

A Floristic Study of The Evergreen State College Campus

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INTRODUCTION

This paper lists the vascular plants that occur on the campus of The Evergreen State College (TESC), and describes the nine principle plant communities of the campus. It is based on my field observations and collections during Spring Quarter of 2006, and also on the specimens housed in the TESC herbarium, collected by numerous workers since the mid-1970s. Pene Speaks's "The Campus of The Evergreen State College: Soils and Vegetation" (1982) was also a useful resource, and my study is partially a revision and expansion of the floristic information in that article.

I used Hitchcock and Cronquist's *Flora of the Pacific Northwest* (1973) for my identifications, and follow its nomenclature, except for revised family names. The paper follows a format adapted from Bowcutt (1999).

It should be noted that this study is not exhaustive. It does not include the many cultivated plants on campus, except if they have naturalized. Although I made an effort to cover many trails and range widely and representatively over the campus, I did not have time to systematically cover the entire grounds. I did not concentrate on grasses or small weeds, and my study does not do full justice to the diversity of these groups on campus. In addition, there were some species collected on campus by other workers, whose presence I was not able to confirm in the field; this is noted in the plant list. Thus the plant list should be regarded as an introduction to the plants of the campus and a starting point for further floristic work, rather than as a complete, definitive catalog.

LOCATION AND GEOGRAPHY

The TESC campus covers 965 acres, about two thirds of which is covered by woodland and forest. It is located approximately five air-miles northwest of Olympia, Washington, and includes 1000 meters of shoreline on Eld Inlet. Its latitude and longitude are 47°4' N, 122° 58' W, and in the U. S. Geological Survey it occupies most of Township 18 N Range 2 W Section 6, as well as small portions of Township 18 N Range 2 W Section 7 and of Township 19 N Range 2 W Section 31. According to Speaks (1982), who does not give his sources, "Before purchase by the state, beginning in 1968, the campus lands were made up of residences, small farms, and undeveloped land. . . . Old growth forest was removed shortly after 1845, when Thurston County was first settled. It was logged again in the 1930's and 1940's, and parts of it again in the 1960's." The forests and woodlands on campus have been well preserved since the founding of the college.

The climate and geology of the campus are typical of the Puget Sound Area of the *Tsuga heterophylla* Zone as described in Franklin and Dyrness (1988). It is characterized by cool, wet winters and mild, dry summers, and by a geology shaped by glaciation. The specific geography and geology of the campus are well described in Speaks (1982).

FLORA

This study documents a total of 210 vascular plant species found on the TESC campus, representing 53 plant families. Of these families, Asteraceae has by far the most species (24 species), with Rosaceae (16 species) and Poaceae (14 species) coming in second and third. Although there are undoubtedly other species to be found on campus, this study represents the majority of the plant diversity there.

VEGETATION

Nine plant communities occur on the TESC campus: red alder—bigleaf maple woodland; Douglas-fir forest; western red-cedar—western hemlock forest; red alder—bigleaf maple—Douglas-fir—western red-cedar forest; salmonberry—skunk-cabbage riparian bog; Lyngby’s sedge—pickleweed salt marsh; willow—hardhack riparian scrub; non-native perennial grasslands; and ruderal. Table 1 summarizes these communities according to their vegetation types.

The boundaries between plant communities tend to intergrade, although salt marsh, roadside ditch, and roadside willow—hardhack riparian bog communities tend to be rather sharply delimited by topography and hydrology. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest might be thought of as a mere intermediary state between red alder—bigleaf maple woodland and coniferous forest; however, since it is so extensive and seems to have its own particular type of community, including some species not found elsewhere, I have chosen to consider it as a distinct vegetation type.

Table 1. Vegetation types and plant communities on the TESC campus.

<u>Vegetation types</u>	<u>Plant communities</u>
Woodland	Red alder—bigleaf maple woodland
Forest	Douglas-fir forest Western red-cedar—western hemlock forest Red alder—bigleaf maple—Douglas-fir — Western red-cedar forest
Wetlands and riparian vegetation	Salmonberry—skunk-cabbage riparian bogs Lyngby’s sedge—pickleweed salt marsh
Scrub	Willow—hardhack riparian scrub
Grasslands and other herbaceous vegetation	Non-native perennial grasslands Ruderal

Descriptions of each of these plant communities follow.

Red Alder—Bigleaf Maple Woodland

Alnus rubra and *Acer macrophyllum* codominate in relatively open woodlands on moist sites which have been disturbed or cleared. There is considerable diversity in the understories of these woodlands, and considerable variety among them, but they can be divided into two main types: moister areas carpeted densely by *Dicentra formosa*, *Hydrophyllum tenuipes*, *Montia sibirica* and *Rubus ursinus*, to the exclusion of shrubs; and dryer, more diverse areas with a shrub understory including *Gaultheria shallon*, *Holodiscus discolor*, *Berberis nervosa*, *Oemleria cerasiformis*, *Rubus spectabilis*, *Rubus parviflorus*, *Rosa gymnocarpa*, and *Vaccinium parvifolium*, and a sometimes sparse herb layer including *Dicentra formosa*, *Carex* spp., *Geum macrophyllum*, *Hydrophyllum tenuipes*, *Juncus* spp., *Montia sibirica*, *Polystichum munitum*, *Pteridium aquilinum*, and *Rubus ursinus*. Near roadsides and fields, the grasses and weeds listed above for the field vegetation type are also common. These woodlands, where they are adjacent to older forest, tend to grade into the mixed forest type described below.

