils over basalt. Forest Park (Houle 1996), Cooper Mountain (*Kral, 1998*, HPSU), Camassia Preserve (*Trask & Abrams, 2001*, HPSU), N end of Sauvie Island (Marttala et al. 2002), Tualatin River NWR (*Maffitt, 2007*), Springwater Corridor Trail (*Marttala*), and several sites in Clark County (*Gaddis*). |
| *Montia howellii* | **Howell's montia. On moist ground. Brooklyn, Fulton, Oswego, Sauvie Island, etc. Blooms early, frequently in February. March-May.** Collected several times on Sauvie Island, Swan Island, and at Portland by the Howells, Henderson, and Gorman between 1882 and 1902 (GH - type, MO, OSC, REED). | Native, rare. In our area known from Lake Oswego (*Newhouse, 1995*), West Linn (*Brainerd, 1996*), Ridgefield NWR (*Salstrom, 1992*, WTU), and near the N end of Sauvie Island (*Kaye, 1992*). An early seral species on moist soils, needing some disturbance to survive. Easily overlooked. |
| *Montia linearis* | **Linear leaved montia. Low ground, ditches, and roadsides around Portland. April-June.** Collected a number of times in our area between 1878 and 1903 (OSC). | Native. More or less common around our area. Forest Park (Houle 1996), Cooper Mountain (*Kral, 1998*, HPSU), Camassia Preserve (*Trask & Abrams, 2001*, HPSU), Clear Creek, Sauvie Island, Clackamas, Powell Boulevard, N end of Sauvie Island (Marttala et al. 2002), Clark County (*Gaddis*). |
| *Montia parvifolia* | **Western miner's lettuce. Moist rocky places. Elk Rock, etc. April-July.** Collected at Oregon City by Thomas Howell in 1899, at Willamette Falls by Sheldon in 1902, and at Oswego Lake by Gorman and Peck in 1919 (OSC). | Native. Occasional on vernally moist rocky ground. Elk Rock and along the Sandy River near the Stark Street Bridge. |
| *Portulaca oleracea* | **Purslane. Not uncommon in low ground, fields, waste places, sand bars, and stream banks. About Portland, Columbia Beach, Hayden Island, etc. June-September.** Collected several times in our area between 1884 and 1941 (HPSU, OSC). | Exotic. Introduced 1875-1899. A common garden and pavement weed throughout our area. |
| **Potamogetonaceae** | | |
| *Potamogeton amplifolius* | **Large leaved pond weed. In ponds along Columbia Slough. May, June.** | Native, rare. No recent reports from our area, and not relocated by Sytsma et al. (2004). |

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| *Potamogeton crispus* | Curly pondweed. Not listed by Gorman or Nelson. Not collected in our area until 1987, but known from Benton County as early as 1949 (OSC). | Exotic. Introduced 1925-1949. Common throughout our area in rivers, sloughs, and ponds. |
| *Potamogeton epihydrus* | Ribbonleaf pondweed. Not listed by Gorman or Nelson. Collected at Scappoose by Trainer in 1964 (OSC). | Native, rare. Uncommon in our area. Known from Burlington Bottoms (*Christy, 1989*, OSC) but otherwise rarely seen by Sytsma et al. (2004). |
| *Potamogeton foliosus* | **Leafy pondweed. In ponds, Columbia Slough. Infrequent. May, June.** | Native. Occasional in our area. Blue Lake, Cornell Road at SW 158th Street, Gordon Creek S of SW Davis Street, Tualatin River NWR (*Maffitt*), and Evergreen Street crossing at Rock Creek (all *Alverson, 1987*, OSC). |
| *Potamogeton illinoensis* | Illinois pondweed. Not listed by Gorman or Nelson. Collected on Sauvie Island by Howell in 1877 (OSC). | Native, rare. No recent reports from our area. |
| *Potamogeton natans* | **Floating pond weed. In ponds and sluggish streams. Columbia Slough. June, July.** Collected on Sauvie Island by Howell in 1886, and at Oswego by Gorman in 1919 (OSC). | Native. Occasional in ponds throughout our area. Sauvie Island, Peach Cove Fen. |
| *Potamogeton nodosus* | Long-leaf pondweed. Not listed by Gorman or Nelson. Collected at Oregon City by French in 1961 (OSC). | Native, rare. No recent reports from our area. |
| *Potamogeton pusillus* | Small pondweed. Not listed by Gorman or Nelson. Collected on Sauvie Island by Howell in 1877 (OSC). | Native, rare. In our area known only from Columbia Slough near NE 92nd. |
| *Potamogeton richardsonii* | **Richardson's pond weed. In Willamette River below Portland. Infrequent. May, June.** Collected in the Willamette River near Linnton by Thomas Howell in 1877, and in wetlands "near Portland" by Henderson in 1883 and 1886 (OSC). | Native, rare historically and rare today. No recent reports from our area. |
| *Potamogeton zosteriformis* | Flatstem pondweed. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Gordon Creek (*Alverson, 1987*, OSC) and in Columbia Slough at NE Cornfort Road (*O'Dell, 2003*, HPSU). |
| *Stuckenia pectinata* [*Potamogeton pectinatus*] | Sago pondweed. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Sauvie Island (*Halse, 1981*, OSC) and Burlington Bottoms (*Christy, 1989*, OSC), but no doubt present elsewhere. |
| **Primulaceae** | | |
| *Anagallis arvensis* | **Red pimpernel. On ballast grounds and waste places about Union Depot, Albina, etc. Naturalized from Eurasia. Not common.** Collected at Portland by Thomas Howell in 1882 and by Coyne in 1890, and on ballast at Albina, Lower Albina, and Linnton by Suksdorf, Sheldon, and Nelson between 1900 and 1915 or 1916, where "occasional" (OSC, WTU; Nelson 1917). | Exotic. Introduced 1875-1899. Widespread in our area on disturbed soils, but rarely abundant. |
| *Anagallis minima* [*Centunculus minimus*] | Chaffweed. Not listed by Gorman or Nelson. | Native, rare. Species of vernal pools, In our area known only from Arrowhead Creek. |

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| *Androsace filiformis* | Filiform rockjasmine. Not listed by Gorman or Nelson. Collected at "edge of water" near Forest Grove by Henderson and Marsh in 1887 (OSC, WTU; Howell 1897-1903), somewhat beyond our limits. | Native, rare. No recent reports from our area. |
| *Dodecatheon hendersonii* | **[*Dodecatheon latifolium*]. Henderson's shooting star. Glades. Gladstone Park. March-May.** Collected on "dry banks about Fort Vancouver" by Scouler, Gairdner, and Tolmie (Hooker 1829-1840; Hitchcock et al. 1955-1969), at Hillsboro and on the Tualatin Plains by Henderson in 1880 and 1884, at Forest Grove by Marsh between 1867 and 1890, and at Gaston by Henderson in 1887 (OSC, WTU; Hitchcock et al. 1955-1969). | Native, rare. In our area known only from Cooper Mountain. |
| *Dodecatheon pulchellum* ssp. *macrocarpum* [*Dodecatheon pulchellum* var. *pulchellum*] | **[*Dodecatheon alpinum*]. Western shooting star. In wet places opposite Oswego. April, May.** Collected "opposite Oswego" by Howell in 1893 (OSC). | Native, rare. No recent reports from our area. Formerly at West Linn but destroyed by construction of Interstate 205 (*Marttala*). Still at St. Helens (Christy and Alverson 2001; Pierce 2003) but beyond our limits. Gorman's "*D. alpinum*" was later renamed *D. pulchellum* ssp. *macrocarpum*. |
| *Lysimachia ciliata* [*Steironema ciliatum*] | **Fringed loosestrife. Moist woods. Ross Island, Swan Island, Sauvie Island, etc. May-July.** Collected at Elk Rock by Sheldon in 1905, and several times on Sauvie Island between 1926 and 1929 (OSC; Peck 1961). | Native, rare. In our area known only from Fifth Plain Prairie (*Gaddis*). A former occurrence W of Vancouver Mall was replaced by apartment complexes in the early 1990s (*Gaddis*). At Rooster Rock State Park and Scappoose Bay, both just beyond our limits (*Christy*). |
| *Lysimachia nummularia* | **Moneywort, creeping jenny, yellow myrtle. Common on low ground, moist places, and bottom land. St. Johns, Bybee Slough, Columbia Slough, Sauvie Island, etc. Naturalized from Europe. June-August.** First known from our area about 1904 (Appendix B), but not collected until 1926 (OSC). | Exotic. Introduced 1900-1924. Common in ash and willow bottoms along the Columbia and Willamette Rivers. Grown and sold locally as an ornamental for gardens and container pots, but it is very invasive. Multnomah Channel, Smith and Bybee Lakes, Burlington Bottoms, Sauvie Island. |
| *Lysimachia punctata* | Large yellow loosestrife. Not listed by Gorman or Nelson. Collected in a Portland garden as early as 1928 (*Gales*, OSC), and elsewhere in Portland (*Oester*, 1960, OSC) and Troutdale (*Howell*, undated, OSC). | Exotic, rare. Introduced 1925-1949. In our area currently known only from the Clackamas River at Milwaukie (*Chambers*, *1982*, HPSU). A popular perennial garden plant. |
| *Trientalis borealis* ssp. *latifolia* [*Trientalis latifolia*] | **Broad-leaved star-flower. Open woods. Macleay Park** [Gorman and Sheldon 1905]**, Mt. Tabor, Barnes Road, Cornell Road, etc. April-June.** Collected by Tolmie at Fort Vancouver in 1833-1841 (Hitchcock et al. 1955-1969), and a number of times around Portland between 1880 and 1926 (HPSU, OSC, WTU). Reed College (Van Dersal 1929). | Native. Common in coniferous woods throughout our area. Powell Butte, Leach Botanical Garden, Berry Botanic Garden. |
| **Pteridaceae** [these genera formerly in Polypodiaceae] | | |
| *Adiantum aleuticum* [*Adiantum pedatum*] | **Maidenhair fern, northern maidenhair. Common in moist shady places. Elk Rock, Barnes Road, Macleay Park** [Gorman and Sheldon 1905]**, Germantown Road etc. June-August.** Collected a number of times around Portland between 1887 and 1926 (OSC, WTU). | Native. Still common in seepy soils beyond areas dominated by *Hedera helix* and *H. hibernica,* such as Powell Butte, Forest Park (Houle 1996), and Elk Rock (*Marttala*). |

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| *Cryptogramma acrostichoides* [*Cryptogramma crispa* var. *acrostichoides*] | American rockbrake. Not listed by Gorman or Nelson. Collected on Rocky Butte by Flinn in 1915 (OSC). | Native, rare. No recent reports from our area. |
| *Pentagramma triangularis* [*Pityrogramma triangularis*] | **[*Ceropteris triangularis*]. Gold-back fern. Dry rocky ridges. Rocky Butte, Mt. Scott etc. May, June.** Collected at Willamette Falls, bluffs along the Willamette, Cornell Road, below Albina, near St. Helens, and at Tonquin between 1885 and 1928 (OSC, REED, WTU). Van Dersal (1929) also reported it from Scappoose. St. Helens and Scappooose are just beyond our limits. A site in West Linn was destroyed during construction of Interstate 205 in 1970-1975 (*Marttala*). | Native, rare. In our area known only from Camassia Preserve, Hardscrabble Quarry (Weber et al. 1999), and a retaining wall at SE 18th and Stark Street (*Marttala*). Reported from Forest Park (Houle 1996) but voucher specimen not found. Also present further up the Sandy River near Marmot, beyond our limits. |
| **Ranunculaceae** | | |
| *Actaea elata* [*Cimicifuga elata*] | **Western bugbane, tall snakeroot. In coniferous woods. Mt. Scott, Linnton, etc. May, June.** Collected several times on Sauvie Island, Barnes Heights, and at Portland by Howell, Gorman, Drake, and Henderson between 1882 and 1904 (HPSU, OSC). Macleay Park, where "rather rare" (Gorman and Sheldon 1905). | Native, rare. In our area known only from Powell Butte and one small population in Vancouver (*Gaddis*). It responds positively to thinning of overstory trees, as long as soil is not damaged by machinery. |
| *Actaea rubra* | **[*Actaea arguta*]. Western baneberry. In coniferous woods. Macleay Park, Council Crest, St. Helens Road, etc. May, June.** Collected at Portland by Henderson in 1880, and on Sauvie Island by Joseph Howell in 1882 (HPSU, OSC). Reed College (Van Dersal 1929; Davies 1938, as *A. spicata* var. *arguta*). | Native. Still common in our area in coniferous woods, but declining near the urban core because of the spread of *Hedera*. |
| *Anemone deltoidea* | **Deltoid anemone. In coniferous woods. Barnes Road, King's Heights, Portland Heights, etc. Not uncommon. April-June.** Collected repeatedly in the Portland area by the Howells, Sheldon, Allmen, Flinn, and Constance & Beetle between 1881 and 1940 (OSC, HPSU). | Native. Occasional throughout our area. Morand property (Maffitt et al. 2005-2008), Forest Park (Houle 1996; PPR 2004; *Christy*, *2008*), Clackamas River Bluffs (Christy et al. 2007). In Dodge Park and elsewhere further up the Sandy River, beyond our limits (*Poff & Marttala*). |
| *Anemone lyallii* | Lyall's anemone. Not listed by Gorman or Nelson. Collected 10 miles E of Portand by Henderson in 1885, and at East Portland by Thompson in 1926 (OSC, WTU). | Native, rare. In our area known only from the W side of the Sandy River, W of Dodge Park (*Poff & Marttala*). |
| *Anemone oregana* var. *oregana* | **Oregon windflower. In open woods. Near Milwaukie. April-June.** Collected along the Lacamas River by Blodgett in 1910, and near Estacada by Thompson in 1927, both probably beyond our limits (HPSU, OSC). | Native, rare. Infrequent in open woods, particularly in the E part of our area. |
| *Aquilegia formosa* | **Western columbine. Open woods. Council Crest, Rocky Butte, Sandy Boulevard, etc. Not uncommon. April-August.** Collected near Fort Vancouver by Douglas (Hooker 1829-1840, as *A. canadensis*), at Portland by Henderson, Gorman, and Drake between 1881 and 1891, and on Mt. Scott by Sheldon, undated (OSC). Macleay Park (Gorman and Sheldon 1905). Reed College (Van Dersal 1929). | Native. Occasional in open woods throughout our region. Forest Park (Houle 1996), Upper Packard Creek watershed near Clark County Fairgrounds (*Gaddis*). Many former sites that were once open woods are now either forested or dominated by *Rubus armeniacus* or other invasive species. |

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| *Clematis ligusticifolia* | **Western virgin's bower. On rocky banks. Near Oswego and along Tualatin River. May-August.** Collected on Sauvie Island by Joseph Howell in 1875, at Oregon City by Sukdsdorf in 1896, and along Columbia Slough and near Hayden Island by Moody and Thompson in 1925 (HPSU, OSC, WTU). Reed College (Davies 1938). | Native, rare. In our area known only from Camassia Preserve, Willamette Narrows, and Hardscrabble Quarry (Weber et al. 1999). Reported from Forest Park (Houle 1996), Tualatin Hills Nature Park, Tryon Creek State Park, and Pittock Bird Sanctuary, but unverified. Its distribution is uncertain because of confusion with the widespread exotic *C. vitalba*. |
| *Clematis vitalba* | Traveler's joy. Not listed by Gorman or Nelson. First collected in our area at Portland by Hall in 1956 (OSC). | Exotic. Introduced 1950-1974. Common throughout our area. An extremely troublesome escaped ornamental that invades forests, forming extensive mats over trees and shrubs. |
| *Consolida ajacis* [*Delphinium ajacis*] | **[*Delphinium consolida*]. Field larkspur. Infrequent in vacant lots and waste places. 20th and Overton Streets, and elsewhere about the city. Adventive from Europe. May-July.** Collected on the Oregon City Road by Henderson in 1885, and twice by Gorman in NW Portland in 1918 and 1926 (OSC, REED). Available commercially in the West since 1873 (Adams 2004). | Exotic, rare. Introduced 1875-1899. Seen in the 1980's near SE 86th and Foster, and on SE Belmont E of 6th Avenue in 2009 (*Marttala*). Gorman's specimens of *Delphinium consolida* (= *Consolida regalis*) were later renamed *C. ajacis*. |
| *Delphinium menziesii* | Menzies' larkspur. Not listed by Gorman or Nelson. Collected at Forest Grove by Thompson in 1926 (WTU), just beyond our limits. | Native, rare. Never reported from our area but close enough to be sought here. |
| *Delphinium nuttallii* ssp. *nuttallii* [*Delphinium nuttallii*] | **[*Delphinium oreganum*]. Oregon larkspur. On rocky ground. Oswego. May, June.** Collected at Albina by Drake in 1888, along the Willamette River below Portland by Sheldon in 1902, and on the Sandy River at the Columbia Highway bridge by Peck in 1925 (OSC, REED). | Native, rare. Present at Green Mountain (*Habegger*, *1998*, WTU) and along the Sandy River on the E side of the Stark Street Bridge (*Marttala*). Also in St. Helens, beyond our limits (Christy and Alverson 2001; Pierce 2003). |
| *Delphinium nuttallii* ssp. *ochroleucum* [*Delphinium leucophaeum*] | **White larkspur. On rocky slopes. Elk Rock and Oswego. May-June.** Collected at Oregon City and Willamette Falls by Henderson, Thomas Howell, Gorman, Sheldon, and Constance & Beetle between 1885 and 1940, at Elk Rock by Drake, Foster, and Gorman between 1889 and about 1910, at Mt. Tabor by Allmen sometime during the same period, near Milwaukie by Suksdorf in 1893, at Oswego Lake by Peck and Gorman in 1918 and 1919, and and on the Sandy River at the Columbia Highway bridge by Peck in 1925 (HPSU, OSC, US; Nelson 1920a; Hitchcock et al. 1955-1969). Common in the 1950s and 1960s along Highway 43 at Elk Rock, and along railroad tracks on the N side of Lake Oswego (*Stanley Anderson*, as reported by Jack Poff). | Native, rare. Elk Rock (*Marttala, 1976, 2004*), Camassia Preserve (Horvath 1993), Cooper Mountain (Wilson & Kral 1999), Peach Cove Fen (*Smyth*). Endemic to our area. |
| *Delphinium trolliifolium* | **Poison larkspur. On moist ground, fields, and under maple trees. East Portland, Mt. Tabor, etc. April-June.** Collected W of Camas by Thompson in 1932 (WTU). | Native. In our area known only from the E side of the Sandy River and N of the Stark Street Bridge, at the edge of our limits (*Marttala, 2004*). Farther S, most common in hardwood riparian forest (*Newhouse*). |
| *Enemion hallii* [*Isopyrum hallii*] | Willamette false rue anemone. Not listed by Gorman or Nelson. Collected on Dairy Creek by Henderson in 1881 (OSC), somewhat beyond our limits. | Native, rare. No recent reports from our area. |

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| *Myosurus minimus* | **[*Myosurus lepturus*]. Large mousetail. Fields, roadsides, and moist places. Swan Island, Ross Island, Oak Grove, etc. April-July.** Collected on Sauvie Island by the Howells in 1886 and 1893, along the Willamette River opposite Lake Oswego by Gorman in 1905, and at Gaston by Peck in 1927(HPSU, OSC), the last somewhat beyond our limits. | Native, rare. In our area known only from Green Mountain (*Gaddis*) and Tualatin River NWR (*Maffitt, Fishbein, 2007*). Suspected from remnant wet prairies along the Clackamas River near Clear Creek (*Kimpo*). |
| *Nigella damascena* | Devil in the bush. Not listed by Gorman or Nelson. Collected without locality or date by Allmen (presumably from Portland and prior to 1924), and from a garden by Crocker in 1903 (HPSU, REED). Seen at SE 50th Street between Powell and Division by Marttala in the late 1960s. | Exotic. Introduced 1900-1924. Occasional in our area. SE Oak Street between 6th and 7th Avenues, and SE Taylor W of 22nd Avenue (*Marttala, 2006*). Crocker's specimen indicates that *Nigella* had not yet naturalized. All of Allmen's specimens at HPSU are undated, but they were all in Flinn's herbarium prior to his death in 1924. |
| *Ranunculus acris* | Tall buttercup. Not listed by Gorman or Nelson. | Native. Occasional to common in our area. North Clackamas, Newell Canyon, Powell Butte, Elk Rock Island, Sherwood (*Peck, 1991*, LINF), Tualatin River NWR (*Maffitt*), Clark County. More common in the E part of the region. |
| *Ranunculus alismifolius* var. *alismifolius* [*Ranunculus alismaefolius*] | **[*Ranunculus bolanderi*]. Bolander's buttercup. Swales, wet places, and rill banks. Oswego Lake and near Forest Grove. Not uncommon in Tualatin Valley. May-July.** Collected near Forest Grove by Henderson, Thomas Howell, Sweetser, and Thompson between 1880 and 1926, and on the Tualatin Plains by Henderson in 1884 (OSC, REED). | Native, rare. In our area known only from Green Mountain (*Habegger, 1998*, WTU) and Fifth Plain Prairie (*Gaddis*). |
| *Ranunculus aquatilis* var. *aquatilis* [*Ranunculus aquatilis* var. *hispidulus* ] | **[*Batrachium trichophyllum*]. White water crowfoot. In ponds and ditches about the city. May-September.** Collected "south of Portland" by Henderson in 1880, near Mt. Scott by Sheldon in 1903, near Forest Grove by Marsh between 1867 and 1890, and at same by Thompson in 1926 (OSC, WTU). | Native. Occasional in our area, but distribution and abundance are unclear because of confusion with *R. trichophyllus.* Ridgefield NWR (*Christy, 1992*), N end of Sauvie Island (Marttala et al. 2002), Curtin Creek watershed near NE 72nd Avenue and St. Johns Road (*Gaddis*). A site on Springwater Corridor Trail near SE 111th was covered with fill and developed in the 1980's (*Marttala*). Because this species today is locally more common than *R. trichophyllus*, we suspect that Gorman's *Batrachium trichophyllum* should be referred to *R. aquatilis* var. *aquatilis*. |
| *Ranunculus californicus* | California buttercup. Not listed by Gorman or Nelson. Collected at Portland by Dickson in 1889 (OSC), and in open fields at McMinnville by several collectors between 1901 and 1903 (LINF), the latter beyond our limits. | Native, rare. No recent reports from our area. |
| *Ranunculus cymbalaria* | **Sessile crowfoot. Infrequent on borders of ponds near Columbia Beach and about the head of Hayden Island. June-September.** Gorman must have added this species to the proof sheets for his *Muhlenbergia* paper, because it was not in the original manuscript. Collected three times by Flinn in 1910 and 1915 (HPSU, OSC). | Native, rare historically and rare today. No recent reports from our area. |

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| *Ranunculus ficaria* | Fig buttercup. Not listed by Gorman or Nelson. First collected in our area on SW Upper Drive in 1962, where possibly planted. Not noted as a weed until 1991 (OSC). | Exotic. Introduced 1950-1974. Well established throughout our area, often in early-season wet spots. West Hills (Zika 1992), NE Portland, Johnson Creek basin (*Brunkow*), near Tryon Creek State Park, Wilsonville (*Newhouse, 2009*). Planted widely in gardens, it has expanded notably over the last decade. A number of cultivars may be present. An early bloomer, sometimes mistaken for *Caltha*. |
| *Ranunculus flabellaris* | Yellow water buttercup. Not listed by Gorman or Nelson. Collected at the Howell farm on Sauvie Island by Henderson in 1885 (OSC). | Native, rare. No recent reports from our area. Disjunct from other occurrences in E Oregon, the plants on Sauvie Island are a mystery, possibly dispersed by Columbia River floods. |
| *Ranunculus flammula* var. *filiformis* [*Ranunculus flammula*] | **[*Ranunculus reptans*]. Creeping spearwort. In swales and wet places. Oswego, etc. May-July. [*Ranunculus unalaschensis*]. Trailing buttercup. Rather rare in wet places about Portland. June-August.** Collected a number of times around Portland between 1875 and 1930 (HPSU, OSC). | Native. Occasional in our area in seasonally flooded wetlands. Tualatin River NWR (Maffitt et al. 2005-2008), Peach Cove, Ridgefield NWR, Clear Creek, Canemah Bluff (Smyth 1999a), and several sites in the Lacamas and Salmon Creek watersheds (*Gaddis*). A site on Springwater Corridor Trail near SE 111th was covered with fill in the 1980's (*Marttala*). |
| *Ranunculus macounii* | **[*Ranunculus oreganus*]. Oregon buttercup. Moist ground. Swan Island, Ross Island, etc. March-May.** Collected repeatedly around Portland by Henderson, the Howells, Gorman, Sheldon, Flinn, and Peck between 1882 and 1926 (OSC, REED). | Native, rare. No recent reports from our area. Mostly E of the Cascades. |
| *Ranunculus muricatus* | **Spiny fruited buttercup. Rather rare in ditches and wet places about the city. Naturalized from Europe. Does not appear to spread rapidly here. May-July.** Howell (1897-1903) limited it to the Umpqua Valley, indicating that it had not yet been reported from the Portland area. | Exotic, rare. Introduced 1900-1924. In our area known only from Ridgefield NWR. Reported from Tryon Creek State Park, (*Bluhm*, OFP). Present further S in the Willamette Valley. |
| *Ranunculus occidentalis* | **Western buttercup. On dry ridges. Barnes Road, Cornell Road, etc. April-June.** Collected a number of times from Forest Grove to Portland and S to Tonquin between 1882 and 1937 (OSC, WTU). A site in West Linn was destroyed during construction of Interstate 205 in 1970-1975 (*Marttala*). | Native. Infrequent to locally abundant. Cooper Mountain, Green Mountain, Tualatin River NWR (Maffitt et al. 2005), Rockwell wetland, NE 25th Avenue near 83rd Street in Clark County (*Gaddis*). Also just beyond our limits on Sauvie Island, at St. Helens, and further up the Sandy River drainage. |
| *Ranunculus orthorhynchus* var. *orthorhynchus* | **Purple-back buttercup. In wet places. North Portland, Fulton, Oswego, St. Helens Road, etc. April, May.** Collected numerous times in the metro area between 1881 and 1969 (COCC, HPSU, OSC, WTU). | Native. Occasional in our area. Clear Creek, Camassia Preserve, Green Mountain, Fifth Plain Prairie (*Gaddis*), Rockwell wetland, Morand Property, Tualatin River NWR. A site on Springwater Corridor Trail near SE 111th was covered with fill and developed in the 1980's (*Marttala*). |
| *Ranunculus parviflorus* | Smallflower buttercup. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. In our area known only from the Tualatin River NWR (*Maffitt, 2006*), the Whipple Creek watershed N of NW 139th Street (*Gaddis*), and the La Center Bottoms (*Gaddis, 1995*, WTU), the last somewhat beyond our limits. |

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| *Ranunculus repens* | **Creeping buttercup. Common in moist lawns, vacant lots, and roadsides throughout Portland. In ours the leaves are blotched or spotted with pale green. Naturalized from Europe. April-June.** Collected a number of times around Portland between 1888 and 1911(HPSU, OSC, REED, WTU). On ballast at Linnton, and "occasional in lawns and meadows" (Nelson 1917). | Exotic. Introduced 1875-1899. Common in our area on moist to wet soils, in both full sun and full shade. Still available commercially and very difficult to control in natural areas. |
| *Ranunculus sardous* | Hairy buttercup. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. In our area known only from Sandy River delta (*Zika, 1992*, OSC), Hardscrabble Quarry (Weber et al. 1999) and NW of Ridgefield (*Burnett, 1987*, WTU), the latter slightly beyond our limits. |
| *Ranunculus sceleratus* var. *sceleratus* | **Ditch buttercup. Borders of aestival-receding ponds near Columbia Beach. Infrequent. June-September.** Gorman must have added this species to the proof sheets for his *Muhlenbergia* paper, because it was not in the original manuscript. Collected on and near Hayden Island by Henderson and Flinn in 1888 and 1915, at Lower Albina by Sheldon in 1902, at Columbia Beach by Flinn in 1915, and at the stockyards in North Portland by Ornduff in 1960 (HPSU, OSC, REED). | Native. Occasional in our area. Sauvie Island (*Halse, 1981*, OSC), St. Johns (*Kral, 1996*, OSC), Smith and Bybee Lakes, Multnomah Channel, Tualatin River NWR (*Maffitt*), Clark County (*Gaddis*). |
| *Ranunculus trichophyllus* [*Ranunculus aquatilis* var. *diffusus, Ranunculus aquatilis* var. *capillaceus* ] | Threadleaf crowfoot. Listed by Gorman (1916-1917) but probably misapplied; see note under *Ranunculus aquatilis* var. *aquatilis*. Collected in ditches at Clackamas by Thomas Howell in 1895 (OSC). | Native, rare. Local distribution and abundance are unclear because of confusion with *R. aquatilis* var. *aquatilis*. |
| *Ranunculus uncinatus* var. *parviflorus* [*Ranunculus uncinatus* in part] | **[*Ranunculus bongardi*]. Bongard's buttercup. Common in moist copses and along stream banks. Fulton, Oswego, Swan Island, etc. April, May.** Collected numerous times around our area between 1885 and 1916 (HPSU, OSC, REED). Reed College, and "common" in the metro area (Van Dersal 1929). | Native. Uncommon to occasional in our area in wet areas dominated by hardwoods. |
| *Ranunculus uncinatus* var. *uncinatus* [*Ranunculus uncinatus* in part] | **[*Ranunculus greenei*]. Woodland buttercup. In coniferous woods. Goldsmith's Addition, Council Crest, etc. April, May.** Collected several times in our area between 1880 and 1903 (HPSU, OSC, REED, WTU). | Native. Common throughout our area. |
| *Thalictrum fendleri* var. *polycarpum* [*Thalictrum polycarpum*] | Fendler's meadow-rue. Not listed by Gorman or Nelson. Collected by the Howells on Sauvie Island in 1877 and 1881 (Hitchcock et al. 1955-1969), and on or near the Tualatin Plains in 1881 and 1885 (HPSU, OSC). | Native, rare. In our area known only from Clear Creek, Gales Creek (*Kimpo*), and Morand Property (*Maffitt*). Most common in bottomland forest, but further S also occurring in wet prairie (*Alverson*). |
| *Thalictrum occidentale* | **Western meadow rue. Wet boggy ground. Happy Hollow Road near Lents. April-June.** Collected at Forest Grove by Craig in 1897, and on Mt. Scott by Sheldon in 1903 (OSC). | Native, rare. In our area known only from Green Mountain (*Habegger, 1998*, WTU) and Forest Park (*Christy, 2008*). More common in moist coniferous forests closer to the Columbia Gorge. |

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| *Trautvetteria caroliniensis* | **[*Trautvetteria grandis*]. Western false bugbane. On stream banks. Multnomah Falls and westward. May-July.** | Native, rare. No recent reports from our area. More typical of the Coast Range and Cascades. Never verified from our area but to be sought in Forest Park and other outlying areas with mesic canyon habitat for such species as *Oplopanax horridus* and *Chrysosplenium glechomifolium*. |
| **Resedaceae** | | |
| *Reseda alba* | White upright mignonette. Reported from ballast at Linnton by Nelson (Nelson 1916). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Historical voucher specimens not found. |
| *Reseda lutea* | **Yellow mignonette. Ballast grounds and waste places. Lower Albina. Adventive from Europe. May-July.** Collected several times on sand ballast at Linnton by Suksdorf, Gorman, and Nelson between 1910 and 1922 (OSC, WTU; Nelson 1917, 1920a). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Reseda luteola* | **Dyer's weed. Ballast grounds and waste places. Lower Albina. Adventive from Europe. May-July.** Collected at Portland by Suksdorf and Sheldon in 1900 and 1902, and on sandy ballast at Linnton by Nelson and Gorman between 1915 and 1922, where "only a few plants but persistently reappearing each year" (OSC, WTU; Nelson 1916, 1917, 1920a, 1923a). Nelson predicted it would persist in the regional flora. | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Originally cultivated for its yellow dye. |
| **Rhamnaceae** | | |
| *Ceanothus cuneatus* | **Buckbrush, blue brush. On rocky stream banks. Willamette River near Oswego. April-June.** Collected several times in the 1880's by Drake, Henderson, and Howell on rocky bluffs at Oswego, one mile above Oswego on the E bank of the Willamette, and "near" Oregon City (OSC). | Native, rare. No recent reports from our area. |
| *Ceanothus integerrimus* | **[*Ceanothus macrothyrsus*]. Large false lilac. On rocky banks above Oregon City. May, June.** | Native, rare. In our area known only from the Clear Creek watershed (Smyth 1999c). Often in open woodlands. |
| *Ceanothus sanguineus* | **Woodland spray. Common in open woods and hillsides. South Portland, Fulton, Portland Heights, Cornell Road, Mt. Tabor, Mt. Scott, etc. This shrub has greatly increased in our limits as the surrounding forest has been cleared away. April, May.** Collected at several sites from Forest Grove to Rocky Butte and Elk Rock, by Fliedner, Craig, Sheldon, Leach, and McFarland, between 1880 and 1941 (OSC, WTU). | Native. Occasional in our area, usually in oak woodlands. Forest Park (Houle 1996), Cooper Mountain (Wilson & Kral 1999), Willamette Narrows (*Kimpo*), Powell Butte (*Brunkow, Marttala*), open woodlands along St. Helens Road, Tualatin River NWR (*Maffitt*), and possibly Kelly Butte. Probably less common now than in Gorman's day because of urban development and recovery of cutover forest. |
| *Ceanothus velutinus* var. *hookeri* [*Ceanothus velutinus* var. *laevigatus*] | **Mountain balm. Occurs sparingly about Rocky Butte and Montavilla. Commonly known as "sticky laurel" by sheepmen and ranchers. May-October. [*Ceanothus laevigatus*]. Smooth mountain balm. In open woods along Tualatin River. May, June.** Collected at Clackamas by Thomas Howell in 1899, and at Wilsonville by Tichnor in 1959 (OSC). | Native. Occasional in our area, usually in oak woodlands. Known from several sites including Cooper Mountain (Wilson & Kral 1999), Willamette Narrows (*Kimpo*), Tualatin River NWR (*Maffitt, 2007*) and along St. Helens Road. |

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| *Frangula purshiana* [*Rhamnus purshiana*] | **Cascara sagrada. In open coniferous woods. Head of Jefferson St., Macleay Park** [Gorman and Sheldon 1905]**, Lewis and Clark Fairgrounds, etc. April, May.** Collected at the Car Works in East Portland by Henderson in 1888, at Rocky Butte and Macleay Park by Sheldon in 1903, and at Forest Grove by Thompson in 1926 (OSC, WTU). Reed College (Van Dersal 1929). | Native. Occasional to common throughout our area in both deciduous and coniferous woods. Leach Botanical Garden, Forest Park (Houle 1996), Springwater Corridor Trail, Powell Butte, Sauvie Island, Peach Cove Fen, Burlington Bottoms. |
| **Rosaceae** | | |
| *Agrimonia gryposepala* | Tall agrimony. Not listed by Gorman or Nelson. Collected in fields and woods at Portland and South Portland by Henderson in 1882 and 1883 (OSC, REED). | Native, rare. No recent reports from our area. In Peck (1961) but overlooked by Hitchcock et al. (1955-1969) and Hitchcock and Cronquist (1976). |
| *Amelanchier alnifolia* var. *semiintegrifolia* | **Western service berry. Open woods. Balch Creek** [Gorman and Sheldon 1905]**, Mt. Tabor, Cornell Road, St. Helens Road, etc. March-May.** Collected near Fort Vancouver by Douglas in 1825-1827(Hooker 1829-1840, as *A. ovalis*; Hitchcock et al. 1955-1969), several times in the metro area between 1880 and 1928 (HPSU, OSC; Gorman undated #2), and at Reed College (Van Dersal 1929; Davies 1938). | Native. Occasional throughout our area, often in remnant oak woodland. Powell Butte, Clackamas, N end of Sauvie Island (Marttala et al. 2002). |
| *Aphanes arvensis* [*Alchemilla occidentalis*] | **Western lady's mantle. Common in fields and waste places about city. April-August.** Collected in and around Portland by Henderson in 1882 and 1889, in Clark County by an unidentified botanist in 1894, on ballast at Lower Albina by Sheldon in 1902, and at Forest Grove by Marsh between 1867 and 1890 (OSC, REED, WS, WTU). | Exotic. Introduced 1875-1899. Sparsely distributed in our area but locally abundant. N end of Sauvie Island (Marttala et al. 2002). Possibly less abundant than *A. microcarpa* (*Zika*). |
| *Aphanes microcarpa* [*Aphanes australis*] | Slender parsley piert. Not listed by Gorman or Nelson. | Exotic. Introduced 2000-2008. Reported from Clark County by Peter Zika. Presumably present elsewhere in our area and possibly more abundant than *A. arvensis* (*Zika*). |
| *Argentina anserina* ssp. *anserina* [*Potentilla anserina* ssp. *anserina*] | **Silverweed. Infrequent on stream banks. Willamette River, near Portland. April-August.** | Native, rare historically and rare today. In our area known only from Kelley Point Park (PPR 2004) and the Columbia River shoreline near Blue Lake (*Kimpo*). |
| *Argentina egedii* [*Potentilla anserina* ssp. *pacifica*, *Potentilla pacifica*] | Pacific silverweed. Not listed by Gorman or Nelson. Collected near Oregon City by Marsh between 1867 and 1890, and in a meadow on Sauvie Island by Peck in 1926 (OSC, WTU). | Native, rare. In our area known only from Coffee Lake, Kelley Point, and the N end of Sauvie Island (Marttala et al. 2002). More common on the coast and possibly introduced in our area by shipping along the Columbia and lower Willamette rivers. |
| *Aruncus dioicus* var. *acuminatus* [*Aruncus sylvester*] | **[*Aruncus vulgaris*]. Goat's beard. Common on stream banks and in moist open woods. Balch Creek** [Gorman and Sheldon 1905, as *A. aruncus*]**, St. Helens Road, Fulton, and elsewhere around Portland. April-June.** Collected several times by Henderson in and around Portland between 1880 and 1883 (OSC). "Abundant" in hills W of Portland (Van Dersal 1929). Seen at Elk Rock by Marttala in 1976. | Native. Occasional in our area in coniferous and deciduous forest. Burlington Bottoms, Forest Park (Houle 1996; *Christy, 2008*). Gorman's "*Aruncus vulgaris*" (= *A. dioicus* var. *vulgaris*) is native to E North America, and presumably he was referring to var. *acuminatus*. |

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| *Comarum palustre* [*Potentilla palustris*] | **Marsh cinquefoil. In marshy ponds. Sauvie Island. May-July.** Collected on Sauvie Island by Howell and Henderson in 1886 and 1887 (OSC). | Native, rare. In our area known only from Peach Cove Fen (*Smyth*), Moore Island, Wright Island (PPR 2004), and Multnomah Channel (Adolfson 2000). |
| *Cotoneaster franchetii* | Orange cotoneaster. Not listed by Gorman or Nelson. Planted as an ornamental at Reed College (Davies 1938). Not documented as naturalized in the Willamette Valley (Lane County) until 1988 (OSC). | Exotic. Introduced 1925-1949. An escaped ornamental, occasional in our area and spread by birds. Near junction of Macadam Avenue and Taylor's Ferry Road (*Zika, 2000*, WTU), Beggar's-tick Wildlife Refuge (*Marttala, 2007*), and St. Helens (Pierce 2003), the latter slightly beyond our limits. |
| *Cotoneaster horizontalis* | Rockspray cotoneaster. Not listed by Gorman or Nelson. Planted as an ornamental at Reed College (Davies 1938). First documented as naturalized on the coast in 1986, but not in the Willamette Valley (Lane County) until 1992 (WTU). | Exotic, rare. Introduced 1925-1949. An escaped ornamental, scarce in our area and thought to be only a waif. Spread by birds. Junction of Macadam Avenue and Taylor's Ferry Road (*Zika, 2000*, WTU). |
| *Cotoneaster lacteus* | Milkflower cotoneaster. Not listed by Gorman or Nelson. First documented as naturalized on the coast in 1990, but not in the Willamette Valley (Lane County) until 1999 (OSC). | Exotic. Introduced 1975-1999. An escaped ornamental, occasional in our area and spread by birds. Jay Street in Beaverton (*Zika, 1996*, WTU), Elk Rock, confluence of Johnson Creek and the Willamette River. |
| *Cotoneaster simonsii* | Simon's cotoneaster. Not listed by Gorman or Nelson. First documented as naturalized on the coast in 1988 (WTU). | Exotic, rare. Introduced 1975-1999. An escaped ornamental, spread by birds. In our area known only from Camassia Preserve, where possibly planted. |
| *Cotoneaster suecicus* | Swedish cotoneaster. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. An escaped ornamental, spread by birds. Reed College (*Zika, 2000*, OSC, WTU). Scarce in our area and thought to be only a waif. |
| *Crataegus douglasii* | **Western haw. On moist ground and stream banks. Vancouver ferry landing, Fulton, Oswego, Oak Grove, etc. April, May. Gorman (undated #2) also reported it from Swan Island and Ross Island.** Collected on Sauvie Island by Joseph Howell in 1888, and Abrams in 1922 (HPSU, OSC). | Native. Occasional on moist ground throughout our area, but much less common than *C. suksdorfii*. Distribution is unclear because of confusion with *C. suksdorfii*. Elk Rock, Reed College canyon (Moreira and Stafford 1996), Green Mountain (*Habegger, 1998*, WTU), Sauvie Island (*Zika, 2003*, WTU). |
| *Crataegus monogyna* | Oneseed hawthorn. Not listed by Gorman or Nelson. Collected on Mt. Tabor by Sheldon in 1902, at Portland by Flinn in 1915, near Portland by Thompson in 1925, and at West Linn by Hubbard in 1956 (HPSU, OSC, WTU). Reed College (Davies 1938), where not clear if planted or naturalized. | Exotic. Introduced 1875-1899. An escaped ornamental, common throughout our area. Sometimes confused with the very similar *C. oxyacantha*. It hybridizes with native *C. suksdorfii.* |
| *Crataegus monogyna* × *suksdorfii* | Hybrid hawthorn. Not listed by Gorman or Nelson. | Exotic. Introduced 1950-1974. Sauvie Island and Multnomah Channel (*Zika, 2003-2005,* OSC, WTU). Hybrids between native *C. suksdorfii* and exotic *C. monogyna* have been documented in W Oregon since 1975 and appear to be increasing throughout the region (Love and Feigen 1978). |
| *Crataegus phaenopyrum* | Washington hawthorn. Not listed by Gorman or Nelson. First documented as naturalized in Washington (Seattle) in 2002, but not in the Willamette Valley (Lane County) until 2004 (WTU). | Exotic, rare. Introduced 1975-1999. In our area known only from the SW shore of Vancouver Lake (*Zika, 2004*, WTU). An escaped ornamental, native to E North America. |

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| *Crataegus suksdorfii* [*Crataegus douglasii* var. *suksdorfii*] | Suksdorf's hawthorn. Not listed by Gorman or Nelson. Collected at Fulton, St. Johns, and Bybee Slough by Sheldon in 1902 and 1903 (OSC), and in Clark County, presumably by Thompson, in 1928 (WTU). | Native. Occasional to frequent on moist ground throughout our area, and much more common than *C. douglasii*. N end of Sauvie Island (Marttala et al. 2002), Vancouver Lake (*Zika, 2004*, WTU). It hybridizes with exotic *C. monogyna.* |
| *Duchesnea indica* | Indian strawberry, mock strawberry. Not listed by Gorman or Nelson. Reported as naturalized W of the Cascades by Hitchcock et al. (1955-1969) but without collection data. | Exotic. Introduced 1950-1974. Occasional in our area as a garden escape. Spreading vegetatively but not particularly invasive. West Slope (*Christy, 1989*), Reed College (*Zika, 2000*, WTU). |
| *Fragaria chiloensis* ssp. *pacifica* | Pacific beach strawberry, coast strawberry. Not listed by Gorman or Nelson. Collected at Portland by Fred Drake in 1892 (OSC). | Native, rare. No recent reports from our area. Mostly coastal but occasional inland. |
| *Fragaria vesca* ssp. *bracteata* [*Fragaria vesca* var. *bracteata, Fragaria vesca* var. *crinata*] | **[*Fragaria californica*]. Wood strawberry. Common on grassy slopes, glades, and open places. Portland Heights, Willamette Heights, Mt. Tabor, etc. March-June.** Collected numerous times around the metro area between 1880 and 1974 (HPSU, OSC). | Native. Common in open woods throughout our area. Gorman's concept of *Fragaria vesca* did not distinguish between the common ssp. *bracteata* and ssp. *californica* that is not known N of Douglas County. Old specimens at HPSU named *F. californica* are all *F. vesca* ssp. *bracteata*, and one at LINF is presumably the same but needs verification. |
| *Fragaria virginiana* ssp. *platypetala* [*Fragaria virginiana* var. *platypetala*] | **[*Fragaria cuneifolia*]. Wild strawberry. Common on grassy hillsides and open places. Portland Heights, Buckman's Addition, etc. March-June.** Collected at Fort Vancouver by Scouler in 1825 (Hitchcock et al. 1955-1969), and repeatedly in the metro area between 1882 and 1910 (HPSU, OSC). | Native. In our area occasional in upland prairie and oak savanna. Cooper Mountain, Clear Creek, Camassia Preserve (*Trask & Abrams, 2001*, HPSU). Gorman's "*Fragaria cuneifolia*" has been referred to *F.* × *ananassa* ssp. *cuneifolia*, a hybrid between *F. chiloensis* and *F. virginiana*. We treat it here as *F. virginiana*. |
| *Geum aleppicum* | Yellow avens. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *G. strictum*), and along roadsides at Elk Rock (Nelson 1918a, as *G. strictum*). | Native, rare. No recent reports from our area, and voucher specimens not found. Mostly E of the Cascades. |
| *Geum macrophyllum* var. *macrophyllum* | **Large-leaved avens. Common in open woods and waste places. Cornell Road, South Portland, Lower Albina, Mt. Tabor, etc. April-July.** Collected repeatedly in the metro area between 1882 and 1916 (HPSU, OSC). Macleay Park (Gorman and Sheldon 1905). Reed (Van Dersal 1929; Davies 1938). | Native. Still common throughout our area, but often replaced by the exotic *G. urbanum*. Forest Park (Houle 1996), Powell Butte, Burlington Bottoms. |
| *Geum macrophyllum* var. *perincisum* | Largeleaf avens. Not listed by Gorman or Nelson, but probably incuded in their species concept. Collected at Forest Grove by Thompson in 1926 (WTU), slightly beyond our limits but to be sought here. | Native, rare. No recent reports from our area. |
| *Geum urbanum* | European avens. Not listed by Gorman or Nelson. Not collected in Oregon until 1991 (OSC). | Exotic. Introduced 1975-1999. Locally abundant and spreading aggressively in yards and along roads and forest trails (Zika and Alverson 1993; Jacobson et al. 2001). Forest Park, West Slope, Stephens Creek, Ash Creek, Fanno Creek. Often mistaken for the very similar *G. macrophyllum*. |

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| *Holodiscus discolor* | **[*Sericotheca discolor*]. Small ocean spray. Common in open coniferous woods about Portland. May, June. [*Sericotheca franciscana*]. Arrow-wood, large ocean spray. Common in open woods. Macleay Park** [Gorman and Sheldon 1905, as *H. ariaefolius*]**, Lewis and Clark Fair Grounds, Mount Tabor, Barnes Road, Canyon Road, etc. May, June.** Collected repeatedly around our area between 1886 and 1925 (HPSU, OSC, WTU). | Native. Common throughout our area in dry coniferous woods and oak woodlands. |
| *Horkelia congesta* ssp. *congesta* | Sierra horkelia. Not listed by Gorman or Nelson. Collected at Forest Grove by Marsh between 1867 and 1890 (GH; Keck 1938). | Native, rare. No recent reports from our area. |
| *Malus* × *dawsoniana* | Hybrid Pacific crabapple. Not listed by Gorman or Nelson. Not documented from Oregon and Washington until 2003 and 1999, respectively (OSC, WTU), but parental *M. pumila* was present at Fort Vancouver by 1826 and grown by local nurseries and citizens as early as 1848 (Cardwell 1906). | Exotic. Introduced 1975-1999. Fifth Plain Creek floodplain near NE Ward Road, and Allen Canyon Road NE of Ridgefield (*Zika, 2003*, WTU). A spontaneous hybrid between exotic *M. pumila* and native *M. fusca*, sometimes cultivated (Zika 2004). Its invasiveness is uncertain, but seeds are apparently fertile (Sargent 1922). |
| *Malus fusca* [*Pyrus fusca*] | **[*Malus diversifolia*]. Oregon crab apple. Stream banks and open woods. Swan Island, Ross Island, Fulton, Oswego, Oak Grove, etc. April, May.** Collected repeatedly around Portland by Howell, Henderson, Sheldon, Drake, Gorman, and Leach between 1880 and 1918 (OSC). | Native. Occasional in our area in wet areas. Burlington Bottoms, Killin Wetland, Tonquin Scablands (*Christy, 1990*), Reed College canyon (Moreira and Stafford 1996), Forest Park (Houle 1996). More common in the foothills of the Cascades and Coast Range. Hybrids with exotic *M. pumila* are called *Malus* × *dawsoniana*. |
| *Malus pumila* [*Malus* × *domestica*, *Malus domestica, Pyrus malus*] | Apple. Not listed by Gorman or Nelson. First planted at Fort Vancouver in 1826 (Taylor 1992), and grown by local nurseries and citizens as early as 1848 (Cardwell 1906). On ballast at Linnton, and "a frequent escape" (Nelson 1917, as *Malus sylvestris*). | Exotic. Introduced 1825-1849. Occasional in our area around abandoned homesteads. Camassia Preserve (Horvath 1993), Green Mountain (*Habegger, 1998*, WTU), Tualatin River NWR (Maffitt et al. 2005-2008), Tualatin Hills Nature Park (*Bluhm*, OFP). Hybrids with native *M. fusca* are called *Malus* × *dawsoniana*. The *M. sylvestris* reported by Nelson is considered a distinct species that does not occur in North America (*Zika*). |
| *Oemleria cerasiformis* [*Osmaronia cerasiformis*] | **Indian cherry, oso berry. Very common in open woods. Macleay Park** [Gorman and Sheldon 1905]**, Cornell Road, St. Helens Road, Sandy Boulevard, South Portland, etc. February-April.** Collected several times around Portland between 1882 and 1926 (OSC, WTU). | Native. Very common throughout our area. |
| *Physocarpus capitatus* | **[*Opulaster opulifolius*]. Nine-bark. Open woods. Fulton, Oswego, Milwaukie, etc., and in vacant lots. SE corner of 23rd and Quimby Streets. May, June.** Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840, as *Spiraea opulifolia*), and a number of times around Portland between 1881 and 1926 (OSC, WTU; Gorman undated #2). | Native. Throughout our area on streambanks and in open woods. Used frequently for restoration or enhancement work because it tolerates a variety of edaphic and hydrologic conditions, though it does not do well in drier sites. |