Douglas-fir Forest

Large portions of the campus are covered by *Pseudotsuga menziesii* forest, in which this tree is almost totally dominant, although several other trees may occur occasionally: *Acer macrophyllum*, *Alnus rubra*, *Cornus nuttallii*, *Taxus brevifolia*, *Thuja plicata*, and *Tsuga heterophylla*. This is an early succession stage of coniferous forest; it occupies land which was logged in the 1950s and 1960s (Winn and Jackson 1975). This forest can be divided into two main types: wetter areas where the ground is more or less exclusively dominated by *Polystichum munitum*, and shrubs and other herbs are sparse (although all the species found in the dryer type of Douglas-fir Forest may occur); and the more diverse and widespread dryer areas where the ground-cover is dominated by *Gaultheria shallon*. Common shrubs are *Berberis nervosa*, *Holodiscus discolor*, *Sambucus racemosa*, *Vaccinium ovatum*, and *V. parvifolium*. *Acer circinatum*, *Berberis aquifolium*, *Rhamnus purshiana* saplings, and *Symphoricarpos albus* are occasional. *Ilex aquifolium*, an invasive tree, is also occasional but seems to be rapidly spreading, and should be controlled. Common understory species are *Athyrium filix-femina*, *Dicentra formosa*, *Osmorhiza chilensis*, *Polystichum munitum*, *Rubus ursinus*, *Trientalis latifolia*, *Trillium ovatum*, and *Viola sempervirens*. *Corallorhiza maculata* occurs occasionally. Where this forest borders on roads, parking lots or the main campus, it is sometimes host to invasive weeds, particularly *Geranium robertianum* and *Hedera helix*.

Western Red-Cedar—Western Hemlock Forest

The older coniferous forests on the campus, reflecting climax conditions for our floristic zone (Franklin and Dyrness 1988), are dominated by *Thuja plicata* and *Tsuga heterophylla*. *Pseudotsuga menziesii* is also common, while other tree species—*Acer macrophyllum*, *Abies grandis*, and *Taxus brevifolia*—occur occasionally. Where this type of forest borders the beach, *Arbutus menziesii*, *Populus trichocarpa*, *Rhamnus purshiana* and *Salix* spp. are also found. Common shrubs are *Berberis nervosa*, *Gaultheria shallon*, *Sambucus racemosa*, *Vaccinium ovatum* and *V. parvifolium*. *Berberis aquifolium* and saplings of *Rhamnus purshiana* are occasional. *Polystichum munitum* is a dominant ground-cover in many areas. Common understory species include *Achlys triphyllum*, *Athyrium filix-femina*, *Rubus ursinus*, *Maianthemum dilatatum*, *Smilacina racemosa*,

Trientalis latifolia, *Trillium ovatum*, and *Viola sempervirens*. *Adiantum pedatum*, *Blechnum spicant*, and *Polypodium glycyrrhiza* are occasional. *Asarum caudatum*, *Calypso bulbosa*, *Chimaphila umbellata*, *Corallorhiza maculata*, and *Monotropa uniflora* occur rarely. This type of forest surrounds several salmonberry—skunk-cabbage riparian bog communities.

Red Alder—Bigleaf maple—Douglas-Fir—Western Red-cedar Forest

Large areas of forest on campus are codominated by *Acer macrophyllum*, *Alnus rubra*, *Pseudotsuga mensiezii*, and *Thuja plicata*. *Cornus nuttallii*, *Taxus brevifolia*, and *Tsuga heterophylla* occur occasionally. This type of forest is usually intermediary between red alder—bigleaf maple woodland and western red-cedar—western hemlock forest, but is far more extensive than the former and constitutes its own unique and extremely diverse community. Common shrubs are *Holodiscus discolor*, *Oemleria cerasiformis*, *Rubus parviflorum*, *R. spectabilis*, *Sambucus racemosa*, and *Vaccinium parvifolium*. *Amelanchier alnifolia*, *Berberis nervosa*, *Gaultheria shallon*, *Rosa gymnocarpa*, *Symphoricarpos albus*, and *Vaccinium ovatum* occur occasionally. Common understory are *Adenocaulon bicolor*, *Athyrium filix-femina*, *Dicentra formosa*, *Hydrophyllum tenuipes*, *Maianthemum dilatatum*, *Montia sibirica*, *Osmorhiza chilensis*, *Polystichum munitum*, *Pteridium munitum*, *Rubus ursinus*, and *Smilacina racemosa*. A wide variety of other herbs occur occasionally (see “Annotated Checklist of Vascular Plants,” below). This type of forest surrounds several salmonberry—skunk-cabbage riparian bog communities, as described below.

Salmonberry—Skunk-cabbage Riparian Bogs

Riparian bogs occur around streams and creeks, especially near shallows where the soil is muddy rather than sandy or rocky. They are characterized by year-round standing water or mud, although the amount of moisture can vary widely. These communities are surrounded by forest, but are themselves characterized by a lack of large trees, although some plants of the bog community may permeate among nearby trees. The bog shrubs may be divided between those that prefer more sunlit areas in mixed forest—*Acer circinatum*, *Ribes bracteosum*, *Rubus spectabilis*, and *Salix sitchensis*—and those that prefer the shade of primary coniferous forest—*Oplopanax horridum* and *Sambucus racemosa*. However, all these shrubs may occur in both types of forest. Similarly, different herbs characterize these two types of bog, though all may be found in either type. In mixed forest, *Athyrium filix-femina*, *Cardamine angulata*, *Carex amplifolia*, *Hydrophyllum tenuipes*, *Lysichitum americanum*, *Oenanthe sarmentosa*, *Maianthemum dilatatum*, and *Smilacina racemosa* are common. In primary coniferous forest, *Achlys triphylla*, *Disporum hookeri*, *Polystichum munitum*, *Smilacina stellata*, *Streptopus amplexifolius*, *Tiarella trifoliata* and *Trientalis latifolia* are common.

Lyngby’s Sedge—Pickleweed Salt Marsh

There is a small salt marsh on the beach, bordered to the south by a riparian bog community, and to the east and west by western red-cedar—western hemlock forest. It is dominated by *Carex lyngbyei*, with patches of *Grindelia integrifolia*, *Plantago maritima*, *Salicornus virginica*, and *Troglochis maritimum* along the edge. *Glaux maritima* and

Jaumea carnosa have been collected here in the past, but were not observed during the present study.

Willow—Hardhack Riparian scrub

Deep, boggy drainage ditches along the southern half of Evergreen Parkway are populated by a dense thicket codominated by *Salix lasiandra*, *S. scouleriana*, *S. sitchensis*, and *Spiraea douglasii*. *Rubus discolor*, *R. parviflorum*, and *R. spectabilis* are occasional. The ground is covered by *R. ursinus* and a variety of grasses and weeds.