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| *Physocarpus malvaceus* | Mallow ninebark. Not listed by Gorman or Nelson. Collected along creeks at Portland by Henderson in 1882 (OSC). | Native, rare. No recent reports from our area, and voucher specimens not found. Reported from Hood River (*Grenz*, OFP) without a voucher specimen, but otherwise restricted to E Oregon. Henderson's specimen was annotated in 2005 and remains a great rarity for our area. It was possibly mislabeled and from somewhere else in the state, but we will never know. |
| *Potentilla biennis* | Biennial cinquefoil. Not listed by Gorman or Nelson. Collected along the Willamette River 1 mile below Linnton by Peck in 1926 (OSC). | Native, rare. No recent reports from our area. A native weed mostly restricted to E Oregon. Presumably rafted down the Columbia River. |
| *Potentilla glandulosa* | **[*Drymocallis glandulosa*]. Glandular cinquefoil. Open woods. Oswego, Milwaukie, etc. May, June.** Collected several times at Elk Rock, Clackamas, and Oregon City between 1886 and 1903 (OSC). | Native. Occasional in our area in prairie and open oak woodlands. |
| *Potentilla gracilis* var. *fastigiata* | Slender cinquefoil. Not listed by Gorman or Nelson. Collected at South Portland by Thompson in 1925 (WTU). | Native, rare. No recent reports from our area. Mostly in SW Oregon or E of the Cascades. |
| *Potentilla gracilis* var. *gracilis* | **Western five-finger. In open glades. Near Linnton, Mt. Scott, etc. May-July.** Collected repeatedly in our area between 1888 and 1903 (OSC). | Native, rare. In our area known only from Cooper Mountain, the Tualatin River NWR (Maffitt et al. 2005-2008), Fifth Plain Prairie (*Gaddis*), and St. Helens (Christy and Alverson 2001), the last beyond our limits. |
| *Potentilla norvegica* | Norwegian cinquefoil. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840), at Portland by Sheldon in 1902 (OSC), and on wet sand along the shore of Hayden Island (Nelson 1923b). | Exotic, rare. Introduced 1825-1849. No recent reports from our area. |
| *Potentilla recta* | Sulphur cinquefoil. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. Reported from around SE 108$^{th}$ Street near Kelly Butte (*Alverson, 2008*) but unverified. Present near Molalla (*Marttala, 2008*), somewhat beyond our limits. Listed as a Class B Noxious Weed by ODA. |
| *Potentilla rivalis* | **Slender cinquefoil. Infrequent in moist places around Portland. May-July. [*Potentilla millegrana*]. Branched cinquefoil. Infrequent on sandy banks. Willamette River near Portland. May-July.** Collected on Sauvie Island by Marsh between 1867 and 1890, by Thompson in 1927, at Lower Albina by Sheldon in 1902, and at Columbia Beach by Gorman (OSC, WTU; Nelson 1920a). | Native, rare historically and rare today. No recent reports from our area. |
| *Prunus avium* | Sweet cherry. Not listed by Gorman or Nelson. Reed College, where planted (Davies 1938). Not documented as naturalized in the Willamette Valley (Polk County, where "common") until 1983 (OSC), but cherries were imported and hybridized by local nurseries and citizens as early as the 1860s, and other varieties were imported as early as 1848 (Cardwell 1906). | Exotic. Introduced 1925-1949. Frequent in our area around edges of fields and along fencelines, spread by birds into natural areas around the region. Hybrids with native *P. emarginata* are called *Prunus* × *pugetensis*. |

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| *Prunus cerasifera* | Cherry plum. Not listed by Gorman or Nelson. Reed College, where planted (Davies 1938). A specimen collected in Benton County in 1962 seems to be the earliest naturalized occurrence (OSC), but plums were imported and hybridized by local nurseries and citizens as early as 1848 (Cardwell 1906). | Exotic. Introduced 1950-1974. Occasional in our area. West Mount Scott (*Zika, 2004*, WTU), Tualatin Hills Nature Park (*Bluhm*, OFP), Camassia Preserve, the last possibly planted. Both green and purple-leaved forms are present. |
| *Prunus domestica* | European plum. Not listed by Gorman or Nelson. First planted at Fort Vancouver in 1836 (Taylor 1992), and other varieties were imported and hybridized by local nurseries and citizens as early as 1848 (Cardwell 1906). | Exotic. Introduced 1825-1849. Frequent in our area around edges of fields and along fencelines, spread by birds into natural areas. |
| *Prunus emarginata* var. *emarginata* | Bitter cherry. Not listed by Gorman or Nelson. Collected along Cornell Road by Sweetser in 1905, and along Summit Drive by Leach in 1931 (OSC). | Native. Distribution and abundance in our area is uncertain because of confusion with *P. emarginata* var. *mollis*. |
| *Prunus emarginata* var. *mollis* | **[*Cerasus mollis*]. Wooly bitter cherry, wooly-leaf cherry, bitter cherry, quinine cherry. Common in open woods. City Park, Lewis and Clark Fair Grounds, Mt. Tabor, South Portland, etc. April-May.** Macleay Park (Gorman and Sheldon 1905). Reed College (Van Dersal 1929). Collected several times around Portland between 1888 and 1905 (OSC). | Native. Better represented in herbaria and apparently more common in our area than *P. emarginata* var. *emarginata*, but uncertainty remains because of confusion between the two varieties. In many areas displaced by the exotic *P. avium*. Hybrids with *P. avium* are called *Prunus* × *pugetensis*. Johnson Creek, Wilsonville, St. Helens Road, Tualatin River NWR. |
| *Prunus laurocerasus* | Cherry laurel, English laurel. Not listed by Gorman or Nelson. Reed College, where possibly planted (Davies 1938), and collected at Hoyt Arboretum by Steward and Pierovitch in 1954, where planted (OSC). The earliest specimens from both Washington and Oregon were collected in 1933, at least one of which was planted (OSC, WTU). | Exotic. Introduced 1925-1949. Common throughout our area in coniferous and mixed conifer-deciduous forest. An escaped ornamental and serious pest, spread by birds into forests where it thrives in deep shade. Often with *Ilex aquifolium* but so far mostly restricted to forests close to the urban core. |
| *Prunus lusitanica* | Portugal laurel. Not listed by Gorman or Nelson. Reed College, where planted (Davies 1938). Naturalized specimens first collected in Washington and Oregon in 1999 and 2003, respectively (OSC, WTU). | Exotic. Introduced 1925-1949. An escaped ornamental, occasional in coniferous forest throughout the urban core. Dispersed by birds and sold widely in retail and wholesale nurseries. West Mt. Scott Cemetery (*Zika, 2004*, WTU), Tualatin, Hoyt Arboretum, West Slope (*Christy*). |
| *Prunus persica* | Peach. Not listed by Gorman or Nelson. First planted at Fort Vancouver in 1829 (Taylor 1992). Other varieties were imported and hybridized by local nurseries and citizens as early as 1848 (Cardwell 1906). On ballast at Linnton, and "an occasional escape" (Nelson 1917). Reed College, where planted (Davies 1938). | Exotic, rare. Introduced 1825-1849. No recent reports of naturalized plants from our area. Seeds of modern cultivars are probably no longer viable. |
| *Prunus* × *pugetensis* | Hybrid cherry. Not listed by Gorman or Nelson. Not documented from Oregon and Washington until 2005 and 1996, respectively (OSC, WTU), but cherries were imported and hybridized by local nurseries and citizens as early as 1848 (Cardwell 1906). | Exotic. Introduced 1975-1999. Intersection of Interstates 84 and 205 (*Zika, 2004*, OSC, WTU), and in Yamhill County (WTU). Probably widespread in our area, but not considered invasive because most plants are sterile (Jacobson and Zika 2007). Spontaneous hybrid between exotic *P. avium* and native *P. emarginata.* |

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| *Prunus virginiana* var. *demissa* | **[*Cerasus demissa*]. Western choke cherry. Rare in open woods. Canyon Road. April-May.** Collected at the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and at the mouth of the Sandy River by Peck in 1925 (OSC). | Native, rare historically and rare today. In our area known only from Camassia Preserve, East Buttes, and the riparian zone along Salmon Creek upstream from Mill Creek in Clark County (Gaddis). Also at St. Helens (Christy and Alverson 2001), beyond our limits. |
| *Pyrus communis* | Pear. Not listed by Gorman or Nelson. First planted at Fort Vancouver in 1829 (Taylor 1992), and grown by local nurseries and citizens as early as 1848 (Cardwell 1906). Reed College, where probably planted (Davies 1938). | Exotic. Introduced 1825-1849. Occasional in our area around abandoned homesteads. Camassia Preserve, Tualatin River NWR (Maffitt et al. 2005-2008). |
| *Rosa canina* | Dog rose. Not listed by Gorman or Nelson. Collected N of Forest Grove by Creager in 1979 (HPSU). | Exotic, rare. Introduced 1975-1999. In our area known only from recent observation at Barberton in Clark County (*Gaddis*). |
| *Rosa eglanteria* | **[*Rosa rubiginosa*]. Sweetbrier. Very common in old pastures, vacant lots, and waste places. Fulton, Lake Oswego, East Portland, etc. Naturalized from Europe. May, June.** Collected at Oregon City by Henderson in 1885, at Lower Albina by Sheldon in 1902, at Portland by Flinn in 1910, along Johnson Creek by Flinn in 1916, and on ballast at Linnton by Nelson in 1915 or 1916 (HPSU, OSC; Nelson 1917). Available commercially in the West since 1891 (Adams 2004). | Exotic. Introduced 1875-1899. Common throughout our area. It is thought to hybridize with *Rosa nutkana* farther S in the Willamette Valley. Hybrids are identifiable by their hooked thorns and pepper-scented leaves. |
| *Rosa gymnocarpa* | **Forest rose, smooth-seeded rose. Common in open woods and roadsides. Canyon Road, Cornell Road, etc. May, June.** Collected several times around Portland between 1880 and 1914 (OSC; Gorman and Sheldon 1905; Van Dersal 1929; Davies 1938). | Native. Occasional to common in heavily forested sites with an undisturbed understory. Leach Botanical Garden, Forest Park (Houle 1996), N end of Sauvie Island (Marttala et al. 2002), Clark County. It usually does not do well in restoration plantings, possibly because of soil compaction. |
| *Rosa multiflora* | Multiflora rose. Not listed by Gorman or Nelson. Collected at Albina by Suksdorf in 1908 (WTU). | Exotic. Introduced 1900-1924. Occasional on dry uplands, but frequent in hardwood forest along Columbia Slough. Becoming a serious pest in Clark County, where escaped from plantings along Interstates 5 and 205 (*Gaddis*). Once promoted for wildlife food, landscaping, and highway median barriers, it is a plague in the E United States and could become the same here. |
| *Rosa nutkana* var. *hispida* | Bristly Nootka rose. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1886 (OSC). | Native, rare. No recent reports from our area, but distribution and abundance may be confused with *R. nutkana* var. *nutkana.* |
| *Rosa nutkana* var. *nutkana* | **Western wild rose. Old fields, roadsides and open places. St. Helens Road, South Portland, Oswego, etc. Fairly common. May, June.** Gorman (undated #2) reported it from the same localities. Reed College (Van Dersal 1938). Collected several times around Portland between 1888 and 1926 (HPSU, OSC, WTU). | Native. Common throughout our area in oak woodlands and other moist to dry sites. N end of Sauvie Island (Marttala et al. 2002), Springwater Corridor Trail (*Brunkow*). It hybridizes readily with exotic *R. eglanteria* and its use in restoration or enhancement work has become questionable. |

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| *Rosa pisocarpa* | **[*Rosa californica*]. Woodland rose. Common in low ground, open woods, vacant lots, and waste places. Raleigh Street, Cornell Road, Albina, East Portland, etc. May, June.** Gorman (undated #2) reported it from the same localities. Collected numerous times around Portland between 1876 and 1912 (HPSU, OSC). | Native. Common throughout our area around the periphery of wetlands. Peach Cove Fen, Burlington Bottoms. Gorman (1916-1917 and undated #2) reported *Rosa californica* as infrequent along Canyon Road, Cornell Road, Fulton, and East Portland. Because *R. californica* is similar to *R. pisocarpa*, and because there are no known voucher specimens of *R. californica* from N of Jackson and Josephine counties, we refer Gorman's reports to *R. pisocarpa*. |
| *Rubus armeniacus* [*Rubus bifrons, Rubus discolor, Rubus procerus*] | Armenian blackberry, Himalayan blackberry. Gorman did not include this species in the Portland list even though he later indicated (Gorman undated #1; Gorman 1920, as *Rubus thyrsanus*) that it had first been noticed in the region about 1903 or 1905. He noted that by 1920 it was well established in the Willamette Valley and W Washington. | Exotic. Introduced 1875-1899. A ubiquitous and noxious invasive weed throughout our area. Its identity has been a jumble for decades, but currently *R. armeniacus* appears to be the correct name. *R. procerus* is a synonym of a non-weedy European species that does not occur in North America, and *R. discolor* is a synonym of *R. ulmifolius* (Ceska 1999). |
| *Rubus fruticosus* | Shrubby blackberry. On ballast at Linnton (Nelson 1917). | Exotic. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. Seldom differentiated from *R. armeniacus* and possibly misidentified. |
| *Rubus laciniatus* | **Evergreen blackberry. Common in fence corners, vacant lots, waste places, and roadsides about Portland. Corner of Stout and Yamhill Streets, Vista Avenue near Washington Street, SE corner of Union Avenue and East Main St., Oregon City, Vancouver, etc.** Probably introduced at Fort Vancouver in 1838 (Appendix B). Reported from Cornell Road and Reed College canyon (Gorman undated #2; Van Dersal 1929; Davies 1938). | Exotic. Introduced 1825-1849. Well distributed throughout our area but much less common than *R. armeniacus*. Unlike that species it does not form extensive stands. |
| *Rubus leucodermis* | **Western black-cap. Common in open woods. Macleay Park, Canyon Road, Cornell Road, etc. April, May.** Reed College canyon (Van Dersal 1929; Davies 1938). Collected several times around Portland between 1885 and 1926 (HPSU, OSC, WTU). | Native, rare. Sparsely distributed throughout our area in open woods. It may be less prevalent now than in Gorman's time because of pervasive competition from *Rubus armeniacus*. Leach Botanical Garden, Powell Butte, Tualatin River NWR (*Maffitt*), Forest Park (Houle 1996), Clark County. |
| *Rubus parviflorus* | **Red thimble berry, white flowering raspberry. Common in open woods. Macleay Park** [Gorman and Sheldon 1905]**, South Portland, Logie Trail, etc. April-June.** Collected several times around Portland between 1880 and 1926 (HPSU, OSC, WTU; Van Dersal 1929; Davies 1938). | Native. Common throughout our area in open woods and on roadsides. Powell Butte, Springwater Corridor Trail, Forest Park (Houle 1996), Burlington Bottoms, Reed College canyon (Moreira and Stafford 1996). |
| *Rubus spectabilis* | **Salmon berry. Common in moist woods and stream banks. Balch Creek** [Gorman and Sheldon 1905]**, Ross Island, St. Helens Road, etc. April-June.** Collected several times around Portland between 1880 and 1928 (HPSU, OSC, WTU; Van Dersal 1929), but not relocated at Reed College by Davies (1938). | Native. Common to abundant along Johnson Creek and in drainages in the W side of our area. Powell Butte, Springwater Corridor Trail, N end of Sauvie Island (Marttala et al. 2002). Often with red alder. |

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| *Rubus ursinus* ssp. *macropetalus* [*Rubus ursinus, Rubus ursinus* var. *macropetalus*] | **Wild blackberry, trailing blackberry. Very common in coniferous woods everywhere around Portland. It also can frequently be found covering cut or sloping banks on the various roads and even on city streets as may be seen at 24th and Quimby Streets. April-May.** Collected several times around Portland between 1880 and 1941, including ballast at Linnton, (HPSU, OSC, WTU; Gorman and Sheldon 1905; Nelson 1917, as *R. macropetalus*; Van Dersal 1929; Davies 1938). | Native. Ubiquitous in our area in coniferous and deciduous woods, clearings, prairies, and brushy wetlands. |
| *Sanguisorba annua* [*Sanguisorba occidentalis*] | **Annual burnet. Not uncommon in fields and waste places. Milwaukie, Risley Station, etc. To some extent a native weed. May-July.** Collected several times around Portland between 1894 and 1956 (OSC, WTU). | Native, rare. In our area known only from Cooper Mountain (*Kimpo*) and Hillsboro (*Christy*), the latter just beyond our limits. Weedy and no doubt present elsewhere. |
| *Sorbus aucuparia* | European mountain ash. Not listed by Gorman or Nelson. Collected at Hoyt Arboretum by Steward & Pierovich in 1954, where planted. Available commercially in the West since 1880, and sold locally as early as 1912 (Adams 2004). An ornamental at Oregon State University since 1915, but not recorded as naturalized until 1977 (OSC). | Exotic. Introduced 1875-1899. Common throughout our region. An escaped ornamental, spread by birds into urban forests. Individuals are generally few and far between. |
| *Sorbus sitchensis* var. *grayi* | Western mountain ash. Not listed by Gorman or Nelson. Reed College (Van Dersal 1929), but not clear if planted. | Native, rare. Reported from Forest Park (Houle 1996) but voucher specimens not found and possibly mistaken for *S. aucuparia*. More common at higher elevations in the Cascades. |
| *Spiraea betulifolia* var. *lucida* | **[*Spiraea lucida*]. Low spiraea. Open woods. Barnes Road and Canyon Road. May, June.** Collected on a "mountain" near Multnomah Channel ("Willamette Slough") by Joseph Howell in 1884, at North Portland by Thomas Howell in 1887, at Oswego by Gorman in 1892 and Peck in 1918, and at Macleay Park and the E side of Rocky Butte by Flinn in 1912 and 1915 (HPSU, OSC). | Native. Occasional in our area. Willamette Narrows, Camassia Preserve, and Cooper Mountain, where it occurs in dense oak woodland. |
| *Spiraea douglasii* var. *douglasii* | **Coast hardhack. Common in low ground. Laurelhurst Park, St. Helens Road, Slavin Road, etc. May-September.** Collected several times around Portland between 1902 and 1927 (OSC, WTU). | Native. Frequent throughout our area in wetlands and on moist soils in open habitats. |
| *Spiraea* × *pyramidata* [*Spiraea pyramidata*] | **Pyramidal spiraea. Infrequent on rocky ridges. Near old Strong place, Riverside. May, June.** Collected on the banks of the Willamette in Milwaukie, and on "uplands near Portland" by Henderson in 1884 (OSC). | Native, rare historically and rare today. In our area known only from Forest Park, Elk Rock Island, Camassia Preserve, and Willamette Narrows. Now considered a hybrid between *S. betulifolia* and *S. douglasii*. |
| **Rubiaceae** | | |
| *Galium aparine* [*Galium aparine* var. *echinospermum*] | **Cleavers. Moist woods and creek banks. Canyon Road, Cornell Road, Sandy Boulevard, etc. May-August.** Collected near Fort Vancouver by Douglas in 1825-1827, where "abundant on elevated soils" (Hooker 1829-1840; Hitchcock et al. 1955-1969), and several times around Portland between 1880 and 1910 (HPSU, OSC). | Native. Common throughout our area in moist areas with disturbed soil. Some forms are probably not native ecotypes (Liston 2009). |

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| *Galium bifolium* | Twinleaf bedstraw. Not listed by Gorman or Nelson. | Native. In our area known only from Camassia Preserve. More common E of the Cascades (Hitchcock et al. 1955-1969). |
| *Galium boreale* | **Northern bedstraw. Along small streams that go dry in summer. Near Milwaukie, Oswego, etc. May-August.** Collected at Beaverton by Gorman in 1923 (OSC). | Native, rare. No recent reports from our area. |
| *Galium divaricatum* | Lamarck's bedstraw. Not listed by Gorman or Nelson. Historical collections from our area not found, but collected elsewhere in the Willamette Valley as early as 1915 (OSC). | Exotic. Introduced 1900-1924. Reported from Aloha by Smith in 2005 (OFP) but voucher specimens from our area not found. |
| *Galium mexicanum* ssp. *asperrimum* [*Galium mexicanum* var. *asperulum*, *Galium asperrimum*] | Mexican bedstraw. Not listed by Gorman or Nelson. | Native, rare. Known in our area from Willamette Narrows and Camassia Preserve. Mostly E of the Cascades (Hitchcock et al. 1955-1969). |
| *Galium mollugo* | False baby's breath. Not listed by Gorman or Nelson. Collected in "lawns, vacant lots, and waste places" at Portland by Gorman in 1917 (WTU) and by Britzius in 1952 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Galium odoratum* [*Asperula odorata*] | Sweetscented bedstraw. A garden escape around Portland (Nelson 1918a, as *Asperula odorata*). Collected at SW 16th and Elizabeth Streets by Ornduff in 1960 (OSC). | Exotic. Introduced 1900-1924. Occasional in dry forest in the E part of our area. Mt. Talbert, Oregon City, Boring. |
| *Galium oreganum* | Oregon bedstraw. Not listed by Gorman or Nelson. Collected at Portland by Thomas Howell (no date, OSC). | Native. Occasional in our area. |
| *Galium parisiense* | **Lawn bedstraw. Not uncommon in moist lawns, parking strips, and waste places. 24th Street and elsewhere about Portland. Adventive from Europe. June-August.** Historical voucher specimens from our area not found, but first collected in Oregon (Jackson County) in 1940 (OSC). | Exotic. Introduced 1875-1899. Very common and aggressive. It appears to be especially problematic in the Columbia Slough and Smith and Bybee Lakes area where it invades sites that have been recently sprayed or mowed to control *Phalaris arundiancea*. |
| *Galium tricornutum* | Roughfruit corn bedstraw. Not listed by Gorman or Nelson. Collected at Linnton by Suksdorf in 1916 (WTU), and at Gaston by Peck in 1930 (OSC, WTU), the latter somewhat beyond our limits. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| *Galium trifidum* ssp. *columbianum* [*Galium cymosum*, *Galium trifidum* var. *pacificum*] | **Pacific bedstraw. Common in moist glades and wet places. St. Johns, Sauvie Island, etc. May-August.** Collected at Portland, Oswego, Mt. Scott, and Oregon City by Henderson, Drake, and Sheldon between 1882 and 1902 (OSC). Gorman also listed *Galium trifidum* without citing a subspecies, but presumably he was referring to ssp. *columbianum*: **Small bedstraw. Wet places and boggy ground near Oswego. May-August.** | Native. Occasional in our area. Canemah Bluff (Smyth 1999a), N end of Sauvie Island (Marttala et al. 2002), Morand Property (*Maffitt, 2007*), Fifth Plain Prairie, Lacamas and Burnt Bridge Creek watersheds (*Gaddis*). Reported from Tigard (*Sivam*) and Tryon Creek State Park. |
| *Galium triflorum* | **Fragrant bedstraw. Coniferous woods. Macleay Park, Canyon Road, Cornell Road, etc. May-August.** Collected several times around Portland between 1880 and 1904 (OSC, WTU). | Native. Occasional. Forest Park, throughout undeveloped areas in the West Hills, Morand Property (*Maffitt, 2007*), Padden wetland in Clark County (*Gaddis*). |

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| *Galium verum* | Yellow spring bedstraw. Collected on ballast at Linnton by Suksdorf in 1912 and Thompson in 1927, at Portland by Henderson, Gorman, and Knutson between 1924 and 1961, and at Troudale by McNutan in 1960 (OSC, WTU; Nelson 1917). | Exotic, rare. Introduced 1900-1924. An ornamental with no recent reports from our area. |
| *Sherardia arvensis* | **Field madder. Very common in moist lawns, waysides, and waste places, frequently forming mats in lawns and similar tracts. Corner 23rd and Lovejoy Streets, West Park and Salmon Streets, Lownsdale and Taylor Streets, etc. May-September.** Collected at Portland by Gorman in 1915 (WTU). | Exotic. Introduced 1875-1899. Occasional to locally common throughout our area on vernally moist, disturbed soil. |
| **Rutaceae** | | |
| *Ruta graveolens* | **Common rue. Occurs sparingly in open grassy places and vacant lots. Goldsmith's Addition, Lower Albina, etc. Probably a garden escape. Introduced from Europe. June-August.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area outside of cultivation. |
| **Salicaceae** | | |
| *Populus alba* | White poplar. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Wasco and Clatsop Counties in 1955 and 1960, respectively (OSC). Available commercially in the West since 1894 (Adams 2004). | Exotic. Introduced 1875-1899. A naturalized ornamental, occasional but well distributed throughout our area. |
| *Populus balsamifera* ssp. *trichocarpa* [*Populus trichocarpa*] | **Black cottonwood. Moist ground. Mocks Bottom, Sauvie Island, Ross Island, etc. Common on east bank of Willamette River between Portland and** [the] **golf links. March, April.** Collected several times around Portland between 1881 and 1923 (OSC). | Native. Very common throughout our area. It may hybridize with cultivars of *P. deltoides* and so-called hybrid poplars being grown for pulp, particularly on the Columbia River bottoms below Portland. |
| *Populus deltoides* | Eastern cottonwood, Great Plains cottonwood. Not listed by Gorman or Nelson. | Exotic. Introduced 2000-2008. Reported from the Terminal 5 mitigation site near intersection of N Time Oil Road and N Rivergate Road (*Wilson*, OFP), but voucher specimens not found. Planted historically as an ornamental. |
| *Populus tremuloides* | **Quaking asp. Infrequent on river bank below Linnton. March, April.** Gorman (1919) noted that quaking aspen originally was "very scattering but well established" in the Willamette Valley, but was later largely "exterminated" by settlers in clearing land. Collected at Linnton by Thomas Howell in 1886, at Tualatin by Gorman and Peck in 1919, and at Gaston by Peck in 1930 (OSC), the last somewhat beyond our limits. | Native. Occasional in our area at low elevations south of the Columbia River, but becoming rare south of the metro area. Camassia Preserve, Beaverton, Garden Home, Tonquin Scablands, Banks, Edgefield Manor, Morand Property. More common in Clark County, where there are many occurrences in the Salmon Creek watershed and on the Battle Ground plateau (*Gaddis, 2008*). Its native distribution is obscured by ornamental plantings. |
| *Salix amygdaloides* | Peachleaf willow. Not listed by Gorman or Nelson. Collected along the Willamette River near Oregon City by Thompson in 1926 (WTU). | Native, rare. No recent reports from our area. The Thompson specimen has not been annotated recently and all other occurrences of *S. amygdaloides* are E of the Cascades. It may be *S. lucida* ssp. *lasiandra*, but we accept the record for the time being. |

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| *Salix geyeriana* [*Salix geyeriana* var. *meleina*] | Geyer's willow. Not listed by Gorman or Nelson. Collected at the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and at St. Helens by Thomas Howell in 1887 (OSC). | Native, rare. In our area known only from Canemah Bluff (Smyth 1999a) and Killin Wetland (*Christy, 1991*). Planted at Hillsboro Landfill (*Christy, 2000*) and the Morand property (*Maffitt, 2008*). More common at higher elevations in the Cascades and eastwards. |
| *Salix hookeriana* [*Salix piperi*] | **Piper's willow. Moist slopes and stream banks. Macleay Park** [Gorman and Sheldon 1905]**, Milwaukie, etc. March, April.** Collected several times around Portland by Henderson and Sheldon between 1884 and 1903 (OSC). | Native. Common throughout our area on wet soils. Springwater Corridor Trail, Beggar's-tick Wildlife Refuge, banks of Willamette River near OMSI. *Salix piperi*, now regarded as a synonym of *S. hookeriana*, is an inland form with longer, more elliptical leaves, and more slender male catkins. |
| *Salix lasiolepis* | Arroyo willow. Collected at Oregon City by Henderson in 1885, and at Banks by Warren in 1955 (OSC). Gorman and Sheldon (1905) reported it from Macleay Park, but later Gorman (1916-1917) referred reports to *S. piperi* (= *S. hookeriana*). | Native, rare. Reported from the metro area (*Christy, 1989*, OFP) but voucher specimens not found. |
| *Salix lucida* ssp. *caudata* [*Salix lasiandra* var. *caudata*] | Greenleaf willow. Not listed by Gorman or Nelson. Collected along the Columbia River near Portland by Henderson in 1881 (OSC). | Native, rare. No recent reports from our area. Distribution uncertain because of confusion with *S. lucida* ssp. *lasiandra*. |
| *Salix lucida* ssp. *lasiandra* [*Salix lasiandra* var. *lasiandra*] | **Western black willow, showy willow. Stream banks. Ross Island. March, April.** Collected repeatedly around Portland between 1886 and 1928 (OSC, WTU; Gorman and Sheldon 1905). | Native. Common throughout our area on streambanks and floodplains. |
| *Salix melanopsis* [*Salix exigua* var. *melanopsis*] | Dusky willow. Not listed by Gorman or Nelson. | Native, rare. In our area known only from the Sandy River delta (*Zika, 1992*, OSC). Also further up the Sandy River, beyond our limits. |
| *Salix prolixa* [*Salix rigida* var. *mackenzieana*] | MacKenzie willow. Not listed by Gorman or Nelson. Collected at Swan Island by Drake and Gorman in 1890, and at Elk Rock by Sheldon in 1903 (OSC). | Native, rare. In our area known only from Barberton in Clark County (*Zika, Gaddis*). |
| *Salix scouleriana* | **Western pussy willow, Scouler's willow. Hillsides and open woods. Macleay Park** [Gorman and Sheldon 1905]**, Lewis and Clark Fair Grounds, Cornell Road, etc. January-March. [*Salix scouleriana brachystachys*]. Upland willow. Common on hillsides and upland slopes. Barnes Road, Cornell Road, Portland Heights, etc. January-March.** Collected repeatedly around Portland between 1885 and 1922 (OSC). | Native. Common in riparian corridors and in upland forests throughout our area. May grow as a tree with a single trunk one foot or more in diameter. |
| *Salix sessilifolia* [*Salix exigua* var. *columbiana, Salix fluviatilis*] | **Western silver willow. Sand bars and stream banks. West shore of Willamette Slough near mouth. May, June. [*Salix fluviatilis*]. Sand-bar willow. Not uncommon on moist ground. Ross Island, Swan Island, below St. Johns, west shore of Sauvie Island, etc. May, June.** Collected at the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and repeatedly by later botanists around Portland between 1886 and 1928 (OSC, WTU). | Native. Occasional to frequent along the Columbia and Willamette River floodplains. Vancouver Lake, Kelley Point Park, Willamette Narrows, Ross Island, Sauvie Island, Ridgefield NWR, Sandy River delta, Oaks Bottom, Tualatin River NWR. Highly variable and here including *S. fluviatilis.* |

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| *Salix sitchensis* | **Silky willow. Moist ground and stream banks. St. Helens Road, St. Johns, Willamette Slough, etc. April, May.** Macleay Park (Gorman and Sheldon 1905). Collected several times around Portland between 1881 and 1903 (OSC). | Native. Common throughout our area on wet soils. |
| **Salviniaceae** | | |
| *Azolla mexicana* | Mexican mosquitofern. Not listed by Gorman or Nelson. Collected near the mouth of the Willamette River by Henderson in 1884, and at Oswego Lake by Gorman in 1919 (OSC). We include here all reports of *A. filiculoides*, which remain unconfirmed for our area: Oswego, Oak Grove, East Portland (Gorman 1916-1917), W end of Oswego Lake (Nelson 1920a, 1922), sloughs along the Columbia River; (Van Dersal 1929), and Tualatin Hills Nature Park (*Bluhm*, OFP). | Native. *Azolla mexicana* is known from SW Pheasant and 247th Avenue in Hillsboro (*Confer, 1987*, OSC), but confusion with *A. filiculoides* makes it difficult to assess the local distribution and abundance of either species. Voucher specimens named *A. filiculoides* from our area (*Shiniger, 1975,* HPSU) are sterile and not identifiable. Whatever species are present, they are fairly common throughout our area in both natural and constructed lakes and ponds. Oaks Bottoms, Beggar's-tick Wildlife Refuge, Sauvie Island (*Marttala, Christy*). |
| **Santalaceae** | | |
| *Comandra umbellata* ssp. *californica* [*Comandra umbellata* var. *californica*] | **Kultus berry. Infrequent in open woods. Oswego, Elk Rock, etc. April-June.** Collected along the Willamette River near Oswego by Henderson, Leiberg, and Thomas Howell between 1884 and 1892, at Elk Rock by Henderson in 1888, and at Forest Grove by Thompson in 1926 (OSC), the last just beyond our limits. | Native, rare historically and rare today. In our area known only from Camassia Preserve (Horvath 1993), Elk Rock (*Smyth*), and Springwater Corridor Trail at SE 128th (*Marttala*). Often in open oak woodlands. |
| **Saxifragaceae** | | |
| *Bolandra oregana* | **Northern bolandra. On cliffs. Elk Rock. May-July.** Collected at Milwaukie by the Howells in 1877 and 1880 (GH, NY - type), several times at Elk Rock by Henderson, Drake, and Dickson between 1882 and 1889, along Oswego Lake by Gorman, Nelson, and Peck in 1917 and 1919 (OSC), and in Clark County by Thompson in 1935 (WTU). Dickson noted it was "rare," at least at Elk Rock. | Native, rare historically and rare today. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). Cape Horn in the Columbia Gorge, beyond our limits (*Marttala*). Watson (1879) and Hitchcock et al. (1955-1969) indicate the type locality was "near Oregon City," but online label data at GH lists the locality as Milwaukie. Until the label at GH can be verified, we follow Watson's original publication. |
| *Boykinia occidentalis* [*Boykinia elata*] | **[*Therofon elatum*]. Creek bank saxifrage. Moist creek banks. St. Helens Road near Linnton. May-July.** | Native, rare. In our area known only from an unverified report from St. Mary's Woods (*Walthall*, OFP). |
| *Chrysosplenium glechomifolium* [*Chrysosplenium glechomaefolium*] | **[*Chrysosplenium scouleri*]. Pacific golden saxifrage. Creek banks and wet places near Linnton. May-July.** Collected near the Howell farm on Sauvie Island by Henderson in 1885, near Portland by Thomas Howell in 1887, and near Forest Grove by Thompson in 1926 (OSC, WTU). | Native, rare. Reported from Forest Park (*Grenz*, OFP; Houle 1996) and to be sought in other outlying areas with mesic canyon habitat for such species as *Oplopanax horridus*. |

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| *Heuchera chlorantha* | **[*Heuchera cylindrica*]. Tall heuchera. In moist rocky places. Oswego, etc. April-June.** Collected "near Portland" by Howell in 1886, at Oswego by Drake and Gorman in 1891, at Garden Home by Sweetser in 1917, in woods E of Beaverton by Thompson in 1926, between Portland and Oregon City by Gilkey in 1935, and at NW Oakhill Drive in Beaverton by Wagner in 1973 (HPSU, OSC). | Native, rare. In our area known only from Camassia Preserve (Horvath 1993), private land near Tualatin Nature Park (*Alverson*), and wet prairie in the upper Burnt Bridge Creek drainage (*Gaddis, 1994*). Gorman's "*Heuchera cylindrica*" was later renamed *H. chlorantha*. |
| *Heuchera cylindrica* | Roundleaf alumroot. Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area. |
| *Heuchera glabra* | Alpine heuchera. Not listed by Gorman or Nelson. | Native, rare. In our area known only from the Morand property (Maffitt et al. 2005-2008). |
| *Heuchera grossulariifolia* var. *tenuifolia* | Gooseberryleaf alumroot. Not listed by Gorman or Nelson. Collected near Portland by Drake and Gorman in 1890 (OSC). | Native, rare. No recent reports from our area. |
| *Heuchera micrantha* | **Western alum root. In rocky places. Elk Rock, Oswego, Mt. Tabor, Rocky Butte, etc. April-June.** Collected at Elk Rock by Drake in 1888, at Oswego Lake by Peck in 1919, and at Owego by Frey in 1956 (OSC). Seen at Elk Rock by Marttala in 1976. | Native. Occasional in dry conifer forest and on dry rocky outcrops. Camassia Preserve, Willamette Narrows, Canemah Bluff (Smyth 1999a), Forest Park (Houle 1996; *Gaddis*; *Christy, 2008*), Elk Rock Island, and possibly the Stark Street Bridge on the Sandy River (*Marttala*). Also St. Helens (Christy and Alverson 2001), beyond our limits. |
| *Lithophragma parviflorum* | **[*Lithophragma parviflora*]. Woodland saxifrage. Rocky places and open woods. Oswego, etc. April-June.** Collected "in light gravelly soils" near Fort Vancouver by Douglas, where "abundant" (Hooker 1829-1840, as *Tellima parviflora*), on Elk Rock Island by Henderson in 1884, at Elk Rock by Mendenhall in 1888, opposite Oswego by Howell in 1893, and at Forest Grove and N of Tonquin by Thompson in 1926 and 1927 (OSC, WTU). | Native, rare. In our area known only from Cooper Mountain (Wilson & Kral 1999), Camassia Preserve (Horvath 1993), and Peach Cove (*Smyth*). Ridgefield NWR (*Gaddis*), the N end of Sauvie Island (Marttala et al. 2002), and St. Helens (Christy and Alverson 2001) are slightly beyond our limits. |
| *Mitella caulescens* | **Rough mitrewort. On creek banks. Balch Creek and St. Helens Road. April-June.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), near Portland by Henderson, Drake, Gorman, and Sheldon between 1879 and 1902, at Clackamas by Thomas Howell in 1897, and near Forest Grove by Thompson in 1926 (OSC, WTU). Reed College swamp (Van Dersal 1929; Davies 1938). | Native, rare. In our area known only from Forest Park (Houle 1996), the upper Whipple Creek watershed (*Gaddis, 1996*), and Powell Butte (*Brunkow*). Reported from Tryon Creek State Park (*Bluhm*, *1996,* OFP) and present near Battle Ground, the latter beyond our limits. |
| *Mitella ovalis* | Coastal miterwort. Not listed by Gorman or Nelson. Collected near Forest Grove by Thompson in 1926 (WTU), somewhat beyond our limits. | Native, rare. Never verified from our area but to be sought in Forest Park and other outlying areas with mesic canyon habitat for such species as *Oplopanax horridus* and *Chrysosplenium glechomifolium*. |
| *Saxifraga cymbalaria* var. *huetiana* [*Saxifraga sibthorpii*] | Yellow saxifrage. Wet cliffs at Elk Rock (Nelson 1918a, 1918c; Abrams and Ferris 1923-1960; Peck 1961; all as *S. sibthorpii*). Collected at Elk Rock by Gorman in 1917 (CAS). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Webb and Gornall (1989) referred all North American reports of *S. sibthorpii* to *S. cymbalaria* var. *huetiana.* |

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| *Saxifraga gormanii* [*Micranthes gormanii*, *Saxifraga occidentalis* var. *dentata*] | **[*Saxifraga occidentalis*]. Thick leaved saxifrage. On rocky cliffs. Elk Rock. April-June.** Collected at Elk Rock (the type locality) by Mendenhall, Gorman, and Sheldon between 1885 and 1903, on wet cliffs at Oswego Lake by Nelson in 1916 and Peck in 1917 (OSC; Nelson 1920a, as *S. saximontana*; Hitchcock et al. 1955-1969). | Native, rare. In our area known only from Willamette Narrows (*Barlow, 2001*, HPSU). Stations at St. Helens (Christy and Alverson 2001) and further up the Sandy River drainage (*Marttala*) are beyond our limits. |
| *Saxifraga integrifolia* [*Micranthes integrifolia*] | **Entire-leaved saxifrage. Wet places. Oswego, etc. April-June.** Collected at St. Helens by Thomas Howell in 1885 and 1886, at Elk Rock by Gorman in 1891, at Gladstone by Thomas Howell in 1895, and at Oswego Lake by Peck in 1918 (OSC). | Native. Occasional in our area. Camassia Preserve, Cooper Mountain, West Linn, Sauvie Island, Elk Rock, N end of Sauvie Island (Marttala et al. 2002), Lacamas Creek watershed (*Gaddis*). It occurs in vernally moist, thin-soiled prairie with *Camassia quamash* ssp*. maxima*, *Delphinium nuttallii* ssp*. ochroleucum*, and *Eriophyllum lanatum*. |
| *Saxifraga marshallii* [*Micranthes marshallii*] | Marshall's saxifrage. Not listed by Gorman or Nelson. Collected at Elk Rock by Henderson in 1888 and Suksdorf in 1925 (OSC). | Native, rare. No recent reports from our area. |
| *Saxifraga mertensiana* | **Merten's saxifrage. On wet rocks. Elk Rock. April-June.** Collected at Milwaukie by Thomas Howell in 1880, on cliffs along the Sandy River by Henderson in 1881, at Elk Rock by Drake, Gorman, and Sheldon between 1891 and 1903, and near Oswego Lake by Peck in 1919 (OSC; Nelson 1918c). Seen at Elk Rock and on the W bank of the Willamette River about ⅓ mile S of Oswego Creek by Marttala in 1976. | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). Present beyond our limits along the Sandy, Columbia, and Lewis Rivers. |
| *Saxifraga nidifica* var. *claytoniifolia* [*Micranthes fragosa, Saxifraga integrifolia* var. *claytoniaefolia*] | Peak saxifrage. Not listed by Gorman or Nelson. Collected opposite Oswego by Thomas Howell in 1883, on Elk Rock Island by Henderson in 1886, and at Rocky Point along Multnomah Channel by Powne in 1969 (OSC). | Native, rare. No recent reports from our area, possibly because of confusion with *Saxifraga integrifolia*. |
| *Saxifraga nuttallii* [*Cascadia nuttallii*] | **Nuttall's saxifrage. On wet rocks. Elk Rock, Oregon City, etc. April-June.** Collected near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Hitchcock et al. 1955-1969), and at Elk Rock, Oregon City, and Milwaukie by the Howells, Henderson, and Thompson between 1880 and 1928 (OSC; Howell 1897-1903; Nelson 1918c). Seen at Elk Rock by Marttala in 1976. | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). |
| *Saxifraga oregana* [*Micranthes oregana*] | Oregon saxifrage. Not listed by Gorman or Nelson. Collected on the Tualatin Plains by Henderson in 1881, and on the banks of the Willamette near Oregon City by Thompson in 1928 (OSC). | Native, rare. In our area known only from Camassia Preserve, Green Mountain (*Habegger, 1998*, WTU), and St. Helens (Christy and Alverson 2001), the last beyond our limits. |
| *Saxifraga rufidula* [*Micranthes rufidula, Saxifraga aequidentata, Saxifraga occidentalis* var. *rufidula*] | Rustyhair saxifrage. Not listed by Gorman or Nelson. Collected at Oregon City by Thomas Howell in 1885, three times at Elk Rock by Gorman and Suksdorf between 1894 and 1925, and at the Stark Street bridge on the Sandy River by Peck in 1926 (OSC, WTU). | Native, rare. In our area now known only from the Stark Street bridge on the Sandy River (*Marttala*). |

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| *Saxifraga tridactylites* | Rueleaf saxifrage. Not listed by Gorman or Nelson. | Exotic, rare. Introduced 2000-2008. In our area, known only from a vacant lot N of SE Salmon Street at Water Avenue, where it appears to be spreading (*Marttala, 2008*). The lot is occasionally opened for parking by support vehicles for filming movies and staging "fun runs," perhaps enabling long-distance dispersal of *S. tridactylites*. The closest known population is in British Columbia. |
| *Sullivantia oregana* | **Oregon sullivantia. On cliffs. Elk Rock. May-July.** Collected at Milwaukie by Joseph Howell in 1877 (GH - type) and by Thomas Howell in 1880 (MO; Rosendahl 1927), and at Elk Rock by Henderson in 1884 and Marttala and Siddall in 1976 (OSC; Howell 1897-1903), and on Sauvie Island by Joseph Howell in 1887 (GH; Rosendahl 1927). | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). |
| *Tellima grandiflora* | **Western bishop's cap. Common in moist open woods. Elk Rock, Oswego, Milwaukie, Rocky Butte, etc. April-June.** Collected several times around Portland between 1880 and 1926 (HPSU, OSC). | Native. Common in coniferous and deciduous forest thoughout our area, but in many places overrun by *Hedera helix* and *H. hibernica*. |
| *Tiarella trifoliata* [*Tiarella trifoliata* var. *trifoliata*] | **Hairy false mitrewort, three-leaved mitrewort. Moist coniferous woods. Macleay Park** [Gorman and Sheldon 1905]**, St. Helens Road, etc. April-June.** Collected several times around Portland between 1878 and 1949 (HPSU, OSC, WTU). Reed College (Van Dersal 1929; Davies 1938). | Native. Frequent in coniferous forest throughout our area. More common than *T. unifoliata*. |
| *Tiarella unifoliata* [*Tiarella trifoliata* var. *unifoliata*] | Single-leaf foamflower. Not listed by Gorman or Nelson. | Native. Occasional in our area in coniferous forest. Camassia Preserve, Powell Butte, Kelly Butte. Less common than *T. trifoliata*. Reported from St. Marys Woods (*Walthall*, OFP). |
| *Tolmiea menziesii* | **[*Leptaxis menziesii*]. Bud-leaf mitrewort. Moist woods and creek banks. Macleay Park, St. Helens Road, etc. April-June.** Collected several times around Portland between 1880 and 1902 (OSC). Reed College (Davies 1938). | Native. Common in moist draws and seeps in coniferous forest. In the urban core it is increasingly being displaced by *Alliaria petiolata.* |
| **Scrophulariaceae** | | |
| *Castilleja attenuata* [*Orthocarpus attenuatus*] | **Long-leaved owl's clover. In moist open places, Oregon City (west side). April-June.** Collected "West Oregon City" by Thomas Howell in 1889 (OSC), perhaps from the Canemah Bluffs area. | Native, rare. No recent reports from our area. |
| *Castilleja hispida* var. *hispida* | **[*Castilleja angustifolia*]. Indian paint brush. On cliffs and rocky places, Elk Rock. May-July.** Collected near Fort Vancouver by Douglas, Scouler, Tolmie, and Gairdner (Hooker 1829-1840; Hitchcock et al. 1955-1969), at Elk Rock by Dickson, Fliedner, and Sheldon between 1888 and 1903, and at Oswego by Peck in 1919 (OSC). Near Scappoose and "sparingly in the hills west of Portland" (Van Dersal 1929, as *C. angustifolia* and *C. angustifolia bradburii*). | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). Early collections named *C. angustifolia* have all been renamed *C. hispida*. |

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| *Castilleja levisecta* | Golden Indian paintbrush. Not listed by Gorman or Nelson. The type specimen was collected on Mill Plain at Vancouver by Joseph Howell in 1880 (GH; Hitchcock et al. 1955-1969). | Native, rare. No recent reports from our area. The closest known naturally occurring population is in Thurston County, Washington, but conservation biologists have reintroduced propagated material to the Willamette Valley. |
| *Castilleja tenuis* [*Orthocarpus hispidus*] | **Rough orthocarpus. On ridges and open places near Oswego. April-May.** Collected on Willamette Heights by Sheldon in 1902, and near Forest Grove by Chambers in 1975 (OSC), the latter somewhat beyond our limits. | Native, rare. No recent reports from our area. |
| *Collinsia grandiflora* | **Large collinsia. Gravelly banks and open places along Willamette River. March-May. [*Collinsia tenella*]. Lesser collinsia. Common in moist ground. Macleay Park, Cornell Road, St. Helens Road, and elsewhere about Portland. March-May.** Collected a number of times from Forest Grove to Oregon City and Tonquin between 1881 and 1928 (HPSU, OSC, WTU). | Native, rare. Uncommon in our area in grassy balds. Camassia Preserve, Canemah Bluff (Smyth 1999a), Cooper Mountain (*Kral, 1998*, HPSU). |
| *Collinsia parviflora* | **Small-flowered collinsia**, blue-eyed mary. Macleay Park, where "common" (Gorman and Sheldon 1905). Collected throughout our area by Dickson, Drake, Fliedner, Gorman, Henderson, Thomas Howell, Sheldon, Suksdorf, Thompson, and Leach between 1884 and 1928 (OSC, WTU). | Native. Occasional throughout our area. Willamette Narrows, Canemah Bluffs, Camassia Preserve, Cooper Mountain, Hardscrabble Quarry (Weber et al. 1999; Christy et al. 2007), and several sites in Clark County (*Gaddis*). N end of Sauvie Island (Marttala et al. 2002) and St. Helens (Christy and Alverson 2001), both slightly beyond our limits. On grassy balds. |
| *Collinsia rattanii* | Sticky blue-eyed mary. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Camassia Preserve, where it occurs on grassy balds (Horvath 1993). |
| *Cymbalaria muralis* | Kenilworth ivy. Not listed by Gorman or Nelson. Reported by Soth (1938) as naturalized in our area. Collected at the old St. Vincent's Hospital in NW Portland by Schirmer in 1957 (OSC). Seen at Elk Rock by Marttala in 1976. | Exotic. Introduced 1925-1949. A common escape on shaded, moist or seepy rock faces and garden rockwork. East Bank Esplanade near SE Alder and Washington (*Marttala, 2006*). |
| *Digitalis purpurea* | **Foxglove, fairy thimbles. In rich soil, pastures, fence corners and waysides. Cornell Road, Eagle Creek, etc. Naturalized from Europe. May-September.** Reportedly first planted on the Oregon coast in 1854 (Wiley 1966). Collected at Oregon City by Flinn in 1901, and at East Portland by Thompson in 1925 (HPSU, WTU). Available commercially in the West since 1873, and sold locally as early as 1912 (Adams 2004). | Exotic, rare. Introduced 1875-1899. Naturalized throughout our area, but seldom abundant. It requires light and is generally not very invasive in lowland forests. Forest Park (Houle 1996), Burlington Bottoms, N end of Sauvie Island (Marttala et al. 2002). |
| *Gratiola ebracteata* | **Bractless hedge-hyssop. Wet places and low ground near Oswego. April-July.** Collected near Mt. Scott by Sheldon in 1903, at Lents Junction by Flinn in 1916, and at Lake Grove by Gorman in 1919, and at the S end of Lake Oswego by French in 1960 (HPSU, OSC). | Native, rare. In our area known only from near Tigard (*Alverson, 1987*, OSC), near the Columbia River at Gresham (*Kral, 1997*, HPSU), the Steinborn Unit of Tualatin River NWR (*Marttala*), and St. Helens (Christy and Alverson 2001), the last beyond our limits. A site on Springwater Corridor Trail near SE 111$^{th}$ was covered with fill and developed in the 1980's (*Marttala*). |

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| *Gratiola neglecta* | **[*Gratiola virginiana*]. Clammy hedge-hyssop. In wet places. Albina, East Portland, etc. May-August.** Collected at Portland by Henderson in 1880, at St. Johns and Albina by Sheldon in 1902, and at Linnton by Peck in 1926 (OSC). | Native, rare. Scarce In our area. Tomahawk Island (*Confer, 1987*, OFP), Tigard at end of Nimbus Road (*Alverson, 1987*, OSC), Oaks Bottom, Burlington Bottoms, and Ridgefield NWR (*Christy, 1989*), upper Burnt Bridge Creek (*Gaddis, 1998*), Barberton (*Gaddis*). Also further up the Clackamas River drainage and in the Columbia Gorge, beyond our limits. |
| *Kickxia elatine* | Sharpleaf cancerwort. Not listed by Gorman or Nelson. Collected at Hillsboro by Burkhart in 1951, but known from Polk County as early as 1934 (OSC). | Exotic. Introduced 1925-1949. Occasional in our area in dry, disturbed sites. Lents, West Slope (*Christy, 1992*), Beaverton, Aloha (*Smith, 2005*, OSC), E bank of Willamette River just S of Hawthorne Bridge (*Marttala, 2008*). |
| *Limosella aquatica* | **Mudwort. Muddy banks and in brooks. Swan Island and Sauvie Island. May-July.** Collected several times around Portland between 1881 and 1922 (OSC; Nelson 1918a). | Native. Common on mudflats of the Columbia River bottoms and in wet agricultural fields. |
| *Linaria dalmatica* | Dalmatian toadflax. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Benton County as early as 1954 (OSC). | Exotic. Introduced 1950-1974. Sporadic on disturbed sites throughout our area. Mostly E of the Cascades. |
| *Linaria vulgaris* | **Butter-and-eggs. Fields and roadsides. East Portland, Woodlawn, railroad tracks below St. Johns, Base Line Road, etc. Naturalized from Europe. June-October.** Collected several times around Portland between 1884 and 1960 (HPSU, OSC). On ballast at Linnton, where "infrequent" (Nelson 1917). | Exotic. Introduced 1875-1899. Occasional in our area on dry sites. Usually not abundant but spreading in some areas (*Gaddis*). Listed as a Class B Noxious Weed by ODA, but still a common ingredient in commercial wildflower seed mixes. |
| *Lindernia dubia* [*Lindernia anagallidea, Lindernia dubia* var. *dubia, Lindernia dubia* var. *anagallidea*] | **[*Ilysanthes dubia*]. False pimpernel. Low ground and wet places. Oregon City, Sauvie Island, etc. June-August.** Collected several times from Forest Grove and Sauvie Island to Portland and Oregon City between 1885 and 1962 (OSC, WTU). | Native. Frequent in our area in wet sites. Sauvie Island, Clackamas, along the shores of the Columbia River, Salmon Creek (*Gaddis*), Ridgefield NWR, Brookside Ponds (*Marttala*). We follow OFP, Needham (1962), and Alderson (1963) in treating *L. dubia* and *L. anagallidea* as a single species. |
| *Mazus pumilus* [*Mazus japonicus*] | Japanese mazus. *Mazus* is one of eight genera that Gorman added to his *Muhlenbergia* manuscript in December 1915, but he did not indicate localities. Collected several times around Portland between 1899 and 1929 (OSC, WTU; Nelson 1921; Peck 1961). | Exotic. Introduced 1875-1899. Occasional to frequent on wet silt and cobbles along the Columbia and Willamette rivers. |
| *Mimetanthe pilosa* | False monkeyflower. Not listed by Gorman or Nelson. Collected at Columbia Beach opposite Vancouver by Peck in 1922 (OSC). | Native, rare. No recent reports from our area. Presumably washed down the Columbia River, as most occurrences are E of the Cascades. |
| *Mimulus alsinoides* | **Cliff mimulus. On wet rocks, Elk Rock. The earliest blooming *Mimulus* in this section. March-July.** Collected widely in our area between 1881 and 1926 (OSC). Seen at Elk Rock by Marttala in 1976. | Native. Occasional on seepy outcrops. Peach Cove, Camassia Preserve, and further up the Sandy River, beyond our area (*Marttala*). Much less common than *M. guttatus.* |
| *Mimulus breviflorus* | Shortflower monkeyflower. Not listed by Gorman or Nelson. Collected on Sauvie Island by Thomas Howell in 1886 (OSC). | Native, rare. No recent reports from our area, but easily overlooked because of its small size. Presumably washed down the Columbia River, as most occurrences are E of the Cascades. |