Ruderal

Small, moist roadside ditches constitute their own community of grasses, weeds and herbs. All the grasses and weeds occurring in fields (see above) occur, with *Anthoxanthum odoratum*, *Dactylis glomerata* and *Poa palustris* being most common. The various nonnative field weeds also occur, especially *Ranunculus repens* and *Pteridium aquilinum*. However, the ditches are generally dominated by native understory species. *Dicentra formosa*, *Equisetum telmateia*, *Hydrophyllum tenuipes*, *Montia sibirica*, and *Rubus ursinus* are common. *Equisetum arvense*, and *Urtica dioica* are occasional, as is the nonnative *Geranium robertianum*.

Other ditches and ruderal areas are dominated by one or more of the following: *Anchusa cf. azurea*, *Hedera helix*, *Rubus discolor*, *R. parviflorum*, and *Symphytum officinale*.

Non-native Perennial Grasslands

There are several small fields and meadows on the campus, dominated by grasses; among the most abundant are *Anthoxanthum odoratum*, *Dactylis glomerata*, *Festuca* spp., *Holcus lanatus*, *Lolium multiflorum*, *Poa palustris*, and *P. pratensis*. A wide variety of weed associates are present, including *Bellis perennis*, *Capsella bursa-pastoris*, *Hypochaeris radicata*, *Myosotis* spp., *Taraxacum officinale*, and *Veronica serpyllifolia*, in frequently mowed areas. In less frequently mowed areas, *Daucus carota*, *Galium trifidum*, *G. triflorum*, *Plantago major*, *P. lanceolata*, *Pteridium aquilinum*, *Ranunculus repens*, *Rubus ursinus*, *Rumex acetosella*, and *Trifolium* spp. are also found. Some of these areas have been invaded by dense patches of nonnative weeds, including *Cytisus scoparius*, *Rubus discolor*, and *Vinca major*. Others (notably the old field on the north side of driftwood road, to the west of Parking Lot F) have given way to the succession of red alder—bigleaf maple woodland.

MANAGEMENT RECOMMENDATIONS

Although much of the forest on campus is very healthy, certain areas are threatened by invasive weeds. *Hedera helix* is the most abundant of these, forming large mats in the forest on the edges of the main campus, and also along the beach. It prevents the growth of native understory species and can damage trees. This species is so well established in some places that it will be difficult to eradicate, but an effort should be made to remove as much as possible, especially along the beach.

Other invasive species are much less well established, and could be controlled by a manual removal program. These include *Geranium robertianum* (on roadsides and along trails); *Ilex aquifolium* (occasional in all forest types); and *Cytisus scoparius* and

Rubus discolor (both in non-native perennial grasslands, roadsides, and willow-hardhack riparian scrub).

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ANNOTATED CHECKLIST OF THE VASCULAR PLANTS

Voucher specimens are housed in The Evergreen State College Herbarium. Nomenclature follows Hitchcock and Cronquist (1973). An asterisk (*) indicates nonnative species. An additional sign (+) indicates those unnaturalized cultivated species which happen to be vouchered in the herbarium. Some species are vouchered but were not observed in the field during the present study, and these are noted as such. Undoubtedly there are other species present on campus which have not yet been collected or identified, including several grasses.

PTEROPHYTA

POLYPODIACEAE—Common Fern Family

- Adiantum pedatum* L.—Maidenhair fern. Occasional. Western red-cedar—western hemlock forest. *Wiedemann 230-1, Wiedemann 230-2.*
- Athyrium filix-femina* (L.) Roth.—Lady-fern. Abundant. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and western red-cedar—western hemlock forest. *Peterson 231-2*
- Blechnum spicant* (L.) Roth.—Deer fern. Occasional. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen (unnumbered).*
- Polypodium glycyrrhiza* D. C. Eat.—Licorice-fern. Occasional. Epiphytic on *Acer macrophyllum* in red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 134, Schwennesen 135, Peterson 233-1.*
- Polystichum munitum* (Kaulf.) Presl—Sword-fern. Abundant, locally dominant. Douglas-fir forest, western red-cedar—western hemlock forest, and Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 136, Schwennesen 137, Peterson 234-2, S. B. H. & R. S. 25.*
- Pteridium aquilinum* (L.) Kuhn. var. *pubescens* Underw.—Bracken, brake-fern. Abundant. Red alder—bigleaf maple forest and ruderal. *S. B. H. & R. S. 26.*

SPHENOPHYTA

EQUISETACEAE—Horsetail Family

- Equisetum arvense* L.—Common horsetail. Occasional. Wet ruderal areas and red alder—bigleaf maple woodland. *Lohmann 23.*
- Equisetum telmateia* Erh.—Giant horsetail. Common. Wet ruderal areas and salmonberry—skunk cabbage riparian bogs. *Lohmann 5.*

CONIFEROPHYTA

CUPRESSACEAE—Cypress Family

Thuja plicata Donn.—Western red-cedar. Abundant, locally dominant. Western red-cedar—western hemlock forest and red alder—bigleaf maple—Douglas fir—western red-cedar forest. *Schwennesen 59, S. B. H. & R. H. 3, Peterson 102-3.*

PINACEAE—Pine Family

Abies grandis (Dougl.) Forbes.—Grand fir. Rare. Western red-cedar—western hemlock forest. *Schwennesen 123, Schwennesen 124, Wiedemann 205-1, Peterson 205-2.*

+*Pinus ponderosa* Dougl.—Ponderosa pine. Planted on the main campus, but not observed in the field during this study. *Schwennesen (unnumbered).*

Pseudotsuga menziesii (Mirbel) Franco.—Douglas fir. Abundant. Locally dominant in Douglas-fir forest; scattered in Western red-cedar—western hemlock forest and red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann 206-2, Peterson 206-3, S. B. H. & R. S. 206-1, Schwennesen 125.*

Tsuga heterophylla (Raf.) Sarg.—Western hemlock. Common. Western red-cedar—western hemlock forest. *Lohmann 9.*

TAXACACEAE—Yew Family

Taxus brevifolia Nutt.—Pacific yew. Rare. Western red-cedar—western hemlock forest and red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 169, Schwennesen 170, Wiedemann 207-1, Wiedemann 207-2.*

ANTHOPHYTA

Magnoliids

ARISTOLOCHIACEAE—Birthwort Family

Asarum caudatum Lindl.—Wild ginger. Rare. Western red-cedar—western hemlock forest. Not collected due to small population size.

Eudicots

ACERACEAE—Maple Family

Acer circinatum Pursh—Vine maple. Occasional. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 1, Schwennesen 2.*

Acer macrophyllum Pursh—Big-leaf maple. Abundant. Red alder-bigleaf maple woodland and red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 3.*

APIACEAE (formerly UMBELLIFERAE)—Carrot Family

**Daucus carota* L.—Queen Anne's lace. Common. Ruderal. Native to Europe. *Schwennesen 6, Schwennesen 7, Schwennesen 8.*

Oenanthe sarmentosa Presl.—American water-parsley. Locally abundant. Salmonberry –skunk-cabbage riparian bogs. *Wiedemann 323-1.*

Osmorhiza chilensis H. & A.—Mountain sweet-cicely. Abundant. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and Douglas-fir forest. *Schwennesen 9, Wiedemann 420-2 (det. Brown).*

APOCYNACEAE—Dogbane Family

**Vinca major* L.—Periwinkle. Rare. Escaped ornamental established in a red alder—bigleaf maple woodland at edge of meadow. Native to Europe. *Lohmann 22.*

AQUIFOLIACEAE—Holly Family

**Ilex aquifolium* L.—English holly. Occasional. Douglas-fir forest and western red-cedar—western hemlock forest. Native to Europe. *Lohmann 24.*

ARALIACEAE—Ginseng Family

**Hedera helix* L.—English ivy. Locally abundant. Escaped ornamental heavily established in parts of Douglas-fir forest and western red-cedar—western hemlock forest. Native to Europe. *Lohmann 38.*

Oplopanax horridum (Smith) Miq.—Devil's club. Locally abundant. Salmonberry—skunk cabbage riparian bogs, especially in western red-cedar—western hemlock forest. *Lohmann 52.*

ASTERACEAE (formerly COMPOSITAE)—Aster Family

Adenocaulon bicolor Hook.—Pathfinder. Common. Douglas-fir forest and red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 192, Schwennesen 193, Wiedemann 45-1.*

Anaphalis margaritacea (L.) B. & H.—Pearly-everlasting. Edges of Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann 46-1, Schwennesen 189, Schwennesen 190, Schwennesen 191.*

Aster chilensis Nees—Aster. Fields and ruderal. *Schwennesen 184, Schwennesen 185, Schwennesen 186.*

**Bellis perennis* L.—English daisy. Common. Ruderal. *Lohmann 6.*

Bidens frondosa L.—Leafy beggars-tick, sticktight. Ruderal. Not observed in the field during this study. *Schwennesen (un-numbered).*

**Chrysanthemum leucanthemum* L.—Oxeye daisy, moon daisy, marguerite. Occasional. Fields and ruderal. Native to Eurasia. *Schwennesen 181, Schwennesen 182, Schwennesen 183, Wiedemann 52-2.*

**Cirsium arvense* (L.) Scop. Var. *horridum* Wimm. & Grab.—Canadian thistle, creeping thistle. Occasional. Ruderal. Native to Eurasia. *S. B. H. & R. S. 47, Schwennesen 178, Schwennesen 179, Schwennesen 180.*

**Cirsium vulgare* (Savi) Tenore—Bull thistle, spear thistle, common thistle. Occasional. Ruderal. Native to Eurasia. *Schwennesen 176, Schwennesen 177, Schwennesen (unnumbered), S. B. H. & R. S. 32.*

**Crepis iscosee* (L.) Wallr.—Smooth hawksbeard. Abundant. Ruderal. Native to Eurasia. *Schwennesen 175 (det. Campb.), Wiedemann (unnumbered), S. B. H. & R. S. 23, Wiedemann 56-2.*

**Crepis nicaeensis* Balb.—French hawksbeard. Ruderal. Not observed in the field during this study. Native to Europe. *Schwennesen 196.*

- Grindelia integrifolia* DC. var. *macrophylla* (Greene) Cronq.—Puget Sound gumweed. Rare. Lyngby's sedge—pickleweed salt marsh. *Wiedemann 411-1 (det. Gerrish)*.
- Hieracium albiflorum* Hook.—White-flowered hawkweed. Sandy slopes at edges of western red-cedar—western hemlock forests. *Lohmann 35*.
- **Hypochaeris radicata* L.—Hairy cat's-ear, false dandelion, gosmore. Abundant. Ruderal. Native to Europe. *Schwennesen 201 (det. Campbell), S. B. H. & R. S. 18, Wiedemann 61-2 (det. Gerrish)*.
- Jaumea carnosa* (Less.) Gray.—Fleshy jaumea. Intertidal zone. Not observed in the field during this study. *Abair 63-1*.
- **Lapsana communis* L.—Nipplewort. Occasional. Ruderal. Native to Eurasia. *Schwennesen 204, Schwennesen 205*.
- **Leontodon nudicaulis* (L.) Merat ssp. *taraxacoides* (Vill.) Schinz & Thell.—Hairy hawkbit. Occasional. Ruderal. Native to Europe. *Wiedemann 417-1 (det. Gerrish), Schwennesen 206 (det. Campbell), Schwennesen (unnumbered, det. Campbell)*.
- Madia sativa* Mol. var. *sativa*—Coast tarweed. Not observed in the field during this study. *Wiedemann 412-1*.
- Matricaria matricarioides* (Less.) Porter—Pineapple weed. Occasional. Ruderal. *Wiedemann 383-1*.
- Petasites frigidus* (L.) Fries var. *palmatus* (Ait.) Cronq.—Sweet coltsfoot. Occasional. Edges of Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann 68-1*.
- **Senecio jacobaea* L.—Tansy ragwort. Occasional. Ruderal. Native to Eurasia. *Schwennesen 208, Schwennesen 210, Wiedemann 74-1*.
- **Senecio vulgaris* L.—Old-man-in-the-spring, old-man-in-the-woods, common groundsel. Occasional. Ruderal. Native to Eurasia. *Gerrish 452-1*.
- Solidago iscosee* L. var. *salebrosa* (Piper) Jones.—Canada goldenrod, meadow goldenrod. Abundant. Ruderal. *S. B. H. & R. S. 48, Schwennesen 211, Schwennesen 212, Wiedemann 414-4 (det. Gerrish)*.
- **Tanacetum vulgare* L.—Common tansy. Occasional. Ruderal. Native to Eurasia. *Rickert 8, Rickert 4*.
- **Taraxacum officinale* Weber—Common dandelion. Abundant. Ruderal. Native to Eurasia. *Bowcutt 2286*.