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| *Mimulus floribundus* | **Spreading mimulus. Moist stream banks, Sauvie Island. May-July.** Collected at the confluence of the Willamette and Columbia rivers by Henderson in 1884, and on Hayden Island opposite Vancouver by Peck and Nelson in 1921 and 1922 (OSC; Nelson 1921, 1923b, as *M. peduncularis*). | Native, rare. No recent reports from our area. |
| *Mimulus guttatus* [*Mimulus guttatus* var. *guttatus*, *Mimulus guttatus* var. *depauperatus*] | **[*Mimulus hirsutus*]. Late-flowering mimulus. On wet rocks, Tualatin River. June-August. [*Mimulus grandiflorus*]. Large mimulus. Wet slopes and stream banks near Oswego. May-July. [*Mimulus langsdorfii*]. Yellow mimulus. Wet places. South Portland, Fulton, Oswego, etc. April-August.** Macleay Park, where "common" (Gorman and Sheldon 1905). Collected widely in our area between 1880 and 1947 (HPSU, NY, OSC). | Native. Occasional on wet to seaonally wet soils throughout our area, generally outside of heavily urbanized areas. Sauvie Island, Cooper Mountain, Clark County. *M. guttatus* is exceedingly variable and many names have been applied to its myriad forms. |
| *Mimulus moschatus* | **Musk-flower. Creek banks and wet places. Macleay Park** [Gorman and Sheldon 1905]**, St. Helens Road, etc.** Collected in "moist springs" near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840), and in several other places around Portland between 1879 and 1902 (HPSU, OSC). Reed College (Van Dersal 1929). | Native, rare. Infrequent in moist areas. Clear Creek (Smyth 1999c), Camassia Preserve (Horvath 1993), Green Mountain (*Habegger, 1998*, WTU), Salmon Creek upstream from Mill Creek in Clark County (*Gaddis*), NE 78th Street and Andresen (*Gaddis*), Brookside Ponds (*Marttala, 2003*). |
| *Mimulus pulsiferae* | **Sandbar mimulus. On sandbars, Columbia River near Vancouver. April-July.** | Native, rare. No recent reports from our area. |
| *Mimulus washingtonensis* | Washington monkeyflower. Not listed by Gorman or Nelson. Collected on Sauvie Island by an unidentified botanist in 1891 (OSC). | Native, rare. No recent reports from our area. Presumably washed down the Columbia River, as most occurrences are E of the Cascades. |
| *Misopates orontium* [*Antirrhinum orontium*] | Linearleaf snapdragon. Not listed by Gorman or Nelson. Collected at Gaston by Leach in 1934, and at Vancouver by Hanson in 1983, but known from Marion County as early as 1925 (HPSU, OSC). | Exotic. Introduced 1900-1924. Common on dry sites. NW 62nd Street in Vancouver (*Hanson, 1983*, HPSU), Beaverton, Tualatin, West Linn, East Bank Esplanade along the Willamette River just N and S of Morrison Bridge (*Marttala*). |
| *Nuttallanthus texanus* [*Linaria canadensis* var. *texana*] | Blue toadflax. Not listed by Gorman or Nelson. A site in West Linn was destroyed during construction of Interstate 205 in 1970-1975 (*Marttala*). | Native, rare. No recent reports from our area. |
| *Orthocarpus bracteosus* | **Hairy orthocarpus. On dry plains, Tualatin Plains. April-June.** Collected near Hillsboro by Howell and Henderson in 1882, and near Banks by Chambers in 1975 (OSC), the latter somewhat beyond our limits. | Native, rare. No recent reports from our area. A rare annual of vernal pools and wet prairie. |
| *Parentucellia viscosa* | Parentucellia. Not listed by Gorman or Nelson. Collected at the site of Vanport, W of Denver Avenue, by Ornduff in 1960. Known from Linn County in 1934, and Tillamook County as early as 1924 (OSC). | Exotic. Introduced 1925-1949. Ubiquitous on seasonally wet soil, usually in disturbed areas. |
| *Paulownia tomentosa* [*Paulownia imperialis*] | Princess tree. Not listed by Gorman or Nelson. Available commercially in the West since 1880, and sold locally as early as 1912 (Adams 2004). | Exotic. Introduced 1875-1899. An escaped ornamental, spreading and persisting vegetatively by root sprouts, sometimes long after the original tree is gone. Several sites along the Willamette River and in suburban yards around Portland (*Kimpo, Christy, Gaddis*) and Skamania County (Legler et al. 2008). |

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| *Penstemon ovatus* | **[*Pentstemon ovatus*]. Ovate-leaved beard-tongue. Moist ground and stream banks. Lower Albina and along Willamette River. May-July.** "On the banks of the Willamette River near Portland" (Howell 1897-1903). Collected several times at Portland, Lower Albina, and near the Stark Street Bridge on the Sandy River by Henderson, Thomas Howell, Sheldon, and Thompson between 1881 and 1928 (OSC, WTU). | Native, rare. In our area, known only from cliffs along the Sandy River, just downstream from the Stark Street Bridge (*Ettinger, 1981,* OSC; *Kierstead, 1982*, OSC; *Maffitt, 2009)*, and E of Washougal along Highway 14 at Bell Road (*Maffitt*). The site near the Stark Street Bridge is the same locality as that of Thompson's in 1928. |
| *Penstemon richardsonii* var. *dentatus* | Cutleaf beardtongue. Not listed by Gorman or Nelson. Collected at Elk Rock by Drake in 1889 (NY). | Native, rare. No recent reports from our area. All other specimens of *P. richardsonii* from Elk Rock were annotated recently as var. *richardsonii*. It is unclear if the specimen of var. *dentatus* at NY is correctly named, but we retain it here until more information is available. |
| *Penstemon richardsonii* var. *richardsonii* | **[*Pentstemon richardsonii*]. Richardson's beard-tongue. Cliffs and rocky banks. Elk Rock, Oregon City (west side), etc. May-August.** Collected near Oregon City by Thomas Howell in 1889 (OSC), at Willamette Falls by Howell and Sheldon in 1902 (OSC), at Elk Rock by Sheldon in 1902 (OSC, NY), and on the S side of Oswego Lake by Gorman in 1919 (OSC). Seen at Elk Rock by Marttala in 1976. | Native, rare. No recent reports from our area, and not relocated at Elk Rock (PPR 2004). Stark Street Bridge area on the Sandy River (*Marttala*). |
| *Penstemon rydbergii* var. *oreocharis* [*Penstemon rydbergii, Penstemon rydbergii* var. *varians*] | Rydberg's penstemon. Not listed by Gorman or Nelson. Collected at Cornelius by Lloyd in 1894 (NY), on "river bottoms" at Hillsboro by Kirkwood in 1901 (NY), on "low ground" along a railroad at Cook by Nelson in 1921 (CAS, PH; Keck 1945), and in a "boggy meadow" at Gaston by Peck in 1930 (GH, PH; Peck 1932; Hitchcock et al. 1955-1969; Peck 1961), the last beyond our limits. Leach collected it again at Gaston in 1934 (OSC). | Native, rare. No recent confirmed reports from our area, but a population recently found at Tualatin River NWR appears to be this species (*Maffitt, 2008*). Treated by Peck (1932, 1961), Abrams and Ferris (1923-1960), and Keck (1945) as *Penstemon hesperius*, a local endemic species that was thought to be extinct. |
| *Penstemon serrulatus* | **[*Pentstemon diffusus*]. Spreading beard-tongue. On rocky banks and moist slopes. Clackamas and Elk Rock.** Collected at Portland by Drake in 1891(OSC). | Native, rare. In our area, known only from cliffs along the Sandy River, just downstream from the Stark Street Bridge (*Maffitt, 2009*). Not relocated at Elk Rock (PPR 2004). Reported from Clackamas River Island (Mohler 2005). More common in the Columbia Gorge and further up the Sandy River drainage, beyond our limits (*Marttala*). |
| *Rhinanthus minor* ssp. *minor* [*Rhinanthus crista-galli*] | Little yellowrattle. Not listed by Gorman or Nelson. Collected near Fort Vancouver by Scouler in 1825 (Hooker 1829-1840). | Native, rare. In our area known only from Fifth Plain Prairie and upper Burnt Bridge Creek (*Gaddis*). |
| *Scrophularia californica* | **[*Scrophularia marylandica*]. Maryland figwort. Coniferous woods, St. Helens Road. June-September.** Collected near Portland by Henderson in 1884, and in Macleay Park by Sheldon in 1902 (OSC). | Native, rare. Infrequent in coniferous and riparian forest. Forest Park (Houle 1996), Barnes Road (*Christy, 2006*), Gales Creek, Skyline Boulevard. Gorman presumably obtained the report of *S. marilandica* ("*marylandica*") from Sheldon, whose specimen from Macleay Park was later renamed *S. californica.* |

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| *Scrophularia lanceolata* | **[*Scrophularia occidentalis*]. Western figwort. Open woods and rich soil. Macleay Park, St. Helens Road, Oswego, Milwaukie, Mt. Scott, etc. May-July.** Collected at Portland by Henderson in in 1884, at Forest Grove by Marsh between 1867 and 1890, and at Linnton by Zivney in 1939 (OSC, WTU). | Native, rare. In our area known only from Green Mountain (*Habegger, 1998*, WTU), Salmon Creek upstream from Mill Creek and a few other sites in Clark County (*Gaddis*), in flower beds along Brookside Drive by Brookside Pond (Marttala), and at the Lovejoy Property (*Stewart, 2009*). |
| *Synthyris reniformis* | **Kidney-leaved synthyris. Not uncommon in moist, rocky gulches near Bridal Veil. To be looked for in gulches near Latourelle and St. Helens Road. February-May. [*Synthyris rotundifolia*]. Round-leaved synthyris. Open woods and rocky places. Elk Rock, Mt. Tabor, Mt. Scott, Powell Valley Road, etc. January-April.** Collected in woods NE of Fort Vancouver by Gairdner in 1833-1835 (Hooker 1829-1840, as *Wulfenia reniformis*), and several times around Portland from Forest Grove to Clackamas, Elk Rock, and Oswego, between 1879 and 1903 (OSC, COCC). | Native. Occasional in our area in moist, open woods. Powell Butte, Kelly Butte, Mt. Talbert, remnant oak woods near Interstates 5 and 205 in Clark County (*Gaddis*). More frequent in the E part of our area near the Columbia Gorge. Often in oak woodland in the W part of the region. |
| *Tonella tenella* | **[*Tonella collinsioides*]. Slender tenella. Open rocky places. Oswego, Milwaukie, etc. April-May.** Collected a number of times at Oregon City, opposite Oswego, Portland, Lower Albina, and N of Tonquin, by Henderson, Drake, Howell, Sheldon, and Thompson, between 1881 and 1927 (OSC). Seen at Elk Rock by Marttala in 1976. A site in West Linn was destroyed during construction of Interstate 205 in 1970-1975 (*Marttala*). | Native. Occasional throughout our area in open rocky places, becoming more common E of the Sandy River. Present beyond our limits at Ridgefield NWR and St. Helens (Christy and Alverson 2001). |
| *Triphysaria pusilla* [*Orthocarpus pusillus*] | **Little owl's clover. Open places in low ground. South Portland, Fulton, etc. April-May.** Collected numerous times on Sauvie Island, East Portland, North Portland, Lower Albina, Columbia Slough, and along the Willamette by Howell, Henderson, Sheldon, Gorman, and Cusick (OSC, WTU). | Native, rare. In our area known only from Camassia Preserve, upper Burnt Bridge Creek drainage (*Gaddis, 1996*), and St. Helens (Christy and Alverson 2001), the last beyond our limits. |
| *Verbascum blattaria* | **Moth mullein. Fields and waste places. East Portland, Oswego, Gladstone, etc. Naturalized from Europe. June-November.** Collected numerous times in our area between 1888 and 1957, and on ballast at Linnton, where more common than *V. thapsus* (OSC, WTU; Nelson 1917). Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. Becoming increasingly common in disturbed areas throughout our area. |
| *Verbascum phlomoides* [*Verbascum speciosum*] | **[*Verbascum speciosum*]. Austrian mullein. Moist banks and waste places. Balch Creek, Guilds Lake, Lewis and Clark Fair Grounds. Escaped from cultivation. Adventive from Europe. June-August.** Collected at the Lewis and Clark Fairgrounds by Gorman in 1909 (OSC), where Nelson (1918a) reported it as "well established." | Exotic, rare. Introduced 1875-1899. No recent reports from our area. Gorman's specimens were later renamed *V. phlomoides*, orange mullein. |

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| *Verbascum thapsus* | **Common mullein. A weed in fields and roadsides. East Portland, St. Helens Road, Oswego, Oak Grove, etc. Naturalized from Europe. June-September.** Collected around Portland by Henderson in 1883, and on ballast at Linnton, where "common" (OSC; Nelson 1917) Reed College (Van Dersal 1929). | Exotic. Introduced 1875-1899. Common on roadsides, along railroads, and on disturbed soil throughout our area. |
| *Veronica agrestis* | Green field speedwell. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Veronica americana* | **American brooklime. Brooks, ditches, and wet places. Macleay Park** [Gorman and Sheldon 1905]**, St. Helens Road, South Portland, Fulton, etc. April-September.** Collected several times around Portland between 1880 and 1915 (HPSU, OSC). | Native. Very common in wet areas throughout our area. Springwater Corridor Trail, Sauvie Island, Oaks Bottom, Rock Creek. |
| *Veronica anagallis-aquatica* [*Veronica catenata*] | Water speedwell. Not listed by Gorman or Nelson. Collected at NW 185th and Highway 26 by Bell in 1975 (HPSU), but known from Wasco County since 1955 and Umatilla County since 1941 (OSC). | Exotic. Introduced 1950-1974. Common in disturbed wetlands around our area. Mostly E of the Cascades. |
| *Veronica arvensis* | **Corn speedwell. Fields, gardens, and waste places. Lewis and Clark Fair Grounds, East Portland, Mt. Tabor, Fulton, etc. A common weed in cultivated ground everywhere around Portland. Naturalized from Europe. March-September.** Collected several times around Portland, from Sauvie Island to Oswego and Tonquin, between 1887 and 1926 (OSC, WTU). | Exotic. Introduced 1875-1899. A common weed in wet areas throughout our area. |
| *Veronica filiformis* | Threadstalk speedwell. Not listed by Gorman or Nelson. Collected several times in Portland and Oswego as a lawn weed between 1953 and 1958 (OSC). | Exotic, rare. Introduced 1925-1949. In our area known only from the Steinborn Unit of the Tualatin River NWR (*Maffitt*). |
| *Veronica hederifolia* [*Veronica hederaefolia*] | Ivyleaf speedwell. Not listed by Gorman or Nelson. First collected in Oregon (Polk County) in 1950, and at Hillsboro by Burkhart in 1951 (OSC). | Exotic, rare. Introduced 1925-1949. In our area known only from Parkway wetlands near Vancouver Mall (*Gaddis, 1995*). |
| *Veronica officinalis* var. *tournefortii* [*Veronica officinalis*] | Common gypsyweed. Reported as common in cultivated ground at Oregon City (Nelson 1918a, as *V. tournefortii*). | Exotic, rare. Introduced 1900-1924. In our area known only from Kelly Butte and Lone Fir Cemetery. |
| *Veronica peregrina* var. *peregrina* | **Purslane speedwell. Low ground and moist soil. South Portland, Fulton, etc. Occasionally a weed in gardens and fields. May-September.** Collected at Lower Albina by Sheldon in 1902, and at Forest Grove by Thompson in 1926 (OSC, WTU). | Exotic, rare. Introduced 1875-1899. In our area known only from SE 18th and Belmont (*Marttala*). |
| *Veronica peregrina* var. *xalapensis* | Hairy purslane speedwell. Not listed by Gorman or Nelson. Collected at East Portland, probably by Henderson, in 1888 (OSC). | Native. Common around our area on moist soils. N end of Sauvie Island (Marttala et al. 2002) and Tonquin. |
| *Veronica persica* | Birdeye speedwell. Not listed by Gorman or Nelson. Collected at Forest Grove by Thompson in 1926, and on Sauvie Island by Kennedy in 1975 (OSC, WTU). Reported as naturalized in a Portland garden by Soth (1933, as *V. buxbaumii*). | Exotic, rare. Introduced 1900-1924. Interstate 205 and NE 119th Street (*Gaddis, 1997*), N end of Sauvie Island (Marttala et al. 2002), Aloha (*Smith, 2005*, OSC). Also present farther S in the Willamette Valley. |

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| *Veronica scutellata* | **Marsh speedwell. In ponds and wet places. Oswego, etc. May-September.** Collected near Mt. Scott and at Oregon City by Sheldon in 1902, and S of the W end of Oswego Lake by French in 1960 (OSC). | Native. Common in wetlands around our area. Powell Butte, Clear Creek, Peach Cove Fen, Sandy River Delta (*Zika et al., 1992*, OFP), Canemah Bluff (Smyth 1999a), Camassia Preserve (*Trask & Abrams*, 2001, HPSU), Springwater Corridor Trail at SE 115th NW of Zenger Farm (*Marttala*), Clark County (*Gaddis*). |
| *Veronica serpyllifolia* ssp. *humifusa* | Brightblue speedwell. Not listed by Gorman or Nelson. Collected several times around Portland from St. Helens to Oswego, between 1879 and 1903 (OSC). | Native. Distribution uncertain because of confusion with *V. serpyllifolia* var. *serpyllifolia.* Sandy River Delta (*Zika et al., 1992*, OFP). |
| *Veronica serpyllifolia* var. *serpyllifolia* | **Thyme-leaved speedwell. Low ground, wet places, and moist sloping lawns about the city. A harmless weed in well-watered lawns around Portland. April-August.** Collected at NW Savier Street by Gorman in 1917, and in lawns in Portland by Apgar in 1955 and Barbeau in 1958 (OSC). | Exotic. Introduced 1875-1899. More or less common throughout our area. |
| *Veronica wormskjoldii* | American alpine speedwell. Not listed by Gorman or Nelson. Collected at Mt.Tabor by Flinn in 1906 (HPSU). | Native, rare. No recent reports from our area. Typical of higher elevations in the Cascades, but occasional at lower elevations. |
| **Selaginellaceae** | | |
| *Selaginella densa* var. *scopulorum* [*Selaginella scopulorum*] | Compact selaginella. Not listed by Gorman or Nelson. | Native, rare. Reported from Camassia Preserve but not verified. An unidentified *Selaginella* reported from Willamette Narrows could be this species. Usually at higher elevations and less common than *S. wallacei*. |
| *Selaginella douglasii* | **Douglas' selaginella. Moist slopes above Milwaukie, moist rocky slopes in Macleay Park** [Gorman and Sheldon 1905]**. May-July.** Collected several times around Portland, from Cornell Road, Macleay Park, Milwaukie, and along the Washougal River, between 1881 and 1915 (HPSU, OSC, REED, WTU). | Native, rare. In our area known only from Macleay Park (*Christy, 1993*) and Lewis and Clark State Park (*Kemp*, OFP). Also present farther up the Sandy, Clackamas, and Columbia Rivers, all beyond our limits. |
| *Selaginella oregana* | Oregon spikemoss. Not listed by Gorman or Nelson. Reported from Oregon City (Hitchcock et al. 1955-1969) but without collection data, and historical voucher specimens not found. | Native, rare. In our area known only from the N end of Sauvie Island (Marttala et al. 2002). |
| *Selaginella wallacei* | **[*Selaginella rupestris*]. Rock selaginella. On rocky cliffs. Elk Rock. July, August.** Collected at Oswego by Henderson in 1884, at Oregon City by Foster in 1904, on rocky cliffs along the Willamette by Thompson in 1928, and at Camassia Preserve by Comber in 1966 (OSC, REED; Nelson 1922). Also collected at St. Helens by Thomas Howell in 1880 and 1887, slightly beyond our limits. | Native, rare. In our area known only from Elk Rock Island, Hardscrabble Quarry (Weber et al. 1999), and St. Helens (Christy and Alverson 2001), the latter beyond our limits. An unidentified *Selaginella* reported from Willamette Narrows is probably this species. |

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| **Simaroubaceae** | | |
| *Ailanthus altissima* | Tree of heaven. Not listed by Gorman or Nelson. Reed College (Davies 1938), where possibly planted as an ornamental. Available commercially in the West since 1880 (Adams 2004). | Exotic. Introduced 1875-1899. Common in our area on disturbed sites in the urban core. Once favored as a botanical curiosity and ornamental but now a fallen angel. Extremely weedy and often emerging from cracks in pavement, or flush against foundations of buildings. |
| **Solanaceae** | | |
| *Calibrachoa parviflora* [*Petunia parviflora*] | Seaside petunia. Not listed by Gorman or Nelson. Collected on ballast at Lower Albina by Sheldon in 1902 (OSC; Halse 1996). | Exotic. Introduced 1875-1899. No recent reports from our area. |
| *Datura quercifolia* | Chinese thorn-apple. Reported from ballast at Linnton (Nelson 1917, as *Datura villosa*). | Exotic. Introduced 1900-1924. In our area, known only as a pasture weed near Oregon City (*Parsons, 1997*, OSC). Hybridizes with *D. stramonium*. |
| *Datura stramonium* | **White thorn-apple, Jimson-weed. Sandy banks along Willamette River. Naturalized from Asia. May-September.** On ballast at Linnton (Nelson 1916). Seen once on "waste heaps" in Portland by Van Dersal (1929). | Exotic. Introduced 1875-1899. Occasional in vacant lots, waste places, and agricultural fields. Sauvie Island (*Newhouse*). |
| *Lycium barbarum* | Matrimony vine, goji berry, Chinese wolfberry. Not listed by Gorman or Nelson. Collected at Portland by Flinn in 1915 (OSC). | Exotic, rare. Introduced 1900-1924. No recent reports from our area. Reportedly an aggressive invader, currently of interest because of its antioxidant qualities. |
| *Nicotiana acuminata* var. *multiflora* | Manyflower tobacco. Not listed by Gorman or Nelson. First collected in E Oregon in 1974 (OSC). | Exotic. Introduced 1975-1999. Reported from the end of Hayden Island Road (*Wilson*, OFP). |
| *Nicotiana attenuata* | Coyote tobacco. *Nicotiana* is one of eight genera that Gorman added to his *Muhlenbergia* manuscript in December 1915. The pages missing from *Muhlenbergia* make it impossible to know which species he was referring to, but in Gorman (1916) he identified it as *N. attenuata.* It was one of a number of species that he thought had moved into the Portland area from E of the Cascades via the Columbia Gorge. Nelson (1918a) reported it from sandy soil around Portland, and he and Peck collected it on Hayden Island in 1922 (OSC). | Native, rare. No recent reports from our area. |
| *Nicotiana rustica* | Aztec tobacco. Collected on ballast at Lower Albina by Sheldon in 1902, and at Linnton (OSC; Nelson 1916, 1917). Nelson (1917) indicated that although it was "well-established" when first seen, it did not survive the winter. | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Petunia* × *atkinsiana* [*Petunia axillaris* × *integrifolia*] | Garden petunia. Not listed by Gorman or Nelson. Hybrid petunias have been available commercially in the West since 1880 (Adams 2004). | Exotic. Introduced 1875-1899. Grown everywhere as an ornamental and occasionally reseeding the following year, inidicating that not all cultivars are sterile hybrids. A garden volunteer in SE Portland (*Marttala, 2009*), and in pavement cracks along Canyon Road (*Christy, 2009*). |
| *Physalis philadelphica* var. *immaculata* | Mexican groundcherry. Collected on ballast at Portland and North Portland by Henderson in 1885, and reported from sandy waste ground in rail yards at Lower Albina (OSC; Nelson 1921, as *P. ixocarpa*). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |

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| *Physalis pubescens* | Husk tomato. Not listed by Gorman or Nelson. Collected on sand bars along the Willamette River by Henderson in 1884, presumably at or near Portland (OSC). | Exotic, rare. Introduced 1875-1899. An occasional escape in our area. SE 7th Avenue near Belmont (*Marttala*). |
| *Solanum americanum* [*Solanum nigrum* in part] | Nightshade. Not listed by Gorman or Nelson. Collected at Portland by Henderson in 1881 and 1888, on ballast at Lower Albina by Sheldon in 1902, on Dairy Creek at Hillsboro by Smith in 1910, and on Sauvie Island by Trainer in 1963 (NY, OSC). | Native, rare. In our area known only from the Tualatin River NWR (Maffitt et al. 2005-2008) and the Lovejoy Property (*Kimpo*). |
| *Solanum dulcamara* | **Bittersweet. Infrequent in moist ground and waste places. Goldsmith's Addition, Albina, etc. Naturalized from Europe. May-September.** Collected at Portland by Henderson and Flinn in 1880 and 1909, at Hillsoboro by Smith in 1911, and at East Portland by Thompson in 1925 (NY, OSC, WTU). | Exotic. Introduced 1875-1899. Throughout our area in riparian forest, forested wetlands, and shaded yards. It tolerates extended periods of inundation. |
| *Solanum furcatum* | Forked nightshade. Collected on ballast at Albina by Suksdorf in 1900 (WTU; Hitchcock et al. 1955-1969). Suksdorf's specimen was presumably the basis for the report of *S. douglasii* by Nelson (1917, 1918a, as *S. nigrum* var. *douglasii*), which had long been confused with *S. furcatum* (Abrams and Ferris 1923-1960). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Solanum lycopersicum* var. *lycopersicum* [*Lycopersicon esculentum*, *Lycopersicon lycopersicum*] | Garden tomato. Not listed by Gorman or Nelson. Collected at Portland by Suksdorf in 1900 (WS). Grown in the United States since the 1780s but not popular as a garden fruit until the 1850s. | Exotic, rare. Introduced 1850-1874. Grown eveywhere in vegetable gardens and occasionally reseeding the following year, indicating that not all cultivars are sterile hybrids. West Slope (*Christy, 2005*), E bank of Willamette River just S of Hawthorne Bridge (*Marttala, 2008*). |
| *Solanum nigrum* | **Black nightshade. Common in fields and waste places everywhere about Portland. Said to be indigenous in North America, but in this section an introduced weed, probably from Europe. June-October.** Collected at Portland by Henderson in 1885, at NW 28th and Thurman Street by Gorman in 1916, and N of the Forestry Building by Thompson in 1927 (OSC, WTU). On ballast at Linnton, and "beginning to appear" on sandbars along the Willamette River (Nelson 1916, 1917). | Exotic. Introduced 1875-1899. Occasional throughout our area in fields and dry to moist waste places. Hayden Island (*Wilson, 2006*, OFP). Much less common than *S. dulcamara*. |
| *Solanum physalifolium* [*Solanum sarrachoides*] | Hairy nightshade. Collected at Portland by Henderson in 1885, on ballast at Linnton by Nelson in 1915 or 1916, and along the Columbia River near the Interstate Bridge by Flinn in 1915 (OSC; Nelson 1917, 1918a, as *S. nigrum* var. *villosum*). Reed College (*Brehm, 1960s*). | Exotic, rare. Introduced 1875-1899. SW 209th Avenue N of Rosa (*Smith, 2006*, OSC). Hitchcock et al. (1955-1969) indicated that reports of *S. nigrum* var. *villosum* from our area should be referred to *S. sarrachoides* (= *S. physalifolium*). |
| *Solanum rostratum* | Buffalobur nightshade. Collected in rail yards at Lower Albina (Nelson 1920a), at Boring by Cook in 1951, and at Scappoose by Havelik in 1951 (OSC), the last two beyond our limits. | Exotic, rare. Introduced 1900-1924. Infrequent in our area on disturbed sites. Generally forming small patches where found. |

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| *Solanum sisymbriifolium* | **Prickly nightshade. Ballast grounds and waste places about Union Depot, Albina, etc. Adventive from tropical America. June-September.** Collected on ballast at Portland, Albina, and Linnton by Henderson and Suksdorf between 1882 and 1919 (OSC, WTU; Howell 1897-1903; Nelson 1917, 1920a; Hitchcock et al. 1955-1969). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| *Solanum triflorum* | Cutleaf nightshade. On sandy shore of Hayden Island opposite Vancouver (Nelson 1918a), where collected by Flinn in 1915 (OSC). | Native, rare. No recent reports from our area. Mostly E of the Cascades. |
| *Solanum umbelliferum* | Bluewitch nightshade. Not listed by Gorman or Nelson. Collected at Lower Albina by Sheldon in 1902 (OSC), probably from ballast. | Native, rare. No recent reports from our area. More common in SW Oregon (Peck 1961) and California. |
| **Sparganiaceae** | | |
| *Sparganium angustifolium* [*Sparganium emersum*] | Simplestem bur-reed. Not listed by Gorman or Nelson. Collected 5 miles E of Gresham by Bond in 1955 (OSC), slighlty beyond our limits. | Native. Occasional to locally abundant in wetlands throughout our area. Beaverton (*Alverson, 1987*, OSC), Hillsboro (*Confer, 1987*, OSC), Sherwood (*Peck, 1990*, LINF), Burlington Bottoms, Killin Wetland (*Christy, 1991*), Sauvie Island, Peach Cove Fen (*Christy, 1996*). On perennially moist to wet soils. |
| *Sparganium eurycarpum* | **Broad fruited bur reed. In ponds near the car shops. June, July.** | Native, rare. In our area known only from Wilding wetland at Interstate 205 and St. Johns in Clark County (*Gaddis*), and the N end of Sauvie Island (Marttala et al. 2002). Not as common as *S. angustifolium*. |
| **Taxaceae** | | |
| *Taxus brevifolia* | **Western yew, Pacific yew. Infrequent in moist ravines and on stream banks. Macleay Park** [Gorman and Sheldon 1905] **and near Willbridge. March, April.** Collected at Portland by Henderson in 1881 and 1884, at Riverdale by Sheldon in 1903, at Forest Grove by Lloyd in 1893, and at Willamette View Manor in Oak Grove by McKendry in 1979 (HPSU, NY, OSC. Forming groves on Sauvie Island, but location not specified (Van Dersal 1929). | Native. Occasional in our area. Leach Botanical Garden, Clackamas River Bluffs (Christy et al. 2007), Canemah Bluff, Cooper Mountain, Morand Property, Tualatin River NWR, Forest Park (Houle 1996), Salmon Creek near NE 72nd Avenue in Clark County, Collins Sanctuary (*Gaddis*), and beyond our limits near Banks. |
| **Thymelaeaceae** | | |
| *Daphne laureola* | Spurgelaurel. Not listed by Gorman or Nelson. Historical voucher specimens for our area not found, but mature plants were seen on Kelly Butte as early as 1966 (*Marttala*). First collected in Oregon and Washington in 1998 and 1999, respectively (OSC, WTU), but probably in cultivation here since at least 1950. | Exotic. Introduced 1950-1974. An escaped ornamental, occasional in our area in coniferous and mixed woods, primarily in heavily urbanized areas. Greeley Boulevard oaks, Forest Park, Barbur Boulevard Natural Area, Mt. Talbert (*Kimpo*), formerly at Powell Butte (*Marttala*), Hoyt Arboretum (*Chirsty, 2005*), SW Fairmount Boulevard (*Christy, 2008*). Also in the Columbia Gorge, beyond our limits (*Christy, 1998*). A major pest around Puget Sound and Victoria, B.C. |
| **Tiliaceae** | | |
| *Corchorus hirtus* | Orinoco jute. Reported from ballast at Linnton (Nelson 1916, 1917, as *Corchorus pililobus* and *C. pilolobus*). | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |

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| **Tropaeolaceae** | | |
| *Tropaeolum majus* | Nasturtium. Not listed by Gorman or Nelson. Grown in the United States since the 1750s, and available commercially in the West since 1873 (Adams 2004). | Exotic, rare. Introduced 1850-1874. Grown everywhere as an ornamental and occasionally reseeding the following year, inidicating that not all cultivars are sterile hybrids. West Slope, where seen to persist and reseed in garden over a three-year period (*Christy, 1998*). Naturalized in California, and Invasive in the tropics. |
| **Typhaceae** | | |
| *Typha latifolia* | **Common cat tail. In ditches and mucky ponds at The Oaks, near Milwaukie, and along St. Helens Road between the road and Willamette River. May, June.** Collected at the Car Works and elsewhere in East Portland by Henderson in 1883 (OSC). Reed College (Van Dersal 1929; Davies 1938). | Native. Common throughout our area in perennially and seasonally flooded wetlands, as long as soils remain saturated late into the summer. |
| **Ulmaceae** | | |
| *Ulmus pumila* | Siberian elm. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Columbia County as early as 1940 (OSC). | Exotic. Introduced 1925-1949. A common ornamental and sometimes problematic when planted adjacent to natural areas. It is an aggressive root sprouter and quickly forms monotypic stands. Oaks Bottom. |
| **Urticaceae** | | |
| *Urtica berteroana* | **Chile nettle. Infrequent on ballast ground and waste places. Lower Albina. Adventive from Chile. June, July.** | Exotic, rare. Introduced 1900-1924. No recent reports from our area, and voucher specimens not found. |
| *Urtica dioica* ssp. *dioica* | Stinging nettle. Gorman and Nelson included this exotic form in their broader concept of *Urtica dioica*. Collected on ballast at Lower Albina by Sheldon in 1902 and at Linnton by Gorman and Nelson in 1919 and 1922 (OSC; Nelson 1917, 1921, 1923a). | Exotic. Introduced 1875-1899. No recent reports from our area. Probably still present in the metro region but confused with native *U. dioica* ssp. *gracilis*. |
| *Urtica dioica* ssp. *gracilis* [*Urtica dioica* ssp. *gracilis* var. *gracilis, Urtica dioica* ssp. *gracilis* var. *lyallii*] | **[*Urtica gracilis*]. Stinging nettle. Waste places and bottom lands. South Portland, Fulton, Sandy Boulevard, etc. Common about farmyards and fence rows. [*Urtica lyallii*]. Lyall's nettle. Alluvial thickets and bottom lands. Fulton, St. Helens Road, etc. May-October.** Collected at Forest Grove by Craig in 1897, and on Willamette Heights by Sheldon in 1902 (OSC). | Native. Very common in moist forests and edges. Forest Park (Houle 1996), Kelly Butte, Powell Butte, Mt. Scott, Springwater Corridor Trail, Burlington Bottoms, Reed College canyon (Moreira and Stafford 1996), Sauvie Island. It is inexplicable why this taxon was not better represented in historical collections, unless it has increased dramatically in our area over the last century. |
| *Urtica urens* | Dwarf nettle. Not listed by Gorman or Nelson. Collected at Lower Albina by Sheldon in 1902, and at Troutdale by McCay in 1944 (OSC). | Exotic, rare. Introduced 1875-1899. No recent reports from our area. |
| **Valerianaceae** | | |
| *Centranthus ruber* | Red valerian. Not listed by Gorman or Nelson. Seen at Elk Rock by Marttala in 1976. Available commercially in the West since 1937 (Adams 2004). | Exotic. Introduced 1925-1949. An occasional garden escape. E bank of the Willamette River near OMSI (*Marttala*). Several collections have been made farther S (OSC; Zika and Alverson 1993). |
| *Plectritis congesta* ssp. *brachystemon* [*Plectritis brachystemon*] | **[*Plectritis anomala*]. Meadow corn salad. Moist ground, Swan Island. April-June.** Collected several times in our area, from Sauvie Island to Portland, between 1879 and 1916 (GH, OSC, WTU). | Native, rare. No recent reports from our area, but probably present and confused with the more common *P. congesta* ssp. *congesta*. |

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| *Plectritis congesta* ssp. *congesta* [*Plectritis congesta*] | **Red corn salad. On moist rocky banks. Oswego, Oak Grove, etc. April-June.** Collected several times in our area, from the Tualatin Valley to Portland, between 1882 and 1928 (HPSU, OSC, WTU). | Native. Common in the few remaining upland prairies in our area. Cooper Mountain, Camassia Preserve, N end of Sauvie Island (Marttala et al. 2002), Ridgefield NWR (*Gaddis*), St. Helens (Christy and Alverson 2001). The last three localities are beyond our limits. |
| *Valerianella carinata* | European cornsalad. Not listed by Gorman or Nelson. Historical voucher specimens from our area not found, but known from Benton County as early as 1938 (OSC). | Exotic. Introduced 1925-1949. In our area common along lower Salmon Creek and many other lowland sites in Clark County (*Gaddis*). |
| *Valerianella locusta* | **Corn salad. Fields, gardens, and waste places around Portland. Naturalized from Europe. April-July.** Collected at Portland by Gorman in 1891 (OSC), and "in fields and waste places near Portland" (Howell 1897-1903, as *V. olitoria*). | Exotic. Introduced 1875-1899. Occasional in our area. Green Mountain (*Habegger, 1998*, WTU), the N end of Sauvie Island (Marttala et al. 2002), edge of East Bank Esplanade along Willamette River near OMSI (*Marttala*), and possibly at Cooper Mountain. |
| **Verbenaceae** | | |
| *Verbena bonariensis* | Tall verbena. Not listed by Gorman or Nelson. Collected on ballast at North Portland by Henderson in 1887 (OSC). | Exotic, rare. Introduced 1875-1899. An escaped ornamental. Heron Rookery (*Santer, 2001*, HPSU), Schlesinger PRF, and Washington County (*Kimpo, 2001*, HPSU). Another population in a created wetland along Columbia Slough near NE 138$^{th}$ has been shaded out since 2001 (*Kimpo*). An aggressive invader, reportedly a pest in northern California (*Newhouse*). |
| *Verbena bracteata* | **[*Verbena bracteosa*]. Slender vervain. Sandy stream banks. Willamette River, Sauvie Island, Vancouver, etc. April-July.** Collected on Hayden Island by Douglas in 1825-1827 (Hooker 1829-1840; Piper and Beattie 1915), and several times on Sauvie and Hayden islands by Howell, Flinn, Peck, and Thompson between 1886 and 1927 (OSC, WTU). | Native, rare. No recent reports from our area. |
| *Verbena hastata* | **Blue vervain. Moist ground. Jennings Lodge, Mt. Scott, etc. May-August.** Collected several times on Sauvie Island, near Mt. Scott, near Oregon City, and at Portland by Howell, Sheldon, and Gilkey between 1880 and 1935 (OSC, WTU). | Native. Scarce in our area. Lower Columbia Slough, Bridlemile Park, Parkway wetlands near Vancouver Mall in the mid 1990s (*Gaddis*). Occasional along the Columbia River E of the Sandy River. Native to E North America and possibly introduced in our area. |
| *Verbena lasiostachys* | Western vervain. Not listed by Gorman or Nelson. Collected on ballast at Linnton by Nelson in 1922 (OSC). | Native, rare. No recent reports from our area. |
| *Verbena officinalis* | Herb of the cross. Collected on ballast at Linnton by Nelson in 1922, where "one large clump has persisted" (OSC; Nelson 1917, 1923a; Jacobson et al. 2001). Nelson (1917) predicted it would persist in the regional flora, and reported that it was well established at a site in Marion County. | Exotic, rare. Introduced 1900-1924. No recent reports from our area. |
| **Violaceae** | | |
| *Viola adunca* | **Western dog violet. Common on hillsides and open woods everywhere around Portland. March-May.** Collected several times around Portland between 1880 and 1975 (HPSU, OSC). | Native, rare. Cooper Mountain, Tualatin River NWR, the latter being forma *alba* (Maffitt et al. 2005-2008). More common further up the Sandy River drainage, beyond our limits (*Poff & Marttala*). |

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| *Viola glabella* | **Yellow wood violet. Common in moist woods. Macleay Park** [Gorman and Sheldon 1905]**, Laurelhurst Park, Cornell Road, Mt. Tabor, etc. April-June.** Collected several times around Portland between 1876 and 1928 (HPSU, OSC). Reed College (Van Dersal 1929). | Native. Common in moist woodlands where *Hedera helix* and *H. hibernica* have not invaded. |
| *Viola howellii* | **Howell's violet. Not uncommon in moist open woods. South Portland, Oswego Lake, Cornell Road, etc. Type locality is at junction of Cornell and Germantown Roads. April-June.** Collected at Portland Heights, Elk Rock, Gladstone, and Oswego by Howell, Gorman, Fliedner, Flinn, and Sheldon between 1887 and 1927 (OSC). Reed College (Van Dersal 1929). | Native, rare. In our area known only from Camassia Preserve and Cooper Mountain (*Barlow, 2001*, HPSU). |
| *Viola odorata* | Sweet violet. Not listed by Gorman or Nelson. Available commercially in the West since 1907 (Adams 2004), and collected in the Willamette Valley (Salem) as early as 1922 (OSC). | Exotic, rare. Introduced 1900-1924. Occasionally escaped in disturbed woodlands. Mill Plain and near Lacamas Lake (*Zika, 2001*, WTU), West Slope (*Christy*). |
| *Viola palustris* | Marsh violet. Not listed by Gorman or Nelson. | Native, rare. In our area known only from Barberton, and a forested wetland at NE 119th Street near 65th Avenue, both in Clark County (*Gaddis 2004, 2005*). |
| *Viola praemorsa* ssp. *praemorsa* [*Viola nuttallii* var. *praemorsa*] | **Hoary violet. Open plains about Gladstone and near Vancouver. April-June.** Collected near Fort Vancouver by Scouler in 1825, where "plentiful" (Hooker 1829-1840), at Gladstone by Gorman and Flinn in 1895 and 1908, and several times at Forest Grove between 1884 and 1926 (HPSU, OSC, WTU), the last somewhat beyond our limits. | Native, rare. In our area known only from Cooper Mountain. |
| *Viola sempervirens* | **Evergreen violet. Common in open woods. Macleay Park, Canyon Road, Cornell Road, Mt. Tabor, Mt. Scott, etc. March-May.** Collected near Fort Vancouver by Douglas in 1825-1827 (Hooker 1829-1840, as *V. sarmentosa*; Hitchcock et al. 1955-1969), and at Camas, Portland, Gladstone, and Forest Grove by Henderson, Flinn, Gorman, Leach, Sheldon, and Thompson between 1880 and 1932 (OSC, WTU). Macleay Park, where "rather rare" (Gorman and Sheldon 1905, as *V. sarmentosa*). Reed College (Van Dersal 1929). | Native, rare. In our area known only from Forest Park (Houle 1996), Camassia Preserve, Clackamas River Bluffs (Christy et al. 2007), and Leach Botanical Garden. |
| **Viscaceae** [Loranthaceae] | | |
| *Phoradendron villosum* [*Phoradendron flavescens* var. *villosum*] | **Western mistletoe. Parasitic on *Quercus garryana.* In early days not uncommon, but now quite rare. May, June.** Collected around Forest Grove by Henderson in 1884, and on Petes Mountain by Sheldon in 1902 (OSC). | Native, rare historically and rare today. Common on older oaks near Petes Mountain but in general rare elsewhere. More abundant beyond the metro area. |

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| **Vitaceae** | | |
| *Parthenocissus vitacea* | Grape-woodbine. Not listed by Gorman or Nelson. Collected at East Portland by Thompson in 1926 (OSC). | Exotic, rare. Introduced 1900-1924. In our area known only from Kelley Point Park (*Kimpo*). Also known from along the Columbia River E of the Cascades (*Wilson*, OFP). The very similar *P. quinquefolia* has not yet been reported as having naturalized in Oregon, but it has been available commercially in the West since 1894 and sold locally as early as 1912 (Adams 2004). Native to E and SW North America. |
| *Vitis riparia* | Riverbank grape. Not listed by Gorman or Nelson. Reported from Portland by Hitchcock et al. (1955-1969) but without collection data. Historical voucher specimens not found, but grapes were first planted at Fort Vancouver in 1826 (Taylor 1992), and other varieties were imported and hybridized by local nurseries and citizens as early as 1848 (Cardwell 1906). | Exotic, rare. Introduced 1950-1974. Scarce in our area. Lemon Island (*Christy 1992*) and in a shaded riparian draw at Willamette Narrows (*Kimpo*). Native to E North America. |
| *Vitis vinifera* | Domestic grape. Not listed by Gorman or Nelson. First planted at Fort Vancouver between 1829 and 1832 (Taylor 1992), and other varieties were imported and hybridized by local nurseries and citizens as early as 1848 (Cardwell 1906). Collected on Sauvie Island by Gorman in 1916 (WTU; Hitchcock et al. 1955-1969). | Exotic. Introduced 1825-1849. Occasional in our area. Lemon Island (*Christy, 1992*), Newell Canyon, Simpson Cove (*Kimpo*). |
| **Zannichelliaceae** | | |
| *Zannichellia palustris* | **Horned pond weed. In ponds near Vancouver ferry. May, June.** Collected on Hayden Island by Henderson and Thompson in 1888 and 1927 (OSC, REED, WTU). | Native, rare. No recent reports from our area. Ives Island, just above Beacon Rock and beyond our limits (*Christy, 1992*). |
| **Zygophyllaceae** | | |
| *Tribulus terrestris* | Puncture vine, caltrop. Not listed by Gorman or Nelson. Collected at Hood River by Black as early as 1924 (OSC), about the time it was first noticed in Oregon (Gilkey 1929). | Exotic. Introduced 2000-2008. In our area known only from a railroad embankment at Smith and Bybee Lakes (*Christy, 2006*) but probably well established locally for some time. Widespread E of the Cascades on both sides of the Columbia River. |

# Excluded taxa

We excluded the following taxa from our area because (1) it is doubtful that the species ever occurred here, (2) the species was misidentified, (3) no voucher specimens could be found, or (4) the species is planted here but not yet known to have escaped cultivation.