BERBERIDACEAE—Barberry Family

- Achlys triphylla* (Smith.) DC.—Vanilla-leaf. Occasional. Moist areas in red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann 6*.
- Berberis aquifolium* Pursh.—Shining Oregon-grape, tall Oregon-grape. Occasional. Douglas-fir forest and western red-cedar—western hemlock forest. *Schwennesen 217*.
- Berberis nervosa* Pursh.—Dull Oregon-grape, dwarf Oregon-grape. Abundant. Douglas-fir forest and western red-cedar—western hemlock forest. *Schwennesen 220, Schwennesen 221, Schwennesen 222, Wiedemann 8-2, Wiedemann 8-1*.
- Vancouveria hexandra* (Hook.) Morr. & Dec.—Inside-out flower. Occasional. Red alder—bigleaf maple forest. *Lohmann 21*.

BETULACEAE—Birch Family

Alnus rubra Bong.—Red alder. Common, locally dominant. Red alder—bigleaf maple woodland and red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Soule 16, Wiedemann 10-1, Wiedemann 10-3, S. B. H. & R. S. 1.*

Corylus cornuta Marsh. var. *californica* (DC.) Sharp—Western hazelnut. Common. Open areas in red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *S. B. H. & R. S. 4, Wiedemann 12-1.*

BORAGINACEAE—Borage Family

**Anchusa cf. azurea* Mill.—Italian bugloss. Occasional. Ruderal. Native to Europe. *Lohmann 47.*

Myosotis arvensis (L.) Hill—Field forget-me-not, field scorpiongrass. Occasional Ruderal. Native to Europe. *Schwennesen 225, Schwennesen 226, Wiedemann 415-1 (det. Gerrish).*

**Myosotis discolor* Pers.—Yellow and blue forget-me-not. Occasional. Ruderal. Native to Europe. *Wiedemann 416-1 (det. Gerrish).*

Myosotis laxa Lehm.—Small-flowered forget-me-not. Occasional. Wet fields. *Schwennesen 224 (det. Campbell), Schwennesen 227, Wiedemann 19-1.*

**Symphytum officinale* L.—Common comfrey. Occasional. Escaped from cultivation at edges of bigleaf maple forest. Native to Europe.

BRASSICACEAE (formerly CRUCIFERAE)—Mustard Family

**Barbarea vulgaris* R. Br.—Yellow rocket. Occasional. Ruderal Native to Europe. *Schwennesen (unnumbered).*

**Capsella bursa-pastoris* L.—Shepherd's-purse. Abundant. Ruderal. Native to Europe. *Wiedemann 91-1, Gerrish 91-2.*

Cardamine angulata Hook.—Angled bittercress. Common. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann 92-3.*

Cardamine flexuosa With.—Bittercress. Occasional. Ruderal. *Gerrish 95-2 (det. Zika), Peterson 95-1 (det. Zika).*

Cardamine oligosperma var. *oligosperma* Nutt.—Little western bittercress. Common. Ruderal. *Wiedemann 94-1, Schwennesen 231.*

**Hesperis matronalis* L.—Damask violet, dame's violet, sweet rocket. Occasional. Forest-edges and roadsides. Native to Europe. *Schwennesen (unnumbered, two specimens).*

**Sisymbrium officinale* (L.) Scop.—Hedge mustard. Occasional. Ruderal. Native to Europe. *Schwennesen 233, Schwennesen (unnumbered).*

**Teesdalia nudicaulis* (L.) R. Br.—Shepherd's cress. Common. Ruderal. Native to Europe. *Wiedemann 100-2 (det. Gerrish), Gerrish 100-3.*

CAPRIFOLIACEAE—Honeysuckle Family

Linnaea borealis L. var. *longifolia* Torr.—Twinflower. Common. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and Douglas-fir forest. *Schwennesen 35, Lohmann 50.*

Lonicera ciliosa (Pursh) DC.—Northwest honeysuckle, trumpet honeysuckle, orange honeysuckle. Common. Edges of all forest types. *Schwennesen 36, Wiedemann 24-2 (det. Schwennesen).*

- **Lonicera etrusca* Santi—Etruscan honeysuckle. Locally abundant. Established at edge of red alder—bigleaf maple woodland. Native to the Mediterranean. *Lohmann 44*.
- Lonicera hispidula* (Lindl.) Dougl.—California honeysuckle, hairy honeysuckle, pink honeysuckle. Occasional. Edges of all forest types. *Schwennesen 38 (det. Campbell)*, *Schwennesen (unnumbered, det. Campbell)*.
- Lonicera involucrata* (Rich.) Banks var. *involucrata*.—Black twinberry. Occasional. Willow—hardhack riparian scrub and edges of all forest types. *Wiedemann & Gerrish (unnumbered)*, *Neill 4670*, *Smith (unnumbered)*.
- Sambucus racemosa* L. var. *arborescens* (T. & G.) Gray.—Red elderberry. Common. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and Douglas-fir forest. *Wiedemann 27-2*, *Wiedemann 27-2*.
- Symphoricarpos albus* (L.) Blake.—Common snowberry. Occasional. Douglas-fir forest and red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Lohmann 34*.