| Name | Historical Condition | Current Condition |
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| *Abies amabilis* | Pacific silver fir. Not listed by Gorman or Nelson. | Native. Reported from Forest Park (Houle 1996) but voucher specimens not found. Planted at Hoyt Arboretum but not known to reproduce there. Restricted to higher elevations in the Coast Range and Cascades and excluded from our area until demonstrated otherwise. |
| *Achnatherum lettermanii* [*Stipa lettermanii*] | Letterman's needlegrass. Not listed by Gorman or Nelson. | Native. A specimen so named from Cooper Mountain (*Kral, 1998*, HPSU) is *Achnatherum lemmonii* var. *lemmonii*. |
| *Angelica atropurpurea* | **Purple stemmed angelica. In moist ground and waste places. Lower Albina. Native of northeastern United States but adventive here. May-July.** | Exotic. A specimen so named from near Washington Park (*Sheldon, 1902*, OSC) is *A. arguta*. Voucher specimens from Lower Albina have not been found, and we exclude it until shown otherwise. |
| *Anthemis tinctoria* | Golden chamomile. Not listed by Gorman or Nelson. | Exotic. The three specimens from our area at HPSU are beetle-damaged and not identifiable. Excluded until better material is available. |
| *Azolla filiculoides* | **[*Azolla caroliniana*]. Floating waterweed. In ponds. Oswego, Oak Grove, East Portland etc. May-July.** At the W end of Oswego Lake (Nelson 1920a, as *A. caroliniana*; 1922, correcting the previous report to *A. filiculoides*). In ponds and sloughs along the Columbia River (Van Dersal 1929). | Native. *Azolla filiculoides* has been reported several times from our area, but authentic voucher specimens have not been found. Specimens so named (*Shiniger, 1975*, HPSU) are sterile and not identifiable. Until authentic material is found, we refer all reports from our area to *A. mexicana*. |
| *Calamagrostis breweri* | Shorthair reedgrass. Not listed by Gorman or Nelson. | Native. Reported from Elk Rock (PPR 2004), but voucher specimens not found. All known occurrences are from high elevations in the Cascades. |
| *Calamagrostis howellii* | **Howell's reed grass. Densely tufted perennial on cliffs at Bridal Veil. July-September.** | Native. Bridal Veil Falls is somewhat beyond our limits, and it is doubtful that this species ever occurred W of the Columbia Gorge. |
| *Caltha palustris* | Yellow marsh marigold. Not listed by Gorman or Nelson. | Native. Reported from Pittock Bird Sanctuary (OFP), but voucher specimens not found. Unless planted, the record is highly unlikely for our area as all remaining natural populations are coastal. It may represent the exotic *Ranunculus ficaria*. |
| *Carex angustata* | Widefruit sedge. Not listed by Gorman or Nelson. | Native. Label data from a specimen with this name from Sauvie Island (*Constance & Beetle #2679*, 28 May 1940, WS) are identical to 3 duplicate specimens at OSC and WTU, all of which are named *C. aperta*. Excluded until the identity of the specimen at WS is resolved. *C. angustata* is restricted to the Cascades and eastwards (Wilson et al. 1999; Wilson et al. 2008). |

| Name | Historical Condition | Current Condition |
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| *Carex leptalea* ssp. *leptalea* | Bristlystalked sedge. Not listed by Gorman or Nelson. | Native. Mapped in error for the Portland area by Wilson et al. (2008), the correct record represents *Carex leptopoda* (Wilson 2009a). |
| *Carex macrochaeta* | **Long bristled sedge. Infrequent on stream banks. Multnomah Falls and westward to Bridal Veil. June-August.** Collected near Fort Vancouver by Garry in 1826 (Hitchcock et al. 1955-1969). | Native. There are no recent records from the Portland area, and its habitat (shaded seepy cliffs or in spray zone of perennial waterfalls; Wilson et al. 2008) does not occur here. Given the fuzzy locational accuracy of material from the Fort Vancouver era, Garry's specimen probably came from the Columbia Gorge. Gorman's citations from Multnomah Falls and Bridal Veil are beyond our limits. |
| *Carex praeceptorum* | Early sedge. Not listed by Gorman or Nelson. | Native. Specimens so named from our area have all been referred to other species of *Carex*, and *C. praeceptorum* appears to have never occurred here. |
| *Carex simulata* | Analogue sedge. Not listed by Gorman or Nelson. | Native. Reported from Camassia Preserve, but voucher specimens not found. Restricted to wetlands at higher elevations in the Cascades and eastwards (Wilson et al. 1999; Wilson et al. 2008). |
| *Carex subfusca* | Pale broom sedge. Not listed by Gorman or Nelson. | Native. Mapped in error for the Portland area by Wilson et al. (2008) per Wilson (2009). Voucher specimens of *C. subfusca* from our area have not been found. |
| *Centaurium exaltatum* | Desert centaury. Not listed by Gorman or Nelson. | Native. Reported from Camassia Preserve, but voucher specimens not found. Restricted to E of the Cascades. |
| *Crataegus oxyacantha* | English hawthorn. Not listed by Gorman or Nelson. | Exotic. Reported from Camassia Preserve, but voucher specimens not found. There is only one valid report of this species having naturalized in North America (*Zika*; Phipps 1998). Treated by some as a synonym of *C. monogyna.* |
| *Dasiphora fruticosa* [*Potentilla fruticosa*] | Shrubby cinquefoil. Not listed by Gorman or Nelson. | Native. A specimen at HPSU (*Miranda, 2001*) is correctly named but was collected at Garden Home and almost certainly was planted as an ornamental. |
| *Elymus canadensis* | Canada wildrye. Not listed by Gorman or Nelson. | Native. A specimen so named from Cooper Mt. (*Reynolds, 2003,* HPSU) cannot be identified with certainty. |
| *Erythronium grandiflorum* | Yellow avalanche lily. Not listed by Gorman or Nelson. | Native. Reported from Camassia Preserve, but voucher specimens not found. An ambiguous specimen (*Kral, 1998,* HPSU) from Cooper Mountain is closer to *E. oregonum.* Restricted to the Coast Range and the Cascades above 3,000 ft elevation, but at lower elevations in the Columbia River Gorge (*Alverson, 2008*). |
| *Genista monspessulana* | French broom. Not listed by Gorman or Nelson. | Exotic. Specimens so named at HPSU are all *Cytisus multiflorus*, and we exclude *Genista monspessulana* until authentic material is found in our area. |
| *Gypsophila muralis* | **Low gypsophila; German pink. Reported to us from roadsides and waste places. Lower Albina. Specimen not seen. Naturalized from Europe. May-August.** | Exotic. No recent reports from our area, and voucher specimens not found. Gorman indicated that his report was secondhand and possibly misidentified. Known from E North America but not verified from Oregon. |

| Name | Historical Condition | Current Condition |
|---|---|---|
| *Gypsophila pilosa* [*Gypsophila porrigens*] | Turkish babysbreath. Not listed by Gorman or Nelson. Reported as a waif "near Portland" by Hitchcock et al. (1955-1969). | Exotic. The specimen cited by Hitchcock et al. (1955-1969) was misidentified and recently renamed *G. scorzonerifolia.* |
| *Hieracium caespitosum* | Yellow hawkweed. Not listed by Gorman or Nelson. | Exotic. In Oregon, known only from the Wallowa Mountains (*Halse*). |
| *Hieracium lachenalii* [*Hieracium acuminatum*, *Hieracium vulgatum*] | Common hawkweed. Not listed by Gorman or Nelson. | Exotic. Not yet confirmed from our area but to be expected. A specimen at OSC with this name from Council Crest was later renamed *H. murorum.* Present throughout the Columbia River Gorge (*Nipp, 2009*) and in the Bull Run watershed (*Wilson and Otting, 2005*), beyond our limits (*Zika, Newhouse*). Reportedly introduced to Skamania County in 1979, where it came in on logging equipment from the SE United States (Wilson 2009b). |
| *Hydrophyllum fendleri* | Fendler's waterleaf. Not listed by Gorman or Nelson. | Native. A specimen so named from Macleay Park (*Flinn, undated*, HPSU) is *H. tenuipes*. The identity of a specimen from Green Mountain (*Habegger, 1998*, WTU) is questionable and we exclude it until its status can be resolved. Most occurrences are at higher elevations in the Cascades. |
| *Isoetes howellii* | Howell's quillwort. Not listed by Gorman or Nelson. | Native. A Howell specimen named *Isoetes howellii* at WTU is a duplicate of a specimen at OSC, last annotated as *I. nuttallii* in 1997. We follow *I. nuttallii* unless the identity of the WTU specimen proves otherwise. |
| *Lobelia dortmanna* | Dortmann's cardinalflower. Not listed by Gorman or Nelson. | Native. A specimen so named at HPSU was collected by Flinn in 1910 from a pond at an unspecified locality in Multnomah County. Because the identity of the specimen and its locality are uncertain, we exclude it from our area until these issues can be resolved. |
| *Lomatium grayi* | **[*Cogswellia grayi*]. Gray's parsley. A deep-rooted, ill-scented plant, infrequent on rocky slopes. Cape Horn. To be looked for about Bridal Veil and Elk Rock. April-June.** | Native. Never collected W of the Columbia Gorge. Gorman indicated that it should be sought at Elk Rock, but it was never actually reported or documented from that locality. |
| *Lotus formosissimus* | Seaside bird's-foot trefoil. Not listed by Gorman or Nelson. | Native. A specimen so named from West Linn (*Handley, 2001*, HPSU) is *Lotus pinnatus*. |
| *Lupinus chamissonis* | Chamisso bush lupine. Not listed by Gorman or Nelson. | Native. Specimens so named at OSC and REED have been reidentified as *Lupinus albifrons*. |
| *Lupinus holosericeus* [*Lupinus argenteus* var. *holosericeus*] | **Shrubby lupine. On islands in the Willamette River near mouth of Clackamas River. April-June.** | Native. No recent reports from our area, and a voucher specimen from Gorman's locality has not been found. Although the type specimen was reportedly collected by Nuttall on the Willamette River, Barneby (1989) thought it more likely that Nuttall collected it in southern Idaho. The only known occurrence in Oregon is in Klamath County (Liiston 2009). |
| *Luzula spicata* | Spiked woodrush. Not listed by Gorman or Nelson. | Native. Reported from Camassia Preserve, but voucher specimens not found. An alpine species and almost certainly misidentified. Probably either *L. comosa* or *L. multiflora* (*Zika*). |
| *Mahonia repens* [*Berberis repens*] | Cascade Oregon grape. Not listed by Gorman or Nelson. | Native. Reported in error from the Morand property (*Maffitt, 2008*). |

| Name | Historical Condition | Current Condition |
|---|---|---|
| *Malus baccata* [*Pyrus baccata*] | Ornamental crabapple, Siberian crabapple. Not listed by Gorman or Nelson. | Exotic. Reported from Camassia Preserve, but voucher specimens not found. Not known to naturalize in W North America (*Zika*). |
| *Minuartia pusilla* [*Arenaria pusilla*] | Annual sandwort. Not listed by Gorman or Nelson. | Native. A specimen so named from Camassia Preserve (*Trask & Abrams, 2001*, HPSU) cannot be identified with certainty. |
| *Mitella breweri* | Brewer's miterwort. Not listed by Gorman or Nelson. | Native. Reported from St. Marys Woods (*Walthall*, OFP), but without a voucher its identity is questionable. Most occurrences are at higher elevations in the Cascades. |
| *Morella californica* [*Myrica californica*] | California wax myrtle. Not listed by Gorman or Nelson. Collected at Portland by Gustafson in 1939 (OSC), but with no habitat information. | Native. Because so few sites exist inland from the coast, we presume that the 1939 record from Portland was almost certainly planted as an ornamental. |
| *Nicotiana quadrivalvis* var. *quadrivalvis* | Indian tobacco. Not listed by Gorman or Nelson. Lewis and Clark, Douglas (1914), and Howell (1897-1903) reported that Indians in NW Oregon cultivated this species, and Douglas (1914) found found some in the Metro area. | Native. Not known to have persisted outside of cultivation. |
| *Nothochelone nemorosa* [*Penstemon nemorosus*] | **[*Chelone nemorosa*]. Western turtle-head. On rocky stream banks. Multnomah Falls and westward. June-September.** A specimen collected from the Columbia River Highway "west of Portland" by Fleischman in 1933 (OSC) is too vague a locality to include in our area. | Native. Present in the Columbia Gorge and the Coast Range, but never documented from the intervening lowlands. It probably never occurred in the metro area. |
| *Oxalis japonica* | Japanese oxalis. Not listed by Gorman or Nelson. | Exotic. Reported in error from the Morand property (*Maffitt, 2008*). |
| *Packera debilis* [*Senecio debilis*] | Weak groundsel. Not listed by Gorman or Nelson. Collected in prairies near the confluence of the Columbia and Willamette rivers by Nuttall in 1834-1835 (Nuttall 1841; Hitchcock et al. 1955-1969). | Native. Although Nuttall reportedly collected this species in our area, there are no other records that it has ever been collected in Oregon. Its current range is Idaho, Montana, Colorado, and Wyoming. It may be a case of mislabeled specimens. We would support the case for historical long-distance dispersal down the Columbia River if specimens from intervening areas could be found. |
| *Paxistima myrsinites* | Oregon boxleaf. Not listed by Gorman or Nelson. | Native. Reported from St. Mary's Woods (*Walthall*, OFP), but voucher specimens not found. Needs verification. |
| *Pedicularis groenlandica* | Elephanthead lousewort. Not listed by Gorman or Nelson. | Native. Reported from Camassia Preserve, but voucher specimens not found. Restricted to peatlands at higher elevations in the Cascades, and there is no such habitat at Camassia. |
| *Penstemon procerus* var. *procerus* | Pincushion beardtongue. Not listed by Gorman or Nelson. | Native, rare. Reported in error from the Tualatin Valley NWR (*Roberts & Maffitt, 2008*). Cascade crest and eastwards. |
| *Phlox idahonis* | Clearwater phlox. Not listed by Gorman or Nelson. | Native. Reported (as "*Phlox idahoensis*") from Multnomah Channel (Adolfson 2000), but voucher specimens not found. Presumably misidentified, as *P. idahonis* does not occur in Oregon. |
| *Picea sitchensis* | Sitka spruce. Not listed by Gorman or Nelson. | Native. Reported from Pittock Bird Sanctuary (OFP), where presumably planted. |

| Name | Historical Condition | Current Condition |
|---|---|---|
| *Polygonum polystachyum* | Himalayan knotweed. Not listed by Gorman or Nelson. | Exotic. Reported in error from Multnomah Channel, and none known from our area (*Myers-Shenai*). The specimen seen was *P. sachalinense*. |
| *Prunus cerasus* | Sour cherry. Not listed by Gorman or Nelson. | Exotic. Reported from Forest Park (Houle 1996) but voucher specimens not found. Present in Washington but not yet reported from Oregon. |
| *Pyrola chlorantha* | Greenflowered wintergreen. Not listed by Gorman or Nelson. | Native. Three sheets collected in Portland by Flinn (HPSU) contain a number of variable specimens of *Pyrola*, some of which are clearly referable to *P. picta* and some of which key to *P. chlorantha*. However, because the latter material is depauperate and the nearest documented locality for *P. chlorantha* is over 100 miles from Portland, we refer all local collections to *P. picta*. |
| *Rhododendron macrophyllum* | Pacific rhododendron. Not listed by Gorman or Nelson. Collected at Beaverton by Lach in 1977 (HPSU). | Native. The record from Beaverton is in a residential neighborhood and was almost certainly planted as an ornamental. It also occurs in the southbound rest area along Interstate 5 at Wilsonville, where also planted (Wilson, OFP). |
| *Romanzoffia sitchensis* | **False saxifrage, mist maidens. Moist open woods, Magoon's Park. May, June.** Collected at Fort Vancouver by Garry in the 1840's (K, NY), and by Henderson at Rooster Rock in 1885 (OSC). | Native. Reports from our area appear to be based on misidentification or mislocation. No recent reports from our area, and searches of suitable local habitat by Marttala have been fruitless. Given the fuzzy locational accuracy of material from the Fort Vancouver era, Garry's specimen probably came from the Columbia Gorge. There is no voucher for Gorman's specimen from Magoon's Park, and he may have confused *Romanzoffia* with similar *Saxifraga mertensiana* that occurs along the Willamette River north of Magoon's Park. Possibly still present at Rooster Rock, beyond our limits. |
| *Salix alba* | White willow. Not listed by Gorman or Nelson. | Exotic. In our area known only from Beggar's-tick Wildlife Refuge, where probably planted along with *Salix* × *pendulina* or *S.* × *sepulcralis* (*Marttala, 1999*). An occasionall ornamental in our area, but with no confirmed reports of it being naturalized. |
| *Salix* × *sepulcralis* [*Salix babylonica*] | Weeping willow. Not listed by Gorman or Nelson. | Exotic. Widely planted throughout our area, but we have no confirmed reports of it having become naturalized. |
| *Sisyrinchium bellum* [*Sisyrinchium angustifolium*] | **[*Sisyrinchium hesperium*]. Western blue-eyed grass. Fields and roadsides. East Portland, Happy Hollow Road, Fulton, etc. Not uncommon. April, May.** | Native. Authentic voucher specimens from our area not found. Most early collections named *S. bellum*, including those of Flinn at HPSU, are *S. idahoense*, and the two are still frequently confused. *S. bellum* is more common farther S in the Willamette Valley (*Zika*). |

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|---|---|---|
| *Solanum douglasii* [*Solanum nigrum* var*. douglasii*] | Greenspot nightshade. On ballast at Linnton (Nelson 1917, 1918a). | Native. No recent reports from our area, and voucher specimens not found. According to Hitchcock et al. (1955-1969), the PLANTS database, and the Oregon Flora Project, *S. douglasii* is not known to occur in Oregon. See note under *Solanum furcatum* regarding historical confusion of these taxa. |
| *Trichophorum cespitosum* [*Scirpus cespitosus*] | Tufted clubrush. Not listed by Gorman or Nelson. | Native. Reported in error from the Morand property (Maffitt et al. 2005-2008). At higher elevations in the Cascades. |
| *Vallisneria americana* | American eelgrass. Not listed by Gorman or Nelson. | Native. A specimen so named from Scappoose Bay (*Sytsma, 2003*, HPSU) is an immature *Sparganium*, probably *S. angustifolium* that is abundant there. |

# Literature Cited


Abbott, C. 1983. Portland: planning, politics, and growth in a twentieth-century city. University of Nebraska Press, Lincoln. 350 pp.

Abbott, C. 1996. The great extravaganza: Portland and the Lewis and Clark Exposition. Revised edition. Oregon Historical Society Press, Portland. 81 pp.

Abbott, C. 2001. Greater Portland: urban life and landscape in the Pacific Northwest. University of Pennsylvania Press, Philadelphia. 242 pp.

Abrams, L. & R.S. Ferris. 1923-1960. Illustrated flora of the Pacific states. 4 vols. Stanford University Press, Stanford, California. 2,771 pp.

Adams, D.W. 2004. Restoring American gardens: an encyclopedia of heirloom ornamental plants, 1640-1940. Timber Press. Portland, Oregon. 419 pp.

Adolfson Associates, Inc. 2000. Multnomah Channel plant and wildlife inventories. Report to Metro Parks and Greenspaces.

Aguirre, J. 2005. Personal communication with Angie Kimpo. Oregon Association of Nurseries.

Alderson, G. 1963. Experimental evaluation of *Lindernia* taxa from the Pacific Northwest. B.A. Thesis. Reed College, Portland, Oregon. 50 pp.

Allen, J.E., M. Burns & S.C. Sargent. 1986. Cataclysms on the Columbia, a layman's guide to the features produced by the catastrophic Bretz floods in the Pacific Northwest. Timber Press, Portland, Oregon. 213 pp.

Alta Planning and Design, J.D. White Company & Adolfson Associates, Inc. 2004. Trolley Trail master plan, Milwaukie to Gladstone, Oregon. Report to North Clackamas Parks and Recreation District and Metro Regional Parks and Greenspaces Department. 137 pp.

Alverson, E.R. 1991. New localities for *Aster curtus* in western Oregon. Madroño 38: 202-203.

Anonymous ("J.C.A."). 1893. Botany at the World's Fair. Botanical Gazette 18: 357-364.

Anonymous. 1903. Joseph Howell. Portrait and biographical record of Portland and vicinity, Oregon. Chapman Publishing Company, Chicago. 883 pp.

Anonymous. 1912. Pioneer of 1851 buried at Vancouver. [Obituary of Joseph Howell]. Oregon Daily Journal, 17 October 1912: 11.

Anonymous. 1926. Botanical specimens left to university collection. Oregonian, 12 October 1926: 10.

Anonymous. 1929. Former Portlander home on furlough from mission field. Oregon Daily Journal, 23 March 1929: 16.

Anonymous. 1937a. Dr. J.F. Drake, 68, called by death. Oregonian, 6 September 1937: 4.

Anonymous. 1937b. Death calls J.F. Drake, 68, local dentist. Oregon Daily Journal, 6 September 1937: 5.

Anonymous. 1937c. Portland cleric passes in India; was missionary. Oregonian, 4 October 1937: 3.

Anonymous. 1937d. Former Portland missionary dies at home in India. Oregon Daily Journal, 4 October 1937: 22.

Anonymous. 1947. Frederick Drake, lawyer, military leader, dies at 71. Oregonian, 29 July 1947: 7.

Applegate, E.I. 1935. The genus *Erythronium*: a taxonomic and distributional study of the western North American species. Madroño 3: 58-113.

Asay, J. 1991. Union Pacific Northwest: the Oregon-Washington Railroad and Navigation Company. Pacific Fast Mail, Edmonds, Washington. 336 pp.

Ashbaugh, J.G. 1987. Portland's changing riverscape. Pp. 38-54 in: L.W. Price (ed.), Portland's changing landscape. Occasional Paper 4. Department of Geography, Portland State University. 213 pp.

Austin, E. & T. Dill. 1987. The Southern Pacific in Oregon. Pacific Fast Mail, Edmonds, Washington. 320 pp.

Barneby, R.C. 1989. Fabales. Intermountain Flora 3B: 1-279. New York Botanical Garden, Bronx, New York.

BES. 2004. Watershed Revegetation Program site monitoring database. Bureau of Environmental Services, City of Portland.

Boag, P.G. 1992. Environment and experience: settlement culture in nineteenth-century Oregon. University of California Press, Berkeley. 209 pp.

Bornholdt, M.D. 2006. Martin Woodlock Gorman (1853-1926): outdoorsman extraordinary. Kalmiopsis 13: 21-31.

Boyd, R. 1986. Strategies of Indian burning in the Willamette Valley. Canadian Journal of Anthropology 5: 65-86.

Boyd, R. 1999. Strategies of Indian burning in the Willamette Valley. Pp. 94-138 i*n*: R. Boyd (ed.). Indians, fire, and the land in the Pacific Northwest. Oregon State University Press, Corvallis. 313 pp.

Bradshaw, R.V. 1920. Rare plants of Oregon. American Botanist 26: 18-19.

Bradshaw, R.V. 1921. *Cynosurus echinatus* in Oregon. Torreya 21: 81-83.

Britton, N.L. & A. Brown. 1913. An illustrated flora of the northern United States, Canada, and the British possessions, from Newfoundland to the parallel of the southern boundary of Virginia, and from the Atlantic Ocean westward to the 102nd meridian. 2nd edition. 3 Volumes. C. Scribner's Sons, New York. 2,052 pp.

Cardwell, J.R. 1906. The first fruits of the land: a brief history of early horticulture in Oregon. Oregon Historical Quarterly 7: 28-51, 151-162.

Cartee, L.F. 1854. Field notes of the subdivision of Township 1 North, Range 3 East, Willamette Meridian, Oregon. U.S. General Land Office.

Ceska, A. 1999. *Rubus armeniacus*—a correct name for Himalayan blackberries. Botanical Electronic News 230.

Chambers, K.C. 2006. Diagnosis of some problematic specimens from the Reed College herbarium. Oregon State University, Department of Botany.

Chambers, K.C. 2009. Personal communication with John Christy. Oregon State University Herbarium.

Christy, J.A. & J.A. Putera. 1993. Lower Columbia River natural area inventory, 1992. Report to The Nature Conservancy, Washington Field Office, Seattle. Oregon Natural Heritage Program, Portland. 75 pp.

Christy, J.A. & E.R. Alverson. 2001. Species list for St. Helens scabland. Oregon Natural Heritage Program. 5 pp. [see also Pierce 2003].

Christy, J.A., E. Scheuering, S. Vrilakas & L. Koepke. 2007. Clackamas River Bluffs. Report to Metro Greenspaces. Oregon Natural Heritage Information Center, Oregon State University. 32 pp.

Christy, J.A., E.R. Alverson, M.P. Dougherty, S.C. Kolar, C.W. Alton, S.M. Hawes, L. Ashkenas & P. Minear. 2008. Historical vegetation of the Willamette Valley, Oregon, 1851-1910. ArcMap shapefile, Version 2008_02. Oregon Natural Heritage Information Center, Oregon State University.

City of Portland. 2004. Portland plant list. Bureau of Planning. 113 pp.

Clark, R.D. 1995. The strange case of Oregon's spring beauty: discovery, abduction, rescue, identity. Oregon Historical Quarterly 96: 80-97.

Clemants, S. & G. Moore. 2003. Patterns of species richness in eight northeastern United States cities. Urban Habitats 1: 4-16. Accessed 5 May 2006. http://urbanhabitats.org/v01n01/speciesdiversity_pdf.pdf

Clute, W.N. 1904. Ballast ground plants [in "Note and Comment"]. American Botanist 6: 37.

Clute, W.N. 1926. A quarter-century of botany. American Botanist 32: 1-4.

Cooke, S.S. & A.L. Azous. 1997. The hydrologic requirements of common Pacific Northwest wetland plant species. Chapter 14, pp. 171-189 in: A.L. Azous and R.R. Horner (eds.). Wetlands and urbanization: implications for the future. Final report of the Puget Sound Wetlands and Stormwater Management Research Program. Washington State Department of Ecology, King County Water and Land Resources Division, and University of Washington. 252 pp.

Corning, H.M. 2004. Willamette landings: ghost towns of the river. 3rd edition. Oregon Historical Society Press, Portland. 261 pp.

Coues, E. 1898. Notes on Mr. Thomas Meehan's paper on the plants of Lewis and Clark's expedition across the continent. Proceedings of the Academy of Natural Sciences of Philadelphia 50: 291-315.

Covert, J.T. 1976. A point of pride: the University of Portland story. University of Portland Press. 328 pp.

Cronquist, A., A.H. Holmgren, N.H. Holmgren, J.L. Reveal & P.K. Holmgren. 1977. The Monocotyledons. Intermountain Flora 6: 1-584. Columbia University Press, New York.

CWMA. 2004. Master Weed List. Cooperative Weed Management Area of Clark, Clackamas, Multnomah and Washington Counties.

Darby, M.C. 1996. Wapato for the people: an ecological approach to understanding the Native American use of *Sagittaria latifolia* on the lower Columbia River. M.A. thesis. Portland State University, Portland, Oregon. 136 pp.

Davies, J. 1980. Douglas of the forests. University of Washington Press, Seattle. 188 pp.

Davies, U.V. 1938. Vascular plants of the Reed College campus. B.A. thesis. Reed College, Portland, Oregon. 53 pp.

Denny, E.I. 1909. Blazing the way: true stories, songs, and sketches of Puget Sound and other pioneers. Rainier Printing, Seattle. 504 pp.

DHS. 2002. Oregon Department of Human Services, Office of Communicable Disease and Epidemiology. CD Summary 51 (10), 7 May 2002. Portland, Oregon. 2 pp.

Dickson, J.H., P. Macpherson & K.J. Watson. 2000. The changing flora of Glasgow: urban and rural plants through the centuries. Edinburgh University Press, Edinburgh. 402 pp.

Dibling, K., J.K. Martin, M.S. Olson & G. Webb. 2006. Guild's Lake Industrial District: the process of change over time. Oregon Historical Quarterly 107: 88-105.

Douglas, D. 1914. Journal kept by David Douglas during his travels in North America, 1823-1827. Reprint of edition published by Royal Horticultural Society. Antiquarian Press, New York. 364 pp.

Flinn, M.A. 1920. Letter to A.R. Sweetser. Albert Sweetser papers, University of Oregon Special Collections, Knight Library, Eugene.

Foster R.C. 1937. A cyto-taxonomic survey of the North American species of *Iris*. Contributions of the Gray Herbarium 119: 3-82.

Frye, T.C. & G.B. Rigg. 1914. Elementary flora of the Northwest. American Book Co., New York. 256 pp.

Gaddis, P.K. 1996. Noteworthy collections [Oregon-Washington]. Madroño 43: 337.

Gage, S. & S. Rodman. 1992. A centenary survey of Washington's flora. Northwest Science 67: 129.

Gage, S. & S. Rodman. 2006. A centenary survey of plant life in Washington State: retracing the 1892 collecting trips of Louis F. Henderson. Washington Native Plant Society. Douglasia Occasional Papers 8: 1-92 + appendices.

Galen, C. 2002. Natural resource inventory for Tonquin Geologic Area. Report to Metro Parks and Greenspaces. Fishman Environmental Services.

Gilbert, H.C. 1917. Notes on some of the weeds of the Willamette Valley. M.S. thesis. Oregon Agricultural College [Oregon State University], Corvallis. 88 pp. + photographs.

Gilkey, H.N. 1929. The most important noxious weeds of Oregon. Oregon Agricultural College Extension Bulletin 412: 1-56.

Glad, J.B. & R.R. Halse. 1993. Invasion of *Amorpha fruticosa* L. (Leguminosae) along the Columbia and Snake Rivers in Oregon and Washington. Madroño 40: 62-63.

Gleason, H.A. & A. Cronquist. 1991. Manual of vascular plants of northeastern United States and adjacent Canada. 2nd edition. New York Botanical Garden, Bronx, New York. 910 pp.

Glisan, R.L. 1926. Martin W. Gorman. 1926 Mazama Annual. Portland, Oregon.

Gorman, M.W. 1900. Forest resources of Oregon. Appendix, pp. 443-465. Report of Oregon State Board of Horticulture.

Gorman, M.W. 1904. Oregon wild flowers in need of protection. Plant World 7: 18-20.

Gorman, M.W. 1916. Two useful botanical manuals. Mazama 5: 87-90.

Gorman, M.W. 1916-1917. List of plants in the vicinity of Portland, Oregon. Muhlenbergia 2: 351-432 [incomplete].

Gorman, M.W. 1919. New stations for trees in Oregon. [Letter written by Gorman to W.L. Jepson, 19 October 1919, published in "Open Letters," Madroño 1: 275. 1929].

Gorman, M.W. 1920. Flora of Hamilton Mountain, Washington. Mazama 6(1): 62-77.

Gorman, M.W. Undated #1. A list of the shrubs and undershrubs of Oregon. Undated typescript in M.W. Gorman papers, Special Collections Division, Knight Library, University of Oregon. 17 pp.

Gorman, M.W. Undated #2. List of shrubs growing in the vicinity of Portland. Undated manuscript in M.W. Gorman papers, Special Collections Division, Knight Library, University of Oregon. 7 pp.

Gorman, M.W. & E.P. Sheldon. 1905. Native trees, shrubs and plants along the trail and in Macleay Park. Pp. 17-24 in: Report of the Park Board, Bureau of Parks, Portland, Oregon. [A guide to plants occurring "along the Macleay Trail leading from the Lewis and Clark Fair ground to the bear pit in the City Park." The cover noted that it was "extracted from the last Park Report," but earlier reports containing this guide were not found].

Graustein, J. E. 1967. Thomas Nuttall, naturalist: explorations in America, 1808-1841. Harvard University Press, Cambridge. 481 pp.

Greene, E.L. 1913. The two Howells, botanists. [Obituary]. American Midland Naturalist 3: 30-32.

Hagar, J.C. & M.A. Stern. 2001. Avifauna in oak woodlands of the Willamette Valley, Oregon. Northwestern Naturalist 82:12-25.

Halse, R.R. 1996. Noteworthy collections [Oregon]. Madroño 43: 98.

Halse, R.R. 1999. Noteworthy collections [Oregon]. Madroño 46: 216.

Halse, R.R. 2007. Noteworthy collections [Oregon]. Madroño 54: 101.

Harvey, A.G. 1947. Douglas of the fir. Harvard University Press, Cambridge, Massachusetts. 290 pp.

Hatton, R.R. 2005. Portland, Oregon weather and climate, a historical perspective. Geographical Books, Bend, Oregon. 382 pp.

Hegde, S.G., J.D. Nason, J.M. Clegg & N.C. Ellstrand. 2006. The evolution of California's wild radish has resulted in the extinction of its progenitors. Evolution 60: 1187-1197.

Henderson, L.F. 1981-1982. Early experiences of a botanist in the Northwest. Bulletin of the Native Plant Society of Oregon 14 (10): 6-7; 14 (11): 4-7; 14 (12): 5-7; 15(1): 5-7; 15 (2): 6-7; 15 (3): 7; 15 (4): 9; 15 (5): 7; 15 (6): 7.

Hennings, L. 2008. State of the watersheds monitoring report, initial report: baseline watershed conditions as of December 2006. Metro report. Portland, Oregon. 118 pp + maps and appendices.

Herst, H. 1931. The geographical expansion of Portland. B.A. thesis. Reed College, Portland. 131 pp.

Hickman, J.C. (ed.). 1993. The Jepson manual, higher plants of California. University of California Press, Berkeley. 1400 pp.

Hines, D.D. 1893. An illustrated history of the State of Oregon. Chicago. Lewis Publ. Co. 1300 pp.

Hitchcock, A.S. 1950. Manual of the grasses of the United States. 2 vols. Second edition, revised by A. Chase. USDA Miscellaneous Publication 200. Government Printing Office, Washington, D.C. 1051 pp.

Hitchcock, C.L. & A. Cronquist. 1976. Flora of the Pacific Northwest, an illustrated manual. Third printing, with corrections. University of Washington Press, Seattle. 730 pp.

Hitchcock, C.L., A. Cronquist, M. Ownbey & J.W. Thompson. 1955-1969. Vascular plants of the Pacific Northwest. 5 vols. University of Washington Press, Seattle. 2,978 pp.

Holland, C.C., J. Honea, S.E. Gwin & M.E. Kentula. 1995. Wetland degradation and loss in the rapidly urbanizing area of Portland, Oregon. Wetlands 15: 336-345.

Hooker,W.J. 1829-1840. Flora Boreali-Americana, or the botany of the northern parts of British America. 2 volumes. H.G. Bohn, London.

Horner, J.B. 1919. Oregon: her history, her great men, her literature. Gazette-Times Press, Corvallis. 407 pp.

Horvath, C. 1993. Checklist of the plants of the Camassia Natural Area: vascular plants. The Nature Conservancy. Update of earlier checklist by Comber and Miller, 1967.

Houle, M.C. 1996. One city's wilderness: Portland's Forest Park. 2nd Edition. Oregon Historical Society Press, Portland. 152 pp.

Howell, T.J. 1897-1903. A Flora of Northwest America. Vol. 1. Phanerogamae. Fascicles 1-7. Published by the author. Portland, Oregon. 816 pp.

Hughes, M. & D. Lev. 2004. Personal communication with John Christy. Natural Resource Program, Portland Parks and Recreation.

Hunt, J. 1853. Field notes of the subdivision of Township 2 North, Range 1 West, Willamette Meridian, Oregon. U.S. General Land Office.

Ives, B. 1851. Field notes of the subdivision of Township 1 North, Range 1 East, Willamette Meridian, Oregon. U.S. General Land Office.

Jacobson, A.L. 2001. Wild plants of greater Seattle, a field guide to native and naturalized plants of the Seattle area. Published by the author, Seattle, Washington. 494 pp.

Jacobson, A.L. & P.F. Zika. 2007. A new hybrid cherry, *Prunus* × *pugetensis* (*P. avium* × *emarginata*, Rosaceae), from the Pacific Northwest. Madroño 54: 74-85.

Jacobson, A.L., F.C. Weinmann & P.F. Zika. 2001. Noteworthy collections [Washington]. Madroño 48: 213-214.

Jennings, M.D., D. Faber-Langendoen, O.L. Loucks, R.K. Peet & D. Roberts. 2009. Standards for associations and alliances of the U.S. National Vegetation Classification. Ecological Mongraphs 79: 173-199.

Jepson, W.L. 1909-1922. A flora of California. Vol. 1, Parts 1-7. Jepson Herbarium and Library, University of California, Berkeley. [Only Parts 1-5 were available to Gorman while preparing the paper for *Muhlenbergia*].

Johnson, D.M. 1987. Weather and climate of Portland. Pp. 20-37 in: L.W. Price (ed.), Portland's changing landscape. Occasional Paper 4. Department of Geography, Portland State University. 213 pp.

Keck, D.D. 1938. Revision of *Horkelia* and *Ivesia*. Lloydia 1: 75-142.

Keck, D.D. 1945. Studies in *Penstemon* VIII. A cytotaxonomic account of section *Spermunculus*. American Midland Naturalist 33:128-206.

Kentula, M.E., S.E. Gwin & S.M. Pierson. 2004. Tracking changes in wetlands with urbanization: sixteen years of experience in Portland, Oregon, USA. Wetlands 24: 734-743.

Kephart, S.R. 2001. Morton Eaton Peck: field botanist, poet, and author of *A Manual of the Higher Plants of Oregon*. Kalmiopsis 7: 1-7.

Kiger, R.W. 1971. *Arthraxon hispidus* (Gramineae) in the United States: taxonomic and floristic status. Rhodora. 73:39-46.

Kirkpatrick, G., C. Holzwarth & L. Mullens. 1994. The botanist and her muleskinner: Lilla Irvin Leach and John Roy Leach, pioneer botanists in the Siskiyou Mountains. Leach Botanical Garden. Portland, Oregon. 150 pp.

Klingle, M.W. 2001. Urban by nature: an environmental history of Seattle, 1880-1970. Ph.D. dissertation. University of Washington, Seattle. 505 pp.

Kruckeberg, A.R. & R. Ornduff. 2003. Thomas Jefferson Howell (1842-1912): the untutored, impoverished botanist. Oregon Flora Newsletter 9:9, 12.

Kuhn, D.M. 2005. Fuel model development and fire simulation analysis in the wildland-urban interface: the case of Forest Park, Portland, Oregon. M.S. thesis. Portland State University, Portland, Oregon. 208 pp.

Laferriere, J.E., J.D. Mastrogiuseppe & R.R. Old. 1993. Noteworthy collections [Oregon]. Madroño 40: 184-185.

Lang, H.O. 1885. History of the Willamette Valley. Portland. G.H. Himes Co. 902 pp.

Lange, E.F. 1953. Thomas J. Howell, pioneer Oregon botanist. Scientific Monthly 77: 198-204.

Lange, E.F. 1955. E.L. Greene and Howell's *Flora of Northwest America*. Madroño 13: 1-4.

Lange, E.F. 1956. Pioneer botanists of the Pacific Northwest. Oregon Historical Quarterly 57: 108-124.

Lange, E.F. 1958. Dr. John McLoughlin and the botany of the Pacific Northwest. Madroño 14: 268-272.

Lansing, J. 2003. Portland: people, politics, and power, 1851-2001. Oregon State University Press, Corvallis. 576 pp.

Larsen, A.E. 1912. Notes on the flora of the Willamette Valley. B.A. thesis. University of Oregon, Eugene. 36 pp.

Larson, R.J. 2005. The flora of Seattle in 1850: major species and landscapes prior to urban development. M.S. thesis. University of Washington, Seattle. 364 pp.

Laugesen, A. 2000. George H. Himes, F.G. Young, and the early years of the Oregon Historical Society. Oregon Historical Quarterly 101: 18-39.

Lawrence, D.B. 1939. Some features of the vegetation of the Columbia River Gorge with special reference to asymmetry in forest trees. Ecological Monographs 9: 218-257.

Legler, B., D. Giblin & P.F. Zika. 2008. Noteworthy collections [Washington]. Madroño 55: 178-179.

Lenz, L.W. 1959. *Iris tenuis* S. Wats., a new transfer to the subsection *Evansia*. Aliso 4: 311-319.

Liston, A. 2009. Personal communication with John Christy. Oregon State University Herbarium.

Lockley, F. 1928. History of the Columbia River Valley, from The Dalles to the sea. Vol. 3. S.J. Clarke Publishing Co., Chicago. 994 pp.

Lodewick, K. & R. Lodewick. 1993. Oregon penstemons and clues to Pacific Northwest botanical history. Oregon Historical Quarterly 93: 407-417.

Love, R.M. 1991. The discovery and naming of *Kalmiopsis leachiana* and the establishment of the Kalmiopsis Wilderness. Kalmiopsis 1: 3-8.

Love, R.M. 1996. Albert Raddin Sweetser, founder of the University of Oregon Herbarium. Kalmiopsis 6: 13-15.

Love, R.M. 1998. Wilhelm Nikolaus Suksdorf (1850-1932), pioneer botanist of the Pacific Northwest. Pacific Northwest Quarterly 89: 171-187.

Love, R.M. 2000. The grand old man of Northwest botany: Louis F. Henderson (1853–1942). Pacific Northwest Quarterly 91: 183-199.

Love, R.M. 2001. Louis F. Henderson (1853-1942), the grand old man of Northwest botany. Native Plant Society of Oregon Occasional Paper 2: 1-58.

Love, R.M. & M. Feigen. 1978. Interspecific hybridization between native and naturalized *Crataegus* (Rosaceae) in western Oregon. Madroño 25: 211-217.

MacColl, E.K. 1976. The shaping of a city: business and politics in Portland, Oregon, 1885-1915. The Georgian Press, Portland. 535 pp.

MacColl, E.K. 1979. The growth of a city: power and politics in Portland, Oregon, 1915-1950. The Georgian Press, Portland. 717 pp.

MacColl, E.K. & H.H. Stein. 1988. Merchants, money and power: the Portland establishment 1843-1913. The Georgian Press, Portland. 516 pp.

Maffitt, V., B. Brunkow, C. Glass, V. Marquardt, V. Marttala, & P. Schmidt. 2005-2008. Species list for Tualatin River National Wildlife Refuge and vicinity.

Magee, T.K., T.L. Ernst, M.E. Kentula & K.A. Dwire. 1999. Floristic comparison of freshwater wetlands in an urbanizing environment. Wetlands 19: 517-534.

Mahoney, A.M. & R.J. McKenzie. 2008. Notes on two southern African *Arctotis* species (Arctotideae: Asteracease) growing in California. Madroño 55: 244-247.

Marttala, V. 2008. Notes on the origin and status of the Reed College Herbarium. Reed College Centennial. In preparation.

Marttala, V., B. Brunkow & J. Poff. 2002. Species list for the north end of Sauvie Island. Lewis and Clark interpretive site. Report to Historical Society of Columbia County, Oregon. 6 pp.

McArthur, L.A. 1982. Oregon geographic names. Fifth edition. Western Imprints, Oregon Historical Society, Portland. 839 pp.

McClintock, T.C. 1967. Henderson Luelling, Seth Lewelling and the birth of the Pacific Coast fruit industry. Oregon Historical Quarterly 68: 153-174.

McKelvey, S.D. 1955. Botanical exploration of the Trans-Mississippi West, 1790-1850. Arnold Arboretum, Jamaica Plain, New York. 1,144 pp. Reprinted by Oregon State University Press, 1991.

Meehan, T. 1898. Plants of Lewis and Clark's expedition across the continent, 1804-1806. Proceedings of the Academy of Natural Sciences of Philadelphia 50: 12-49.

Merrett, T. 2004. Personal communication with Angie Kimpo. Parametrix consulting firm.

Moeller, D. 2008. Personal communication with John Christy. Hoyt Arboretum.

Mohler, J. 2005. Preliminary observations of major plant communities on Clackamas River Island. Report to Metro Parks and Greenspaces.

Moreira, B. & H. Stafford. 1996. Canyon Plants. Reed College, Portland.

Morrison, D.N. 1999. Outpost: John McLoughlin and the far Northwest. Oregon Historical Society Press, Portland. 642 pp.

Morwood, W. 1973. Traveller in a vanished landscape. Gentry Books, London. 244 pp.

Moses, R. 1943. Portland improvement. Consultants' report to City of Portland. William E. Rudge's Sons, New York. 85 pp.

Mote, P.W. 2003. Trends in temperature and precipitation in the Pacific Northwest during the twentieth century. Northwest Science 77: 271-282.

Munger, T.T. 1960. History of Portland's Forest Park. Forest Park Committee of Fifty. 37 pp. + maps. Reprinted by Friends of Forest Park and Portland Parks and Recreation, 1998.

Murai, M. 1999. Understanding the invasion of Pacific Northwest forests by English ivy (*Hedera* spp., Araliaceae). M.S. thesis. University of Washington, Seattle. 82 pp.

Needham, R.B. 1962. The genus *Lindernia* in the Pacific North-West. B.A. Thesis. Reed College, Portland, Oregon. 62 pp.

Nelson, J.C. 1916. A list of Oregon plants not mentioned in the local manuals. Muhlenbergia 2: 345-350.

Nelson, J.C. 1917. The introduction of foreign weeds in ballast as illustrated by ballast-plants at Linnton, Oregon. Torreya 17:151-160.

Nelson, J.C. 1918a. Additions to the flora of western Oregon. Torreya 18: 21-35.

Nelson, J.C. 1918b. Further additions to the flora of western Oregon. Torreya 18: 220-226.

Nelson, J.C. 1918c. Some Oregon exotics. American Botanist 24: 126-129.

Nelson, J.C. 1919a. Notes on the grasses of Howell's *Flora of Northwest America*. Torreya 19: 187-193.

Nelson, J.C. 1919b. Oregon chenopodiums. American Botanist 25: 112.

Nelson, J.C. 1920a. Additions to the flora of western Oregon during 1919. Torreya 20: 37-45.

Nelson, J.C. 1920b. A noteworthy grass. American Botanist 26: 10-12. [*Coleanthus subtilis*]

Nelson, J.C. 1921. Additions to the flora of western Oregon during 1920. Torreya 21: 24-28.

Nelson, J.C. 1922. Additions to the flora of western Oregon during 1921. Torreya 22: 98-102.

Nelson, J.C. 1923a. Notes on the ballast-vegetation at Linnton, Oregon. Torreya 23: 1-3.

Nelson, J.C. 1923b. Additions to the flora of western Oregon during 1922. Torreya 23: 63-67.

Nelson, J.C. 1927. M.W. Gorman. Rhodora 29: 33-36.

Nisbet, R.A. 1979. Early horticulture in Oregon: nurserymen and pleasure gardens. Report for Architechture 433 class of Philip Dole, Professor. University of Oregon, Eugene. 15 pp. Accessed 10 October 2008. http://www.bobnisbet.com/other/OREHORT.PDF

NPSO Emerald Chapter. 2002. Invasive gardening and landscaping plants of the southern Willamette Valley. Emerald Chapter, Native Plant Society of Oregon, Eugene.

Nuttall, T. 1841. Descriptions of some new species and genera of plants in the natural order of the Compositae, collected on a tour across the continent to the Pacific, a residence in Oregon, and a visit to the Sandwich Islands and Upper California, during the years 1834 and 1835. Transactions of the American Philosophical Society, New Series 7: 283-453.

O'Brian, B. 1988. Whatever happened to Edmund P. Sheldon? Forest World, Winter 1988: 28-33.

ODA. 2001. 2001 annual report. Oregon Department of Agriculture, Plant Division. Salem.

Oliphant, J.M. 1992. Geographic variation of lodgepole pine in northern California. M.S. thesis. Humboldt State University, Arcata, California. 62 pp.

Olmstead, J.C. & F.L. Olmstead Jr. 1903. Appendix. Olmstead Brothers, Landscape Architects, Brookline, Massachusetts. Pp. 13-75 in: Report of the Park Board, Bureau of Parks, Portland, Oregon. [Reprinted in 1904 Annual Report, pp. 22-84].

Orloff, C. 2004. If zealously promoted by all: the push and pull of Portland Parks history. Pp. 140-163 in: C.P. Ozawa (ed.), The Portland edge: challenges and successes in growing communities. Island Press, Washington D.C. 321 pp.

Ornduff, R. 1966. *Impatiens capensis* in Oregon, native or naturalized? Leaflets of Western Botany 10: 317-319.

Ornduff, R. 2008. Thomas Jefferson Howell and the first Pacific Northwest flora. Kalmiopsis 15: 32-41.

Pacific Northwest Exotic Pest Plant Council. 1997. Non-native pest plants of greatest concern in Oregon and Washington.

Paulson, S.E. 2005. The Oaks in the Progressive Era: consumer culture in a Portland, Oregon amusement park. M.A. thesis. Portland State University, Portland, Oregon. 194 pp.

Peck, M.E. 1932. More new plants from Oregon. Torreya 32: 147-153.

Peck, M.E. 1945. James C. Nelson. Rhodora 47: 64-68.

Peck, M.E. 1961. A manual of the higher plants of Oregon. 2nd edition. Binfords and Mort Publishers, Portland. 936 pp.

Pennell, F. W. 1936. Travels and scientific collections of Thomas Nuttall. Bartonia 18: 1-51.

Phipps, J.B. 1998. Introduction to the red-fruited hawthorns (*Crataegus*, Rosaceae) of western North America. Canadian Journal of Botany 76: 1863-1899.

Pierce, L. 2003. Plant species list for St. Helens scabland bluff. 6 pp. [includes Christy & Alverson. 2001].

Piper, C.V. 1905. *Poa gracillima* Vasey and its allies. Bulletin of the Torrey Botanical Club 32: 435-437.

Piper, C.V. 1906. Flora of the state of Washington. Contributions from the United States National Herbarium 11: 1-637.

Piper, C.V. & R.K. Beattie. Flora of the northwest coast. 1915. New Era Printing Company, Lancaster, Pennsylvania. 418 pp.

Port of Portland. 1920. The Port of Portland, Portland, Oregon, U.S.A. Development, progress, and facilities of the Port. Port of Portland Commission and Commission of Public Docks. Lane-Miles Standish Company, Portland. 61 pp.

Port of Portland. 1922. The Port of Portland, Portland, Oregon, U.S.A. Development, progress, and facilities of the Port. Port of Portland and Commission of Public Docks. Lane-Miles Standish Company, Portland. 48 pp.

Port of Portland. 1924. The Port of Portland, Portland, Oregon, U.S.A. The gateway of an empire. Lane-Miles Standish Company, Portland. 44 pp.

Port of Portland. 1949-1953. The Port of Portland, Oregon. The Columbia River gateway to the world. Commission of Public Docks. 21 pp. [Undated].

PPR [Portland Parks and Recreation]. 2004. Natural area parkland vegetation inventory. Natural Resource Program, Portland Parks and Recreation. Accessed 20 February 2007. http://www.portlandonline.com/parks/index.cfm?c=39872

Read, T.T. 1983. Institutionalizing science in Oregon: the role of the Oregon State Academy of Sciences, 1905-1914. M.A. thesis. Oregon State University, Corvallis. 166 pp.

Read, T.T. 1989. In pursuit of professionalism: the Oregon State Academy of Sciences, 1905-1914. Oregon Historical Quarterly 90: 167-198.

Reed College. 2002. Trees of Reed: planting of trees on Reed campus in 1933. Accessed September 2009. http://www.reed.edu/trees/1933planting.html

Rigg, G.B. 1931. The occurrence of *Phragmites communis* in western Washington and Oregon. Rhodora 33: 170-171.

Robinson, B.L. & M.L. Fernald. 1908. Gray's new manual of botany, a handbook of the flowering plants and ferns of the central and northeastern United States and adjacent Canada. Seventh edition. American Book Company, New York. 926 pp.

Rodgers, A.D. 1944. American botany 1873-1892, decades of transition. Princeton University Press, Princeton, New Jersey. 340 pp.

Rosendahl, C.O. 1927. Revision of the genus *Sullivantia*. Minnesota Studies in Plant Science 6: 401-427.

Saltonstall, K., P.M. Peterson & R.J. Soreng. 2004. Recognition of *Phragmites australis* subsp. *americanus* (Poaceae: Arundinoidea) in North America: evidence from morphological and genetic analyses. Sida 21: 683-692.

Sargent, C.S. 1922. Manual of the trees of North America (exclusive of Mexico). 2nd ed. Houghton Mifflin and Co., Boston. 910 pp.

Scott, H.W. (ed.). 1890. History of Portland, Oregon. D. Mason & Co., Syracuse, New York. 651 pp.

Sheldon, E.P. 1903. New species from the Pacific coast. Bulletin of the Torrey Botanical Club 30: 308-311.

Sheldon, E.P. 1904. The forest wealth of Oregon. Louisiana Purchase Exposition, St. Louis, 1904. Reprinted by direction of the Lewis and Clark Exposition Commission, 1904. J.R. Whitney, Salem, Oregon. 32 pp.

Sheldon, E.P. 1905. Oregon's log palace. Pacific Monthly 13: 221-229.

Simpson, C., J. Koenig, J. Lippert, R. Love, B. Newhouse, N. Otting, S. Sundberg, D. Wagner & P. Warner. 2002. Vascular plants of Lane County, Oregon: an annotated checklist. Emerald Chapter, Native Plant Society of Oregon, Eugene. 84 pp.

Smith, H.H. 1913. Thomas Howell [obituary]. Botanical Gazette 55: 458-460.

Smyth, M. 1999a. Vegetation and wildlife inventory of Metro Greenspaces target areas: Canemah Bluff. Report to Metro Greenspaces. Argentea Environmental.

Smyth, M. 1999b. Vegetation and wildlife inventory of Metro Greenspaces target areas: Willamette Narrows. Report to Metro Greenspaces. Argentea Environmental.

Smyth, M. 1999c. Vegetation and wildlife inventory of Metro Greenspaces target areas: Clear Creek Ranch. Report to Metro Greenspaces. Argentea Environmental.

Snogerup, S., P.F. Zika & J. Kirschner. 2002. Taxonomic and nomenclatural notes on *Juncus*. Preslia, Praha 74: 247-266.

Soth, M.E. ["Mrs."]. 1926. The weed flora of Pocatello, Idaho. American Botanist 32: 55-59.

Soth, M.E. 1932. From Portland to the sea. American Botanist 38: 59-65.

Soth, M.E. 1933. The weeds in a Portland garden. American Botanist 39: 149-154.

Soth, M.E. 1934. Field-cress in the Northwest. American Botanist 40: 146-148.

Soth, M.E. 1936. Pepper-grass in the west. [Note and Comment]. American Botanist 41: 28-29.

Soth, M.E. 1938. Kenilworth ivy. [Note and Comment]. American Botanist 44: 69-70.

Sytsma, M.D., J.R. Cordell, J.W. Chapman & R.C. Draheim. 2004. Lower Columbia River aquatic nonindigenous species survey 2001-2004. Report to U.S. Coast Guard and U.S. Fish and Wildlife Service. Center for Lakes and Reservoirs, Portland State University.

Taylor, T.A. 1992. Fort Vancouver National Historic Site, cultural landscape report. Vol. 1. USDI National Park Service, Cultural Resources Division, Seattle.

Thatcher, E.P. 1978. Indigenous botanists of the Northwest. Imprint: Oregon 4: 14-19.

Thatcher, E.P. 1980. Thomas J. Howell and Louis F. Henderson: early resident botanists of the Pacific Northwest. Northwest Science 54: 81-91.

Thomas, J.H. 1969. Botanical explorations in Washington, Oregon, California and adjacent regions. Huntia 3: 5-62.

Throop, V.M. 1948. The suburban zone of metropolitan Portland, Oregon. Ph.D. dissertation. Department of Geography, University of Chicago. 244 pp.

Townsend, J.K. 1999. Narrative of a journey across the Rocky Mountains to the Columbia River. Reprint of 1839 edition, with introduction and annotation by G.A. Jobanek. Northwest Reprints, Oregon State University Press, Corvallis. 352 pp.

Tucker, K.D. 2005. "We want smokestacks and not swamps:" filling in Portland's Guilds Lake, 1906-1925. M.A. thesis. Portland State University, Portland, Oregon. 106 pp.

Turner, N. 2005. Personal communication with John Christy. University of Victoria.

U.S. Army Corps of Engineers. 1948. Review report on Columbia River and tributaries. Appendix L. Main Columbia River below Yakima River. U.S. Army Corps of Engineers, North Pacific Division, Portland.

U.S. Army Corps of Engineers. 1988. Lower Columbia River flood control study. River mile 0 to 145. Summary Report. Columbia River and tributaries review study CRT 69. U.S. Army Corps of Engineers, Portland District.

Van Dersal, W.R. 1929. The plants of Multnomah County. B.A. thesis. Reed College, Portland, Oregon. 82 pp.

Vogel, J.H. 1945. Vancouver, Clark County, State of Washington, Columbia River's port city for homes and industries. Report to citizens and city commissioners. City Planning Commission, Vancouver. 131 pp.

Wade, J.L. 2001. Lilla Irvin Leach (1886-1980). Oregon Flora Newsletter 7: 1-2.

Wagner, D.H. 1994. History of the University of Oregon Herbarium (1903-1993). Kalmiopsis 4: 6-11.

Wagner, D.H. 2006. Personal communication with John Christy. Northwest Botanical Institute, Eugene, Oregon.

Watson, S. 1879. Contributions to American botany. II. Descriptions of some new species of North American plants. Proceedings of the American Academy of Arts and Sciences 14: 213-303.

Webb, D.A. & R.J. Gornall. 1989. A manual of Saxifrages and their cultivation. Timber Press, Portland, Oregon. 307 pp.

Weber, M., L. Karst & K. Spinx. 1999. Plant survey of Hardscrabble Quarry, Clackamas County, Oregon. Report to Madrone Wall Committee. Portland State University. 11 pp.

Weber, W.A. 1953. *Balsamorhiza terebinthacea* and other hybrid balsam-roots. Madroño 12: 47-49.

Wieman, J.S. 1961. History of English holly (*Ilex aquifolium*) in Oregon and the Northwest. Oregon Holly Growers Association, Portland. 39 pp.

Wilbur, E.A. 1937. Thomas Lamb Eliot, 1841-1936. Privately printed, Portland, Oregon. 139 pp.

Wiley, L. 1966. Wild harvest. Published by the author, Portland, Oregon. 219 pp.

Wilson, B.L. 2009a. Personal communication with John Christy. Carex Working Group.

Wilson, B.L. 2009b. Email report of 1979 introduction of *Hieracium lachenaliii* (= *H. vulgatum*) to Skamania County, Washington. Native Plant Society of Oregon listserve, 22 June 2009.

Wilson, B.L., R. Brainerd, M. Huso, K. Kuykendall, D. Lytjen, B. Newhouse, N. Otting, S. Sundberg & P. Zika. 1999. Atlas of Oregon *Carex*. Native Plant Society of Oregon Occasional Paper 1: 1-29.

Wilson, B.L., R.E. Brainerd, D. Lytjen, B. Newhouse & N. Otting. 2008. Field guide to the sedges of the Pacific Northwest. Oregon State University Press, Corvallis. 432 pp.

Wilson, B.L. & G. Kral. 1999. Vascular plant list for Cooper Mountain Study Area. Report to Metro Parks and Greenspaces. Updated by A. Kimpo, 2004.

Wilson, C.A. 2003. Phenetic and intervarietal crossing data support the recognition of *Iris tenax* var. *gormanii* (Iridaceae), a rare Northwest endemic. Madroño 50: 15-20.

Wynd, F.L. 1926. Further notes on *Cynosurus echinatus* L. in Oregon. Torreya 26: 89-91.

Zika, P.F. 1992. Noteworthy collections [Oregon]. Madroño 39: 80.

Zika, P.F. 2002. Noteworthy collections [Washington]. Madroño 49: 195-197.

Zika, P.F. 2003a. The native subspecies of *Juncus effusus* (Juncaceae) in western North America. Brittonia 55: 150-156.

Zika, P.F. 2003b. Noteworthy collections [Washington]. Madroño 50: 313-314.

Zika, P.F. 2004. Noteworthy collections [Washington]. Madroño 51: 396-397.

Zika, P.F. 2006a. The status of *Impatiens capensis* (Balsaminaceae) on the Pacific Northwest coast. Journal of the Torrey Botanical Society 133: 593-600.

Zika, P.F. 2006b. *Impatiens* × *pacifica* (Balsaminaceae), a new hybrid jewelweed from the Pacific Northwest coast of North America. Novon 16: 443-448.

Zika, P.F. 2006c. A key to *Juncus* section *Juncotypus* in British Columbia. Botanical Electronic News 358: 1-6. http://www.ou.edu/cas/botany-micro/ben/ben358.html

Zika, P.F. & E.R. Alverson. 1993. Noteworthy collections [Oregon]. Madroño 40: 181-184.

Zika, P.F. & A.L. Jacobson. 2003. An overlooked hybrid Japanese knotweed (*Polygonum cuspidatum* × *sachalinense*; Polygonaceae) in North America. Rhodora 105: 143-152.

Zika, P.F. & E.R. Alverson. 2005. Noteworthy collections [Oregon]. Madroño 52: 273-274.

# Appendix A. Gazetteer—old and new place names

Like 100-year-old botanical nomenclature, some place names used by the early botanists are archaic and have disappeared completely from modern maps. This list identifies old place names used in the text by Gorman and others, as well as modern place names and project sites mentioned in the species catalog that may not be known to the general reader.

**Agency Creek**—A Metro natural area adjacent to Forest Park.

**Albina**—Neighborhood on the E bank of the Willamette River, N of Broadway and W of Martin Luther King Boulevard. Originally a separate town incorporated in 1887, it was annexed by Portland in 1891.

**Apache Bluff**—Wetland on Tualatin River floodplain, owned by The Wetlands Conservancy.

**April Hill**—Portland city park in Fanno Creek watershed of SW Portland.

**Arleta**—Neighborhood in SE Portland, near SE Holgate Boulevard and SE Foster Road.

**Arlington Heights**—Neighborhood in West Hills between W Burnside and Washington Park.

**Arrowhead Creek**—A Metro regional park in the Tonquin Geologic Area, Clackamas County, acquired with funds from the 1995 bond measure.

**Ash Creek**—Tributary of Fanno Creek in Tualatin River basin.

**Asylum Gulch**—Ravine beginning around SE 10th and Hawthorne Street near today's Ladd's Addition, extending NW to its confluence with the Willamette River near E Stark Street. It was named after the adjacent Oregon Hospital for the Insane (also called the Hawthorne Asylum for the Insane, the Oregon Insane Hospital, and the State Insane Asylum of Oregon), founded by Dr. James C. Hawthorne. Today's Hawthorne Street was originally called Asylum Street. The entire gulch complex, covering 40 city blocks, eventually was covered with up to 30 feet of fill (MacColl 1976; Lansing 2003). See also Hawthorne Springs.

**Balch Creek**—The creek in Balch Canyon, flowing through the Portland Audubon Sanctuary and Macleay Park before disappearing into a culvert beneath the Thurman Street Bridge. The lower canyon between the bridge and Guilds Lake was filled between 1910 and 1920 (Tucker 2005).

**Barberton**—Site of an interurban train station and grange hall in Clark County, centered around NE 72nd Avenue and 99th Street.

**Barbur Boulevard Natural Area**—Portland city park W of Barbur Boulevard and N of Terwilliger Avenue.

**Barnes Road**—Crossing the Tualatin Mountains from W Burnside Street to near Cedar Hills.

**Base Line Road**—An old name for SE Stark Street, E of Mount Tabor. Also a more recent road between Beaverton and Hillsboro.

**Beaverton**—City in Washington County, SW of Portland.

**Beggar's-tick Wildlife Refuge**—A Metro regional park in the Johnson Creek watershed, along the Springwater Corridor Trail near SE 111th Avenue.

**Berry Botanic Garden**—An estate garden in the Tryon Creek watershed, owned by the Friends of The Berry Botanic Garden.

**Bertha**—Neighborhood in SW Portland near junction of Capitol Highway and Beaverton-Hillsdale Highway. In Gorman's day it was a stop on the Southern Pacific rail line from Portland to Beaverton (Austin and Dill 1987; Abbott 2001).

**Blytheswood**—Residential development in the West Hills NW of Willamette Heights.

**Blue Lake**—Metro regional park on the S shore of the Columbia River, about 1 mile W of the Sandy River. It was the site of an amusement park built in 1925 (Paulson 2005).

**Bonny Slope**—Neighborhood on the SW slope of the Tualatin Mountains, about 4 miles NNE of Beaverton.

**Bridal Veil**—Settlement in the Columbia River Gorge, near Bridal Veil Falls.

**Bridgeton**—Neighborhood on S shore of the Columbia River E of Hayden Island and S of Tomahawk Island. In Gorman's day, it was the entrance to the Columbia Beach amusement park on Tomahawk Island.

**Brooklyn**—Neighborhood on E bank of the Willamette River between East Portland and Sellwood, site of the large Southern Pacific rail yard of the same name.

**Brookside Ponds**—Constructed stormwater facility along Johnson Creek at about SE 115th Avenue.

**Brookside Wildlife Area**—On the Johnson Creek floodplain between SE Foster Road and Brookside Drive, E of SE 111th Avenue. Owned by City of Portland.

**Buckman's Addition**—Subdivision between SE Stark and Burnside, and SE 12th and 24th Streets.

**Burlington Bottoms**—On the W bank of Multnomah Channel and N of the Sauvie Island bridge, managed by the Oregon Department of Fish and Wildlife.

**Burnt Bridge Creek**—Draining much of Vancouver, running from NE 162nd Avenue W to Vancouver Lake. Discovery Park, a public natural area covers the lower portion of the creek W of Interstate 5.

**Bybee Slough ("Bybee's Slough")**—In the Smith and Bybee Lakes area along Columbia Slough, but exact location uncertain.

**Camassia Preserve**—Upland prairie in West Linn, owned by The Nature Conservancy.

**Canemah Bluffs**—Metro regional park near Oregon City, acquired with funds from the 1995 bond measure.

**Canyon Road ("Cañon Road")**—Crossing the Tualatin Mountains from Portland to Beaverton, now Highway 26 in part. Built 1851-1856.

**Cape Horn**—1,000-foot basalt headland on the Washington shore of the Columbia River, across from Bridal Veil.

**Car Shops, Car Works**—Henderson and Dickson collected at or near the "car works" and "car shops" between 1879 and 1888, and Gorman referred to them in 1916. Specimen labels with "Car Shops" and "Car Works, East Portland" probably referred to the rail yards and shops at Brooklyn in SE Portland, established about 1870 by the Oregon and California Railroad, later to become the Southern Pacific. These facilities were originally located between SE Holgate and SE Division, but expanded southward in later years (Austin and Dill 1987). Another early rail yard was located at Albina N of today's Fremont Bridge. Belonging to the Oregon Railway and Navigation Company and later owned by Union Pacific, it was built in stages between 1882 and 1887 (Asay 1991).

**Cazadero**—Station and park on the Clackamas River, above Estacada, near the terminus of the Portland Railway Light and Power Company's interurban line from Sellwood. The line opened in 1903 to provide access to suburban stops and the Cazadero Dam and powerhouse.

**City Park**—Today's Washington Park, established in 1871 and renamed in 1909. Owned by the City of Portland and managed by Portland Parks and Recreation.

**Clackamas**—Town on N bank of Clackamas River, about 2 miles NE of Gladstone.

**Clackamas Station**—A stop on the Portland Railway Light and Power Company's interurban rail line from Sellwood to Cazadero.

**Clear Creek**—Tributary of the Clackamas River and a Metro regional park E of Oregon City, acquired with funds from the 1995 bond measure.

**Coffee Lake**—Metro regional park in the Tonquin Scablands N of Wilsonville, acquired with funds from the 1995 bond measure. A muck or "beaverdam" soil wetland.

**Collins Sanctuary**—Portland Audubon Society sanctuary S of NW Cornell Road, adjacent to Pittock Bird Sanctuary.

**Columbia Beach**—Amusement park on Tomahawk Island, which in Gorman's day was called Sand Island. Operated by the Portland Railway Light and Power Company between 1916 and 1926, it was adjacent to the old Vancouver ferry landing on Hayden Island. It reopened briefly between 1930 and 1932 as Lotus Isle Park, but was eclipsed by Jantzen Beach Amusement Park on nearby Hayden Island that operated between 1928 and 1970 (MacColl 1979; Paulson 2005).

**Columbia Boulevard**—Extending along the N side of the Portland peninsula, from St. Johns to NE 82nd, parallel to and inland from Columbia Slough.

**Columbia Park**—Portland city park in Albina, just N of Mocks Bottom and E of University Park.

**Columbia Slough**—Backwater channel on the S shore of the Columbia River, extending from near Kelley Point Park to about 4 miles E of Rocky Butte. With formation of the Multnomah Drainage District No. 1 in 1918, the slough was cut off from the Columbia River and 8,400 acres of bottomland were diked and developed for farming, golf courses, and other real estate ventures. Today's Portland International Airport, formerly on Swan Island, opened in 1940 on 700 acres of fill at the E end of the slough (MacColl 1979; Lansing 2003).

**Cook**—Neighborhood between the SW end of Oswego Lake and Interstate 5, where SW Boones Ferry Road crosses the Union Pacific rail line.

**Cooks Butte**—720-foot butte on S shore of Lake Oswego, managed as a natural area by the Lake Oswego Department of Parks and Recreation.

**Cooper Mountain**—Metro regional park in Beaverton, acquired with funds from the 1995 bond measure.

**Corral Creek**—Metro regional park in the Tonquin Geologic Area, Clackamas County, acquired with funds from the 1995 bond measure.

**Couch's Addition**—One of the original land claims in downtown Portland, comprising inner NW Portland N of Burnside and E of NW 23rd Avenue to the Willamette River. This included Couch Lake, which was filled and covered with commercial buildings, the Great Northern rail yards, and today's Union Station.

**Cornell Road**—Leading up Balch Canyon, connecting NW Portland and Cedar Mill.

**Council Crest**—1,050-foot peak and Portland city park just S of Portland Heights, near the S terminus of the Tualatin Mountains. In Gorman's day, it was the site of the Council Crest Amusement Park, built in 1907 and served by a streetcar line (Paulson 2005). Originally called Humphrey's Mountain (Scott 1890).

**County Poor Farm**—Multnomah County Poor Farm, also called Hillside Farm, was founded in 1868 on the site of today's Oregon Zoo, before moving to what is now McMenamin's Edgefield hotel in Troutdale in 1911. Its 345 acres were redeveloped as the West Hills Golf Course in 1924, and converted to the zoo in 1955-1959.

**Crystal Springs Rhododendron Gardens**—9.5 acre tract in Eastmoreland adjacent to Reed College, founded in 1950 by the Portland Chapter of the American Rhododendron Society. Formerly called Shakespeare Island by students of Reed College, who performed plays there.

**Curtin Creek watershed**—a tributary of Salmon Creek, originating in the Padden wetland near NE Andreson and NE 78th Street, joining Salmon Creek upstream of NE 72nd Avenue.

**Division Street**—In SE Portland, extending from the Willamette River to Gresham. Called "Section Line Road" until 1882.

**Dodge Park**—On the Sandy River, upstream from Oxbow Park.

**East Buttes**—Several Metro regional parks E of Interstate 205, acquired with funds from the 1995 bond measure. These are all old volcanoes and part of the Boring Lava field.

**East Portland**—Neighborhood E of downtown, across the Willamette River and S of Interstate 84. Originally a separate town incorporated in 1870, it was annexed by Portland in 1891.

**Elk Rock**—Neighborhood and basalt cliff on W bank of the Willamette River opposite Elk Rock Island, just downstream from Lake Oswego. The cliff, part of the Peter Kerr Natural Area owned by the City of Portland and managed by Portland Parks and Recreation, is probably the same locality as Thomas Howell's "rocks opposite Milwaukie." The Peter Kerr estate and gardens, now owned by the Episcopal Diocese of Oregon, was built near the top of Elk Rock in 1914, replacing an earlier cottage built by Kerr in the 1890s.

**Elk Rock Island**—Island on E bank of Willamette River across from Elk Rock, owned by the City of Portland and managed by Portland Parks and Recreation. Called Lot Whitcomb Island in the 1860s and once the site of a dance hall operated by the Rock Island Club. Purchased in 1910 by Peter Kerr, whose estate on top of Elk Rock overlooked it, and donated to the city as a natural area park in 1940.

**Ennis Creek**—Tributary of the Willamette River, just N of Forest Park and Newberry Road. Owned by Metro.

**Fanno Creek**—Tributary of the Tualatin River, draining much of SW Portland. Mostly privately owned urban and suburban residential land.

**Fifth Plain Creek**— Triburary to Lacamas Creek.

**Fifth Plain Prairie**—Wet prairie extending from NE Ward Road and 172$^{nd}$ Avenue N to NE 159$^{th}$ Street in Clark County. The northern portion of the prairie is drained by China Ditch.

**Flouring Mills ("Flour Mills")—**See Lower Albina.

**Foley-Balmer Natural Area**—In Tryon Creek watershed near Jensen Natural Area and Marshall Park. Owned by the City of Portland and managed by Portland Parks and Recreation.

**Forest Park**—Extending along W side of Willamette River from Cornell Road NW to the confluence of Multnomah Channel and the Willamette. Olmstead and Olmstead (1903) and Moses (1943) recommended it as a city park but this did not occur until 1948. Hillside Parkway, today's Leif Erickson Drive, was punched through the length of the future park in 1914-1915 to provide access for new real estate developments, but landslides made the road impossible to maintain and schemes for deveopment were abandoned. Much of the park burned in 1887, 1940, and 1951 (Munger 1960; Orloff 2004; Kuhn 2005). Owned by the City of Portland and managed by Portland Parks and Recreation.

**Forestry Building**—see Guilds Lake.

**Fort Vancouver**—Headquarters for the Hudson Bay Company's commercial operations on the Pacific coast, located on the north bank of the Columbia River at Vancouver, Washington, just E of today's Interstate 5 bridge. Established in 1825, the company eventually had over 2,000 acres of land under cultivation and exported beef, lumber, and dried salmon to other company posts in California, the Hawaiian Islands, and what later became Washington and British Columbia. Early botanical collectors such as Douglas and Nuttall used the fort as a base of operations, while others such as Tolmie and Gairdner were company employees stationed at the fort. Operations at the fort gradually diminished as American influence increased in Oregon and Washington and the international boundary dispute was settled. In 1849 the company moved its headquarters north to Fort Victoria on Vancouver Island and abandoned Fort Vancouver in 1860. The site was taken over by the U.S. Army and thereafter variously named Camp Columbia, Columbia Barracks, Vancouver Barracks, and Fort Vancouver Military

Reservation. Part of the original Hudson Bay Company establishment has been reconstructed in today's Fort Vancouver National Historic Site.

**Frenchman's Bar**—On E bank of Columbia River just W of Vancouver Lake, managed as a natural area by Clark County Department of Parks and Recreation.

**Fulton**—Neighborhood and Portland city park on the W side of the Willamette River, between South Portland, the Sellwood Bridge, the river, and the top of the bluffs along Barbur Boulevard.

**Gabriel Park**—Portland city park SE of the intersection of SW Vermont Street and SW 45th Avenue.

**Garden Home**—Neighborhood in SW Portland just E of Beaverton, in Gorman's day served by an interurban rail line.

**Germantown Road**—Crossing the Tualatin Mountains from the St. Johns bridge and Linnton to West Union, near Hillsboro.

**Gilbert**—Neighborhood near SE Foster Road and SE 136th Avenue.

**Gladstone**—Town on N bank of Clackamas River just above confluence with Willamette River.

**Gladstone Park**—Founded in 1894 as Chautauqua Park, the site was a popular destination for recreation and revival meetings until it closed in 1927 and was sold to the Seventh Day Adventist church. Now called the Gladstone Park Conference Center, it hosts a conference facility and campground located in a grove of oaks along Webster Road, immediately NE of Gladstone.

**Golf Links**—Eastmoreland Municipal Golf Links, developed between 1916 and 1919 and today called Eastmoreland Golf Course. It had just opened when Gorman completed his manuscript for *Muhlenbergia.*

**Goldsmith's Addition**—Subdivision in NW Portland, on the flats W of NW 23rd Avenue, and only partially developed in Gorman's day.

**Gotter Prairie**—Near the confluence of McFee Creek and the Tualatin River in Scholls. A Metro regional park acquired with funds from the 1995 bond measure.

**Green Mountain**—Cinder cone N of Lacamas Lake in Clark County. Botanical records from this locality are from the large wet prairie SW of Green Mountain, which contains the world's largest known population of *Lomatium bradshawii*. It was set aside as mitigation for development of the Green Mountain Golf Course. The site was managed for several years by The Nature Conservancy, but their contract has lapsed and the future of the botanically-rich wetland is uncertain.

**Gresham Woods**—Park located along Johnson Creek and the Springwater Corridor Trail, owned and managed by City of Gresham.

**Guilds Lake**—Shallow, 220-acre floodplain lake in NW Portland. Olmstead and Olmstead (1903) recommended it as a city park. Instead, it became the site of the Lewis and Clark Centennial Exposition of 1905. The lake was filled between 1906 and 1930 with soil excavated from nearby Westover Terrace, dredge spoils from the Willamette, garbage, building debris, sawdust, and incinerator ash. Most buildings of the Exposition were demolished by 1910, and the only major building to survive on site was the Forestry Building, located on a bluff above the lake. Gorman was appointed Curator of the Forestry Building in 1907, a position he held until his death in 1926. The building became the center for botany in Portland during Gorman's day, but it burned to the ground in 1964. For more information on Guilds Lake, see MacColl (1976, 1979), Abbott (1996), Tucker (2005) and Dibling et al. (2006).

**Happy Hollow Road**—Near Lents in SE Portland, but location uncertain.

**Hayden Island**—In the Columbia River between the Portland peninsula and Vancouver, crossed by Interstate 5. Before 1850, it was variously called Menzies Island, Goose Island, Image Canoe Island, Vancouver Island, and Shaw Island (McArthur 1982).

**Harbor View**—Neighborhood on Columbia River, along Marine Drive and E of Interstate 5.

**Hardscrabble Quarry**—On the N bank of the Clackamas River, 2 miles E of Carver.

**Hawthorne Springs**—N of SE Hawthorne Street between SE 9th and 12th Avenues. The springs drained into Asylum Gulch, and supplied drinking water to East Portland until 1897 (Herst 1931). Olmstead (1903) described the site as a ravine with a large spring and "attractive groves of large fir trees," and recommended the site for a city park. The city leased it as a park until 1905, when sewage from adjacent houses polluted the springs and was blamed for an outbreak of typhoid fever (Tucker 2005). See also Asylum Gulch.

**Heron Rookery**—Natural area adjacent to Heron Lakes Golf Course, owned and managed by City of Portland Parks and Recreation.

**Holbrook Creek**—Presumably the creek between Logie Trail and the settlement of Holbrook, just off Highway 30.

**Hooten Wetland**—Constructed wetland adjacent to the Clackamas River. A Metro regional park, acquired with funds from the 1995 bond measure.

**Inman-Poulson Lumber Co. ("Inman's Mill")**—Sawmill complex on the E bank of the Willamette River at the foot of Division, between Sherman and Caruthers Streets. Covering 38 acres and in Gorman's day the largest lumber mill in Oregon, it was built on fill in what was formerly Stephens Slough (MacColl 1976).

**Interstate Bridge**—Span on the Columbia River that replaced the Vancouver Ferry in 1917, running from Hayden Island to Vancouver. Originally the route of Pacific Highway 99, and still in use today as the northbound span for Interstate 5.

**Irving and 17th Streets**—In NW Portland. Only partially developed in Gorman's day.

**Jackson School Road**—Adjacent to Highway 26 near North Plains. Location of a small, privately-owned wet prairie remnant.

**Jefferson Street, head of**—Goose Hollow area in SW Portland, which was the original route of Canyon Road before the Highway 26 tunnel was built.

**Jennings Lodge**—Neighborhood on E bank of Willamette River immediately NW of Gladstone, platted in 1905.

**Johnson Creek**—Tributary of the Willamette River, draining much of SE Portland. Mostly privately owned urban and suburban residential land.

**Johnson Lake**—Natural area in the Columbia Slough watershed, bounded by NE Colfax Street, NE Glass Plant Road, and Interstate 205. Managed by Portland Parks and Recreation.

**Kelley Point**—On the tip of the Portland peninsula at the confluence of the Willamette and Columbia Rivers. A Portland city park, sited on old dredge spoils.

**Kelly Butte**—One of many buttes in the Boring Lava Field, ca. 1.5 mile SE of Mt. Tabor. Owned in part by the City of Portland and managed by Portland Parks and Recreation.

**Kenton**—Neighborhood in North Portland, along Interstate Avenue N of Lombard Street and overlooking Columbia Slough. Only partially developed in Gorman's day.

**Killin Wetland (Banks Swamp)**—Metro regional park near Banks, acquired with funds from the 1995 bond measure. A muck soil or "beaverdam" soil wetland, somewhat beyond our limits.

**King's Heights**—Neighborhood in NW Portland on hills between W Burnside Street and Cornell Road, topped by the Pittock Mansion.

**Lacamas ("La Camas") Lake and Lacamas Park**—Public natural area park in Clark County, extending from NE 3rd Avenue E of Camas to Goodwin Road N of Lacamas Lake.

**Lake Grove**—Neighborhood near SW end of Oswego Lake.

**Lake River**—Waterway draining Vancouver Lake, connecting to the Columbia River near Ridgefield.

**Latourell ("Latourelle")**—Settlement in the Columbia River Gorge just below Latourell Falls.

**Laurelhurst**— Neighborhood in East Portland, centered at NE 39th Avenue and NE Glisan Street.

**Laurelhurst Park**—Portland city park in Laurelhurst subdivision, near SE Stark Street and SE 39th Avenue. Created in 1911-1912.

**Leach Botanical Garden**—Estate garden of John and Lilla Leach along Johnson Creek, now owned by the City of Portland. Lilla Leach (1886-1980) was a botanist who collected in the Portland area as well as elsewhere in the Northwest. She and her husband John bought the property in 1931, named it "Sleepy Hollow," and began to develop the garden that made it famous. For more information, see Love (1991), Kirkpatrick et al. (1994), and Wade (2001).

**Lents**—Neighborhood in SE Portland, near SE Holgate Boulevard and Interstate 205. Originally a separate town annexed by Portland in 1912, and a station on the Portland Railway Light and Power Company's interurban rail line from Sellwood to Cazadero.

**Lewis and Clark Fair Grounds ("L. & C.")**—see Guilds Lake.

**Linnton**—Neighborhood on the W bank of the Willamette River, across from St. Johns and N of the St. Johns Bridge. Originally incorporated as a separate town in 1910, it was annexed by Portland in 1915.

**Logie Trail**—Road crossing the Tualatin Mountains from Highway 30 (the old St. Helens Road) leading to North Plains and Helvetia.

**Lovejoy and 23rd Streets**—In NW Portland. Only partially developed in Gorman's day.

**Lovejoy Property**—Metro regional park on Gales Creek near its confluence with the Tualatin River, just S of Forest Grove and somewhat beyond our limits. Acquired with funds from the 1995 bond measure.

**Lower Albina ("L. Albina")**—Terrace along Willamette River between the Broadway Bridge and Mocks Bottom, within the original town limits of Albina. Site of the extensive Union Pacific rail yards and other waterfront industrial activity. The Portland Flouring Mills were on the river at the north end of Lower Albina, at the foot of today's Going Street, opposite the southern tip of Swan Island.

**Lownsdale and Taylor Streets**—In SW Portland. Lownsdale was later renamed 15th Street.

**Macadam Road**—On W side of Willamette River, between South Portland and Sellwood Bridge, leading through the Fulton neighborhood.

**Macleay Park**—City park in NW Portland, in the canyon of Balch Creek. The canyon was the site of several botanical and zoological finds, some made by scientists visiting the nearby Lewis and Clark Exposition in 1905. Gorman and Sheldon (1905) wrote an annotated checklist of the parks's flora.

**Magoon's Park (Magoon's Landing)**—On the W bank of the Willamette River opposite Meldrum Bar Park, at the foot of what were called the Clackamas River Rapids formed by outwash below the confluence of the two rivers (Corning 2004).

**Main ("East Main") Street**—Street in SE Portland between SE Salmon Street and SE Madison Street.

**Markham School**—School in SW Portland in the Tryon Creek watershed.

**McAllister Lake**—An unknown locality visited by Henderson in 1888, presumably in the Portland-Vancouver area.

**McMillen's Addition**—Subdivision on the Willamette River in East Portland, opposite Couch Lake. Sometimes spelled "McMullen."

**Menzies Island**—See Hayden Island.

**Mill Creek (Clackamas County)**—Tributary of the Willamette River near Wilsonville. A Metro regional park, acquired with funds from the 1995 bond measure.

**Mill Creek (Clark County)**—Tributary of Salmon Creek, originating W of Battle Ground.

**Milwaukie**—Town on E bank of Willamette River, between Sellwood and Oak Grove.

**"Mirey Lake"**—Unknown locality on Sauvie Island that contained floating islands of peat and peatland plants. Labels on specimens collected by Henderson between 1882 and 1886 (probably with Thomas Howell, but Howell wrote only "Sauvie Island") include descriptions such as "a floating island...below Howells," "floating islands," and "on a floating island in a lake." The locality may have been any number of lakes on the island, most of which have been filled for agriculture or overrun by reed canary grass.

**Mocks Bottom**—Bottomland E of Swan Island, below Waud Bluff and Mocks Crest. In Gorman's day it was willow swamp and wet prairie with tidal channels. Between 1923 and the 1970's the Port of Portland connected it to Swan Island and filled it with dredge spoils (Tucker 2005). It is now a warehouse district and port facility.

**Montavilla**—Neighborhood in NE Portland, between Mount Tabor and Rocky Butte, that was annexed by Portland in 1906. Only partially developed in Gorman's day.

**Moore Island**—In Columbia Slough, S of Heron Lakes Golf Course. Acquired in 1997 by the City of Portland and managed by Portland Parks and Recreation.

**Morand Property**—On the Tualatin River, adjacent to the Tualatin River National Wildlife Refuge. A Metro natural area acquired with funds from the 1995 bond measure.

**Mountain View**—Subdivision in the West Hills, NW of Kings Heights.

**Mt. Scott**—1,100-foot butte 3 miles E of Milwaukie and 3 miles NE of Clackamas. Willamette National Cemetery is on the N side of the butte. Historical specimens of wetland species from this locality were probably collected along the Johnson Creek floodplain N of Mt. Scott.

**Mt. Tabor**—600-foot butte and Portland city park, between SE Stark, SE Division, SE 60$^{th}$ Street, and SE 72$^{nd}$ Street. Olmstead and Olmstead (1903) recommended it for a park, noting that it had been "sufficiently cleared to open up all the important views...yet there still survive considerable groves of the original growth of fir trees."

**Mt. Talbert**—Located in the East Buttes region. Owned by Metro and North Clackamas Parks and Recreation District. The Metro portion was acquired with funds from the 1995 bond measure.

**Multnomah Channel**—On the Columbia River floodplain, extending from the Willamette River N to St. Helens, along the W side of Sauvie Island. Originally called Willamette Slough (Scott 1890). Also a Metro regional park, on the W side of the channel and N of Burlington Bottoms, acquired with funds from the 1995 bond measure.

**Newell Creek**—Tributary of Abernethy Creek just E of Oregon City. Multiple properties in Newell Canyon were purchased by Metro with funds from the 1995 bond measure.

**North Keys**—Metro regional park in the Tonquin Scablands, acquired with funds from the 1995 bond measure.

**Northrup and 24$^{th}$ Streets**—In NW Portland. Only partially developed in Gorman's day.

**Oaks Bottom**—Willamette River floodplain and adjacent bluffs on the E side of the Willamette River, N of the Sellwood Bridge. Owned by the City of Portland and managed by Portland Parks and Recreation. This was Portland's first official urban wildlife refuge, designated in 1988 with the adoption of the Oaks Bottom Wildlife Refuge Management Plan.

**Oak Grove**—Neighborhood on E bank of Willamette River, opposite Lake Oswego. Platted in 1890. Thomas Howell was the first postmaster here when an office was established in 1904. It was first named Creighton Post Office but changed to Oak Grove in 1907 (McArthur 1982).

**Oaks Park**—See The Oaks**.**

**Oswego**—City of Lake Oswego.

**Oswego Lake**—Lake at Lake Oswego, originally called Sucker Lake.

**Overton and 19th, 20th, 23rd Streets**—In NW Portland, and only partially developed in Gorman's day.

**Oxbow Park**—On the Sandy River, somewhat beyond our limits. Owned by Metro.

**Padden wetland**—A natural area about 1 mile S of Barberton, located between NE 78th and NE 88th Streets, W of NE Andresen Road. Managed for wetland mitigation, headwaters of Curtin Creek, and a tributary of Salmon Creek.

**Peach Cove**—Peninsula on the N side of the Willamette River between Oregon City and Canby, just S of Petes Mountain. Also a Metro regional park acquired with funds from the 1995 bond measure.

**Petes Mountain**—Ridge on W side of Willamette River, about 5 miles S of Lake Oswego, SE of Tualatin and NE of Wilsonville.

**Pettygrove and 21st Streets**—In NW Portland, and only partially developed in Gorman's day.

**Pittock Bird Sanctuary**—Portland Audubon Society sanctuary N of NW Cornell Road, along Balch Creek adjacent to Macleay Park.

**Pleasant Valley**—Along SE Foster Road near SE 172nd Avenue.

**Portland**—First settled in 1845, consisting of 16 blocks covering about 16 acres bounded by the Willamette River, SW Second Avenue, SW Washington Street, and SW Jefferson Street. When incorporated in 1851, it covered a little more than 2 square miles and had extended to NW 23rd Avenue, NW Pettygrove, and SW Sherman Street.

**Portland Heights**—Neighborhood in SW Portland, on hills SE of Canyon Road, along Vista Avenue. Originally called Carter's Hill (Scott 1890).

**Portsmouth**—Neighborhood and street adjacent to the University of Portland, and a station on the streetcar line that ran on Lombard Street between Portland and St. Johns (Covert 1976). Only partially developed in Gorman's day.

**Powell Butte**—Cinder cone and 600-acre City of Portland park in the Boring Lava Field of SE Portland. Managed as Powell Butte Nature Park by Portland Parks and Recreation.

**Powell Valley Road**—Extending from SE Portland to Gresham and Powell Valley, now called SE Powell Boulevard.

**Powellhurst**—Neighborhood near SE Division Street and SE 122nd Avenue.

**Quimby and 20th Streets**—In NW Portland, and only partially developed in Gorman's day.

**Raleigh Street**—In NW Portland, below Willamette Heights, and only partially developed in Gorman's day.

**Reed College**—Campus and canyon in Eastmoreland neighborhood of SE Portland. The college was founded in 1908 and opened in 1911.

**Risley Station**—Stop on the Portland Railway Light and Power Company's (later called Portland Traction Company) interurban rail line that between 1893 and 1958 ran along the E bank of the Willamette River between Portland and Oregon City. Today's Risley Park is just W of the site of Risley Station where Swain Avenue intersected the tracks. Six miles of the old right of way were acquired in 2001 by Metro and the North Clackamas Parks and Recreation District to create a linear recreation trail (Alta Planning and Design et al. 2004), but other segments have been lost to development.

**Riverdale**—Neighborhood on W bank of Willamette River, between Riverview Cemetery and Elk Rock.

**Rivergate**—Area on peninsula between the Columbia and Willamette Rivers, adjacent to Smith and Bybee Lakes. About 3,000 acres, once all wetlands, were filled with dredge spoils between 1962 and 1990 to create industrial land.

**Riverside**—Subdivision on the E bank of the Willamette River, E and NE of Ross Island.

**Rock Island**—In Willamette River at river mile 30, just upstream from West Linn. This is at the very edge of Gorman's study area, and he may have been referring instead to what is now called Rocky Island, at river mile 22 just upstream from Lake Oswego.

**Rocky Butte**—600-foot butte and Portland city park N of Interstate 84, between NE Halsey, NE Prescott, NE 82nd Avenue, and NE 102nd Avenue. Olmstead and Olmstead (1903) noted that its woods had been "much injured by cutting and burning."

**Rocky Point**—Outcrop about 0.5 mile S of junction of Rocky Point Road and Highway 30.

**Rose City Park**—Neighborhood in NE Portland, between Hollywood and Rocky Butte.

**Ross Island**—In Willamette River at river mile 15, between South Portland and Brooklyn. Olmstead and Olmstead (1903) noted that it would be almost completely inundated during the annual spring flood. Efforts to acquire the island as a city park in 1912 and 1924 failed, and gravel mining began after 1926 (MacColl 1979). Mining ceased in 2004 and habitat restoration will be completed by 2013. Forty-five acres of the island were donated to Portland Parks and Recreation in 2008. Three smaller islands (Hardtack, East, and Toe) are adjacent or attached by fill.

**Russell Pond**—Complex of created bioswales and a small natural wetland in the Columbia Slough watershed.

**Salmon Creek**—Tributary of Lake River, draining the northern part of Vancouver.

**Sandy Boulevard**—In NE Portland, extending from E. Burnside Street near downtown to just N of Rocky Butte. The earliest road from Portland to the Columbia River Gorge, dating from at least 1881 and probably much earlier.

**Sandy River Delta**—At the confluence of the Sandy and Columbia rivers. The U.S. Forest Service acquired 1,400 acres here in 1991 as the western gateway to the Columbia Gorge National Scenic Area. It was here that Meriwether Lewis collected *Cardamine nuttallii* var. *nuttallii* on 1 April 1806, and unwittingly began the scientific study of the Portland-area flora. Named Barings River by the Vancouver expedition of 1792, Quicksand River by Lewis and Clark, and shortened to Sandy River by 1850 (McArthur 1982).

**Sauvie Island ("Sauvie's Island")**—Large island in the Columbia River just downstream from the confluence with the Willamette River. Beginning in 1838, the Hudson Bay Company used it to pasture horses and cattle, and by 1841 it had four dairies on the island.

**Savier and 20th Streets**—In NW Portland, and only partially developed in Gorman's day.

**Schlesinger PRF**—Stormwater facility ("pollution reduction facility") at NE 162nd Avenue just N of Sandy Boulevard.

**Section Line Road**—Old name for SE Division Street, renamed in 1882.

**Sellwood**—Neighborhood on E bank of the Willamette River between Brooklyn and Milwaukie. Originally a separate town incorporated in 1887, it was annexed by Portland in 1893.

**Simpson Cove**—On the lower Columbia Slough near N Denver Avenue.

**Slavin Road**—In the Corbett area of South Portland, between SW Barbur Boulevard and Interstate 5.

**Sleepy Hollow**—See Leach Botanical Garden.

**Smith and Bybee Lakes Wildlife Area**—Complex of wetlands and floodplain forest in the Rivergate area, near the confluence of the Willamette and Columbia rivers. Owned and managed by Metro.

**South Portland**—Neighborhood W of the Willamette River and S of today's downtown, below what is now Oregon Health Sciences University. Much of this area was obliterated between 1963 and 1973 during construction of Interstates 5 and 405.

**Springville Road**—Extending from NW Skyline Boulevard near Forest Park to Bethany in the Tualatin Valley.

**Springwater Corridor Trail**—Bicycle path extending from downtown Portland SE to Boring, following former rights-of-way of interurban rail lines built by the Portland Railway Light and Power Company between 1893 and 1903.

**St. Helens Road**—Extending from Portland to St. Helens. Most of it is now called Highway 30 except for a portion skirting the W edge of Guilds Lake Industrial area.

**St. Johns**—Neighborhood on N bank of Willamette River, near the tip of the peninsula between the Willamette and Columbia rivers, 6 miles from confluence with Columbia. Originally incorporated as a separate town in 1902, it was annexed by Portland in 1915.

**Stark Street Bridge**—Span over the Sandy River at the E end of Stark Street, near Dabney State Park and about 2 miles SSE of the Troutdale Bridge.

**Stephens Creek**—Draining the Burlingame neighborhood near the Terwilliger overpass along Interstate 5, running E to the Willamette River. Owned by a number of public and private entities including the City of Portland, managed by Portland Parks and Recreation and Portland Bureau of Environmental Services.

**Stephens Gulch**—Ravine containing Stephens Slough, extending from near today's OMSI southeast to the Brooklyn rail yards. See also Inman-Poulson Lumber Co.

**Stephens Slough**—see Stephens Gulch.

**Sullivan's Gulch**—Ravine extending from the Willamette River to about SE 33rd Avenue, now traversed by Interstate 84 and rail lines. An emergent wetland at its outlet on the Willamette was variously referred to as a "morass," "swamp" or "frog pond." During the spring freshet the gulch would flood as far up as SE 16th Avenue. Between 1916 and 1919 it was extended to SE 82nd Avenue as an excavated cut to safely separate the railroad from street crossings. The wetland along the river was part of the extensive fill project that extended S to Hawthorne Springs in the 1890s (Scott 1890; MacColl 1976, 1979; Lansing 2003).

**Swan Island**—Island in the Willamette at river mile 9, adjacent to Mocks Bottom on the N side of the river. Olmstead and Olmstead (1903) noted that it was wetter and more flood-prone than Ross Island. Between 1923 and 1930 the Port of Portland filled Swan Island, connected it to Mocks Bottom, and rerouted ship traffic from the E channel to the W channel. The site became Portland's first airport in 1927 before being converted to shipyards and an industrial area after 1940 (MacColl 1979; Ashbaugh 1987; Tucker 2005).

**The Oaks**—Today's Oaks Amusement Park, on the E bank of the Willamette River in Sellwood. Opened in 1905 and a station on the Portland Railway Light and Power Company's interurban rail line on the E bank of the Willamette River between Portland and Oregon City (MacColl 1979; Paulson 2005).

**Thurman and 22nd, 28th Streets**—In NW Portland, and only partially developed in Gorman's day.

**Tonquin Scablands (Tonquin Geologic Area)**—Area stripped by the Bretz (Missoula) Floods, forming a gap between Wilsonville and Sherwood, drained by Rock Creek to the N and Seely Ditch to the S. With funds from the 1995 bond measure, Metro purchased six parcels in this area, including Mill, Arrowhead, and Corral creeks, totaling over 300 acres.

**Troutdale Bridge**—Span over the Sandy River just E of Troutdale, S of the Interstate 84 and railroad bridges. Before construction of Interstate 84 it carried traffic for Highway 30 and the Columbia Gorge Scenic Highway.

**Tualatin Plains**—In Gorman's day, "plains" was often used interchangeably with "prairie." The Tualatin Valley contained several areas of prairie, the largest of which became the townsites of Hillsboro and North Plains.

**Tualatin River National Wildlife Refuge**—Along the Tualatin River near Sherwood, established by the U.S. Fish and Wildlife Service in 1992. It will eventually include over 3,000 acres.

**Union Avenue and East Main Street**—Union Avenue, now called Martin Luther King Jr. Boulevard, is a main artery along the E bank of the Willamette River in East Portland.

**Union Depot**—Today's Amtrak rail station in Portland, built by Northern Pacific and opened in 1896.

**University Park**—Neighborhood on the E bank of the Willamette River, N of the University of Portland. In Gorman's day, the area was only partially developed, and the University of Portland was called Columbia University (Covert 1976).

**Upshur Street**—In NW Portland near the Lewis and Clark Fairgrounds and the Forestry Building. Only partially developed in Gorman's day.

**Vancouver**—Washington city on N bank of Columbia River, opposite Hayden Island.

**Vancouver Ferry**—Crossing the Columbia River between Tomahawk Island (called Sand Island in Gorman's day) and Vancouver. Served by a streetcar line from Portland, and adjacent to the Columbia Beach Amusement Park. The ferry was closed in 1917 when the Interstate Bridge was built between Hayden Island and Vancouver. The bridge is still in use today as the northbound span for Interstate 5.

**Water ("East Water") Street**—In SE Portland parallel to the Willamette River, just E of the Interstate 5 corridor.

**Waud Bluff**—Part of the escarpment along the E bank of the Willamette River above Mocks Bottom and Swan Island. Adjacent to Mocks Crest and site of the University of Portland.

**West Park and Salmon Streets**—In SW Portland, part of the South Park Blocks area of downtown.

**West Slope**—Neighborhood on the SW slope of the Tualatin Mountains, about 2 miles ENE of Beaverton.

**Western Terraces**—In NW Portland, now called Westover Terrace. Soil excavated for this development was used to fill Guilds Lake (see discussion under Guilds Lake).

**Whipple Creek**—Tributary of Lake River, originating E of Clark County Fairgrounds in vicinity of NW 179$^{th}$ Street.

**Willamette Bluffs**—Including Waud Bluff and Mocks Crest, containing remnant oak and madrone woodland on steep bluffs above Swan Island. Olmstead and Olmstead (1903) recommended it for a city park, with "long stretches...covered with more or less of the original forest growths, and the local scenery although somewhat injured by construction of railways, for the most part...still extremely beautiful." Owned by a number of private and public entities including the University of Portland and the City of Portland, managed by Portland Parks and Recreation and the Portland Bureau of Environmental Services.

**Willamette Falls**—On Willamette River at Oregon City, at river mile 27.

**Willamette Heights**—Neighborhood in NW Portland, on hills N of Balch Canyon and Cornell Road, overlooking the Guilds Lake industrial area.

**Willamette Narrows**—Complex of islands and oak woodlands along the Willamette River S of Oregon City. Owned by a number of private and public entities including Metro, the Oregon Parks and Recreation Department, and The Nature Conservancy.

**Willamette Slough**—Old name for Multnomah Channel, along W side of Sauvie Island (Scott 1890).

**Willbridge**—Industrial area on W shore of Willamette River, opposite University of Portland at crossing of Burlington Northern bridge. The bridge and the massive Peninsula railroad cut to the N were constructed in 1907 despite the objections of Portland's mayor over the effects of the project on the neighborhood (MacColl 1976).

**Woodlawn**—Neighborhood in NE Portland, E of NE Martin Luther King Jr. Boulevard and N of NE Killinsgworth Avenue, and overlooking Columbia Slough. Only partially developed in Gorman's day.

**Wright Island**—In Columbia Slough, S of Heron Lakes Golf Course. Acquired in 1997 by the City of Portland and managed by Portland Parks and Recreation.

# Appendix B. Gormania—champion trees, farmers, and the "idle Sunday rabble"

The following excerpts, mostly from papers by Gorman, are included here because of their historical merit and dry humor. Quotes from historical sources are in Arial font, while our comments are in Times New Roman font.

Subject matter includes "champion" shrubs and trees, historical uses and ecology, and weed lore. We omitted some lengthy passages on ethnobotany in Gorman (1916-1917), and curious readers should consult his original work. In hindsight, Gorman's concerns about threats to some species were overwrought, and some of his facts were incorrect. Nevertheless, these notes are some of the most valuable and humorous parts of Gorman's work because they are in many cases the only historical records we have for particular species in the Portland area. His notes on the uses of plants for food or medicine are included here for academic interest only, and readers should not attempt to use any of these plants for these purposes.

***Acer circinatum***—"A specimen collected on the Necanicum River measured 13 1/2 inches in diameter at base by 30 feet high." (Gorman 1916-1917).

***Acer macrophyllum***—"A valuable tree for furniture, cabinet-work, fuel, etc." (Gorman and Sheldon 1905). "The four Oregon woods almost exclusively used for paddles by the Northwest Indians were Oregon ash, Oregon maple, western yew, and western dogwood in the order named." (Gorman 1916-1917).

***Achlys triphylla***—"Gathered in immense quantities [for its fragrant leaves], plucked unsparingly by idle boys, who tie it up in small bundles and make such a traffic in selling it to households and shops that it is rapidly disappearing." (Gorman 1904). "Largely collected by boys and sold under the name of 'Vanilla leaves'" (Gorman and Sheldon 1905). "Large quantities of the stems and leaves are gathered in spring and hung about rooms, shops, etc. for the fragrance exhaled by the leaves on drying. This fragrance is due to the presence of coumarin, a principle that is also contained in other species such as *Melilotus alba*, *Dipterix odorata*, etc. Were it generally known that any long continued inhalation of this odor is injurious, the practice of hanging up the leaves in bedrooms would undoubtedly be stopped." (Gorman 1916-1917).

***Adiantum aleuticum***—"Considerably used for decoration" despite its fragility. (Gorman 1904). The fashion was the same in Seattle, where University of Washington biologist Trevor Kincaid reported about 1903 that *Adiantum* in Ravenna Park had been decimated by "depredations of fern hunters" (Larson 2005).

***Agrostis exarata***—"A fairly good forage grass and relished by stock." (Gorman 1916-1917).

***Agrostis stolonifera***—"A valuable forage grass. It serves a useful purpose as a sand binder." (Gorman 1916-1917).

***Amelanchier alnifolia* var. *semiintegrifolia***—"A specimen found by the writer in the lower Willamette Valley measured 9 1/2 inches in diameter by 36 feet high." (Gorman 1916-1917).

***Arbutus menziesii***—"Planted to some extent as an ornamental tree in private grounds about Portland, and occasionally used for Christmas decorations." (Gorman 1916-1917).

***Arctium minus***—"The hooked bristles of the involucre become fastened in the manes, tails, and fetlocks of horses, the wool of sheep, and the coats of dogs." (Gorman 1916-1917).

***Argentina anserina* ssp. *anserina***—"The roots were formerly eaten by the Indians." (Gorman 1916-1917).

***Blechnum spicant***—"Dug up and largely used for decoration about the holidays and during the winter." (Gorman 1904).

***Calochortus tolmiei***—"Gathered considerably and slowly disappearing." Gorman (1904).

***Calypso bulbosa***—"Both plucked and dug up for potting so ruthlessly that its extermination is only a question of time." (Gorman 1904). "It has been so universally gathered, both for its fragrance and for transplanting, that it is threatened with extermination." (Gorman and Sheldon 1905). Gorman was correct in this prediction, as the species has been extirpated from our area. Universal in its appeal, *Calypso* was also picked by children in Seattle (Denny 1909).

***Calystegia sepium* ssp. *angulata***—"The Indians ate the underground stems and there can be little doubt that to some extent they cultivated the plant at this spot [Sauvie Island, "about the old Indian campground"] as they certainly cultivated *Lewisia rediviva* and other plants." (Gorman 1916-1917). Gorman's report of this species being used by Native Americans as a food plant has not been substantiated elsewhere and is suspect (Turner 2005).

***Camassia quamash* ssp. *maxima*** —Gorman (1916-1917) included an extensive description of how Native Americans gathered and cooked camas, and readers should consult his original work for these passages.

***Carex aperta***—"Largely cut for hay and regarded by farmers as the best forage sedge." (Gorman 1916-1917).

***Carex exsiccata***—"A useful forage plant locally known as 'slough grass.' This sedge will withstand 3 or 4 months submergence in summer on bottomlands along the Columbia River without apparent injury. This sedge is largely used in iron foundries where it is twisted into a sort of rope and wound around iron pipe-cores to facilitate their extraction from the pipe after being cast." (Gorman 1916-1917).

***Ceanothus sanguineus***—"The foliage is relished by sheep." (Gorman 1916-1917).

***Centaurea cyanus***—"Gathered in great quantities" for its showy flowers. (Gorman 1904). Gorman at first feared that overcollecting was causing *Centaurea* to decline in many places, but by 1916 he had changed his mind.

***Cirsium arvense***—"It seldom produces fertile seed in this section, but propagates freely from creeping perennial rootstocks." (Gorman 1916-1917).

***Cirsium edule***—"The roots and the some extent the young shoots of this plant were formerly used by the Northwest Indians as food and are occasionally used by them to this day." (Gorman 1916-1917).

***Clarkia pulchella***—"It has been planted to some extent in our gardens but is entitled to more extensive cultivation not only for its beauty but for its historical associations as well." Gorman was referring here to William Clark, his manuscript written not long after Portland's Lewis and Clark Centennial Exposition of 1905. (Gorman 1916-1917).

***Claytonia sibirica***—"Sometimes used as a substitute for lettuce by miners and prospectors." (Gorman and Sheldon 1905). While *C. sibirica* is perfectly edible, in our experience *C. perfoliata* is considerably more palatable.

***Coreopsis tinctoria* var. *atkinsoniana***—"On the bottom-lands where it occurs, its development is totally arrested for a month or more while submersed and is again resumed on recession of the high water, without any apparent injury to the plant." (Gorman 1916-1917).

***Cornus nuttallii***—"Indiscriminately gathered" when in bloom, but not in danger from overcollecting (Gorman 1904). "A handsome ornamental tree, infrequently planted in private grounds about the city. Trees and saplings of this species, however, no matter how young, have proved very difficult to transplant successfully... The four Oregon woods almost exclusively used for paddles by the Northwest Indians were Oregon ash, Oregon maple, western yew, and western dogwood in the order named." (Gorman 1916-1917).

***Corylus cornuta* var. *californica***—"The wood is reduced to fine shavings and used to clarify beer. The nuts are edible." (Gorman and Sheldon 1905). "Sometimes a tree ten inches in diameter and from eight to fifteen feet high. No effort is recorded of any attempt to cultivate or improve it." (Cardwell 1906).

***Cynoglossum grande***—"Twenty years ago this plant was fairly abundant in open coniferous woods around Portland. It has now become so rare that its extinction in this vicinity seems only a question of time. A few can still be found along the Cornell road." (Gorman and Nelson 1905).

***Cytisus scoparius***—"Shunned by stock of all kinds owing to its bitter taste." (Gorman 1916-1917).

***Digitalis purpurea***—"An introduced biennial 'weed,' frequently cultivated in gardens and a great favorite with children. It is a lover of sunshine and sea breezes, and in July in old pastures and roadsides near the coast it forms a mass of color that is hard to equal." (Gorman 1916-1917). *Digitalis* is said to have been first planted in the Pacific Northwest at Gardiner, Douglas County, by Margaret Watkins Gibbs in 1854. Gibbs, whose husband Addison Gibbs was Oregon's second governor, is buried in Portland's Riverview Cemetery (Wiley 1966).

***Dipsacus fullonum***—Grown commercially in Molalla between 1860 and 1899 for combing wool, and reputedly the only commercial source W of New York. Use of teasel in processing wool became obsolete when it was replaced by metal combs that served the same purpose.