CARYOPHYLLACEAE—Pink Family

- **Cerastium viscosum* L.—Sticky chickweed. Occasional. Ruderal. Native to Europe. *Schwennesen 44*, *Wiedemann 413-1 (det. Gerrish)*.
- **Lychnis alba* Mill.—Evening campion. Not observed in the field during this study. Native to Europe. *Wiedemann 31-1*.
- Spergularia canadensis* (Pers.) G. Don.—Canadian sandspurry. Occasional. Gravelly and sandy beach. *Schwennesen 47*, *Schwennesen (unnumbered)*.
- **Stellaria media* (L.) Cyrill.—Chickweed. Occasional. Red alder—bigleaf maple forest and ruderal. Native to Europe. *Neill 4652*, *Wiedemann 34-1*, *Wiedemann 32-2*.

CHENOPODIACEAE—Goosefoot Family

- Salicornia virginica* L.—Pickleweed, woody glasswort. Locally abundant. Lyngby's sedge—pickleweed salt marsh. *Wiedemann 41-1*.

CORNACEAE—Dogwood Family

- Cornus nuttallii* Aud.—Western dogwood. Rare. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann 85-2*, *Soule 13*.

ERICACEAE—Heath Family

- Arbutus menziesii* Pursh.—Madrone. Occasional. Edges of Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and western red-cedar—western hemlock forest, especially near beach. *Wiedemann 106-2*.
- Chimaphila umbellata* (L.) Bart. var. *occidentalis* (Rydb.) Blake—Prince's-pine. Rare. Douglas-fir forest. Not observed in the field during this study. *Wiedemann 110-2*.
- Gaultheria shallon* Pursh—Salal. Abundant. Dominant in Douglas-fir forest, common in other forest types. *Schwennesen 238*, *Schwennesen 238*, *Schwennesen (unnumbered)*, *S. B. H. & R. S. 8*, *Peterson 112-3*, *Wiedemann 112-2*, *Soule 4*, *Lohmann 51*.
- Monotropa uniflora* L.—Indian pipe. Rare. Western red-cedar—western hemlock forest. Not observed in the field during this study. *Wiedemann 116-1*.

Vaccinium ovatum Pursh.—Evergreen huckleberry. Common. Douglas-fir forest and Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 244, Schwennesen 245, Schwennesen 246, Schwennesen (unnumbered)*.

Vaccinium parvifolium Smith.—Red huckleberry. Common. Red alder—bigleaf maple woodland and all forest types. *Schwennesen (unnumbered), S. B. H. & R. S. 7*.

FABACEAE (formerly LEGUMINOSAE)—Pea Family

**Cytisus scoparius* (L.) Link.—Locally abundant. Willow—hardhack riparian scrub and ruderal. Native to Europe. *Schwennesen 247, Schwennesen 249, Peterson 148-2, Wiedemann 148-3*.

Lathyrus polyphyllus Nutt.—Leafy peavine. Occasional. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest *Wiedemann 418-1 (det. Gerrish)*.

**Lotus corniculatus* L.—Birdsfoot-trefoil. Occasional. Fields. Native to Europe. *Schwennesen 253, Schwennesen 254*.

Lotus crassifolius (Benth.) Greene var. *subglaber* (Ottley) Hitchc.—Big deervetch. Occasional. Ruderal. *Wiedemann 152-2, Wiedemann (unnumbered), Schwennesen 255, Lohmann 20*.

Lotus micranthus Benth.—Small-flowered deervetch. Occasional. Fields and ruderal. *Wiedemann 154-2 (det. Gerrish)*.

Lupinus polyphyllus Lindl. var. *pallidipes* (Heller) Smith.—Many-leaved lupine. Occasional. Ruderal. *Schwennesen 257 (det. Campbell), Schwennesen 258 (det. Campbell)*.

**Robinia pseudo-acacia* L.—Black or yellow locust, false acacia. Naturalized garden remnant. Beach at edge of western red-cedar—western hemlock forest. Native to eastern North America. *Lohmann 33*.

Trifolium dubium Sibth.—Least hop-clover. Abundant. Fields and ruderal. *Wiedemann 157-3, Schwennesen 261*.

**Trifolium pratense* L.—Red clover. Abundant. Fields and ruderal. Native to Europe. *S. B. H. & R. S. 30*.

**Trifolium repens* L.—White clover, Dutch clover. Abundant. Fields and ruderal. Native to Europe. *Schwennesen 269, Schwennesen 269, S. B. H. & R. S. 29*.

**Vicia hirsuta* (L.) S. F. Gray—Tiny vetch. Occasional. Ruderal. Native to Europe. *Wiedemann 166-1*.

**Vicia sativa* L. var. *angustifolia* (L.) Wahlb.—Common vetch. Common. Ruderal. Native to Europe. *Wiedemann 167-1*.

FUMARIACEAE—Fumitory Family

Dicentra formosa (Andr.) Walp.—Pacific bleedingheart. Common. Red alder—bigleaf maple woodland, Red alder—bigleaf maple—Douglas-fir—western red-cedar forest, and ruderal. *Wiedemann 122-2, Smith (unnumbered)*.

GENTIANACEAE—Gentian Family

**Centaurium umbellatum* Gilib.—European centaury, common centaury. Occasional. Roadsides, waste areas. Native to Europe. *Schwennesen 70, Schwennesen 71, Wiedemann 123-2, S. B. H. & R. S. 22*.

GERANIACEAE—Geranium Family

**Erodium cicutarium* (L.) L'Her.—Crane's-bill. Occasional. Ruderal. *Schwennesen* (unnumbered).

**Geranium robertianum* L.—Herb Robert. Occasional in red alder—bigleaf maple woodland, locally abundant in ruderal areas. Native to Europe. *Lohmann 13*.

GROSSULARIACEAE—Currant Family

Ribes bracteosum Dougl.—Stink currant. Locally abundant. Salmonberry—skunk-cabbage riparian bogs, especially in red alder—bigleaf maple—Douglas-fir—western red-cedar forests. *Lohmann 40*.

Ribes sanguineum Pursh—Redflowering currant, red currant, blood currant. Occasional. Edges of red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 73, Smith (unnumbered), Peterson 127-2*.

HIPPOCASTANACEAE—Horse-chestnut family

+**Aesculus hippocastanum* L.—Horse chestnut. Single individual growing at the edge of a red alder—bigleaf maple woodland. *Lohmann 45*.

HYDROPHYLLACEAE—Waterleaf Family

Hydrophyllum tenuipes Heller—Pacific waterleaf, slender-stemmed waterleaf. Abundant. Red alder—bigleaf maple woodland and red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Schwennesen 74, Schwennesen 75, Wallding 87, Wiedemann 130-1, Wiedemann 130-2*.

Nemophila parviflora var. *parviflora* Dougl.—Small-flowered nemophila. Common. Red alder—bigleaf maple woodland. *Schwennesen 77, Lohmann 14*.

Nemophila pedunculata Dougl.—Meadow nemophila. Occasional. Fields. *Gerrish 131-3, Wiedemann 131-1 (det. Gerrish), Wiedemann 131-2 (det. Gerrish)*.

HYPERICACEAE—St. John's-wort Family

Hypericum anagalloides C. & S. Bog St. John's-wort. Rare. Wet meadow. Not observed in the field during this study. *Schwennesen 78, Schwennesen 79, Schwennesen 80*.

**Hypericum perforatum* L.—Common St. John's-wort. Occasional. Ruderal. Native to Europe. *Schwennesen 81, Schwennesen 82, Schwennesen 84, Lohmann 43*.

LAMIACEAE (formerly LABIATAE)—Mint Family

**Glechoma hedeacea* L.—Ground ivy. Occasional. Ruderal. Native to Eurasia. *Wiedemann 139-1*.

Mentha arvensis L. var. *glabrata* (Benth.) Fern.—Field mint. Occasional. Ruderal. *Schwennesen 92, Schwennesen 93, Schwennesen 94, Wiedemann (unnumbered), Gerrish 429-1*.

**Origanum vulgare* L. Oregano. Rare. Ruderal. Not observed in the field as part of this study. Native to Eurasia. *Rickert 2, Rickert 3*.

Prunella vulgaris L.—Self-heal. Abundant. Ruderal. *Schwennesen 96, Schwennesen 97, S. B. H. & R. S. 20, Wiedemann 141-2*.

Stachys cooleyae Heller—Cooley's hedge-nettle. Occasional. Ruderal. *Schwennesen* 98, *Schwennesen* 99, *Schwennesen* (unnumbered).

ONAGRACEAE—Willow-herb Family

Circaea alpina L.—Enchanter's nightshade. Common. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and red alder—bigleaf maple woodland. *Schwennesen* 111, *Lohmann* 41.

Epilobium angustifolium L.—Fireweed. Occasional. Ruderal. *Schwennesen* (unnumbered, two specimens), *S. B. H. & R. S.* 19.

Epilobium watsonii Barbey—Watson's willow-herb. Occasional. Ruderal. *Gerrish* 199-1 (det. Smith), *Wiedemann* 199-2 (det. Smith), *Wiedemann* 199-3 (det. Smith), *Schwennesen* 112, *Schwennesen* 113, *Schwennesen* 114.

**Oenothera* × *erythrosepala* Borb.—Red-sepaled evening-primrose. Rare. Ruderal. Escaped garden hybrid. Not observed in the field during this study. *Burg* (unnumbered).

OXALIDACEAE—Oxalis Family

Oxalis oregana Nutt.—Oregon wood-sorrel. Rare. Established (probably planted) near Organic Farm. *Lohmann* 48.

PLANTAGINACEAE—Plantain Family

**Plantago lanceolata* L.—English plantain. Common. Fields and ruderal. Native to Europe. *S. B. H. & R. S.* 35, *S. B. H. & R. S.* 56 (det. Smith).

**Plantago major* L.—Common plantain, nippleseed plantain. Common. Fields and ruderal. Native to Europe. *Schwennesen* (unnumbered).

Plantago maritima L.—Seaside plantain. Occasional. Lyngby's sedge—pickleweed salt marsh and along beach. *Schwennesen* 130 (det. Campbell), *Schwennesen* 131 (det. Campbell), *Schwennesen* (unnumbered), *Wiedemann* 210-2 (det. Gerrish).

POLYGONACEAE—Buckwheat Family

Polygonum fowleri Robins.—Fowler's knotweed. Rare. Sandy or gravelly beach. Not observed in the field during this study. *Schwennesen* 138, *Schwennesen* (unnumbered).

Polygonum persicaria L.—Lady's thumb, heartweed. Occasional. Ruderal. *Schwennesen* 140 (det. Campbell), *Schwennesen* 141, *Schwennesen* 142, *S. B. H. & R. S.* 408-1 (det. Gerrish).

**Rumex acetosella* L.—Sheep sorrel, sour dock. Abundant. Fields and ruderal; prefers acidic soil. Native to Europe. *Schwennesen* 143, *Schwennesen* 144, *Schwennesen* 145, *Wiedemann* 228-1, *S. B. H. & R. S.* 34.

**Rumex crispus* L.—Curly dock. Common. Ruderal. Native to Europe. *Lohmann* 31.

Rumex obtusifolius L.—Bitterdock, butterdock, broad-leaved dock. Common. Ruderal. *S. B. H. & R. S.* 33, *Schwennesen* 147, *Schwennesen* 148, *Schwennesen* 149.

PORTULACACEAE—Purslane Family

Montia sibirica (L.) Howell—Siberian miner's-lettuce, candyflower. Abundant. Red alder—bigleaf maple woodland, all forest types, and ruderal. *Smith* (unnumbered), *Schwennesen* 150, *Neill* 4654, *Wiedemann* 238-1, *Peterson* 237-1.

PRIMULACEAE—Primrose Family

Glaux maritima L.—Saltwort, sea-milkwort. Rare. Beach. Not observed in the field during this study. *Wiedemann* 242-1.

Trientalis latifolia Hook.—Western starflower, broadleaved starflower. Common. Douglas-fir forest and western red-cedar—western hemlock forest. *Schwennesen* (unnumbered), *Wiedemann* 243-1, *Wiedemann* 243-2,

RANUNCULACEAE—Buttercup Family

Actaea rubra (Ait.) Willd.—Baneberry. Occasional. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Neill* 4676.

Ranunculus occidentalis Nutt.—Western buttercup. Rare. Not observed in the field during this study. *Peterson* 253-1.