***Erythronium oregonum* ssp. *oregonum***—"Gathered in unlimited quantities when in flower," and "slowly being exterminated" (Gorman 1904).

***Fragaria chiloensis* ssp. *pacifica***—"In some regions it is said hogs fatten on them. The berry...improves under cultivation, and by some classed superior in flavor to the cultivated kinds. Several fine varieties have been produced by cross-fertilization with this." (Cardwell 1906).

***Frangula purshiana***—Gorman (1904) predicted that commercial demand for the bark would "result in the practical extermination of the species within a few years...At present so valuable in medicine and ...collected to such an extent that the tree is threatened with extinction." (Gorman and Sheldon 1905). Exports of cascara bark from Portland topped 580 tons in 1923, 58% of which went to the E coast and the balance to England, Germany, Australia, and Java (Port of Portland 1924). Total harvest in the Pacific Northwest escalated from one ton in 1900 to 6,000 tons in 1924 (Wiley 1966). Commercial value of cascara bark varied over the decades but collecting pressure on this species was not as severe as Gorman feared. Bark is still "peeled" in the wild today as a "non-timber forest product" in a completely unregulated market.

***Fraxinus latifolia***—"Its eastern limit in this state is on Chenowith [Chenoweth] Creek, 3 miles west of The Dalles. The four Oregon woods almost exclusively used for paddles by the Northwest Indians were Oregon ash, Oregon maple, western yew, and western dogwood in the order named." (Gorman 1916-1917).

***Gaultheria shallon***—"A great favorite with the Indians." (Gorman and Sheldon 1905). "Berry...much sought by the Indians, and in early days made an excellent wine for the resident Hudson Bay Company employees...has not been cultivated." (Cardwell 1906). "This beautiful evergreen has within the last decade, to some extent, taken the place of the Oregon grape for decoration. This is certainly justifiable as its spreading stems are graceful, its thick, firm leaves are slightly spicy-aromatic and do not wither nearly as readily as those of the Oregon grape, and its pretty pinkish white, urn-shaped flowers are much less fugacious than those of the latter. The black, berry-like fruit is a great favorite with the Indians." (Gorman 1916-1917).

***Heracleum maximum***—"In spring and early summer the succulent young stems are collected and eaten in great quantities by the Northwest Indians. This use of the plant is justifiable, as, in addition to its food value, it is to some extent an antiscorbutic." (Gorman 1916-1917).

***Hierochloe occidentalis***—"Quite fragrant on drying and on this account frequently used to scent bureau drawers where it has been known to retain its fragrance for twenty years or more." (Gorman 1916-1917).

***Holodiscus discolor***—"This shrub furnished the wood chiefly used by the Indians of western Oregon and Washington for making their arrow shafts in early days." (Gorman and Sheldon 1905). "A specimen of this shrub seen on Gales Peak measured 2 1/2 inches in diameter." (Gorman 1916-1917).

***Hydrophyllum tenuipes***—Used as a decorative green (Van Dersal 1929). [It is difficult to imagine how this was accomplished without the plants wilting.]

***Hypericum perforatum***—"When the plant is young and succulent its juice is so acrid that no stock of any kind will eat it, and in autumn it is left undisturbed to wave its unsightly, dull brown stems and scatter its pernicious seeds in the wind to ensure a further propagation." (Gorman 1916-1917).

***Hypochaeris radicata***—"Frequently known amongst settlers as 'Russian dandelion' and sometimes 'Pig-root,' owing to the fondness of pigs for the root. First introduced into Oregon and Washington by a sailing vessel carrying freight for the Hudson Bay Co. from Vladivostock, Siberia about 1844. It promptly made its appearance about Fort Nisqually [now DuPont, Washington], Vancouver, and Oregon City and eventually spread throughout most of both states west of the Cascade Mountains." (Gorman 1916-1917).

***Iris tenax***—"Gathered in great quantities," but not in danger because it also grew in waste places and old pastures. (Gorman 1904).

***Juncus bufonius***—"Not relished by stock of any kind and practically worthless as forage." (Gorman 1916-1917).

***Juncus effusus* ssp. *pacificus***—"The stems are used for fine basketry by the Indians." (Gorman 1916-1917).

***Leucanthemum vulgare***—"Gathered without limit by young and old alike," but in no danger because of its weedy characteristics (Gorman (1904). "Like most of our noxious introduced weeds, this plant is shunned by stock of all kinds except under stress of starvation." (Gorman 1916-1917).

***Linum usitatissimum***—First planted at Fort Vancouver in 1831 (Taylor 1992), but Gorman (1916-1917) reported that it "was first introduced into Oregon from Indiana by Joseph Johnson, a pioneer who crossed the plains in 1844 and planted it near Lafayette, Yamhill County, in 1845."

***Lomatium nudicaule***—"The Northwest Indians eat the young stems and leaves and boil them in their soups and stews as we do celery." (Gorman 1916-1917).

***Lomatium utriculatum***—"A favorite home medicine among the Northwest Indians." (Gorman 1916-1917).

***Lotus unifoliolatus***—"In pioneer days and even later the plant was frequently used to make hay." (Gorman 1916-1917).

***Lupinus polyphyllus***—"In pioneer days this plant became a troublesome native weed in grain, especially in wheat fields, owing to the seed being difficult to remove in screening and thus causing farmers annoyance by coloring the flour dark." (Gorman 1916-1917).

***Lysimachia nummularia***—"This well known creeping plant is of comparatively recent introduction and was not observed here outside of cultivation up to 1904." (Gorman 1916-1917).

***Madia glomerata***—"This plant [and *M. sativa* and *M. gracilis*], although not the most noxious or most troublesome, are undoubtedly the vilest weeds in this state. The viscid hairs and glandular stems excrete an adhesive, gummy, ill-scented substance which clings to one's clothing or hands on the slightest contact and is quite difficult to remove. Not only this, but it also adheres to the manes, tails, and fetlocks of horses and to the legs and udders of cows to such an extent that the milk occasionally becomes ill-scented from it. In traveling in the Willamette Valley in autumn, a stranger to the country

would be curious to know why the tails of farm horses were so frequently to be seen tied up, until informed that the tarweeds caused such large masses of this substance and adherent dust to form on them that tying it up became necessary. Fortunately [*M. sativa*, *M. gracilis*, and *M. glomerata*] are annuals, therefore their extermination is feasible." (Gorman 1916-1917).

***Mahonia aquifolium***—The state legislature designated this species as the Oregon State Flower in 1899. This action caused a huge demand for its use in holiday and winter decorations, weddings, parties, and church festivals. "To such an extent is this custom now in vogue that the shrub will eventually disappear in the vicinity of all the large towns of the state." (Gorman 1904). "A superb and elegant ornamental evergreen shrub...under cultivation making a showy lawn plant, six to eight feet [tall]...a thing of beauty rarely equaled, fruit...make a fine beverage, and good in pies and preserves." (Cardwell 1906). "So largely are [*M. aquifolium* and *M. nervosa*] now used for holiday and festive decorations of all kinds that they are practically threatened with extermination in this vicinity....The largest specimen yet seen in Oregon is 5 inches in diameter by 16 feet high." (Gorman 1916-1917).

***Mahonia nervosa***—"So largely are [*M. aquifolium* and *M. nervosa*] now used for holiday and festive decorations of all kinds that they are practically threatened with extermination in this vicinity." (Gorman 1916-1917). The Port of Portland (1924) reported exports of Oregon grape root.

***Malus fusca***—"When favorably situated [it] is a good sized tree and attains a diameter of one foot and an altitude of twenty feet...[it] bears heavily a small, oval, golden-colored apple, which when ripe is eaten by the Indians, and was used in early times by the white settlers for making preserves, jelly, and vinegar. This species has been hybridized and improved by some of our nurserymen, and no doubt will be futher improved, which may lead to a valuable variety in the future." (Cardwell 1906).

***Melilotus officinalis***—"The leaves and seeds are considered poisonous to sheep." (Gorman 1916-1917).

***Oemleria cerasiformis***—"Relished and eaten by the whites in pioneer days." (Gorman 1916-1917). Gorman (1916-1917) also included a description of how Native Americans gathered and cooked the fruit of this species, and readers should consult his original work for these passages.

***Oplopanax horridus***—"The great size of some of the leaves of this shrub in the above locality [Holbrook Creek, Logie Trail] are remarkable. Specimens were found measuring 21 inches long by 24 1/2 inches wide with a petiole 14 inches long." (Gorman 1916-1917).

***Perideridia gairdneri* and *Perideridia oregana***—"The roots of [these] species are highly edible and form a staple article of food among the northwest Indians. In pioneer days they were even relished by the early settlers—particularly the children." (Gorman 1916-1917).

***Philadelphus lewisii***—"Gathered in large quantities, and will in time disappear." (Gorman 1904). "Much used in wedding decorations...its pretty white flowers are causing it to be cultivated" (Gorman and Sheldon 1905). "Frequently used as an ornamental shrub in private grounds." (Gorman 1916-1917). *Philadelphus* was also picked by children in Seattle (Denny 1909).

***Phleum pratense***—"The best of all the grasses for forage purposes." (Gorman 1916-1917).

***Phoradendron villosum***—"Now quite rare on oak trees in the vicinity of Portland owing to its general use for decorative purposes during the Christmas holidays. In recent years wagon loads of this species are annually brought into this city to be sold during the holiday season. In consequence of this it is now practically exterminated in many localities where it was once abundant." (Gorman 1916-1917).

***Physocarpus capitatus***—"Occasionally cultivated in private grounds about city as an ornamental shrub." (Gorman 1916-1917).

***Plantago lanceolata*.** "Stock of every kind will not eat it and one of the common names given to it by settlers—'Fool's timothy'—shows the dislike in which it is held by them." (Gorman 1916-1917).

***Poa annua***—"Though introduced, this species is common on bottom lands along the lower Columbia River, and will withstand two to three months submergence, say May 1 to August 1, without apparent injury. It and other bottomland grasses grow at a little higher elevation than the bottomland sedges *Carex aperta* etc." (Gorman 1916-1917).

***Poa palustris***—"A desirable forage grass and as well as the annual blue grass will withstand two or three months submergence on bottom lands without apparent injury." (Gorman 1916-1917).

***Polystichum munitum***—"Common in cultivation. Much used for decoration." (Gorman and Sheldon 1905). "This handsome evergreen fern is generally known as 'Christmas fern' in Oregon, and is the one most used for holiday and other decoration in Portland, for which purpose its tall, graceful fronds (1 to 4 feet long) are eminently suitable. It readily adapts itself to cultivation and can be found growing in numerous private grounds throughout the city." (Gorman 1916-1917).

***Prunus emarginata* var. *mollis***—"The largest specimen of this tree found within the city limits measured 16 1/2 inches in diameter at base by 60 feet high." (Gorman 1916-1917). The Port of Portland (1924) reported exports of cherry bark.

***Pseudotsuga menziesii***—"The largest tree of this species yet found in Multnomah County is 11 feet in diameter breast high, and is a fairly perfect specimen." (Gorman 1916-1917).

***Pteridium aquilinum* var. *pubescens***—"Regarded as a troublesome weed by farmers." (Gorman and Sheldon 1905). "A specimen with a stalk over 11 feet in length has been found in this vicinity. The woody rootstocks have proved very troublesome to farmers for some years after land is first broken." (Gorman 1916-1917).

***Quercus garryana***—Gorman (1916-1917) included a description of how Native Americans gathered and cooked acorns, and readers should consult his original work for these passages.

***Ribes sanguineum***—"Largely introduced into cultivation." (Gorman and Sheldon 1905). "A beautiful shrub ...sought in the Eastern States and Europe as an ornamental lawn plant." (Cardwell 1906). "Of all our native wild flowers this beautiful shrub suffers most at the hands of the low, ignorant and vicious individuals with which all our cities are infested. It is a conservative statement to make, that at the end of its flowering season scarcely a bush of it has escaped unscathed, where it has been accessible to the idle Sunday rabble. And it is not at all surprising that handsome specimens of it that have been transplanted into private grounds have been ruthlessly broken and damaged by those sneaking vandals, when even the graves of our dead are continuously despoiled of the floral decorations that loving friends have contributed to their memory." (Gorman 1916-1917). *Ribes* was also picked by children in Seattle (Denny 1909).

***Rubus laciniatus***—"Contrary to local opinion, the fruit is quite edible and of good flavor...Introduced about Portland, Oregon City and Vancouver from the Sandwich Islands in the 40's [1840s]." (Gorman 1916-1917). Gorman is referring here to activity associated with the Hudson Bay Company, which maintained trade in lumber, salmon, agricultural products, and personnel between Fort Vancouver and the Hawaiian Islands from the late 1820s to the 1840s (Morrison 1999). Taylor (1992) reported that blackberries (species unidentified) were first grown at Fort Vancouver in 1838, which, if Gorman was correct, would have been *R. laciniatus*. Cardwell (1906) first saw this species at a private home in Portland in the early 1850s and said it originated from the Hawaiian Islands, presumably from the stock introduced at Fort Vancouver.

***Rubus ursinus* ssp. *macropetalus***—"Fruit a great favorite and gathered for sale in large quantities by Chinamen and others." (Gorman and Sheldon 1905). "The fruit...is believed by the children and good housewife to be for all purposes much superior to the cultivated varieties. Tons of this fruit are gathered and sold to families, and if there were more pickers a large commerce could be made with the canneries." (Cardwell 1906).

***Sagittaria latifolia***—"This plant grew abundantly in shallow lakes, ponds, sloughs and low-lying river shores. The introduction of carp into the lower Columbia and its tributaries, however, has resulted in the plant being almost exterminated in this section, while the draining of shallow lakes such as Lake Labish (Marion County), Wapato Lake (Yamhill County) etc., for farming purposes, has been equally destructive to the species in other localities...The Chinese in Oregon and California relish the wapato and to this day use it for food wherever it can be obtained in sufficient quantities to justify gathering it. The following quotation from the Oregonian of April 14, 1865, shows how the Chinese in Portland appreciated the tubers of this plant 50 years ago: '[Native Americans] in this vicinity are just now in their element, the season having arrived for digging wapatos which they barter to the Celestial citizens [the Chinese] for a fair price. The trade is said to have been carried on very extensively between them and the aboriginal population during the past week.' " (Gorman 1916-1917). Howell (1897-1903) reported that "wapatoo" was "very abundant along the lower Columbia River, but is now almost exterminated by the carp." Gorman (1916-1917) included an extensive description of how Native Americans gathered and cooked wapato, and readers should consult his original work for these passages.

***Sambucus nigra* ssp. *cerulea***—Planted as an ornamental. (Gorman and Sheldon 1905; Van Dersal 1929)."The Oregon elder is a unique tree of unsurpassed elegance and rare beauty on the lawn or in the forest...attaining two feet in diameter and thirty feet in height. The berry...is palatable in pies, stewed, or in preserves, and properly prepared makes an excellent wine, for which it is now often used." (Cardwell 1906).

***Sambucus racemosa***—Planted as an ornamental. (Van Dersal 1929).

***Stachys chamissonis* var. *cooleyae***—Plants sometimes grow to 10 feet in height (Van Dersal 1929).

***Streptopus amplexifolius***—"Frequently collected for decoration under the name of 'Solomon's Seal,' which properly applies to another plant." (Gorman and Sheldon 1905).

***Symphyotrichum subspicatum***—"Occasionally planted in gardens and private grounds." (Gorman 1916-1917).

***Taraxacum officinale***—Dr. Perry Prettyman brought *Taraxacum* to Portland in 1849 from his former home in Missouri (Gorman 1916-1917). Prettyman settled on what later became a very valuable claim extending from SE 39th Avenue to SE 60th Avenue, and from Stark Street to Division Street.

***Taxus brevifolia***—"The four Oregon woods almost exclusively used for paddles by the Northwest Indians were Oregon ash, Oregon maple, western yew, and western dogwood in the order named." (Gorman 1916-1917).

***Toxicodendron diversilobum***—Gorman had no love for poison oak, probably because he had bad reactions from its irritating oils. His field notebooks mention repeated "poisonings" after botanizing near Oswego. "Whole plant poisonous and deserving extermination." (Gorman undated #1). "The clearing away of the forest in this section [Portland and vicinity] during the past forty years has caused it to multiply rapidly and results in scores of persons becoming poisoned by it every season. It should be hoped that the municipal authorities will undertake its extermination within the city limits in the near future." (Gorman 1916-1917).

***Trifolium pratense***—First planted at Fort Vancouver in 1831 (Taylor 1992), but Gorman (1916-1917) reported that it was "first introduced into Oregon at Oswego Lake, seven miles south of Portland, in April

1854, by Charles W. Bryant, a native of New York and pioneer of 1853" and that it was "the best of all the [clover] species for forage purposes."

***Trillium ovatum***—"Plucked indiscriminately, and gradually being exterminated." (Gorman 1904). "Largely gathered by children under the name of 'lilies'." (Gorman and Sheldon 1905). "A great favorite with children in early spring." (Gorman 1916-1917). *Trillium* was also picked by children in Seattle (Denny 1909).

## Appendix C. Ballast plants from Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| ***Acanthospermum australe*** | ***Bromus catharticus* var. *catharticus*** | ***Cyperus aggregatus*** |
| *Acer macrophyllum* | *Bromus diandrus* ssp. *rigidus* | ***Cyperus dubius*** |
| *Achillea millefolium* | *Bromus hordeaceus* ssp. *hordeaceus* | ***Cyperus odoratus*** |
| ***Achnatherum caudatum*** | *Bromus inermis* | *Dactylis glomerata* |
| ***Agropogon littoralis*** | ***Bromus madritensis*** | *Datura quercifolia* |
| *Aira elegans* | ***Bromus rubens*** | *Datura stramonium* |
| *Alopecurus aequalis* | *Bromus tectorum* | *Deschampsia elongata* |
| *Alopecurus myosuroides* | *Calibrachoa parviflora* | ***Descurainia pinnata* ssp. *filipes*** |
| ***Amaranthus viridis*** | ***Camelina microcarpa*** | ***Desmazeria rigida*** |
| ***Ambrosia chamissonis*** | *Capsella bursa-pastoris* | *Digitaria sanguinalis* |
| ***Ambrosia tenuifolia*** | *Cardamine parviflora* var. *arenicola* | ***Diplotaxis tenuifolia*** |
| ***Ammophila arenaria* ssp. *arenaria*** | ***Cardaria chalapensis*** | ***Distichlis spicata*** |
| *Anagallis arvensis* | *Cardaria draba* | *Echinochloa colona* |
| *Anaphalis margaritacea* | ***Carduus crispus*** | ***Echinochloa crus-pavonis*** |
| ***Anthemis altissima*** | *Carduus nutans* | ***Echinops ritro* ssp. *ruthenicus*** |
| *Anthemis arvensis* | *Carex arenaria* | *Eleusine indica* |
| *Anthyllis vulneraria* | ***Carex hirta*** | ***Eleusine tristachya*** |
| ***Apera interrupta*** | *Carex kobomugi* | *Elymus glaucus* var. *glaucus* |
| ***Apera spica-venti*** | ***Carex pumila*** | *Elymus repens* |
| *Aphanes arvensis* | *Cenchrus longispinus* | ***Elymus semicostatus*** |
| *Arctium minus* | *Centaurea calcitrapa* | *Epilobium ciliatum* ssp. *ciliatum* |
| ***Arctotheca calendula*** | *Centaurea jacea* | *Equisetum arvense* |
| ***Argusia sibirica*** | ***Centaurea melitensis*** | ***Eragrostis pilosa*** |
| *Artemisia ludoviciana* | ***Centaurea nigra*** | ***Erodium moschatum*** |
| ***Artemisia tilesii*** | *Cerastium glomeratum* | ***Erysimum repandum*** |
| *Artemisia vulgaris* | ***Chamaemelum mixtum*** | ***Euphorbia helioscopia*** |
| ***Arthraxon hispidus*** | *Chenopodium album* | *Euphorbia peplus* |
| *Asparagus officinalis* | *Chenopodium ambrosioides* | *Festuca rubra* ssp. *rubra* |
| ***Atriplex patula* var. *patula*** | ***Chenopodium multifidum*** | *Foeniculum vulgare* |
| ***Atriplex prostrata*** | *Chenopodium murale* | ***Frankenia pulverulenta*** |
| *Avena sativa* | ***Chenopodium polyspermum* var. *acutifolium*** | ***Galenia secunda*** |
| ***Ballota nigra*** | ***Chloris radiata*** | ***Galium verum*** |
| ***Berkheya heterophylla*** | *Cichorium intybus* | *Gamochaeta purpurea* |
| *Bidens tripartita* | *Cirsium vulgare* | ***Geranium pyrenaicum*** |
| ***Bowlesia incana*** | ***Cladoraphis cyperoides*** | ***Glaucium flavum*** |
| ***Brachypodium distachyon*** | ***Clarkia pulchella*** | ***Heliotropium amplexicaule*** |
| ***Brassica juncea*** | ***Corchorus hirtus*** | ***Heliotropium curassavicum* var. *obovatum*** |
| *Brassica rapa* | *Coronopus didymus* | ***Hemizonia pungens*** |
| ***Bromus arenarius*** | ***Coronopus squamatus*** | *Hieracium umbellatum* |
| *Bromus arvensis* | ***Cotula australis*** | ***Hirschfeldia incana*** |
| ***Bromus briziformis*** | ***Croton setigerus*** | *Holcus lanatus* |
| *Bromus carinatus* | *Cynodon dactylon* | *Hordeum jubatum* |

## Appendix C (con't). Ballast plants from Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| *Hordeum marinum* ssp. *gussonianum* | *Orobanche minor* | ***Reseda alba*** |
| *Hordeum murinum* ssp. *leporinum* | *Oxalis stricta* | ***Reseda lutea*** |
| ***Iva axillaris*** | ***Papaver argemone*** | ***Reseda luteola*** |
| *Lactuca serriola* | ***Papaver dubium*** | ***Rhagodia hastata*** |
| ***Lathyrus japonicus*** | *Papaver rhoeas* | ***Rorippa dubia*** |
| ***Lepidium densiflorum* var. *pubecarpum*** | ***Papaver somniferum*** | *Rubus fruticosus* |
| ***Lepidium densiflorum* var. *ramosum*** | ***Parapholis incurva*** | *Rumex acetosella* |
| ***Lepidium graminifolium*** | ***Paronychia franciscana*** | *Rumex aquaticus* var. *fenestratus* |
| ***Lepidium perfoliatum*** | *Paspalum dilatatum* | *Rumex conglomeratus* |
| ***Lepidium strictum*** | ***Phalaris aquatica*** | *Rumex crispus* |
| ***Lepidium virginicum* var. *medium*** | *Phalaris arundinacea* | *Rumex dentatus* |
| ***Leptochloa fusca* ssp. *uninervia*** | ***Phalaris brachystachys*** | ***Rumex frutescens*** |
| ***Leymus mollis*** | ***Phalaris caroliniana*** | *Rumex obtusifolius* |
| *Linaria vulgaris* | ***Phalaris minor*** | ***Salsola kali* ssp. *pontica*** |
| *Lolium perenne* ssp. *multiflorum* | ***Phalaris paradoxa*** | ***Securigera varia*** |
| *Lolium perenne* ssp. *perenne* | ***Phleum arenarium*** | *Senecio jacobaea* |
| ***Lolium rigidum*** | ***Phleum paniculatum*** | *Senecio sylvaticus* |
| *Lotus corniculatus* | ***Phleum subulatum*** | ***Senecio viscosus*** |
| *Lythrum hyssopifolium* | ***Physalis philadelphica* var. *immaculata*** | ***Sesuvium verrucosum*** |
| *Madia glomerata* | ***Plantago coronopus*** | ***Setaria italica*** |
| *Malus pumila* | *Plantago major* | ***Setaria parviflora*** |
| *Malva neglecta* | *Poa annua* | ***Sida spinosa*** |
| *Marrubium vulgare* | *Poa compressa* | *Silene antirrhina* |
| *Matricaria recutita* | *Poa palustris* | ***Silene gallica*** |
| *Medicago lupulina* | *Poa trivialis* | *Silybum marianum* |
| ***Medicago minima*** | *Polycarpon tetraphyllum* | *Sinapis arvensis* |
| *Medicago polymorpha* | *Polygonum aviculare* | *Sisymbrium altissimum* |
| *Medicago sativa* | *Polygonum convolvulus* var. *convolvulus* | *Solanum americanum* |
| ***Melilotus indicus*** | *Polygonum hydropiper* | ***Solanum furcatum*** |
| *Melissa officinalis* | *Polygonum persicaria* | *Solanum physalifolium* |
| ***Mesembryanthemum crystallinum*** | ***Polypogon fugax*** | ***Solanum sisymbriifolium*** |
| ***Mesembryanthemum nodiflorum*** | *Polypogon monspeliensis* | ***Solanum umbelliferum*** |
| ***Mimosa asperata*** | ***Prunus persica*** | *Sonchus asper* |
| ***Modiola caroliniana*** | ***Pseudognaphalium luteoalbum*** | *Sonchus oleraceus* |
| ***Myosoton aquaticum*** | ***Pseudoroegneria spicata*** | ***Spergularia bocconii*** |
| ***Nassella chilensis*** | *Pteridium aquilinum* var. *pubescens* | ***Spergularia media*** |
| ***Nicotiana rustica*** | ***Puccinellia distans*** | *Spergularia rubra* |
| ***Oenothera affinis*** | ***Puccinellia festuciformis*** | ***Spergularia salina* var. *salina*** |
| ***Oenothera mollissima*** | *Ranunculus parviflorus* | ***Spinacia oleracea*** |
| ***Oncosiphon suffruticosum*** | *Ranunculus sardous* | ***Sporobolus indicus*** |
| ***Ononis arvensis*** | *Raphanus sativus* | *Stellaria media* |
| ***Ononis repens*** | ***Rapistrum rugosum*** | *Symphoricarpos albus* |

## Appendix C (con't). Ballast plants from Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| ***Tanacetum corymbosum*** | ***Trifolium squamosum*** | *Verbascum thapsus* |
| *Tanacetum vulgare* | *Tripleurospermum inodorum* | *Verbena bonariensis* |
| ***Tetragonia tetragonioides*** | *Triticum aestivum* | ***Verbena lasiostachys*** |
| ***Thinopyrum intermedium*** | ***Ulex europaeus*** | ***Verbena officinalis*** |
| ***Thinopyrum junceiforme*** | ***Urochloa mutica*** | ***Veronica agrestis*** |
| ***Thinopyrum pycnanthum*** | ***Urtica berteroana*** | *Vulpia myuros* |
| *Thlaspi arvense* | *Urtica dioica* ssp. *dioica* | ***Xanthium spinosum*** |
| ***Torilis scabra*** | ***Vaccaria hispanica*** | *Xanthium strumarium* var. *canadense* |
| *Trifolium hybridum* | *Verbascum blattaria* | |

# Appendix D. Rare native plants in Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| *Acer glabrum* var. *douglasii* | ***Arabis glabra*** | ***Cardamine breweri* var. *orbicularis*** |
| *Acer negundo* | *Arabis hirsuta* | *Cardamine californica* var. *sinuata* |
| *Achnatherum lemmonii* var. *lemmonii* | ***Arctostaphylos columbiana*** | *Cardamine penduliflora* |
| *Achnatherum occidentale* | ***Arctostaphylos* x *media*** | *Cardamine pensylvanica* |
| *Actaea elata* | *Arctostaphylos uva-ursi* | *Carex amplifolia* |
| ***Agastache occidentalis*** | *Argentina anserina* ssp. *anserina* | *Carex aquatilis* var. *dives* |
| *Agoseris apargioides* var. *maritima* | *Argentina egedii* | *Carex arcta* |
| ***Agoseris elata*** | ***Arnica amplexicaulis*** | ***Carex aurea*** |
| ***Agoseris grandiflora*** | ***Artemisia campestris*** | ***Carex canescens* ssp. *canescens*** |
| ***Agoseris heterophylla*** | *Artemisia dracunculus* | ***Carex comosa*** |
| ***Agrimonia gryposepala*** | *Artemisia ludoviciana* | *Carex cusickii* |
| ***Agrostis aequivalvis*** | *Artemisia suksdorfii* | *Carex echinata* ssp. *echinata* |
| ***Agrostis microphylla*** | ***Artemisia tilesii*** | ***Carex hoodii*** |
| ***Agrostis oregonensis*** | *Asclepias speciosa* | *Carex inops* ssp. *inops* |
| *Agrostis pallens* | *Asplenium trichomanes* | ***Carex interior*** |
| *Agrostis scabra* | ***Athysanus pusillus*** | *Carex interrupta* |
| ***Alisma gramineum*** | ***Atriplex patula* var. *patula*** | *Carex laeviculmis* |
| *Allium acuminatum* | ***Atriplex prostrata*** | ***Carex lenticularis* var. *impressa*** |
| *Allium amplectens* | *Baccharis pilularis* | ***Carex lenticularis* var. *limnophila*** |
| ***Allium cernuum*** | ***Balsamorhiza deltoidea*** | *Carex nudata* |
| ***Alnus incana*** | *Balsamorhiza hookeri* | *Carex pellita* |
| *Alnus viridis* ssp. *sinuata* | ***Balsamorhiza* x *terebinthacea*** | *Carex praticola* |
| *Ambrosia acanthicarpa* | ***Bergia texana*** | *Carex retrorsa* |
| *Ambrosia artemisiifolia* | ***Berula erecta*** | ***Carex rossii*** |
| ***Ambrosia chamissonis*** | *Bidens vulgata* | *Carex scoparia* var. *scoparia* |
| ***Ambrosia psilostachya*** | *Blechnum spicant* | *Carex tumulicola* |
| ***Ammannia robusta*** | ***Bolandra oregana*** | *Carex utriculata* |
| ***Amsinckia lycopsoides*** | *Botrychium multifidum* | *Carex vulpinoidea* |
| ***Amsinckia menziesii* var. *menziesii*** | *Boykinia occidentalis* | ***Castilleja attenuata*** |
| ***Amsinckia tessellata*** | *Brodiaea coronaria* ssp. *coronaria* | ***Castilleja hispida* var. *hispida*** |
| *Anagallis minima* | *Brodiaea elegans* ssp. *hooveri* | ***Castilleja levisecta*** |
| ***Androsace filiformis*** | ***Bromus ciliatus*** | ***Castilleja tenuis*** |
| *Anemone lyallii* | *Bromus orcuttianus* | ***Ceanothus cuneatus*** |
| *Anemone oregana* var. *oregana* | *Calamagrostis canadensis* | *Ceanothus integerrimus* |
| *Angelica arguta* | ***Calandrinia ciliata*** | *Centaurium muehlenbergii* |
| ***Angelica genuflexa*** | *Calochortus tolmiei* | *Cephalanthera austiniae* |
| ***Anisocarpus madioides*** | *Calypso bulbosa* | ***Cerastium arvense* ssp. *strictum*** |
| ***Antennaria howellii* ssp. *howellii*** | *Calystegia soldanella* | ***Cerastium nutans*** |
| ***Antennaria howellii* ssp. *neodioica*** | *Camassia leichtlinii* ssp. *suksdorfii* | *Chamaesyce serpyllifolia* |
| ***Antennaria howellii* ssp. *petaloidea*** | ***Camissonia andina*** | ***Chimaphila umbellata*** |
| ***Antennaria racemosa*** | *Camissonia cheiranthifolia* | ***Chrysolepis chrysophylla* var. *chrysophylla*** |
| *Apocynum cannabinum* | *Campanula rotundifolia* | *Chrysosplenium glechomifolium* |
| *Arabis eschscholziana* | ***Canadanthus modestus*** | *Cinna latifolia* |

## Appendix D (con't). Rare native plants in the Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| ***Cirsium brevifolium*** | ***Cryptogramma acrostichoides*** | *Epilobium minutum* |
| *Cirsium brevistylum* | ***Cuscuta indecora*** | *Epilobium palustre* |
| *Cirsium edule* | ***Cuscuta pentagona*** | ***Epilobium pygmaeum*** |
| ***Cirsium remotifolium*** | *Cynoglossum grande* | ***Epilobium torreyi*** |
| *Cirsium undulatum* | *Cyperus schweinitzii* | ***Epipactis gigantea*** |
| *Clarkia amoena* ssp. *lindleyi* | ***Cypripedium montanum*** | ***Equisetum laevigatum*** |
| ***Clarkia gracilis* ssp. *gracilis*** | *Cystopteris fragilis* | *Equisetum palustre* var. *americanum* |
| ***Clarkia pulchella*** | *Damasonium californicum* | ***Equisetum variegatum*** |
| *Clarkia purpurea* ssp. *purpurea* | *Danthonia intermedia* | ***Erigeron decumbens*** |
| *Clarkia purpurea* ssp. *quadrivulnera* | *Danthonia spicata* | ***Epilobium torreyi*** |
| ***Clarkia purpurea* ssp. *viminea*** | *Daucus pusillus* | ***Epipactis gigantea*** |
| *Clarkia rhomboidea* | *Delphinium menziesii* | ***Erigeron divergens*** |
| ***Claytonia exigua* ssp. *glauca*** | *Delphinium nuttallii* ssp. *nuttallii* | *Erigeron philadelphicus* |
| *Clematis ligusticifolia* | *Delphinium nuttallii* ssp. *ochroleucum* | ***Erigeron speciosus*** |
| *Clintonia uniflora* | ***Descurainia incana* ssp. *incisa*** | *Erigeron strigosus* |
| *Coleanthus subtilis* | ***Descurainia pinnata* ssp. *filipes*** | *Eriogonum compositum* |
| *Collinsia grandiflora* | *Dichanthelium acuminatum* var. *fasciculatum* | ***Eriogonum nudum*** |
| *Collinsia rattanii* | *Dichelostemma capitatum* ssp. *capitatum* | *Eryngium petiolatum* |
| *Collomia heterophylla* | ***Distichlis spicata*** | ***Erysimum capitatum*** |
| *Comandra umbellata* ssp. *californica* | *Dodecatheon hendersonii* | *Erythronium oregonum* ssp. *leucandrum* |
| *Comarum palustre* | ***Dodecatheon pulchellum* ssp. *macrocarpum*** | *Euonymus occidentalis* |
| *Conioselinum gmelinii* | *Downingia elegans* | ***Euphorbia crenulata*** |
| *Corallorhiza maculata* | ***Draba nemorosa*** | *Eurybia radulina* |
| ***Corallorhiza mertensiana*** | *Dryopteris arguta* | ***Festuca californica*** |
| *Corallorhiza striata* var. *striata* | *Dulichium arundinaceum* | *Festuca idahoensis* ssp. *idahoensis* |
| *Corispermum americanum* | *Dyssodia papposa* | *Festuca occidentalis* |
| *Corydalis scouleri* | ***Echinochloa muricata* var. *microstachya*** | *Festuca subulata* |
| ***Crepis intermedia*** | ***Eleocharis bella*** | *Festuca subuliflora* |
| ***Crepis runcinata* ssp. *hispidulosa*** | *Elodea nuttalli* | *Floerkea proserpinacoides* |
| ***Crocidium multicaule*** | ***Elymus alaskanus* ssp. *latiglumis*** | ***Fragaria chiloensis* ssp. *pacifica*** |
| ***Croton setigerus*** | *Elymus trachycaulus* ssp. *subsecundus* | *Fritillaria affinis* |
| ***Cryptantha ambigua*** | ***Enemion hallii*** | ***Galium boreale*** |
| ***Cryptantha flaccida*** | ***Epilobium anagallidifolium*** | *Galium mexicanum* ssp. *asperrimum* |
| ***Cryptantha intermedia*** | *Epilobium ciliatum* ssp. *glandulosum* | *Gamochaeta purpurea* |
| ***Cryptantha sobolifera*** | ***Epilobium foliosum*** | ***Gentiana sceptrum*** |
| ***Cryptantha torreyana*** | *Epilobium lactiflorum* | *Geranium oreganum* |

## Appendix D (con't). Rare native plants in the Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| *Geranium viscosissimum* | *Juncus effusus* ssp. *pacificus* | ***Lupinus arbustus*** |
| ***Geum aleppicum*** | ***Juncus hemiendytus*** | ***Lupinus albifrons*** |
| ***Geum macrophyllum* var. *perincisum*** | *Juncus hesperius* | *Lupinus bicolor* |
| *Glyceria borealis* | *Juncus laccatus* | *Lupinus latifolius* |
| *Glycyrrhiza lepidota* | *Juncus longistylis* | *Lupinus lepidus* |
| *Gratiola ebracteata* | *Juncus nevadensis* var. *nevadensis* | *Lupinus polycarpus* |
| *Gratiola neglecta* | *Juncus torreyi* | ***Luzula comosa*** |
| ***Grindelia columbiana*** | *Koeleria macrantha* | ***Lycopodium clavatum*** |
| *Grindelia integrifolia* | ***Lactuca canadensis*** | *Lycopus asper* |
| *Grindelia nana* | ***Lactuca tatarica* var. *pulchella*** | *Lycopus uniflorus* |
| ***Heliotropium curassavicum* var. *obovatum*** | *Lathyrus holochlorus* | *Lysimachia ciliata* |
| ***Hemitomes congestum*** | ***Lathyrus japonicus*** | *Madia exigua* |
| ***Hemizonia pungens*** | ***Lathyrus torreyi*** | ***Meconella oregana*** |
| ***Heteranthera dubia*** | *Lathyrus vestitus* | *Melica bulbosa* |
| *Heterocodon rariflorum* | ***Lemna gibba*** | *Melica geyeri* |
| ***Heterotheca villosa*** | ***Lepidium densiflorum* var. *densiflorum*** | ***Melica harfordii*** |
| *Heuchera chlorantha* | ***Lepidium densiflorum* var. *pubecarpum*** | *Melica smithii* |
| ***Heuchera cylindrica*** | ***Lepidium densiflorum* var. *ramosum*** | *Menyanthes trifoliata* |
| *Heuchera glabra* | ***Lepidium strictum*** | *Mertensia platyphylla* |
| ***Heuchera grossulariifolia* var. *tenuifolia*** | ***Lepidium virginicum* var. *medium*** | ***Microseris laciniata* ssp. *leptosepala*** |
| *Hieracium albiflorum* | ***Lepidium virginicum* var. *pubescens*** | *Microsteris gracilis* |
| ***Hieracium bolanderi*** | ***Leymus cinereus*** | ***Mimetanthe pilosa*** |
| ***Hieracium scouleri*** | ***Leymus mollis*** | ***Mimulus breviflorus*** |
| *Hieracium umbellatum* | ***Leymus triticoides*** | ***Mimulus floribundus*** |
| ***Hierochloe occidentalis*** | *Ligusticum apiifolium* | *Mimulus moschatus* |
| *Hippuris vulgaris* | *Ligusticum grayi* | ***Mimulus pulsiferae*** |
| ***Hordeum depressum*** | *Lilaeopsis occidentalis* | ***Mimulus washingtonensis*** |
| ***Horkelia congesta* ssp. *congesta*** | ***Lilium washingtonianum* ssp. *purpurascens*** | *Minuartia michauxii* |
| *Howellia aquatilis* | *Listera caurina* | *Mitella caulescens* |
| ***Hutchinsia procumbens*** | *Listera cordata* | *Mitella ovalis* |
| *Hydrophyllum occidentale* | *Lithocarpus densiflorus* | ***Moehringia lateriflora*** |
| *Hypericum anagalloides* | *Lithophragma parviflorum* | ***Monotropa hypopithys*** |
| *Idahoa scapigera* | *Lomatium bradshawii* | *Montia dichotoma* |
| ***Iris tenuis*** | *Lomatium dissectum* | *Montia diffusa* |
| *Isoetes nuttallii* | *Lomatium nudicaule* | *Montia howellii* |
| ***Iva axillaris*** | *Lomatium triternatum* | ***Muhlenbergia richardsonis*** |
| *Juncus acuminatus* | *Lomatium utriculatum* | ***Myosotis arvensis*** |
| *Juncus articulatus* | ***Lotus aboriginus*** | ***Myosotis verna*** |
| ***Juncus balticus* ssp. *ater*** | ***Lotus nevadensis* var. *douglasii*** | *Myosurus minimus* |
| ***Juncus covillei*** | *Lupinus albicaulis* | *Myriophyllum hippuroides* |

## Appendix D (con't). Rare native plants in the Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| ***Myriophyllum sibiricum*** | ***Plantago elongata*** | ***Pyrola picta*** |
| ***Najas flexilis*** | ***Platanthera dilatata* var. *leucostachys*** | *Ranunculus alismifolius* var. *alismifolius* |
| ***Najas guadalupensis* ssp. *guadalupensis*** | ***Plectritis congesta* ssp. *brachystemon*** | ***Ranunculus californicus*** |
| *Navarretia intertexta* | ***Pleuropogon refractus*** | ***Ranunculus cymbalaria*** |
| ***Nemophila menziesii* var. *atomaria*** | ***Poa howellii*** | ***Ranunculus flabellaris*** |
| ***Nicotiana attenuata*** | ***Poa laxiflora*** | ***Ranunculus macounii*** |
| *Nuttallanthus texanus* | ***Poa nervosa*** | ***Pyrola picta*** |
| *Oenothera flava* | *Poa secunda* | *Ranunculus trichophyllus* |
| *Oplopanax horridus* | *Polygonum douglasii* ssp. *douglasii* | *Rhinanthus minor* ssp. *minor* |
| *Orobanche fasciculata* | ***Polygonum douglasii* ssp. *majus*** | *Ribes bracteosum* |
| *Orobanche uniflora* | *Polygonum douglasii* ssp. *nuttallii* | *Ribes lacustre* |
| ***Orthocarpus bracteosus*** | *Polygonum douglasii* ssp. *spergulariiforme* | ***Ribes lobbii*** |
| *Osmorhiza occidentalis* | ***Polygonum polygaloides* ssp. *kelloggii*** | *Ribes oxyacanthoides* ssp. *cognatum* |
| *Osmorhiza purpurea* | *Polygonum punctatum* | *Rorippa columbiae* |
| *Oxalis trilliifolia* | ***Polygonum ramosissimum* var. *prolificum*** | ***Rorippa curvipes* var. *truncata*** |
| *Packera macounii* | ***Polypodium amorphum*** | ***Rosa nutkana* var. *hispida*** |
| ***Pascopyrum smithii*** | *Polystichum imbricans* | ***Rotala ramosior*** |
| ***Pectocarya pusilla*** | ***Potamogeton amplifolius*** | *Rubus leucodermis* |
| *Penstemon ovatus* | *Potamogeton epihydrus* | *Rudbeckia sp.* |
| ***Penstemon richardsonii* var. *dentatus*** | ***Potamogeton illinoensis*** | ***Rumex maritimus*** |
| *Penstemon richardsonii* var. *richardsonii* | ***Potamogeton nodosus*** | *Rumex salicifolius* |
| ***Penstemon rydbergii* var. *oreocharis*** | *Potamogeton pusillus* | *Rupertia physodes* |
| ***Penstemon serrulatus*** | ***Potamogeton richardsonii*** | *Sagittaria cuneata* |
| *Pentagramma triangularis* | *Potamogeton zosteriformis* | ***Salix amygdaloides*** |
| *Perideridia gairdneri* | ***Potentilla biennis*** | *Salix geyeriana* |
| *Perideridia oregana* | ***Potentilla gracilis* var. *fastigiata*** | *Salix lasiolepis* |
| ***Phacelia linearis*** | *Potentilla gracilis* var. *gracilis* | ***Salix lucida* ssp. *caudata*** |
| ***Phacelia mutabilis*** | ***Potentilla rivalis*** | *Salix melanopsis* |
| *Phoradendron villosum* | ***Prenanthes alata*** | *Salix prolixa* |
| ***Phragmites australis*** | *Prunus virginiana* var. *demissa* | *Sanguisorba annua* |
| ***Physocarpus malvaceus*** | *Pseudognaphalium canescens* ssp. *microcephalum* | *Sanicula bipinnatifida* |
| ***Physostegia parviflora*** | *Pseudognaphalium stramineum* | *Sanicula graveolens* |
| ***Pinus contorta* var. *latifolia*** | ***Pseudoroegneria spicata*** | *Saxifraga gormanii* |
| *Piperia elegans* | *Psilocarphus elatior* | ***Saxifraga marshallii*** |
| *Piperia unalascensis* | ***Psilocarphus oregonus*** | ***Saxifraga mertensiana*** |
| *Plagiobothrys figuratus* | ***Puccinellia distans*** | ***Saxifraga nidifica* var. *claytoniifolia*** |
| ***Plagiobothrys nothofulvus*** | *Pyrola asarifolia* ssp. *asarifolia* | ***Saxifraga nuttallii*** |
| ***Plagiobothrys tenellus*** | ***Pyrola asarifolia* ssp. *bracteata*** | *Saxifraga oregana* |

## Appendix D (con't). Rare native plants in the Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| *Saxifraga rufidula* | ***Solidago simplex* ssp. *simplex* var. *simplex*** | *Trifolium oliganthum* |
| ***Schoenoplectus acutus* var. *occidentalis*** | ***Sorbus sitchensis* var. *grayi*** | *Trifolium plumosum* |
| *Schoenoplectus fluviatilis* | *Sparganium eurycarpum* | *Trifolium variegatum* |
| *Schoenoplectus maritimus* | *Spergularia diandra* | *Trifolium willdenovii* |
| *Schoenoplectus pungens* var. *pungens* | ***Spergularia salina* var. *salina*** | ***Trifolium wormskioldii*** |
| *Scirpus pallidus* | *Spiraea* x *pyramidata* | *Trillium albidum* |
| *Scrophularia californica* | *Spiranthes porrifolia* | *Triodanis perfoliata* |
| *Scrophularia lanceolata* | *Spiranthes romanzoffiana* | *Triphysaria pusilla* |
| ***Scutellaria angustifolia*** | ***Sporobolus cryptandrus*** | *Trisetum canescens* |
| ***Scutellaria antirrhinoides*** | *Stellaria borealis* var. *sitchana* | ***Trisetum cernuum*** |
| *Scutellaria galericulata* | *Stellaria crispa* | *Triteleia grandiflora* var. *howellii* |
| *Scutellaria lateriflora* | ***Stellaria longifolia*** | *Utricularia macrorhiza* |
| *Sedum lanceolatum* | ***Sorbus sitchensis* var. *grayi*** | ***Utricularia minor*** |
| *Sedum oreganum* | *Stellaria longipes* | *Vaccinium caespitosum* |
| *Sedum spathulifolium* | *Stellaria nitens* | *Vaccinium ovatum* |
| *Sedum stenopetalum* | *Stenanthium occidentale* | *Veratrum californicum* var. *caudatum* |
| *Selaginella densa* var. *scopulorum* | ***Streptopus lanceolatus* var. *curvipes*** | *Veratrum viride* |
| *Selaginella douglasii* | *Stuckenia pectinata* | ***Verbena bracteata*** |
| *Selaginella oregana* | ***Sullivantia oregana*** | ***Verbena lasiostachys*** |
| *Selaginella wallacei* | *Symphyotrichum eatonii* | ***Veronica wormskjoldii*** |
| *Senecio integerrimus* var. *ochroleucus* | ***Symphyotrichum frondosum*** | *Vicia nigricans* ssp. *gigantea* |
| *Senecio sylvaticus* | *Symphyotrichum hallii* | *Viola adunca* |
| *Sericocarpus oregonensis* | *Thalictrum fendleri* var. *polycarpum* | *Viola howellii* |
| *Sericocarpus rigidus* | *Thalictrum occidentale* | *Viola palustris* |
| ***Sesuvium verrucosum*** | *Thermopsis montana* | *Viola praemorsa* ssp. *praemorsa* |
| *Sidalcea hirtipes* | ***Thysanocarpus curvipes*** | *Viola sempervirens* |
| *Sidalcea nelsoniana* | *Torreyochloa pallida* var. *pauciflora* | *Vulpia microstachys* |
| ***Sidalcea oregana*** | ***Trautvetteria caroliniensis*** | *Vulpia octoflora* |
| ***Silene douglasii*** | *Trichostema lanceolatum* | ***Whipplea modesta*** |
| ***Silene menziesii*** | *Trichostema oblongum* | *Wolffia columbiana* |
| ***Silene scouleri* ssp. *scouleri*** | ***Trifolium albopurpureum*** | ***Woodsia scopulina*** |
| ***Sium suave*** | *Trifolium bifidum* | ***Wyethia angustifolia*** |
| *Solanum americanum* | ***Trifolium ciliolatum*** | ***Zannichellia palustris*** |
| ***Solanum triflorum*** | *Trifolium eriocephalum* | *Zigadenus venenosus* |
| ***Solanum umbelliferum*** | ***Trifolium longipes*** | ***Zizia aptera*** |
| ***Solidago gigantea*** | ***Trifolium macraei*** | |
| *Solidago missouriensis* | *Trifolium microdon* | |

# Appendix E. Rare exotic plants in the Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| ***Acalypha australis*** | ***Camelina sativa*** | *Crataegus phaenopyrum* |
| ***Acanthospermum australe*** | *Cardamine flexuosa* | *Crypsis alopecuroides* |
| ***Achnatherum caudatum*** | *Cardamine parviflora* var. *arenicola* | ***Cuscuta epithymum*** |
| *Acroptilon repens* | ***Cardaria chalapensis*** | ***Cynosurus cristatus*** |
| ***Agropogon littoralis*** | *Cardaria draba* | ***Cyperus aggregatus*** |
| ***Agrostemma githago*** | ***Cardaria pubescens*** | ***Cyperus dubius*** |
| ***Agrostis canina*** | ***Carduus crispus*** | *Cyperus eragrostis* |
| *Aira praecox* | *Carduus nutans* | ***Cyperus odoratus*** |
| *Albizia julibrissin* | *Carex arenaria* | ***Descurainia sophia*** |
| *Allium nigrum* | ***Carex hirta*** | ***Desmazeria rigida*** |
| ***Amaranthus albus*** | *Carex kobomugi* | ***Dianthus barbatus*** |
| ***Amaranthus blitoides*** | *Carex pallescens* | *Digitalis purpurea* |
| ***Amaranthus deflexus*** | ***Carex pumila*** | ***Diplotaxis muralis*** |
| ***Amaranthus viridis*** | *Carex tribuloides* var. *tribuloides* | ***Diplotaxis tenuifolia*** |
| ***Ambrosia tenuifolia*** | *Carthamus tinctorius* | *Echinochloa colona* |
| ***Ambrosia trifida*** | *Cedrus deodara* | ***Echinochloa crus-pavonis*** |
| ***Ammophila arenaria* ssp. *arenaria*** | *Cenchrus longispinus* | ***Echinocystis lobata*** |
| ***Anthemis altissima*** | *Centaurea calcitrapa* | ***Echinops ritro* ssp. *ruthenicus*** |
| *Anthriscus sylvestris* | ***Centaurea melitensis*** | ***Eleusine tristachya*** |
| ***Anthyllis vulneraria*** | ***Centaurea montana*** | ***Elymus semicostatus*** |
| ***Apera interrupta*** | ***Centaurea nigra*** | *Epipactis helleborine* |
| ***Apera spica-venti*** | *Cerastium pumilum* | *Eragrostis curvula* |
| *Arachis hypogaea* | ***Chamaemelum mixtum*** | ***Eragrostis lutescens*** |
| ***Arctotheca calendula*** | ***Chenopodium glaucum*** | *Eragrostis mexicana* ssp. *virescens* |
| ***Argusia sibirica*** | ***Chenopodium humile*** | *Eragrostis pectinacea* var. *pectinacea* |
| ***Artemisia annua*** | ***Chenopodium multifidum*** | ***Eragrostis pilosa*** |
| ***Arthraxon hispidus*** | ***Chenopodium polyspermum* var. *acutifolium*** | *Erechtites minimus* |
| ***Atriplex hortensis*** | ***Chenopodium vulvaria*** | ***Eriochloa villosa*** |
| ***Atriplex rosea*** | ***Chloris radiata*** | ***Erodium moschatum*** |
| ***Ballota nigra*** | ***Cladoraphis cyperoides*** | ***Eruca vesicaria* ssp. *sativa*** |
| *Bassia scoparia* | ***Commelina communis*** | ***Erysimum cheiranthoides*** |
| ***Berkheya heterophylla*** | ***Conringia orientalis*** | ***Erysimum repandum*** |
| *Bidens connata* | *Consolida ajacis* | *Euphorbia helioscopia* |
| *Bidens tripartita* | *Convallaria majalis* | ***Frankenia pulverulenta*** |
| ***Bowlesia incana*** | ***Conyza bonariensis*** | *Fumaria officinalis* |
| ***Brachypodium distachyon*** | ***Corchorus hirtus*** | ***Galenia secunda*** |
| ***Brassica juncea*** | *Coronopus didymus* | ***Galinsoga parviflora*** |
| ***Bromus arenarius*** | ***Coronopus squamatus*** | ***Galium mollugo*** |
| ***Bromus briziformis*** | *Corrigiola litoralis* | ***Galium tricornutum*** |
| ***Bromus catharticus* var. *catharticus*** | *Cotoneaster horizontalis* | ***Galium verum*** |
| ***Bromus madritensis*** | *Cotoneaster simonsii* | ***Geranium pyrenaicum*** |
| ***Bromus rubens*** | *Cotoneaster suecicus* | ***Glaucium flavum*** |
| ***Camelina microcarpa*** | ***Cotula australis*** | ***Glyceria fluitans*** |

## Appendix E (con't). Rare exotic plants in the Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| ***Gypsophila scorzonerifolia*** | ***Mesembryanthemum nodiflorum*** | ***Plantago aristata*** |
| ***Heliotropium amplexicaule*** | ***Mimosa asperata*** | ***Plantago coronopus*** |
| *Hieracium murorumi* | ***Modiola caroliniana*** | *Plantago psyllium* |
| ***Hieracium pilosella*** | *Moenchia erecta* | *Polygonum baldschuanicum* |
| ***Hirschfeldia incana*** | *Morus alba* | ***Polypogon fugax*** |
| *Holosteum umbellatum* | *Myosoton aquaticum* | ***Polypogon viridis*** |
| *Hordeum murinum* ssp. *glaucum* | ***Nassella chilensis*** | ***Potentilla norvegica*** |
| *Humulus lupulus* | *Nepeta cataria* | *Potentilla recta* |
| ***Imperata cylindrica*** | ***Nicotiana rustica*** | ***Proboscidea louisianica*** |
| ***Inula helenium*** | *Nymphaea odorata* | ***Prunus persica*** |
| *Ionopsidium acaule* | ***Oenothera affinis*** | ***Pseudognaphalium luteoalbum*** |
| ***Ipomoea hederacea*** | ***Oenothera grandiflora*** | ***Puccinellia festuciformis*** |
| ***Ipomoea purpurea*** | ***Oenothera mollissima*** | *Pueraria montana* var. *lobata* |
| *Jasione montana* | ***Oenothera pallida*** | *Ranunculus muricatus* |
| *Juncus anthelatus* | ***Oncosiphon suffruticosum*** | *Ranunculus parviflorus* |
| *Juncus effusus* ssp. *solutus* | ***Onobrychis viciaefolia*** | *Ranunculus sardous* |
| ***Lactuca biennis*** | ***Ononis arvensis*** | ***Raphanus raphanistrum*** |
| ***Lapsanastrum apogonoides*** | ***Ononis repens*** | ***Rapistrum rugosum*** |
| ***Lathyrus aphaca*** | *Oxalis dillenii* | ***Reseda alba*** |
| ***Lathyrus hirsutus*** | ***Papaver argemone*** | ***Reseda lutea*** |
| ***Lathyrus nissolia*** | ***Papaver dubium*** | ***Reseda luteola*** |
| ***Lathyrus sphaericus*** | *Papaver rhoeas* | ***Rhagodia hastata*** |
| ***Lathyrus sylvestris*** | ***Papaver somniferum*** | ***Rorippa dubia*** |
| ***Leonurus cardiaca*** | ***Parapholis incurva*** | *Rosa canina* |
| ***Lepidium graminifolium*** | ***Paronychia franciscana*** | ***Rostraria cristata*** |
| *Lepidium heterophyllum* | *Parthenocissus vitacea* | *Rumex dentatus* |
| ***Lepidium perfoliatum*** | *Paspalum dilatatum* | ***Rumex frutescens*** |
| ***Lepidium ruderale*** | ***Pastinaca sativa*** | *Rumex sanguineus* |
| ***Leptochloa fusca* ssp. *fascicularis*** | *Phacelia tanacetifolia* | ***Ruta graveolens*** |
| ***Leptochloa fusca* ssp. *uninervia*** | ***Phalaris aquatica*** | ***Salsola kali* ssp. *pontica*** |
| *Linum grandiflorum* | ***Phalaris brachystachys*** | *Salsola tragus* |
| ***Linum usitatissimum*** | ***Phalaris canariensis*** | *Sambucus nigra* ssp. *nigra* |
| *Lobularia maritima* | ***Phalaris caroliniana*** | ***Saxifraga cymbalaria* var. *huetiana*** |
| ***Lolium rigidum*** | ***Phalaris minor*** | *Saxifraga tridactylites* |
| *Lotus pedunculatus* | ***Phalaris paradoxa*** | ***Scandix pecten-veneris*** |
| ***Lycium barbarum*** | ***Phleum arenarium*** | *Schoenoplectus mucronatus* |
| *Lysimachia punctata* | ***Phleum paniculatum*** | ***Securigera varia*** |
| *Lythrum hyssopifolium* | ***Phleum subulatum*** | ***Sedum acre*** |
| ***Malva moschata*** | ***Phlox maculata*** | ***Senecio viscosus*** |
| ***Medicago minima*** | ***Phlox paniculata*** | ***Setaria italica*** |
| ***Medicago turbinata*** | ***Physalis philadelphica* var. *immaculata*** | ***Setaria parviflora*** |
| ***Melilotus indicus*** | *Physalis pubescens* | *Setaria verticillata* |
| ***Mesembryanthemum crystallinum*** | *Phytolacca americana* | ***Sida spinosa*** |

## Appendix E (con't). Rare exotic plants in the Portland area. Bold = extirpated locally.

| | | |
|---|---|---|
| *Silene armeria* | *Stellaria graminea* | ***Tanacetum corymbosum*** |
| ***Silene dichotoma*** | ***Tanacetum balsamita*** | *Tanacetum parthenium* |
| ***Silene dioica*** | *Teesdalia nudicaulis* | ***Vaccaria hispanica*** |
| ***Silene gallica*** | ***Tetragonia tetragonioides*** | *Vaccinium corymbosum* |
| ***Silene noctiflora*** | ***Thinopyrum intermedium*** | ***Verbascum phlomoides*** |
| *Silybum marianum* | ***Thinopyrum junceiforme*** | *Verbena bonariensis* |
| ***Solanum furcatum*** | ***Thinopyrum pycnanthum*** | ***Verbena officinalis*** |
| *Solanum lycopersicum* var. *lycopersicum* | *Torilis japonica* | ***Veronica agrestis*** |
| *Solanum physalifolium* | *Torilis nodosa* | ***Veronica filiformis*** |
| *Solanum rostratum* | ***Torilis scabra*** | *Veronica hederifolia* |
| ***Solanum sisymbriifolium*** | ***Trifolium squamosum*** | *Veronica officinalis* var. *tournefortii* |
| *Sorghum halepense* | *Triplasis purpurea* | *Veronica peregrina* var. *peregrina* |
| ***Spergularia bocconii*** | *Tripleurospermum inodorum* | *Veronica persica* |
| ***Spergularia echinosperma*** | *Tropaeolum majus* | *Viburnum opulus* var. *opulus* |
| ***Spergularia media*** | ***Ulex europaeus*** | *Viola odorata* |
| ***Spergularia villosa*** | ***Urochloa mutica*** | *Vitis riparia* |
| *Spinacia oleracea* | ***Urtica berteroana*** | ***Xanthium spinosum*** |
| ***Sporobolus indicus*** | ***Urtica urens*** | *Zea mays* |

Page numbers in **bold** indicate location of primary treatment in biography or species catalog.

# Index


*Abies*
*amabilis*, **248**
*grandis*, 37, 149, **180**
*Abutilon theophrasti*, **170**
*Acalypha australis*, **139**, 299
*Acanthospermum australe*, **77**, 291, 299
*Acer*
*campestre*, **67**
*circinatum*, **67**, 283
*glabrum* var. *douglasii*, **67**, 294
*macrophyllum*, 37, 58, **68**, 283, 291
*negundo*, **68**, 294
*platanoides*, **68**
*pseudoplatanus*, **68**
Aceraceae, **67**
*Achillea millefolium*, **77**, 291
*Achlys triphylla*, **98**, 283
*Achnatherum*
*caudatum*, **182**, 291, 299
*lemmonii* ssp. *lemmonii*, 182
*lemmonii* var. *lemmonii*, 42, **182**, 248, 294
*lettermanii*, **248**
*occidentale*, **182**, 294
*Acroptilon repens*, 53, **77**, 299
*Actaea*
*elata*, **212**, 294
*rubra*, **212**
*Adenocaulon bicolor*, 47, **77**
*Adiantum*
*aleuticum*, **211**, 283
*pedatum*, 211
*Aesculus hippocastanum*, **153**
*Agastache occidentalis*, **159**, 294
*Agoseris*
*apargioides* var. *maritima*, **77**, 294
*elata*, 51, **77**, 294
*grandiflora*, 47, **78**, 294
*heterophylla*, 42, **78**, 294
*Agrimonia*
*gryposepala*, **218**, 294
*Agropogon*
*littoralis*, **182**, 291, 299
*lutosus*, 182
*Agropyron*
*caninum*, 191
*caninum* var. *unilaterale*, 191
*intermedium*, 201
*junceum*, 201
*pungens*, 201
*repens*, 191
*semicostatum*, 191
*smithii*, 196
*spicatum*, 200
*Agrostemma githago*, **114**, 299
*Agrostis*
*aequivalvis*, **182**, 294
*alba*, 183
*canina*, **182**, 299
*capillaris*, **182**
*capillaris* × *stolonifera*, **182**
*diegoensis*, 183
*exarata*, **182**, 283
*interrupta*, 184
*microphylla*, 47, **183**, 294
*oregonensis*, **183**, 294
*pallens*, 44, **183**, 294
*scabra*, **183**, 294
*spica-venti*, 184
*stolonifera*, 58, 182, **183**, 283
*stolonifera* × *Polypogon monspeliensis*, 182
*tenuis*, 182
*Ailanthus altissima*, **241**
*Aira*
*caryophyllea*, **183**
*caryophyllea* var. *capillaris*, 183
*elegans*, **183**, 291
*praecox*, **183**, 299
Aizoaceae, **68**, 172
*Albizia julibrissin*, **140**, 299
*Alchemilla occidentalis*, 218
*Alisma*
*gramineum*, **68**, 294
*lanceolatum*, **68**
*plantago-aquatica* var. *americanum*, 69
*triviale*, 49, **69**
Alismataceae, **68**
*Alliaria*
*officinalis*, 102
*petiolata*, 52, 58, 62, **102**
*Allium*
*acuminatum*, **164**, 294
*amplectens*, **164**, 294
*cernuum*, **164**, 294
*nigrum*, **164**, 299
*vineale*, **164**
Allmen, Elvida, 16
*Alnus*
*incana*, **98**, 294
*rubra*, 37, **99**
*sinuata*, 99
*viridis* ssp. *sinuata*, **99**, 294
*Alopecurus*
*aequalis*, **183**, 291
*carolinianus*, **183**
*geniculatus*, **184**
*myosuroides*, **184**, 291
*pratensis*, **184**, 195
Amaranthaceae, **69**
*Amaranthus*
*albus*, **69**, 299
*blitoides*, 53, **69**, 299
*deflexus*, **69**, 299
*gracilis*, 70
*graecizans*, 69
*powellii*, **69**
*retroflexus*, **70**
*viridis*, **70**, 291, 299
*Ambrosia*
*acanthicarpa*, **78**, 294
*artemisiifolia*, **78**, 294
*chamissonis*, **78**, 291, 294
*chamissonis* var. *bipinnatisecta*, 78
*psilostachya*, **78**, 294
*tenuifolia*, **78**, 291, 299
*trifida*, **78**, 299
*Amelanchier alnifolia* var. *semiintegrifolia*, 47, 218, 283
*Ammannia robusta*, **170**, 294
*Ammophila arenaria* ssp. *arenaria*, **184**, 291, 299
*Amorpha fruticosa*, **140**, 258
*Amsinckia*
*lycopsoides*, **99**, 294
*menziesii* var. *menziesii*, **100**, 294
*tessellata*, **100**, 294
Anacardiaceae, **70**
*Anagallis*
*arvensis*, **210**, 291
*minima*, **210**, 294
*Anaphalis margaritacea*, 42, **78**, 291
*Androsace filiformis*, **211**, 294
*Anemone*
*deltoidea*, **212**
*lyallii*, **212**, 294
*oregana* var. *oregana*, 47, **212**, 294
*Anethum graveolens*, **70**
*Angelica*
*arguta*, **70**, 294
*atropurpurea*, **248**
*genuflexa*, **70**, 294
*Anisocarpus madioides*, 47, **79**, 294
*Antennaria*

*howellii* ssp. *howellii*, 42, **79**, 294
*howellii* ssp. *neodioica*, **79**, 294
*howellii* ssp. *petaloidea*, **79**, 294
*neglecta* var. *attenuata*, 79
*neglecta* var. *howellii*, 79
*racemosa*, **79**, 294
*Anthemis*
*altissima*, **79**, 291, 299
*arvensis*, **79**, 291
*cotula*, **79**
*tinctoria*, **248**
*Anthoxanthum odoratum*, **184**
*Anthriscus*
*caucalis*, **70**
*scandicina*, 70
*sylvestris*, **70**, 299
*Anthyllis vulneraria*, **140**, 291, 299
*Anticlea occidentalis*, 168
*Antirrhinum orontium*, 236
*Apera*
*interrupta*, 53, **184**, 291, 299
*spica-venti*, **184**, 291, 299
*Aphanes*
*arvensis*, 42, 218, 291
*australis*, 218
*microcarpa*, **218**
Apiaceae, 2, 56, 57, **70**
*Apium graveolens*, **70**
Apocynaceae, **75**
*Apocynum*
*androsaemifolium*, **75**
*cannabinum*, **75**, 294
*sibiricum*, 75
Aquifoliaceae, **75**
*Aquilegia formosa*, 47, **212**
*Arabidopsis thaliana*, **102**
*Arabis*
*eschscholziana*, **102**, 294
*glabra*, **102**, 294
*hirsuta*, **103**, 294
*hirsuta* var. *eschscholziana*, 102
Araceae, **75**
*Arachis hypogaea*, **140**, 299
Araliaceae, **76**
*Arbutus menziesii*, 47, **137**, 283
*Arctium*
*lappa*, **79**
*minus*, **79**, 283, 291
*Arctostaphylos*
× *media*, **137**, 294
*columbiana*, 47, **137**, 294
*uva-ursi*, 47, **137**, 294
*Arctotheca*
*calendula*, **80**, 291, 299
*prostrata*, 80
*Arenaria*
*lateriflora*, 116
*macrophylla*, 116
*pusilla*, 251
*serpyllifolia*, **114**
*stricta* var. *puberulenta*, 116
*Argentina*
*anserina* ssp. *anserina*, **218**, 283, 294
*egedii*, **218**, 294
*Argusia sibirica*, **100**, 291, 299
Aristolochiaceae, **76**
*Arnica amplexicaulis*, **80**, 294
*Arrhenatherum*
*elatius* ssp. *bulbosum*, 184
*elatius* ssp. *elatius*, 184
*elatius* var. *bulbosum*, 58, **184**
*elatius* var. *elatius*, 58, **184**
*Artemisia*
*absinthium*, **80**
*annua*, **80**, 299
*biennis*, 53, **80**
*campestris*, **80**, 294
*douglasiana*, **80**
*dracunculus*, 53, **80**, 294
*lindleyana*, 53, **81**
*ludoviciana*, 42, 53, **81**, 291, 294
*suksdorfii*, **81**, 294
*tilesii*, **81**, 291, 294
*vulgaris*, **81**, 291
*Arthraxon hispidus*, **185**, 291, 299
*Arum italicum*, **75**
*Aruncus*
*dioicus* var. *acuminatus*, 47, **218**
*sylvester*, 218
*Asarum caudatum*, **76**
Asclepiadaceae, **76**
*Asclepias speciosa*, **76**, 294
*Asparagus officinalis*, **164**, 291
*Asperula odorata*, 227
Aspleniaceae, **77**, 208
*Asplenium trichomanes*, **77**, 294
*Aster*
*chilensis* ssp. *hallii*, 96
*curtus*, 95
*eatonii*, 96
*frondosus*, 96
*hallii*, 96
*laevis* var. *geyeri*, 96
*modestus*, 82
*oregonensis*, 95
*radulinus*, 87
*subspicatus*, 96
Asteraceae, 2, 57, **77**
Asylum Gulch, 48
*Athyrium*
*filix-femina* ssp. *cyclosorum*, **135**
*filix-femina* var. *cyclosorum*, 135
*Athysanus pusillus*, 44, **103**, 294
*Atriplex*
*hortensis*, **120**, 299
*patula* var. *patula*, **120**, 291, 294
*prostrata*, **120**, 291, 294
*rosea*, 53, **120**, 299
*Avena*
*barbata*, **185**
*fatua*, **185**
*sativa*, **185**, 291
*Azolla*
*filiculoides*, **248**
*mexicana*, **230**
*Baccharis pilularis*, **81**, 294
Baker, William H., 12
*Ballota nigra*, **159**, 291, 299
Balsaminaceae, **98**
*Balsamorhiza*
× *terebinthacea*, **82**, 294
*deltoidea*, 42, 62, **81**, 294
*hookeri*, **81**, 294
*Barbarea*
*orthoceras*, 42, **103**
*vulgaris*, **103**
*Bassia scoparia*, **120**, 299
*Beckmannia syzigachne*, **185**
*Bellis perennis*, **82**
Berberidaceae, **98**
*Berberis*
*aquifolium*, 98
*nervosa*, 98
*repens*, 250
*Bergia texana*, **135**, 294
*Berkheya heterophylla*, **82**, 291, 299
*Berula*
*erecta*, **70**, 294
*erecta* var. *incisa*, 70
*Betula pendula*, **99**
Betulaceae, **98**
*Bidens*
*cernua*, **82**
*connata*, **82**, 299
*frondosa*, **82**
*tripartita*, **82**, 291, 299
*vulgata*, 53, **82**, 294
Bishop Scott Academy, 24, 25
Blechnaceae, **99**, 208
*Blechnum spicant*, **99**, 283, 294
*Boisduvalia*
*densiflora*, 175
*glabella*, 175
*stricta*, 175
Bolander, Henry N., 17, 21, **24**, 25, 26
*Bolandra oregana*, 44, 62, **230**, 294
*Bolboschoenus*
*fluviatilis*, 133
*maritimus*, 133
Boraginaceae, 2, 56, **99**
*Borago officinalis*, **100**
*Botrychium multifidum*, 50, **176**, 294
*Bowlesia*

*incana*, **71**, 291, 299
*septentrionalis*, 71
*Boykinia*
*elata*, 230
*occidentalis*, **230**, 294
*Brachyactis frondosa*, 96
*Brachypodium*
*distachyon*, **185**, 291, 299
*sylvaticum*, 58, 62, **185**
Brackenridge, William, 17
*Brasenia schreberi*, **111**
*Brassica*
*campestris*, 103
*hirta*, 110
*juncea*, **103**, 291, 299
*kaber*, 110
*nigra*, **103**
*rapa*, **103**, 291
Brassicaceae, 2, 57, **102**
Bretz Floods, 43
*Briza minor*, **185**
*Brodiaea*
*congesta*, 166
*coronaria*, 164
*coronaria* ssp. *coronaria*, 42, 47, **164**, 294
*elegans*, 164
*elegans* ssp. *hooveri*, 42, **164**, 294
*howelli*, 169
*hyacinthina*, 169
*pulchella*, 165
*Bromus*
*arenarius*, **185**, 291, 299
*arvensis*, **185**, 291
*brizaeformis*, 186
*briziformis*, **186**, 291, 299
*carinatus*, **186**, 291
*catharticus* var. *catharticus*, **186**, 291, 299
*ciliatus*, **186**, 294
*commutatus*, 186
*diandrus* ssp. *rigidus*, 58, **186**, 291
*hordeaceus* ssp. *hordeaceus*, **186**, 291
*inermis*, **186**, 291
*japonicus*, 185
*madritensis*, **186**, 291, 299
*marginatus*, 42, **186**
*mollis*, 186
*orcuttianus*, 53, **186**, 294
*racemosus*, **186**
*rigidus*, 186
*rubens*, **187**, 291, 299
*secalinus*, **187**
*sitchensis*, **187**
*sterilis*, **187**
*tectorum*, **187**, 291
*vulgaris*, 42, 47, **187**
*Buddleja davidii*, **111**
Buddlejaceae, **111**
Cabombaceae, **111**, 172
*Calamagrostis*
*breweri*, **248**
*canadensis*, **187**, 294
*howellii*, **248**
*Calandrinia ciliata*, **208**, 294
*Calibrachoa parviflora*, **241**, 291
Callitrichaceae, **111**
*Callitriche*
*heterophylla*, **111**
*palustris*, **111**
*stagnalis*, **111**
*verna*, 111
*Calocedrus decurrens*, **125**
*Calochortus tolmiei*, 42, 47, **165**, 284, 294
*Caltha palustris*, **248**
*Calypso bulbosa*, 47, **176**, 284, 294
*Calystegia*
*sepium* ssp. *angulata*, 53, **123**, 284
*soldanella*, **123**, 294
*Camassia*
*leichtlinii* ssp. *suksdorfii*, **165**, 294
*leichtlinii* var. *suksdorfii*, 165
*quamash* ssp. *maxima*, 42, 47, **165**, 232, 284
*quamash* var. *maxima*, 165
*Camelina*
*microcarpa*, **103**, 291, 299
*sativa*, **103**, 299
*Camissonia*
*andina*, **173**, 294
*cheiranthifolia*, **173**, 294
*Campanula*
*persicifolia*, **111**
*rapunculoides*, **111**
*rotundifolia*, **111**, 294
*scouleri*, **112**
Campanulaceae, **111**
*Canadanthus modestus*, **82**, 294
Caprifoliaceae, **113**
*Capsella bursa-pastoris*, **103**, 291
*Cardamine*
*angulata*, **104**
*breweri* var. *orbicularis*, **104**, 294
*californica* var. *integrifolia*, **104**
*californica* var. *sinuata*, **104**, 294
*flexuosa*, **104**, 299
*hirsuta*, **104**, **105**, 151
*integrifolia*, 104
*nuttallii* var. *nuttallii*, 17, 43, 47, **104**, 279
*occidentalis*, **104**
*oligosperma*, **105**
*parviflora* var. *arenicola*, **105**, 291, 299
*penduliflora*, **105**, 294
*pensylvanica*, **105**, 294
*pulcherrima*, 104
*Cardaria*
*chalapensis*, **105**, 291, 299
*draba*, 52, **105**, 291, 299
*pubescens*, **105**, 299
*Carduus*
*crispus*, **82**, 291, 299
*nutans*, **83**, 291, 299
*Carex*
*amplifolia*, **126**, 294
*angustata*, **248**
*aperta*, 46, 50, **126**, 284, 288
*aquatilis* var. *dives*, **126**, 294
*arcta*, **126**, 294
*arenaria*, **126**, 291, 299
*athrostachya*, **127**
*aurea*, 50, 62, **127**, 294
*bolanderi*, **127**
*canescens* ssp. *canescens*, **127**, 294
*comosa*, 50, **127**, 294
*cusickii*, 50, **127**, 294
*densa*, **127**
*deweyana*, 127, 129
*deweyana* ssp. *leptopoda*, 129
*deweyana* var. *bolanderi*, 127
*echinata* ssp. *echinata*, **127**, 294
*exsiccata*, 46, 50, **128**, 284
*feta*, **128**
*hassei*, 127
*hendersonii*, **128**
*hirta*, **128**, 291, 299
*hoodii*, **128**, 294
*inops* ssp. *inops*, **128**, 294
*interior*, 50, **128**, 294
*interrupta*, **128**, 294
*kobomugi*, **129**, 291, 299
*laeviculmis*, **129**, 294
*lanuginosa*, 130
*lenticularis* var. *impressa*, **129**, 294
*lenticularis* var. *lenticularis*, 129
*lenticularis* var. *limnophila*, **129**, 294
*lenticularis* var. *lipocarpa*, 50, **129**
*leporina*, **129**
*leptalea* ssp. *leptalea*, **249**
*leptopoda*, **129**
*macrochaeta*, **249**
*muricata*, 127
*nudata*, **129**, 294
*obnupta*, 50, **130**
*ovalis*, 129
*pachystachya*, **130**
*pallescens*, **130**, 299
*pellita*, **130**, 294
*pendula*, **130**

*pensylvanica* var. *vespertina*, 128
*praeceptorum*, **249**
*praticola*, **130**, 294
*pumila*, **131**, 291, 299
*retrorsa*, **131**, 294
*rossii*, 44, **131**, 294
*rostrata*, 131
*scoparia var. scoparia*, **131**, 294
*simulata*, **249**
*sitchensis*, 126
*stipata* var. *stipata*, 42, 47, **131**
*subfusca*, **249**
*tribuloides* var. *tribuloides*, **131**, 299
*tumulicola*, **131**, 294
*unilateralis*, **131**
*utriculata*, **131**, 294
*vesicaria* var. *major*, 128
*vulpinoidea*, 53, **132**, 294
*Carthamus tinctorius*, **83**, 299
Caryophyllaceae, 2, 57, **114**
*Cascadia nuttallii*, 232
*Castanopsis chrysophylla*, 149
*Castilleja*
*attenuata*, 42, **233**, 294
*hispida* var. *hispida*, **233**, 294
*levisecta*, 62, **234**, 294
*tenuis*, 42, 47, **234**, 294
*Ceanothus*
*cuneatus*, **217**, 294
*integerrimus*, **217**, 294
*sanguineus*, 47, **217**, 284
*velutinus* var. *hookeri*, 47, **217**
*velutinus* var. *laevigatus*, 217
*Cedrus deodara*, **180**, 299
Celastraceae, **120**
*Cenchrus longispinus*, **187**, 291, 299
*Centaurea*
× *moncktonii*, 83
× *pratensis*, 83
*calcitrapa*, **83**, 291, 299
*cyanus*, 58, **83**, 284
*debeauxii* ssp. *thuillieri*, **83**
*diffusa*, **83**
*jacea*, 83, 291
*jacea* × *nigra*, 83
*maculosa*, 84
*melitensis*, **83**, 291, 299
*montana*, **83**, 299
*nigra*, **83**, 291, 299
*pratensis*, 83
*repens*, 77
*stoebe* ssp. *micranthus*, 84
*Centaurium*
*erythraea*, **150**
*exaltatum*, **249**
*muehlenbergii*, **150**, 294
*umbellatum*, 150
*Centranthus ruber*, **244**
*Centromadia pungens* ssp. *pungens*, 88
*Centunculus minimus*, 210
*Cephalanthera austiniae*, 47, **177**, 294
*Cerastium*
*arvense* ssp. *arvense*, 42, **114**
*arvense* ssp. *strictum*, **114**, 294
*dubium*, **115**
*fontanum* ssp. *vulgare*, **115**
*glomeratum*, **115**, 291
*nutans*, **115**, 294
*pumilum*, **115**, 299
*semidecandrum*, **115**
*viscosum*, 115
*vulgatum*, 115
Ceratophyllaceae, **120**
*Ceratophyllum demersum*, **120**
*Chamaemelum mixtum*, **84**, 291, 299
*Chamaesyce*
*glyptosperma*, **139**
*maculata*, **139**
*serpyllifolia*, 47, 53, **139**, 294
*Chamerion*
*angustifolium* ssp. *circumvagum*, 47, **173**
*angustifolium* var. *canescens*, 173
Chenopodiaceae, 2, 57, **120**
*Chenopodium*
*album*, **120**, 291
*ambrosioides*, **121**, 291
*botrys*, 53, **121**
*glaucum*, 53, **121**, 299
*humile*, **121**, 299
*leptophyllum*, 122
*leptophyllum* var. *subglabrum*, 122
*multifidum*, **121**, 291, 299
*murale*, **121**, 291
*polyspermum* var. *acutifolium*, **121**, 291, 299
*pumilio*, **122**
*rubrum* var. *humile*, 121
*subglabrum*, **122**
*vulvaria*, **122**, 299
*Chimaphila umbellata*, 39, **137**, 294
*Chloris radiata*, **187**, 291, 299
*Chondrilla juncea*, **84**
*Chrysanthemum*
*balsamita*, 96
*leucanthemum*, 91
*Chrysolepis chrysophylla* var. *chrysophylla*, **149**, 294
*Chrysopsis villosa*, 88
*Chrysosplenium*
*glechomaefolium*, 230
*glechomifolium*, 217, **230**, 231, 294
*Cichorium intybus*, **84**, 291
*Cicuta douglasii*, **71**
*Cimicifuga elata*, 212
*Cinna latifolia*, 47, **187**, 294
*Circaea*
*alpina* ssp. *pacifica*, **173**
*alpina* var. *pacifica*, 173
*pacifica*, 173
*Cirsium*
*arvense*, 58, **84**, 284
*brevifolium*, **84**, 295
*brevistylum*, **84**, 295
*edule*, 47, **84**, 284, 295
*hallii*, 84
*remotifolium*, 42, **84**, 295
*undulatum*, 51, **85**, 295
*vulgare*, **85**, 291
*Cladoraphis cyperoides*, **188**, 291, 299
*Clarkia*
*amoena* ssp. *lindleyi*, 42, **173**, 295
*gracilis* ssp. *gracilis*, 47, **173**, 295
*pulchella*, 53, **174**, 284, 291, 295
*purpurea* ssp. *purpurea*, 47, **174**, 295
*purpurea* ssp. *quadrivulnera*, 42, 47, **174**, 295
*purpurea* ssp. *viminea*, 42, **174**, 295
*quadrivulnera*, 174
*rhomboidea*, 47, **174**, 295
*viminea*, 174
*Claytonia*
*exigua* ssp. *glauca*, **208**, 295
*heterophylla*, 208
*parviflora*, **208**
*perfoliata* ssp. *perfoliata*, **208**
*rubra*, **208**
*sibirica*, 47, **208**, 284
*Clematis*
*ligusticifolia*, **213**, 295
*vitalba*, 58, 59, 62, **213**
*Clinopodium douglasii*, 47, **159**
*Clintonia uniflora*, **165**, 295
Clusiaceae, **123**
*Coleanthus subtilis*, **188**, 264, 295
*Collinsia*
*grandiflora*, 42, 47, **234**, 295
*parviflora*, **234**
*rattanii*, **234**, 295
*Collomia*
*grandiflora*, 47, **203**
*heterophylla*, 47, **203**, 295
*Comandra*
*umbellata*, 47
*umbellata* ssp. *californica*, **230**, 295
*umbellata* var. *californica*, 230
*Comarum palustre*, 50, **219**, 295
*Commelina communis*, **123**, 299
Commelinaceae, **123**
Compositae, 77
*Conioselinum*
*gmelinii*, **71**, 295

*pacificum*, 71
*Conium.maculatum*, **71**
*Conringia orientalis*, **105**, 299
*Consolida ajacis*, **213**, 299
*Convallaria majalis*, **165**, 299
Convolvulaceae, **123**
*Convolvulus*
*arvensis*, **123**
*sepium*, 123
*soldanella*, 123
*Conyza*
*bonariensis*, **85**, 299
*canadensis*, **85**
*floribunda*, 85
*Corallorhiza*
*maculata*, 47, **177**, 295
*mertensiana*, 39, **177**, 295
*striata* var. *striata*, **177**, 295
*Corchorus hirtus*, **243**, 291, 299
*Coreopsis*
*atkinsoniana*, 85
*tinctoria* var. *atkinsoniana*, 46, 53, **85**, 284
*Corispermum*
*americanum*, 53, **122**, 295
*pacificum*, **122**
Cornaceae, **124**
*Cornus*
*canadensis*, **124**
*nuttallii*, **124**, 284
*sericea*, **124**
*stolonifera*, 124
*unalaschkensis*, 124
*Coronilla varia*, 145
*Coronopus*
*didymus*, **105**, 291, 299
*squamatus*, **105**, 291, 299
*Corrigiola litoralis*, **115**, 299
*Cortaderia jubata*, **188**
*Corydalis*
*lutea*, 150
*scouleri*, **150**, 295
*Corylus*
*avellana*, **99**
*cornuta*, 47
*cornuta* var. *californica*, **99**, 285
*Cotoneaster*
*franchetii*, **219**
*horizontalis*, **219**, 299
*lacteus*, **219**
*simonsii*, **219**, 299
*suecicus*, **219**, 299
*Cotula*
*australis*, **85**, 291, 299
*coronopifolia*, **85**
*Crassula aquatica*, 46, **124**
Crassulaceae, **124**
*Crataegus*
*douglasii*, **219**
*douglasii* var. *suksdorfii*, 220
*monogyna*, 149, **219**
*monogyna* × *suksdorfii*, **219**
*oxyacantha*, **249**
*phaenopyrum*, **219**, 299
*suksdorfii*, **220**
*Crepis*
*capillaris*, **86**
*intermedia*, 53, **86**, 295
*runcinata* ssp. *hispidulosa*, 53, **86**, 295
*setosa*, **86**
*Crocidium multicaule*, **86**, 295
*Croton setigerus*, 53, **139**, 291, 295
Cruciferae, 102
*Crypsis alopecuroides*, **188**, 299
*Cryptantha*
*ambigua*, **100**, 295
*flaccida*, **100**, 295
*intermedia*, **100**, 295
*sobolifera*, **100**, 295
*torreyana*, **100**, 295
*Cryptogramma*
*acrostichoides*, **212**, 295
*crispa* var. *acrostichoides*, 212
Cucurbitaceae, **125**
Cupressaceae, **125**
*Cuscuta*
*arvensis*, 126
*epithymum*, **126**, 299
*indecora*, **126**, 295
*pentagona*, 42, **126**, 295
Cuscutaceae, **126**
*Cymbalaria muralis*, **234**
*Cynodon dactylon*, **188**, 291
*Cynoglossum*
*grande*, 43, **100**, 285, 295
*officinale*, **100**
*Cynosurus*
*cristatus*, **188**, 299
*echinatus*, **188**, 255
Cyperaceae, 2, 57, **126**
*Cyperus*
*aggregatus*, **132**, 291, 299
*aristatus*, 132
*dubius*, **132**, 291, 299
*eragrostis*, **132**, 299
*erythrorhizos*, **132**
*esculentus*, **132**
*lupulinus* ssp. *lupulinus*, 132
*odoratus*, **132**, 291, 299
*schweinitzii*, **132**, 295
*squarrosus*, 46, **132**
*strigosus*, **133**
*Cypripedium montanum*, 39, 62, **177**, 295
*Cystopteris fragilis*, **135**, 295
*Cytisus*
*multiflorus*, **140**, 249
*scoparius*, 58, **140**, 148, 285
*Dactylis glomerata*, 58, **188**, 291
*Damasonium californicum*, 53, **69**, 295
*Danthonia*
*californica*, 42, **189**
*intermedia*, **189**, 295
*spicata*, 189, 295
*Daphne laureola*, **243**
*Dasiphora fruticosa*, **249**
*Datura*
*quercifolia*, **241**, 291
*stramonium*, **241**, 291
*Daucus*
*carota*, **71**
*pusillus*, **71**, 295
Davies, Una, 12, 20
*Delphinium*
*ajacis*, 213
*leucophaeum*, 213
*menziesii*, **213**, 295
*nuttallii*, 213
*nuttallii* ssp. *nuttallii*, **213**, 295
*nuttallii* ssp. *ochroleucum*, **213**, 232, 295
*trolliifolium*, 42, **213**
Dennstaedtiaceae, **134**, 208
*Dentaria tenella*, 17, 104
*Deschampsia*
*caespitosa*, 42, 47, **189**
*cespitosa*, 189
*danthonioides*, **189**
*elongata*, **189**, 291
*Descurainia*
*incana* ssp. *incisa*, **106**, 295
*incisa* ssp. *filipes*, 106
*incisa* ssp. *incisa*, 106
*pinnata* ssp. *filipes*, 53, **106**, 291, 295
*pinnata* var. *filipes*, 106
*richardsonii* var. *sonnei*, 106
*sophia*, 53, **106**, 299
*Desmazeria rigida*, **189**, 291, 299
*Dianthus*
*armeria*, **115**
*barbatus*, **115**, 299
*deltoides*, **115**
*Dicentra formosa*, **150**
*Dichanthelium*
*acuminatum* var. *fasciculatum*, **189**, 295
*oligosanthes* var. *scribnerianum*, 53, **190**
*Dichelostemma*
*capitatum* ssp. *capitatum*, **165**, 295
*congestum*, 42, **166**

Dickson, James H., 17, 20, 25, 26, 28
*Digitalis purpurea*, **234**, 285, 299
*Digitaria*
*ischaemum*, **190**
*sanguinalis*, **190**, 291
*Diplotaxis*
*muralis*, **106**, 299
*tenuifolia*, **106**, 291, 299
Dipsacaceae, **134**
*Dipsacus*
*fullonum*, **134**, 285
*sylvestris*, 134
*Disporum*
*hookeri*, 47, **166**
*smithii*, 43, **166**
*Distichlis spicata*, **190**, 291, 295
*Dodecatheon*
*hendersonii*, 47, **211**, 295
*pulchellum* ssp. *macrocarpum*, **211**, 295
*pulchellum* var. *pulchellum*, 211
Dosch, Henry, 58
Douglas, David, 7, 17, **21**, 30, 257
*Downingia elegans*, 50, **112**, 295
*Draba*
*nemorosa*, **106**, 295
*verna*, **106**
*Dracocephalum nuttallii*, 161
Drake
Frank V., 26
Frederick (Fred), 16, 17, 25, 26
J. Francis (Frank), 16, 17, 21, **25**, 26, 27, 28
Dryopteridaceae, **135**, 208
*Dryopteris*
*arguta*, **135**, 295
*austriaca*, 135
*expansa*, **135**
*Duchesnea indica*, **220**
*Dulichium arundinaceum*, 50, **133**, 295
*Dysphania*
*ambrosioides*, 121
*botrys*, 121
*Dyssodia papposa*, **86**, 295
*Eburophyton austiniae*, 177
*Echinochloa*
*colona*, **190**, 291, 299
*colonum*, 190
*crusgalli*, 190
*crus-galli*, **190**
*crus-pavonis*, **190**, 291, 299
*muricata* var. *microstachya*, 53, **190**, 295
*Echinocystis lobata*, **125**, 299
*Echinops ritro* ssp. *ruthenicus*, **86**, 291, 299
*Egeria densa*, **153**
Elatinaceae, **135**
*Elatine chilensis*, 49, **136**
*Eleocharis*
*acicularis*, 49, 50, **133**
*bella*, **133**, 295
*obtusa*, 46, **133**
*ovata*, 133
*palustris*, 49, 50, **133**
*Eleusine*
*indica*, **190**, 291
*tristachya*, **190**, 291, 299
Eliot, Thomas Lamb, 26, 268
Elk Rock, 44
Elmer, A.D.E., 19
*Elodea*
*canadensis*, **153**
*densa*, 153
*nuttalli*, **154**, 295
*Elymus*
*alaskanus* ssp. *latiglumis*, **191**, 295
*canadensis*, **249**
*caput-medusae*, 201
*cinereus*, 194
*glaucus* ssp. *glaucus*, 191
*glaucus* var. *glaucus*, **191**, 291
*repens*, **191**, 291
*semicostatus*, 191, 291, 299
*trachycaulus* ssp. *subsecundus*, **191**, 295
*triticoides*, 195
*Enemion hallii*, **213**, 295
*Epilobium*
*alpinum*, 174
*alpinum* var. *lactiflorum*, 175
*anagallidifolium*, **174**, 295
*angustifolium*, 173
*brachycarpum*, 47, **174**
*ciliatum* ssp. *ciliatum*, **174**, 291
*ciliatum* ssp. *glandulosum*, **174**, 295
*ciliatum* ssp. *watsonii*, **174**
*densiflorum*, **175**
*foliosum*, **175**, 295
*glandulosum*, 174
*lactiflorum*, **175**, 295
*minutum*, **175**, 295
*palustre*, **175**, 295
*paniculatum*, 174
*pygmaeum*, **175**, 295
*torreyi*, 42, 47, **175**, 295
*watsonii*, 174
*Epipactis*
*gigantea*, **177**, 295
*helleborine*, **177**, 299
Equisetaceae, **136**
*Equisetum*
× *font-queri*, **136**
*arvense*, 42, **136**, 291
*hyemale*, 136
*hyemale* var. *affine*, **136**
*laevigatum*, **136**, 295
*palustre* var. *americanum*, **136**, 295
*telmateia*, **136**
*variegatum*, **136**, 295
*Eragrostis*
*curvula*, **191**, 299
*cyperoides*, 188
*hypnoides*, **191**
*lutescens*, **191**, 299
*mexicana* ssp. *virescens*, **191**, 299
*multicaulis*, 192
*orcuttiana*, 191
*pectinacea* var. *pectinacea*, 191, 299
*pilosa*, **192**, 291, 299
*Erechtites*
*minima*, 86
*minimus*, **86**, 299
*Eremocarpus setigerus*, 139
Ericaceae, **137**
*Erigeron*
*annuus*, **86**
*decumbens*, **86**, 295
*divergens*, 53, **87**, 295
*philadelphicus*, **87**, 295
*speciosus*, **87**, 295
*strigosus*, 42, **87**, 295
*Eriochloa villosa*, **192**, 299
*Eriogonum*
*compositum*, **204**, 295
*nudum*, **204**, 295
*Eriophyllum*
*lanatum*, 42, 47, **87**, 178, 232
*lanatum* var. *leucophyllum*, 87
*Erodium*
*cicutarium*, **151**
*moschatum*, **151**, 291, 299
*Eruca vesicaria* ssp. *sativa*, **106**, 299
*Eryngium petiolatum*, 42, **71**, 295
*Erysimum*
*asperum*, 106
*capitatum*, **106**, 295
*cheiranthoides*, **106**, 299
*repandum*, 53, **106**, 291, 299
*Erythronium*
*grandiflorum*, **249**
*oregonum*, 166
*oregonum* ssp. *leucandrum*, **166**, 295
*oregonum* ssp. *oregonum*, 42, 47, **166**, 285
*Eschscholzia californica*, 47, **179**
*Euonymus*
*europaeus*, **120**
*occidentalis*, **120**, 295
*Euphorbia*
*crenulata*, **139**, 295
*cyparissias*, **139**

*glyptosperma*, 139
*helioscopia*, **139**, 291, 299
*lathyris*, **140**
*lathyrus*, 140
*peplus*, **140**, 291
*serpyllifolia*, 139
*supina*, 139
Euphorbiaceae, **139**
*Eurybia radulina*, 47, **87**, 295
*Euthamia occidentalis*, 42, 47, **87**
Evans, Alice, 16
Fabaceae, 2, 56, 57, **140**
Fagaceae, **149**
*Fallopia*
× *bohemica*, 205
*convolvulus*, 205
*japonica*, 205
*sachalinensis*, 206
*Festuca*
*arundinacea*, 200
*bromoides*, 202
*californica*, **192**, 295
*idahoensis* ssp. *idahoensis*, **192**, 295
*microstachys*, 202
*myuros*, 202
*occidentalis*, **192**, 202, 295
*octoflora*, 202
*pratensis*, 200
*rubra* ssp. *commutata*, 192
*rubra* ssp. *fallax*, **192**
*rubra* ssp. *rubra*, **192**, 291
*rubra* var. *rubra*, 192
*subulata*, **192**, 195, 295
*subuliflora*, **192**, 295
Fliedner, Emma L., 16
Flinn, Michael A., 14, 17, 21, 22, **28**
*Floerkea proserpinacoides*, **169**, 295
Flood control, 49
*Foeniculum vulgare*, **71**, 291
Forestry Building, 25, 27
Fort Vancouver, 2, 6, 21, 30, 39, 58
Fort William, 21
*Fragaria*
*chiloensis* ssp. *pacifica*, 42, **220**, 285, 295
*vesca* ssp. *bracteata*, 42, 47, **220**
*vesca* var. *bracteata*, 220
*vesca* var. *crinata*, 220
*virginiana* ssp. *platypetala*, **220**
*virginiana* var. *platypetala*, 220
*Frangula purshiana*, 50, **218**, 285
*Frankenia pulverulenta*, **150**, 291, 299
Frankeniaceae, **150**
*Franseria*
*acanthicarpa*, 78
*chamissonis*, 78
*Fraxinus latifolia*, 48, **173**, 285
*Fritillaria*
*affinis*, 47, **166**, 295
*lanceolata*, 166
*Fumaria officinalis*, **150**, 299
Fumariaceae, **150**
Gairdner, Meredith, 7, 17, 30
*Galenia secunda*, **68**, 291, 299
*Galinsoga parviflora*, **87**, 299
*Galium*
*aparine*, **226**
*aparine* var. *echinospermum*, 226
*asperrimum*, 227
*bifolium*, 53, **227**
*boreale*, **227**, 295
*cymosum*, 227
*divaricatum*, **227**
*mexicanum* ssp. *asperrimum*, 53, **227**, 295
*mexicanum* var. *asperulum*, 227
*mollugo*, **227**, 299
*odoratum*, **227**
*oreganum*, **227**
*parisiense*, **227**
*tricornutum*, **227**, 299
*trifidum* ssp. *columbianum*, **227**
*trifidum* var. *pacificum*, 227
*triflorum*, **227**
*verum*, **228**, 291, 299
*Gamochaeta purpurea*, 42, **87**, 291, 295
*Gaultheria shallon*, 39, **137**, 285
General Land Office (GLO), 30, 37, 39, 45, 46
*Genista monspessulana*, **249**
*Gentiana sceptrum*, 62, **150**, 295
Gentianaceae, **150**
Geraniaceae, **151**
*Geranium*
*bicknellii*, 42, **151**
*carolinianum*, 42, **151**
*columbinum*, **151**
*dissectum*, **151**
*lucidum*, 52, **151**
*molle*, **151**
*oreganum*, **151**, 295
*pusillum*, **152**
*pyrenaicum*, **152**, 291, 299
*robertianum*, 52, **152**
*viscosissimum*, 53, **152**, 296
*Geum*
*aleppicum*, 53, **220**, 296
*macrophyllum* var. *macrophyllum*, 47, **220**
*macrophyllum* var. *perincisum*, **220**, 296
*urbanum*, **220**
*Gilia*
*capitata*, 42, **203**
*squarrosa*, 203
Gilkey, Helen, 16, 20
*Githopsis specularioides*, 42, **112**
*Glaucium flavum*, **179**, 291, 299
*Glechoma hederacea*, **159**
*Glyceria*
*borealis*, **192**, 296
*elata*, 193
*fluitans*, **193**, 299
*grandis*, 50, **193**
*leptostachya*, 193
*occidentalis*, **193**
*striata*, **193**
*Glycosma ambiguum*, 73
*Glycyrrhiza lepidota*, 53, **141**, 296
*Gnaphalium*
*canescens* ssp. *thermale*, 93
*chilense*, 93
*luteoalbum*, 93
*microcephalum* var. *thermale*, 93
*palustre*, 50, **88**
*purpureum*, 87
*stramineum*, 93
*uliginosum*, **88**
*Goodyera oblongifolia*, **177**
Gorman, Martin W., 3, 14, **25**, 26, 27, 28, 29
Gramineae, 182
*Gratiola*
*ebracteata*, **234**, 296
*neglecta*, 46, **235**, 296
Greene, Edward, 23
*Grindelia*
*columbiana*, **88**, 296
*integrifolia*, 42, **88**, 296
*nana*, 88, 296
*nana* var. *discoidea*, 88
*nana* var. *integrifolia*, 88
Grossulariaceae, **152**
Guttiferae, 123
*Gypsophila*
*muralis*, **249**
*pilosa*, **250**
*porrigens*, 250
*scorzonerifolia*, **116**, 300
*Habenaria*
*dilatata* var. *leucostachys*, 178
*elegans*, 178
*unalascensis*, 178
Haloragaceae, **153**
Harford, William G.W., 17
*Hedera*
*helix*, 39, 43, 58, 59, **76**
*hibernica*, 39, 43, 58, **76**
*Helenium autumnale*, **88**
*Heleochloa alopecuroides*, 188
*Helianthus annuus*, **88**
*Heliotropium*
*amplexicaule*, **100**, 291, 300

*curassavicum* var. *obovatum*, 53, **101**, 291, 296
Heller, Amos A., 19
*Hemitomes congestum*, **137**, 296
*Hemizonia pungens*, **88**, 291, 296
Henderson, Louis F., 14, 16, 17, **23**, 25, 26, 28
*Heracleum*
*lanatum*, 72
*mantegazzianum*, 62, **72**
*maximum*, 47, **72**, 285
*Hesperis matronalis*, **107**
*Heteranthera dubia*, 208, 296
*Heterocodon rariflorum*, 42, **112**, 296
*Heterotheca villosa*, **88**, 296
*Heuchera*
*chlorantha*, **231**, 296
*cylindrica*, 231, 296
*glabra*, **231**, 296
*grossulariifolia* var. *tenuifolia*, **231**, 296
*micrantha*, **231**
*Hieracium*
*acuminatum*, 250
*albiflorum*, 47, **89**, 296
*bolanderi*, **89**, 296
*caespitosum*, **250**
*lachenalii*, 250
*laevigatum*, **89**
*murorum*, **89**, 300
*pilosella*, **89**, 300
*scouleri*, 42, **89**, 296
*umbellatum*, **89**, 291, 296
*vulgatum*, 250
*Hierochloe occidentalis*, 47, **193**, 286, 296
Hill, James J., 52
Himes, George, 25
Hippocastanaceae, **153**
Hippuridaceae, **153**
*Hippuris vulgaris*, 50, **153**, 296
*Hirschfeldia incana*, **107**, 291, 300
*Holcus*
*lanatus*, 58, 159, **193**, 195, 291
*mollis*, **193**
Holman, Zulette, 16
*Holodiscus discolor*, 47, **221**, 286
*Holosteum umbellatum*, **116**, 300
*Hordeum*
*brachyantherum*, **193**
*depressum*, **193**, 296
*geniculatum*, 194
*glaucum*, 194
*jubatum*, **194**, 291
*leporinum*, 194
*marinum* ssp. *gussonianum*, 194, 292
*murinum* ssp. *glaucum*, 53, **194**, 300
*murinum* ssp. *leporinum*, **194**, 292
*pusillum*, 53, **194**
*Horkelia congesta* ssp. *congesta*, **221**, 296
Howell, Joseph, 14, 17, 21, **22**, 25, 29, 44
Howell, Ruth, 16
Howell, Thomas J., 3, 14, 17, 20, 21, **22**, 23, 25, 26, 28, 50
*Howellia aquatilis*, **112**, 296
Hoyt Arboretum, 35
Hudson Bay Company, 7, 39
*Humulus lupulus*, **172**, 300
*Hutchinsia procumbens*, **107**, 296
*Hyacinthoides*, **167**
Hydrangeaceae, **153**
Hydrocharitaceae, **153**
*Hydrocotyle ranunculoides*, **72**
Hydrophyllaceae, **154**
*Hydrophyllum*
*fendleri*, **250**
*occidentale*, **154**, 296
*tenuipes*, **154**, 286
Hypericaceae, 123
*Hypericum*
*anagalloides*, 50, **123**, 296
*calycinum*, **123**
*formosum* var. *scouleri*, 123
*perforatum*, **123**, 286
*scouleri* ssp. *scouleri*, 42, 47, **123**
*Hypochaeris*
*glabra*, **89**
*radicata*, 58, **89**, 286
*Hypopitys monotropa*, 138
*Idahoa scapigera*, 52, **107**, 296
*Ilex aquifolium*, 39, 58, **75**
*Impatiens*
*capensis*, **98**, 264
*glandulifera*, **98**
*Imperata cylindrica*, **194**, 300
Interurban rail line, 19, 32, 50
*Inula helenium*, **90**, 300
*Ionopsidium acaule*, **107**, 300
*Ipomoea*
*hederacea*, **124**, 300
*purpurea*, **124**, 300
Iridaceae, **155**
*Iris*
*pseudacorus*, 58, 62, **155**
*tenax*, 42, **155**, 286
*tenax* var. *gormanii*, **155**
*tenuis*, **155**, 261, 296
Isoetaceae, **156**
*Isoetes*
*howellii*, **250**
*nuttallii*, 42, **156**, 296
*Isopyrum hallii*, 213
*Iva axillaris*, 53, **90**, 292, 296
*Jasione montana*, **112**, 300
Jesup, Henry G., 19
Juncaceae, 57, **156**
*Juncus*
*acuminatus*, 50, **156**, 296
*anthelatus*, **156**, 300
*articulatus*, **156**, 296
*balticus* ssp. *ater*, 53, **156**, 296
*balticus* var. *montanus*, 156
*bufonius*, **156**, 286
*covillei*, **157**, 296
*effusus* ssp. *effusus*, **157**
*effusus* ssp. *pacificus*, 49, **157**, 286, 296
*effusus* ssp. *solutus*, **157**, 300
*effusus* var. *bruneus*, 158
*effusus* var. *effusus*, 157
*effusus* var. *gracilis*, 158
*effusus* var. *pacificus*, 157
*ensifolius*, **157**
*hemiendytus*, **157**, 296
*hesperius*, **158**, 296
*laccatus*, **158**, 296
*longistylis*, 53, **158**, 296
*nevadensis* var. *nevadensis*, **158**, 296
*oxymeris*, **158**
*patens*, **158**
*tenuis*, 156, **158**, 170
*tenuis* var. *anthelatus*, 156
*torreyi*, 53, **158**, 296
June flood, 45, 46
*Jussiaea uruguayensis*, 175
Kellogg, Albert, 17
*Kickxia elatine*, **235**
*Kochia scoparia*, 120
*Koeleria*
*cristata*, 194
*macrantha*, **194**, 296
*phleoides*, 200
Kral, George, 15
Labiatae, 159
*Lactuca*
*biennis*, **90**, 300
*canadensis*, **90**, 296
*muralis*, 92
*pulchella*, 90
*sativa*, 90
*scariola* var. *integrata*, 90
*serriola*, **90**, 292
*tatarica* ssp. *pulchella*, 90
*tatarica* var. *pulchella*, **90**, 296
Lamiaceae, **159**
*Lamium*
*amplexicaule*, **159**
*maculatum*, **159**
*purpureum*, **159**
Lange, Erwin F., 29

*Lapsana*
*apogonoides*, 91
*communis*, **90**
*Lapsanastrum apogonoides*, 50, **91**, 300
*Lathyrus*
*aphaca*, **141**, 300
*hirsutus*, **141**, 300
*holochlorus*, 42, **141**, 296
*japonicus*, **141**, 292, 296
*latifolius*, **141**
*nevadensis*, 47, **141**
*nissolia*, **141**, 300
*polyphyllus*, **141**
*sphaericus*, **141**, 300
*sylvestris*, **141**, 300
*torreyi*, 47, **141**, 296
*vestitus*, **141**, 296
Lauraceae, **163**
Leach, Lilla, 16, 20, 276
*Leersia oryzoides*, **194**
Leguminosae, 140
Leiberg, John B., 19
*Lemna*
*gibba*, **163**, 296
*minor*, **163**
*trisulca*, **163**
Lemnaceae, **163**
Lentibulariaceae, **163**
*Leontodon*
*nudicaulis* ssp. *taraxacoides*, 91
*saxatilis*, **91**
*taraxacoides*, 91
*Leonurus cardiaca*, **159**, 300
*Lepidium*
*appelianum*, 105
*campestre*, **107**
*densiflorum var. densiflorum*, 53, **107**, 296
*densiflorum* var. *pubecarpum*, **107**, 292, 296
*densiflorum* var. *pubicarpum*, 107
*densiflorum* var. *ramosum*, **107**, 292, 296
*didymum*, 105
*draba* ssp. *chalepense*, 105
*draba* ssp. *draba*, 105
*graminifolium*, **108**, 292, 300
*heterophyllum*, **108**, 300
*lasiocarpum*, 108
*perfoliatum*, 53, **108**, 292, 300
*ruderale*, **108**, 300
*squamatum*, 105
*strictum*, **108**, 292, 296
*virginicum* var. *medium*, **108**, 292, 296
*virginicum* var. *pubescens*, **108**, 296
*Leptochloa*
*fascicularis*, 194
*fusca* ssp. *fascicularis*, **194**, 300
*fusca* ssp. *uninervia*, **194**, 292, 300
*Leptosiphon bicolor*, 42, **203**
*Leucanthemum vulgare*, 58, **91**, 286
Lewelling, Henderson, 58, 59
Lewis and Clark Centennial Exposition, 27, 31, 274, 284
Lewis, Meriwether, 6, 7, 17, 30, 279
*Leymus*
*cinereus*, 51, 53, **194**, 296
*mollis*, **195**, 292, 296
*triticoides*, 51, 53, **195**, 296
*Ligusticum*
*apiifolium*, 47, **72**, 296
*grayi*, **72**, 296
*Ligustrum vulgare*, **173**
*Lilaeopsis occidentalis*, **72**, 296
Liliaceae, **164**
*Lilium*
*columbianum*, 47, **167**
*washingtonianum* ssp. *purpurascens*, **167**, 296
*washingtonianum* var. *purpurascens*, 167
Limnanthaceae, **169**
*Limosella aquatica*, 46, **235**
Linaceae, **169**
*Linanthus bicolor*, 203
*Linaria*
*canadensis* var. *texana*, 236
*dalmatica*, 53, **235**
*vulgaris*, **235**, 292
*Lindernia*
*anagallidea*, 235
*dubia*, **235**
*dubia* var. *anagallidea*, 235
*dubia* var. *dubia*, 235
*Linnaea*
*borealis* ssp. *longiflora*, **113**
*borealis* var. *longiflora*, 113
*Linum*
*grandiflorum*, **169**, 300
*usitatissimum*, **169**, 286, 300
*Listera*
*caurina*, **178**, 296
*cordata*, **178**, 296
*Lithocarpus densiflorus*, **149**, 296
*Lithophragma parviflorum*, **231**, 296
*Lobelia dortmanna*, **250**
*Lobularia maritima*, **108**, 300
*Lolium*
*multiflorum*, 195
*perenne*, 195
*perenne* ssp. *multiflorum*, **195**, 292
*perenne* ssp. *perenne*, **195**, 292
*rigidum*, **195**, 292, 300
*strictum*, 195
*subulatum*, 195
*temulentum*, **195**
*Lomatium*
*bradshawii*, **72**, 274, **296**
*dissectum*, **72**, 296
*grayi*, **250**
*nudicaule*, 42, 47, **73**, 286, 296
*triternatum*, **73**, 296
*utriculatum*, **73**, 286, 296
*Lonicera*
*ciliosa*, **113**
*hispidula*, **113**
*involucrata*, 50, **113**
Loranthaceae, 246
*Lotus*
*aboriginus*, **141**, 296
*corniculatus*, **142**, 292
*crassifolius* var. *subglaber*, 141
*formosissimus*, **250**
*micranthus*, 42, **142**
*nevadensis* var. *douglasii*, **47**, **142**, 296
*pedunculatus*, **142**, 300
*pinnatus*, **142**, 250
*purshianus* var. *purshianus*, 142
*uliginosus*, 142
*unifoliolatus*, **142**, 286
Louisiana Purchase Exposition, 27, 266
*Ludwigia*
*grandiflora* ssp. *hexapetala*, **175**
*hexapetala*, 175
*palustris*, **175**
*Lunaria annua*, **108**
*Lupinus*
*albicaulis*, **142**, 296
*albifrons*, **142**, 250, 296
*arbustus*, 42, 53, **143**, 296
*argenteus* ssp. *argenteus* var. *laxiflorus*, 143
*argenteus* var. *argenteus*, 143
*argenteus* var. *holosericeus*, 250
*bicolor*, **143**, 296
*chamissonis*, **250**
*holosericeus*, **250**
*latifolius*, 42, 47, **143**, 296
*laxiflorus*, 143
*lepidus*, 42, **143**, 296
*micranthus*, 143
*polycarpus*, 42, **143**, 296
*polyphyllus*, 47, **143**, 286
*rivularis*, **143**
*Luzula*
*campestris*, 47
*campestris* var. *congesta*, 159
*campestris* var. *multiflora*, 159
*comosa*, 42, **159**, 296
*multiflora* ssp. *multiflora*, **159**
*parviflora*, 47, **159**

*spicata*, **250**
*Lychnis*
*alba*, 117
*coronaria*, **116**
*dioica*, 117
*Lycium barbarum*, **241**, 300
*Lycopersicon*
*esculentum*, 242
*lycopersicum*, 242
Lycopodiaceae, **169**
*Lycopodium clavatum*, 39, **169**, 296
*Lycopus*
*americanus*, **160**
*asper*, **160**, 296
*uniflorus*, 50, **160**, 296
Lyman, James A., 26
*Lysichiton americanus*, 50, **76**, 109
*Lysichitum americanum*, 76
*Lysimachia*
*ciliata*, **211**, 296
*nummularia*, 51, **211**, 286
*punctata*, 211, 300
Lythraceae, **170**
*Lythrum*
*hyssopifolium*, **170**, 292, 300
*portula*, **170**
*salicaria*, 62, **170**
*Machaerocarpus californicus*, 69
*Madia*
*elegans*, **91**
*exigua*, 42, 47, **91**, 296
*glomerata*, 42, **91**, 286, 292
*gracilis*, **91**
*madioides*, 79
*sativa*, **92**
*Mahonia*
*aquifolium*, 47, 58, **98**, 287
*nervosa*, 39, **98**, 287
*repens*, **250**
*Maianthemum*
*dilatatum*, **167**
*racemosum* ssp. *amplexicaule*, 47, **167**
*stellatum*, **167**
*Malus*
× *dawsoniana*, **221**
× *domestica*, 221
*baccata*, **251**
*domestica*,, 221
*fusca*, 47, **221**, 287
*pumila*, 58, **221**, 292
*Malva*
*moschata*, **170**, 300
*neglecta*, **170**, 292
*parviflora*, **171**
*sylvestris*, **171**
Malvaceae, **170**
*Marah oreganus*, 42, 47, 125
*Mariscus dubius*, 132
*Marrubium vulgare*, 53, **160**, 292
*Marsilea vestita*, **171**
Marsileaceae, **171**
Martyniaceae, 180
*Matricaria*
*chamomilla*, 92
*discoidea*, **92**
*maritima*, 97
*matricarioides*, 92
*recutita*, **92**, 292
*suffruticosa*, 92
Mazamas, 25, 26, 27
*Mazus*
*japonicus*, 235
*pumilus*, **235**
*Meconella oregana*, **180**, 296
*Medicago*
*hispida*, 144
*lupulina*, **143**, 292
*minima*, **144**, 292, 300
*polymorpha*, **144**, 292
*sativa*, **144**, 292
*turbinata*, **144**, 300
Meek, William, 58
*Melica*
*bulbosa*, **195**, 296
*geyeri*, **195**, 296
*harfordii*, **195**, 296
*smithii*, 53, **195**, 296
*subulata*, 47, **195**
*Melilotus*
*alba*, 144
*albus*, 144
*indicus*, **144**, 292, 300
*officinalis*, **144**, 287
*Melissa officinalis*, 53, **160**, 292
*Mentha*
× *piperita*, 160
× *villosa*, **160**
× *villosa* var. *alopecuroides*, 160
*alopecuroides*, 160
*arvensis*, **160**
*canadensis*, 160
*piperita*, 160
*pulegium*, **160**
*spicata*, **160**
*suaveolens*, **160**
Menyanthaceae, **171**
*Menyanthes trifoliata*, 50, **171**, 296
Menzies, Archibald, 17
*Mertensia platyphylla*, **101**, 296
*Mesembryanthemum*
*crystallinum*, **68**, 292, 300
*nodiflorum*, **68**, 292, 300
Metro, 36, 63
*Micranthes*
*fragosa*, 232
*gormanii*, 232
*integrifolia*, 232
*marshallii*, 232
*oregana*, 232
*rufidula*, 232
*Microseris*
*laciniata*, 92
*laciniata* ssp. *leptosepala*, 42, 44, **92**, 296
*Microsteris gracilis*, 42, **203**, 296
*Mimetanthe pilosa*, 51, **235**, 296
*Mimosa asperata*, **144**, 292, 300
*Mimulus*
*alsinoides*, **235**
*breviflorus*, 51, **235**, 296
*floribundus*, **236**, 296
*guttatus*, **236**
*guttatus* var. *depauperatus*, 236
*guttatus* var. *guttatus*, 236
*moschatus*, **236**, 296
*pulsiferae*, **236**, 296
*washingtonensis*, 51, 236, 296
*Minuartia*
*michauxii*, **116**, 296
*pusilla*, **251**
*tenella*, 116
*Misopates orontium*, **236**
Missoula Floods, 43
*Mitella*
*breweri*, **251**
*caulescens*, **231**, 296
*ovalis*, **231**, 296
*Modiola*
*caroliniana*, **171**, 292, 300
*multifida*, 171
*Moehringia*
*lateriflora*, **116**, 296
*macrophylla*, **116**
*Moenchia erecta*, **116**, 300
Molluginaceae, **172**
*Mollugo verticillata*, 53, **172**
*Monotropa*
*hypopithys*, **138**, 296
*hypopitys*, 138
*uniflora*, **138**
*Montia*
*dichotoma*, 42, **209**, 296
*diffusa*, **209**, 296
*fontana*, **209**
*howellii*, **209**, 296
*linearis*, **209**
*parvifolia*, **209**
*perfoliata*, 208
*sibirica*, 208
*sibirica* var. *heterophylla*, 208
Moraceae, **172**
*Morella californica*, **251**
*Morus alba*, **172**, 300

Muhlenbergia (botanical journal), 3, 30
*Muhlenbergia richardsonis*, 51, 53, **195**, 296
*Mulgedium pulchellum*, 90
*Muscari*, **168**
*Mycelis muralis*, **92**
*Myosotis*
*arvensis*, **101**, 296
*discolor*, **101**
*laxa*, 50, **101**
*micrantha*, 101
*scorpioides*, **101**
*stricta*, **101**
*sylvatica*, **101**
*verna*, **101**, 296
*Myosoton aquaticum*, **116**, 292, 300
*Myosurus minimus*, 42, **214**, 296
*Myrica californica*, 251
*Myriophyllum*
*aquaticum*, **153**
*brasiliense*, 153
*hippuroides*, 49, **153**, 296
*sibiricum*, **153**, 297
*spicatum* var. *exalbescens*, 153
*spicatum* var. *spicatum*, 58, 59, 62, **153**
Najadaceae, **172**
*Najas*
*flexilis*, 49, **172**, 297
*guadalupensis* ssp. *guadalupensis*, **172**, 297
*Nassella chilensis*, **196**, 292, 300
*Nasturtium officinale*, **109**
Native Plant Society of Oregon, 15
*Navarretia*
*intertexta*, **203**, 297
*squarrosa*, **203**
*tagetina*, **203**
Nelson, James C., 3, 17, 25, 29
*Nemophila*
*menziesii* var. *atomaria*, **154**, 297
*parviflora*, 47, **154**
*pedunculata*, 47, **154**
*Nepeta cataria*, **161**, 300
*Nicotiana*
*acuminata* var. *multiflora*, **241**
*attenuata*, 53, **241**, 297
*quadrivalvis* var. *quadrivalvis*, **251**
*rustica*, **241**, 292, 300
*Nigella damascena*, **214**
*Nothochelone nemorosa*, **251**
*Nuphar*
*lutea* ssp. *polysepala*, **172**
*polysepala*, 172
*polysepalum*, 172
Nurseries, 7, 58, 59
Nuttall, Thomas, 7, 17, **21**, 30
*Nuttallanthus texanus*, **236**, 297
*Nymphaea odorata*, **172**, 300
Nymphaeaceae, 111, **172**
*Oemleria cerasiformis*, 47, **221**, 287
*Oenanthe sarmentosa*, **73**, 109
*Oenothera*
*affinis*, **175**, 292, 300
*biennis*, **175**, 176
*erythrosepala*, 176
*flava*, **176**, 297
*glazioviana*, **176**
*grandiflora*, **176**, 300
*mollissima*, **176**, 292, 300
*pallida*, 53, **176**, 300
*strigosa*, 176
*villosa* ssp. *strigosa*, **176**
Oleaceae, **173**
Onagraceae, **173**
*Oncosiphon suffruticosum*, **92**, 292, 300
*Onobrychis viciaefolia*, **144**, 300
*Ononis*
*arvensis*, **144**, 292, 300
*repens*, **145**, 292, 300
Ophioglossaceae, **176**
*Oplopanax horridus*, **76**, 217, 230, 231, 287, 297
Orchidaceae, 2, 56, **176**
Oregon
Department of Agriculture, 59
Department of Fish and Wildlife, 36
Department of Transportation, 15
Episcopal School, 24
Flora Project, 8, 11, 12, 14, 16, 64
Parks and Recreation Department, 36
State Academy of Sciences, 25, 27, 28, 29
State Board of Forestry, 27
*Origanum vulgare*, **161**
Ornduff, Robert, 20, 21, 89
Orobanchaceae, **178**
*Orobanche*
*fasciculata*, **178**, 297
*minor*, **178**, 292
*uniflora*, **178**, 297
*uniflora* var. *occidentalis*, 178
*uniflora* var. *purpurea*, 178
*Orthocarpus*
*attenuatus*, 233
*bracteosus*, 42, **236**, 297
*hispidus*, 234
*pusillus*, 238
*Osmaronia cerasiformis*, 221
*Osmorhiza*
*berteroi*, 47, **73**
*chilensis*, 73
*occidentalis*, **73**, 297
*purpurea*, **73**, 297
Oxalidaceae, **179**
*Oxalis*
*corniculata*, **179**
*dillenii*, **179**, 300
*japonica*, **251**
*oregana*, **179**
*stricta*, **179**, 292
*suksdorfii*, 42, 47, **179**
*trilliifolia*, **179**, 297
*Packera*
*debilis*, **251**
*macounii*, 47, **93**, 297
*Panicum*
*acuminatum* ssp. *fasciculatum*, 189
*capillare*, 49, **196**
*capillare* var. *occidentale*, 196
*dichotomiflorum*, **196**
*miliaceum* ssp. *miliaceum*, **196**
*occidentale*, 189
*oligosanthes* ssp. *scribnerianum*, 190
*scribnerianum*, 190
*Papaver*
*argemone*, **180**, 292, 300
*dubium*, **180**, 292, 300
*rhoeas*, **180**, 292, 300
*somniferum*, **180**, 292, 300
Papaveraceae, **179**
*Parapholis incurva*, **196**, 292, 300
*Parentucellia viscosa*, **236**
*Paronychia franciscana*, **116**, 292, 300
*Parthenocissus vitacea*, **247**, 300
*Pascopyrum smithii*, **196**, 297
*Paspalum*
*dilatatum*, **196**, 292, 300
*distichum*, **196**
*Pastinaca sativa*, **73**, 300
*Paulownia*
*imperialis*, 236
*tomentosa*, **236**
*Paxistima myrsinites*, **251**
Peck, Morton E., 17, 20, **29**, 30
*Pectocarya pusilla*, **101**, 297
Pedaliaceae, **180**
*Pedicularis groenlandica*, **251**
*Penstemon*
*hesperius*, **237**
*nemorosus*, 251
*ovatus*, **237**, 297
*procerus* var. *procerus*, **251**
*richardsonii* var. *dentatus*, **237**, 297
*richardsonii* var. *richardsonii*, **237**, 297
*rydbergii*, 237
*rydbergii* var. *oreocharis*, **237**, 297
*rydbergii* var. *varians*, 237
*serrulatus*, 44, **237**, 297
*Pentagramma triangularis*, **212**, 297

*Peplis portula*, 170
*Perideridia*
*gairdneri*, **73**, 287, 297
*montana*, 73
*oregana*, **73**, 287, 297
*Persicaria*
*amphibia*, 204
*hydropiper*, 205
*hydropiperoides*, 205
*lapathifolia*, 206
*maculosa*, 206
*punctatum*, 206
*wallichii*, 206
*Petasites frigidus*, **93**
*Petunia*
× *atkinsiana*, **241**
*axillaris* × *integrifolia*, 241
*parviflora*, 241
*Phacelia*
*heterophylla*, **154**
*heterophylla* var. *pseudohispida*, 154
*linearis*, 47, **154**, 297
*mutabilis*, **154**, 297
*nemoralis* ssp. *nemoralis*, 154, **155**
*nemoralis* ssp. *oregonensis*, **155**
*nemoralis* var. *mutabilis*, 154
*tanacetifolia*, **155**, 300
*Phalaris*
*aquatica*, **196**, 292, 300
*arundinacea*, 57, 58, 59, 69, 126, 128, 195, **197**, 292
*arundinacea* var. *arundinacea*, 197
*brachystachys*, **197**, 292, 300
*canariensis*, **197**, 300
*caroliniana*, **197**, 292, 300
*minor*, **197**, 292, 300
*paradoxa*, **197**, 292, 300
*Philadelphus lewisii*, **153**, 287
*Phleum*
*arenarium*, **197**, 292, 300
*paniculatum*, **197**, 292, 300
*pratense*, 58, **197**, 287
*subulatum*, **197**, 292, 300
*Phlox*
*gracilis*, 203
*idahoensis*, 251
*idahonis*, **251**
*maculata*, **204**, 300
*paniculata*, **204**, 300
*Phoradendron*
*flavescens* var. *villosum*, 246
*villosum*, **246**, 287, 297
*Phragmites*
*australis*, **198**, 297
*australis* ssp. *americanus*, 198
*communis*, 198
*Physalis*
*philadelphica* var. *immaculata*, **241**, 292, 300
*pubescens*, **242**, 300
*Physocarpus*
*capitatus*, 47, **221**, 287
*malvaceus*, **222**, 297
*Physostegia parviflora*, **161**, 297
*Phytolacca americana*, **180**, 300
Phytolaccaceae, **180**
*Picea sitchensis*, **251**
Pilkington, J.B., 7, 58, 66
Pinaceae, **180**
*Pinus*
*contorta* var. *latifolia*, **181**, 297
*ponderosa*, 50, **181**
Piper, Charles V., 19
*Piperia*
*elegans*, 47, **178**, 297
*unalascensis*, 43, **178**, 297
*Pityrogramma triangularis*, 212
*Plagiobothrys*
*figuratus*, 50, **102**, 297
*nothofulvus*, **102**, 297
*scouleri*, **102**
*tenellus*, **102**, 297
Plantaginaceae, **181**
*Plantago*
*aristata*, **181**, 300
*coronopus*, **181**, 292, 300
*elongata*, **181**, 297
*lanceolata*, **181**, 287
*major*, **181**, 292
*psyllium*, **182**, 300
*pusilla*, **182**
*Platanthera dilatata* var. *leucostachys*, 62, **178**, 297
*Plectritis*
*brachystemon*, 244
*congesta*, 245
*congesta* ssp. *brachystemon*, **244**, 297
*congesta* ssp. *congesta*, **245**
*Pleuropogon refractus*, **198**, 297
*Poa*
*annua*, 46, **198**, 288, 292
*bulbosa*, **198**
*compressa*, **198**, 292
*gracillima*, 199
*howellii*, 44, 47, **198**, 297
*laxiflora*, **198**, 297
*nervosa*, 42, 44, 47, **198**, 297
*palustris*, 46, **199**, 288, 292
*pratensis*, **199**
*sandbergii*, 199
*scabrella*, 199
*secunda*, **199**, 297
*secunda* ssp. *juncifolia*, 199
*secunda* ssp. *secunda*, 199
*trivialis*, **199**, 292
Poaceae, 2, 57, **182**
Polemoniaceae, **203**
*Polycarpon tetraphyllum*, **116**, 292
Polygonaceae, **204**
*Polygonum*
× *bohemicum*, **205**
*amphibium* var. *emersum*, **204**
*arenastrum*, **204**
*aviculare*, 204, 292
*aviculare* ssp. *depressum*, 204
*baldschuanicum*, **204**, 300
*coccineum*, 204
*convolvulus* var. *convolvulus*, 205, 292
*cuspidatum*, 58, 62, **205**
*douglasii* ssp. *douglasii*, **205**, 297
*douglasii* ssp. *majus*, **205**, 297
*douglasii* ssp. *nuttallii*, **205**, 297
*douglasii* ssp. *spergulariiforme*, **205**, 297
*hydropiper*, **205**, 292
*hydropiperoides*, 49, **205**
*lapathifolium*, **206**
*majus*, 205
*nuttallii*, 205
*persicaria*, **206**, 292
*polygaloides* ssp. *kelloggii*, 42, **206**, 297
*polystachyum*, **206**, **252**
*punctatum*, 206, 297
*ramosissimum*, 206
*ramosissimum* var. *prolificum*, **206**, 297
*sachalinense*, **206**
*sachalinense* × *cuspidatum*, 205
*spergulariaeforme*, 205
Polypodiaceae, 77, 99, 134, 135, **208**, 211
*Polypodium*
*amorphum*, **208**, 297
*glycyrrhiza*, **208**
*montense*, 208
*Polypogon*
*fugax*, **199**, 292, 300
*monspeliensis*, 182, **199**, 292
*viridis*, **200**, 300
*Polystichum*
*imbricans*, **135**, 297
*munitum*, 39, **135**, 288
*munitum* var. *imbricans*, 135
Pontederiaceae, **208**
*Populus*
*alba*, 228
*balsamifera* ssp. *trichocarpa*, 48, **228**
*deltoides*, **228**
*tremuloides*, **228**

*trichocarpa*, 228
Portland
Academy, 26
City Free Museum, 27, 28
City of, 8, 15, 31, 36, 63
Plant List, 7
Science Club of, 25
*Portulaca oleracea*, **209**
Portulacaceae, **208**
*Potamogeton*
*amplifolius*, **209**, 297
*crispus*, **210**
*epihydrus*, **210**, 297
*foliosus*, **210**
*illinoensis*, **210**, 297
*natans*, **210**
*nodosus*, **210**, 297
*pectinatus*, 210
*pusillus*, **210**, 297
*richardsonii*, 49, **210**, 297
*zosteriformis*, 210, 297
Potamogetonaceae, **209**
*Potentilla*
*anserina* ssp. *anserina*, 218
*anserina* ssp. *pacifica*, 218
*biennis*, **222**, 297
*fruticosa*, 249
*glandulosa*, 47, **222**
*gracilis* var. *fastigiata*, **222**, 297
*gracilis* var. *gracilis*, 47, **222**, 297
*norvegica*, **222**, 300
*pacifica*, 218
*palustris*, 219
*recta*, **222**, 300
*rivalis*, **222**, 297
*Prenanthes alata*, **93**, 297
Primulaceae, **210**
*Proboscidea louisianica*, **180**, 300
*Prosartes*
*hookeri*, 166
*smithii*, 166
*Prunella*
*vulgaris* ssp. *lanceolata*, 42, **161**
*vulgaris* ssp. *vulgaris*, **161**
*vulgaris* var. *lanceolata*, 161
*vulgaris* var. *vulgaris*, 161
*Prunus*
× *pugetensis*, 222, 223, 260
*avium*, **222**
*cerasifera*, **223**
*cerasus*, **252**
*domestica*, 58, **223**
*emarginata* var. *emarginata*, **223**
*emarginata* var. *mollis*, 47, **223**, 288
*laurocerasus*, 39, 58, **223**
*lusitanica*, **223**
*persica*, **223**, 292, 300
*virginiana* var. *demissa*, 47, **224**, 297
*Pseudofumaria lutea*, **150**
*Pseudognaphalium*
*canescens* ssp. *microcephalum*, **93**, 297
*luteoalbum*, **93**, 292, 300
*stramineum*, **93**, 297
*Pseudoroegneria spicata*, 51, 53, **200**, 292, 297
*Pseudotsuga menziesii*, 37, 149, **181**, 288
*Psilocarphus*
*elatior*, **93**, 94, 297
*oregonus*, 51, 53, **94**, 297
*Psoralea physodes*, 145
Pteridaceae, 208, **211**
*Pteridium aquilinum* var. *pubescens*, 47, **134**, 288, 292
*Puccinellia*
*distans*, 51, 53, **200**, 292, 297
*festuciformis*, **200**, 292, 300
*pauciflora*, 201
*Pueraria*
*lobata*, 145
*montana* var. *lobata*, 62, **145**, 300
*Pyrola*
*aphylla*, 138
*asarifolia* ssp. *asarifolia*, **138**, 297
*asarifolia* ssp. *bracteata*, **138**, 297
*asarifolia* var. *asarifolia*, 138
*asarifolia* var. *bracteata*, 138
*chlorantha*, 138, **252**
*picta*, **138**, 297
*Pyrus*
*baccata*, 251
*fusca*, 221
*malus*, 221
*Pyrus communis*, **224**
*Quercus*
*garryana*, 37, 47, **149**, 246, 288
*robur*, **149**
*rubra*, **150**
Ranunculaceae, **212**
*Ranunculus*
*acris*, **214**
*alismaefolius*, 214
*alismifolius* var. *alismifolius*, **214**, 297
*aquatilis* var. *aquatilis*, 50, **214**, 216
*aquatilis* var. *capillaceus*, 216
*aquatilis* var. *diffusus*, 216
*aquatilis* var. *hispidulus*, 214
*californicus*, **214**, 297
*cymbalaria*, **214**, 297
*ficaria*, **215**, 248
*flabellaris*, **215**, 297
*flammula*, 215
*flammula* var. *filiformis*, 50, **215**
*macounii*, 53, **215**, 297
*muricatus*, **215**, 300
*occidentalis*, **215**
*orthorhynchus* var. *orthorhynchus*, **215**
*parviflorus*, 215, 292, 300
*repens*, **216**
*sardous*, **216**, 292, 300
*sceleratus* var. *sceleratus*, **216**
*trichophyllus*, **216**, 297
*uncinatus*, 216
*uncinatus* var. *parviflorus*, **216**
*uncinatus* var. *uncinatus*, **216**
Raphanus
*raphanistrum*, **109**, 300
*sativus*, **109**, 292
*Rapistrum rugosum*, **109**, 292, 300
Reed College, 9, 12, 20, 22, 24, 26, 36
Reseda
*alba*, **217**, 292, 300
*lutea*, **217**, 292, 300
*luteola*, **217**, 292, 300
Resedaceae, **217**
*Rhagodia hastata*, **122**, 292, 300
Rhamnaceae, **217**
*Rhamnus purshiana*, 218
*Rhinanthus*
*crista-galli*, 237
*minor* ssp. *minor*, **237**, 297
*Rhododendron macrophyllum*, **252**
*Rhus diversiloba*, 70
*Ribes*
*bracteosum*, **152**, 297
*cognatum*, 152
*divaricatum*, **152**
*lacustre*, **152**, 297
*lobbii*, **152**, 297
*oxyacanthoides* ssp. *cognatum*, **152**, 297
*oxyacanthoides* var. *cognatum*, 152
*sanguineum*, 58, **152**, 288
Riggs, Lillie, 16
*Robinia pseudoacacia*, **145**
*Romanzoffia sitchensis*, **252**
*Rorippa*
*calycina* var. *columbiae*, 109
*columbiae*, **109**, 297
*curvipes* var. *truncata*, 49, **109**, 297
*curvisiliqua*, **109**
*dubia*, **109**, 292, 300
*indica*, 109
*islandica*, 110
*nasturtium-aquaticum*, 109
*obtusa* var. *integra*, 109
*palustris*, **110**
*Rosa*
*canina*, **224**, 300
*eglanteria*, **224**

*gymnocarpa*, 47, **224**
*multiflora*, **224**
*nutkana* var. *hispida*, **224**, 297
*nutkana* var. *nutkana*, **224**
*pisocarpa*, **225**
Rosaceae, **218**
*Rostraria cristata*, **200**, 300
*Rotala ramosior*, **170**, 297
Rubiaceae, **226**
*Rubus*
*armeniacus*, 43, 58, 134, 212, **225**, 256
*bifrons*, 225
*discolor*, 225
*fruticosus*, **225**, 292
*laciniatus*, 58, **225**, 288
*leucodermis*, 47, **225**, 297
*parviflorus*, 47, **225**
*procerus*, 225
*spectabilis*, **225**
*ursinus*, 226
*ursinus* ssp. *macropetalus*, **226**, 289
*ursinus* var. *macropetalus*, 226
*Rudbeckia*, **94**, **297**
*Rumex*
*acetosella*, **206**, 292
*aquaticus* var. *fenestratus*, **207**, 292
*conglomeratus*, **207**, 292
*crispus*, **207**, 292
*cuneifolius*, 207
*dentatus*, **207**, 292, 300
*dentatus* ssp. *klotzschianus*, 207
*frutescens*, **207**, 292, 300
*maritimus*, **207**, 297
*obtusifolius*, **207**, 292
*occidentalis*, 207
*salicifolius*, 207, 297
*sanguineus*, **207**, 300
*Rupertia physodes*, **145**, 297
*Ruta graveolens*, **228**, 300
Rutaceae, **228**
*Sagina*
*decumbens* ssp. *occidentalis*, **117**
*occidentalis*, 117
*procumbens*, **117**
*Sagittaria*
*cuneata*, 53, **69**, 297
*latifolia*, **69**, 257, 289
Salicaceae, **228**
*Salix*
× *sepulcralis*, **252**
*alba*, **252**
*amygdaloides*, **228**, 297
*babylonica*, 252
*exigua* var. *columbiana*, 229
*exigua* var. *melanopsis*, 229
*fluviatilis*, 229
*geyeriana*, **229**, 297
*geyeriana* var. *meleina*, 229
*hookeriana*, **229**
*lasiandra* var. *caudata*, 229
*lasiandra* var. *lasiandra*, 229
*lasiolepis*, **229**, 297
*lucida* ssp. *caudata*, **229**, 297
*lucida* ssp. *lasiandra*, 48, **229**
*melanopsis*, **229**, 297
*piperi*, 229
*prolixa*, **229**, 297
*rigida* var. *mackenzieana*, 229
*scouleriana*, 47, **229**
*sessilifolia*, **229**
*sitchensis*, 48, **230**
*Salsola*
*kali* ssp. *pontica*, **122**, 292, 300
*kali* var. *tenuifolia*, 122
*tragus*, **122**, 300
Salviniaceae, **230**
*Sambucus*
*cerulea*, 113
*mexicana*, 113
*nigra* ssp. *cerulea*, 47, 58, **113**, 289
*nigra* ssp. *nigra*, **113**, 300
*racemosa*, **113**, 289
*Sanguisorba*
*annua*, 42, **226**, 297
*occidentalis*, 226
*Sanicula*
*bipinnatifida*, 42, 47, **74**, 297
*crassicaulis*, **74**
*graveolens*, **74**, 297
Santalaceae, **230**
*Saponaria officinalis*, 53, **117**
*Satureja douglasii*, 159
*Saxifraga*
*aequidentata*, 232
*cymbalaria* var. *huetiana*, **231**, 300
*gormanii*, 44, **232**, 297
*integrifolia*, **232**
*integrifolia* var. *claytoniaefolia*, 232
*marshallii*, 44, **232**, 297
*mertensiana*, **232**, 252, 297
*nidifica* var. *claytoniifolia*, **232**, 297
*nuttallii*, **232**, 297
*occidentalis* var. *dentata*, 232
*occidentalis* var. *rufidula*, 232
*oregana*, **232**, 297
*rufidula*, **232**, 298
*sibthorpii*, 231
*tridactylites*, **233**, 300
Saxifragaceae, 2, 56, **230**
*Scandix pecten-veneris*, **74**, 300
*Schedonorus*
*arundinaceus*, 200
*phoenix*, **200**
*pratensis*, **200**
*Schoenoplectus*
*acutus* var. *occidentalis*, 50, **133**, 298
*fluviatilis*, **133**, 298
*maritimus*, 53, **133**, 298
*mucronatus*, **133**, 300
*pungens* var. *pungens*, **134**, 298
*tabernaemontani*, **134**
*Scirpus*
*acutus* var. *occidentalis*, 133
*cespitosus*, 253
*cyperinus*, **134**
*fluviatilis*, 133
*maritimus*, 133
*microcarpus*, 130, 132, **134**
*pallidus*, **134**, 298
*tabernaemontani*, 134
*validus*, 134
*Scleranthus annuus*, **117**
*Scleropoa rigida*, 189
Scouler, John, 7, 17, 21, 30
*Scrophularia*
*californica*, **237**, 298
*lanceolata*, 47, **238**, 298
Scrophulariaceae, 57, **233**
*Scutellaria*
*angustifolia*, **161**, 298
*antirrhinoides*, **161**, 298
*galericulata*, **161**, 298
*lateriflora*, 49, **162**, 298
*Secale cereale*, **200**
*Securigera varia*, **145**, 292, 300
*Sedum*
*acre*, **124**, 300
*lanceolatum*, **124**, 298
*oreganum*, **125**, 298
*spathulifolium*, **125**, 298
*stenopetalum*, 44, **125**, 298
*Selaginella*
*densa* var. *scopulorum*, 240, 298
*douglasii*, **240**, 298
*oregana*, **240**, 298
*scopulorum*, 240
*wallacei*, **240**, 298
Selaginellaceae, **240**
*Senecio*
*debilis*, 251
*integerrimus* var. *exaltatus*, 94
*integerrimus* var. *ochroleucus*, **94**, 298
*jacobaea*, **94**, 292
*macounii*, 93
*sylvaticus*, **94**, 292, 298
*viscosus*, **94**, 292, 300
*vulgaris*, **94**
*Sericocarpus*
*oregonensis*, 42, **95**, 298
*rigidus*, **95**, 298
*Sesuvium verrucosum*, **68**, 292, 298

*Setaria*
*geniculata*, 200
*italica*, **200**, 292, 300
*parviflora*, **200**, 292, 300
*verticillata*, **200**, 300
*viridis* var. *major*, **201**
*viridis* var. *viridis*, **201**
Sheldon, Edmund P., 12, 14, 17, **27**, 28
Sheldon, Eleanor G., 27
*Sherardia arvensis*, **228**
*Sida spinosa*, **171**, 292, 300
*Sidalcea*
*campestris*, 47, **171**
*hirtipes*, **171**, 298
*nelsoniana*, **171**, 298
*oregana*, 42, **171**, 298
*Silene*
*antirrhina*, **117**, 292
*armeria*, **117**, 301
*coronaria*, 116
*cucubalus*, 118
*dichotoma*, **117**, 301
*dioica*, **117**, 301
*douglasii*, **117**, 298
*gallica*, **117**, 292, 301
*latifolia*, 117
*latifolia* ssp. *alba*, **117**
*menziesii*, **118**, 298
*noctiflora*, **118**, 301
*scouleri* ssp. *scouleri*, **118**, 298
*vulgaris*, **118**
*Silybum marianum*, **95**, 292, 301
Simaroubaceae, **241**
*Sinapis*
*alba*, **110**
*arvensis*, **110**, 292
*Sisymbrium*
*altissimum*, **52**, **110**, 292
*officinale*, **110**
*Sisyrinchium*
*angustifolium*, 156, 252
*bellum*, **252**
*idahoense* var. *idahoense*, **156**
*Sium suave*, 49, **74**, 298
*Smilacina*
*racemosa*, 167
*stellata*, 167
Solanaceae, **241**
*Solanum*
*americanum*, **242**, 292, 298
*douglasii*, **253**
*dulcamara*, **242**
*furcatum*, **242**, 292, 301
*lycopersicum* var. *lycopersicum*, **242**, 301
*nigrum*, 242
*nigrum* var. *douglasii*, 253
*physalifolium*, **242**, 292, 301
*rostratum*, **242**, 301
*sarrachoides*, 242
*sisymbriifolium*, **243**, 292, 301
*triflorum*, 53, **243**, 298
*umbelliferum*, **243**, 292, 298
*Solidago*
*canadensis* var. *salebrosa*, 42, **95**
*elongata*, 95
*gigantea*, 53, **95**, 298
*missouriensis*, **95**, 298
*occidentalis*, 87
*simplex* ssp. *simplex* var. *simplex*, 42, 53, 95, 298
*simplex* var. *simplex*, 95
*spathulata*, 95
*Sonchus*
*arvensis*, **95**
*asper*, **96**, 292
*oleraceus*, **96**, 292
*Sorbus*
*aucuparia*, **226**
*sitchensis* var. *grayi*, **226**, 298
*Sorghum halepense*, **201**, 301
Soth, M.E., 16
Sparganiaceae, **243**
*Sparganium*
*angustifolium*, **243**
*emersum*, 243
*eurycarpum*, 50, **243**, 298
*Spergula arvensis*, **118**
*Spergularia*
*bocconii*, **118**, 292, 301
*diandra*, 53, **118**, 298
*echinosperma*, **118**, 301
*marina*, 118
*media*, **118**, 292, 301
*rubra*, **118**, 292
*salina* var. *salina*, **118**, 292, 298
*villosa*, **118**, 301
*Spinacia oleracea*, **122**, 292, 301
*Spiraea*
× *pyramidata*, **226**, 298
*betulifolia* var. *lucida*, 47, **226**
*douglasii* var. *douglasii*, **226**
*pyramidata*, 226
*Spiranthes*
*porrifolia*, **178**, 298
*romanzoffiana*, **178**, 298
*Spirodela polyrrhiza*, **163**
*Sporobolus*
*cryptandrus*, 53, **201**, 298
*indicus*, 201, 292, 301
*poiretii*, 201
Spring freshet, 45, 46, 52, 62, 280
St. Helen's Hall, 24
*Stachys*
*chamissonis* var. *cooleyae*, **162**, 289
*cooleyae*, 162
*mexicana*, **162**
*rigida*, **162**
*Steironema ciliatum*, 211
*Stellaria*
*aquatica*, 116
*borealis* var. *sitchana*, **119**, 298
*calycantha*, **119**
*calycantha* var. *sitchana*, 119
*crispa*, **119**, 298
*graminea*, **119**, 301
*longifolia*, **119**, 298
*longipes*, **119**, 298
*longipes* var. *altocaulis*, 119
*media*, **119**, 292
*nitens*, **119**, 298
*Stenanthium occidentale*, 44, **168**, 298
*Stipa*
*lemmonii*, 182
*lettermanii*, 248
*occidentalis*, 182
Streetcar lines, 19
*Streptopus*
*amplexifolius*, **168**, 289
*lanceolatus* var. *curvipes*, **168**, 298
*roseus* var. *curvipes*, 168
*Stuckenia pectinata*, 210, 298
Suksdorf, Wilhelm N., 14, 17, **23**
*Sullivantia oregana*, 44, **233**, 298
Sundberg, Scott D., 2
Sweetser, Albert R., 20, 23, 25, 26, 27, **28**, 30
*Symphoricarpos*
*albus*, 47, **114**, 292
*hesperius*, 47, **114**
*mollis*, 114
*Symphyotrichum*
*eatonii*, **96**, 298
*frondosum*, 53, **96**, 298
*hallii*, 42, **96**, 298
*laeve* var. *geyeri*, 96
*subspicatum*, 46, **96**, 289
*Symphytum officinale*, **102**
*Synthyris reniformis*, 47, **238**
*Syringa vulgaris*, **173**
*Taeniatherum caput-medusae*, **201**
*Tanacetum*
*balsamita*, **96**, 301
*corymbosum*, **96**, 293, 301
*parthenium*, **97**, 301
*vulgare*, **97**, 293
*Taraxacum officinale*, 97, 289
Taxaceae, **243**
*Taxus brevifolia*, **243**, 289
Taylor, Alice, 16
*Teesdalia nudicaulis*, **110**, 301
*Tellima grandiflora*, 178, **233**
*Tetragonia tetragonioides*, **68**, 293, 301

*Thalictrum*
*fendleri* var. *polycarpum*, **216**, 298
*occidentale*, **216**, 298
*polycarpum*, 216
*Thermopsis*
*montana*, **145**, 298
*rhombifolia*, 145
*Thinopyrum*
*intermedium*, **201**, 293, 301
*intermedium* ssp. *barbulatum*, 201
*junceiforme*, **201**, 293, 301
*junceum*, 201
*pycnanthum*, **201**, 293, 301
*Thlaspi arvense*, **110**, 293
*Thuja plicata*, 37, **125**
Thymelaeaceae, **243**
*Thysanocarpus curvipes*, **110**, 298
*Tiarella*
*trifoliata*, **233**
*trifoliata* var. *trifoliata*, 233
Tiliaceae, **243**
*Tillaea aquatica*, 124
Tolmie, William, 7, 17, 30
*Tolmiea menziesii*, **233**
*Tonella tenella*, 47, **238**
*Torilis*
*arvensis*, **74**
*japonica*, **74**, 301
*nodosa*, **74**, 301
*scabra*, **74**, 293, 301
*Torreyochloa pallida* var. *pauciflora*, 201, 298
*Tournefortia sibirica*, 100
Townsend, John, 22
*Toxicodendron diversilobum*, 47, **70**, 289
*Toxicoscordion venenosum*, 169
*Tragopogon*
*dubius*, **97**
*porrifolius*, **97**
*pratensis*, **97**
Trask, Melinda, 15
*Trautvetteria caroliniensis*, **217**, 298
*Tribulus terrestris*, **247**
*Trichophorum cespitosum*, **253**
*Trichostema*
*lanceolatum*, **162**, 298
*oblongum*, 42, **162**, 298
*Trientalis*
*borealis* ssp. *latifolia*, 47, **211**
*latifolia*, 211
*Trifolium*
*albopurpureum*, **145**, 298
*arvense*, **145**
*aureum*, 146
*bifidum*, **145**, 298
*campestre*, **145**, **146**
*ciliolatum*, 47, **146**, 298
*dubium*, **146**
*eriocephalum*, 42, **146**, 298
*fragiferum*, 53, **146**
*hybridum*, **146**, 293
*incarnatum*, **146**
*longipes*, **146**, 298
*macraei*, **146**, 298
*maritinum*, 147
*microcephalum*, 42, **146**
*microdon*, **147**, 298
*obtusiflorum*, 148
*oliganthum*, **147**, 298
*plumosum*, 53, **147**, 298
*pratense*, 58, **147**, 289
*procumbens*, 145
*repens*, 58, **147**
*squamosum*, **147**, 293, 301
*subterraneum*, **147**
*tridentatum*, 148
variegatum, **147**, 298
*vesiculosum*, **147**
*willdenovii*, 42, **148**, 298
*wormskioldii*, 47, **148**, 298
*wormskjoldii*, 148
*Trillium*
*albidum*, **168**, 298
*chloropetalum*, 168
*ovatum*, 39, **168**, 290
*parviflorum*, 168
*Triodanis perfoliata*, 42, 47, **112**, 298
*Triphysaria pusilla*, 42, **238**, 298
*Triplasis purpurea*, **201**, 301
*Tripleurospermum*
*inodorum*, **97**, 293, 301
*perforatum*, 97
*Trisetum*
*canescens*, **202**, 298
*cernuum*, **202**, 298
*Triteleia*
*grandiflora* ssp. *howellii*, 169
*grandiflora* var. *howellii*, **169**, 298
*hyacinthina*, 42, 47, **169**
*Triticum aestivum*, **202**, 293
Tropaeolaceae, **244**
*Tropaeolum majus*, **244**, 301
*Tsuga heterophylla*, 37, **181**
Tualatin Hills Park and Recreation District, 36
*Turritis glabra*, 102
*Typha latifolia*, **244**
Typhaceae, **244**
U.S. Fish and Wildlife Service, 36
*Ulex europaeus*, **148**, 293, 301
Ulmaceae, **244**
*Ulmus pumila*, 244
Umbelliferae, 70
*Umbellularia californica*, **163**
*Urochloa mutica*, **202**, 293, 301
*Urtica*
*berteroana*, **244**, 293, 301
*dioica* ssp. *dioica*, **244**, 293
*dioica* ssp. *gracilis*, **244**
*dioica* ssp. *gracilis* var. *gracilis*, 244
*dioica* ssp. *gracilis* var. *lyallii*, 244
*urens*, **244**, 301
Urticaceae, **244**
*Utricularia*
*macrorhiza*, **163**, 298
*minor*, **163**, 298
*vulgaris*, 163
*Vaccaria*
*hispanica*, **119**, 293, 301
*segetalis*, 119
*Vaccinium*
*caespitosum*, 47, **138**, 298
*cespitosum*, 138
*corymbosum*, **138**, 301
*ovatum*, 47, **138**, 298
*parvifolium*, **139**
Valerianaceae, **244**
*Valerianella*
*carinata*, **245**
*locusta*, **245**
*Vallisneria americana*, **253**
Van Dersal, William, 20, 26
*Vancouveria hexandra*, 39, **98**
Vanport
College, 15, 20
Extension Center, 15, 20
Vasey, George, 19
*Veratrum*
*californicum* var. *caudatum*, 42, **169**, 298
*viride*, **169**, 298
*viride* var. *eschscholtzii*, 169
*Verbascum*
*blattaria*, **238**, 293
*phlomoides*, **238**, 301
*speciosum*, 238
*thapsus*, **239**, 293
*Verbena*
*bonariensis*, **245**, 293, 301
*bracteata*, **245**, 298
*hastata*, 50, **245**
*lasiostachys*, **245**, 293, 298
*officinalis*, **245**, 293, 301
Verbenaceae, **245**
*Veronica*
*agrestis*, **239**, 293, 301
*americana*, 50, **239**
*anagallis-aquatica*, 53, **239**
*arvensis*, **239**
*catenata*, 239
*filiformis*, **239**, 301
*hederaefolia*, 239

*hederifolia*, **239**, 301
*officinalis*, 239
*officinalis* var. *tournefortii*, **239**, 301
*peregrina* var. *peregrina*, **239**, 301
*peregrina* var. *xalapensis*, 42, **239**
*persica*, **239**, 301
*scutellata*, **240**
*serpyllifolia* ssp. *humifusa*, **240**
*serpyllifolia* var. *serpyllifolia*, **240**
*wormskjoldii*, **240**, 298
*Viburnum*
*edule*, **114**
*ellipticum*, 47, **114**
*opulus var. opulus*, **114**, 301
*Vicia*
*americana*, 47, **148**
*cracca*, **148**
*gigantea*, 148
*hirsuta*, **148**
*nigracans* var. *gigantea*, 148
*nigricans* ssp. *gigantea*, 47, **148**, 298
*sativa*, 58
*sativa* ssp. *nigra*, **149**
*sativa* ssp. *sativa*, **149**
*sativa* var. *angustifolia*, 149
*tetrasperma*, **149**
*villosa*, **149**
*Vinca*
*major*, **75**
*minor*, **75**
*Viola*
*adunca*, 47, **245**, 298
*glabella*, 39, **246**
*howellii*, 47, **246**, 298
*nuttallii* var. *praemorsa*, 246
*odorata*, **246**, 301
*palustris*, **246**, 298
*praemorsa* ssp. *praemorsa*, 42, **246**, 298
*sempervirens*, 47, **246**, 298
Violaceae, **245**
Viscaceae, **246**
Vitaceae, **247**
*Vitis*
*riparia*, **247**, 301
*vinifera*, **247**
*Vulpia*
*bromoides*, **202**
*microstachys*, **202**, 298
*myuros*, **202**, 293
*octoflora*, 47, **202**, 298
*Whipplea modesta*, **153**, 298
*Wolffia columbiana*, **163**, 298
*Woodsia scopulina*, **135**, 298
World's Columbian Exposition, 25
Wyeth, Nathaniel, 17, 21, 22
*Wyethia angustifolia*, 62, **97**, 298
*Xanthium*
*spinosum*, **97**, 293, 301
*strumarium* var. *canadense*, **97**, 293
*Zannichellia palustris*, **247**, 298
Zannichelliaceae, **247**
*Zea mays*, **202**, 301
*Zigadenus venenosus*, 42, **169**, 298
*Zizia*
*aptera*, **74**, 298
*aptera* var. *occidentalis*, 74
Zygophyllaceae, **247**

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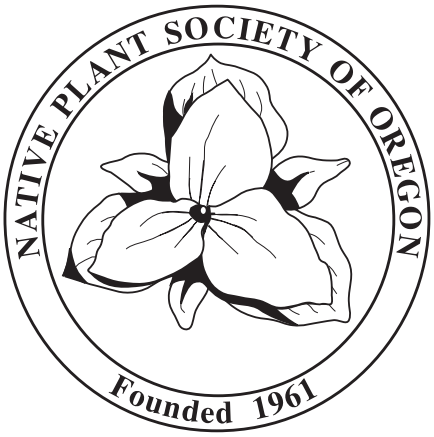


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