**Ranunculus repens* L.—Creeping buttercup. Abundant. Red alder—bigleaf maple woodland, fields and ruderal. Native to Europe. *Schwennesen* 275.

Ranunculus uncinatus D. Don var. *parviflorus* (Torr.) Benson—Little buttercup. Occasional. Red alder—bigleaf maple woodland. *Schwennesen* (unnumbered), *Wiedemann* 409-1 (det. *Gerrish*).

Ranunculus uncinatus D. Don var. *uncinatus*—Little buttercup. Occasional. Red alder—western red-cedar woodland. *Neill* 4677.

RHAMNACEAE—Buckthorn Family

Rhamnus purshiana DC.—Cascara. Occasional. All forest types. *Lohmann* 8.

ROSACEAE—Rose Family

Amelanchier alnifolia Nutt. var. *semiintegrifolia* (Hook.) Hitch.—Saskatoon, serviceberry, shadbush. Occasional. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann* 259-1.

Geum macrophyllum Willd. var. *macrophyllum*—Largeleaved avens. Locally abundant. Red alder—bigleaf maple woodland and ruderal. *Wiedemann* 262-1, *Lohmann* 42.

Holodiscus discolor (Pursh) Maxim.—Creambush ocean-spray. Common. Red alder—bigleaf maple woodland, red alder—bigleaf maple—Douglas-fir—western red-cedar forest, and Douglas-fir forest. *Wiedemann* 264-1.

Oemleria cerasiformis (H. & A.) Landon—Osoberry. Common. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and red alder—bigleaf maple woodland. *Wiedemann* 266-2, *Wiedemann* 266-3, *Peterson* 266-4. N.B.: All specimens are labeled “*Osmaronia cerasiformis* (T. & G.) Greene.”

Prunus emarginata (Dougl.) Walp.—bittercherry. Occasional. Edges of red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *S. B. H. & R. S.* 10, *Wiedemann* 269-2 (det. *Gerrish*), *Wiedemann* 269-1, *Schwennesen* 287.

Prunus virginiana L. var. *demissa* (Nutt.) Torr.—Common chokecherry. Not observed in the field during this study. *Holder* 395-1.

- Pyrus fusca* Raf.—Western crabapple. A few individuals on beach at edge of red alder—bigleaf maple—western red-cedar—Douglas-fir forest. *Lohmann 36*.
- Rosa gymnocarpa* Nutt.—Baldhip rose, little wild rose. Occasional. All forest types. *Schwennesen (unnumbered)*.
- Rosa pisocarpa* Gray—Peafruit rose. Rare. Beach at edge of western redcedar—western hemlock forest. *Lohmann 27*.
- **Rubus discolor* Weihe & Nees—Himalayan blackberry. Occasional. Ruderal. Native to Eurasia. *Lohmann 32, Lohmann 46*.
- **Rubus laciniatus* Willd.—Evergreen blackberry. Rare. Ruderal. Native to Europe. *Schwennesen 289, Schwennesen (unnumbered), S. B. H. & R. S. 11*.
- Rubus parviflorus* Nutt.—Thimbleberry. Common. Red alder—bigleaf maple woodland, red alder—bigleaf maple—Douglas-fir—western red-cedar forest, salmonberry—skunk-cabbage riparian bogs, willow—hardhack riparian scrub. *Schwennesen 290, Schwennesen 291, Schwennesen (unnumbered), Wiedemann 275-2*.
- Rubus spectabilis* Pursh—Salmonberry. Common, locally dominant. Red alder—bigleaf maple woodland, red alder—bigleaf maple—Douglas-fir—western red-cedar forest, salmonberry—skunk-cabbage riparian bogs. *Smith (unnumbered), Schwennesen 292*.
- Rubus ursinus* Cham. & Schlecht.—Pacific blackberry. Abundant. Nearly ubiquitous in red alder—bigleaf maple woodland, all forest types, and many ruderal areas. *S. B. H. & R. S. 12, Schwennesen 293, Schwennesen 294, Peterson 277-3, Wiedemann 277-1*.
- Spiraea douglasii* Hook., var. *menziesii* (Hook.) Presl—Western spiraea, hardhack. Common. Willow—hardhack riparian scrub. *Schwennesen 297, Schwennesen 298, S. B. H. & R. S. 5, Wiedemann 282-2 (det. Gerrish)*.

RUBIACEAE—Madder Family

- Galium trifidum* L.—Small bedstraw. Common. Ruderal. *Schwennesen 301, Schwennesen 302 (det. Campbell), Schwennesen 303*.
- Galium triflorum* Michx.—Sweetscented bedstraw. Occasional. Ruderal. *Schwennesen 304, Schwennesen 305*.

RUTACEAE—Rue Family

- **Skimmia japonica* Thunb.—Skimmia. Rare. Garden ornamental planted and apparently naturalizing along a paved walkway in Douglas-fir forest at the edge of campus. Native to Asia. *Lohmann 37*.

SALICACEAE—Willow Family

- +**Populus alba* L.—Silver poplar. Rare. Edges of red alder—bigleaf maple woodland. Native to Eurasia. No evidence of naturalization. *Holder 384-1*.
- Populus trichocarpa* T. & G.—Black cottonwood. Occasional. Edges of red alder—bigleaf maple—western red-cedar—Douglas fir forest. *Lohmann 28*.
- Salix hookeriana* Barratt—Hooker's willow. Occasional. Willow—hardhack riparian scrub. *Wiedemann (unnumbered)*.

Salix lasiandra Benth.—Pacific willow. Occasional. Willow—hardhack riparian scrub and edges of red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Neill 4668, Neill 4671.*

Salix scouleriana Barratt.—Scouler willow. Occasional. Willow—hardhack riparian scrub. *Neill 4667.*

Salix sitchensis Sanson—Sitka willow. Occasional. Willow—hardhack riparian scrub. *Neill 4658.*

SAXIFRAGACEAE—Saxifrage Family

Chrysopenium glechomaefolium Nutt.—Western golden-carpet. Rare. Salmonberry—skunk cabbage riparian bogs. Not observed in the field during this study. *Smith (unnumbered).*

Tellima grandiflora (Pursh) Dougl.—Fragrant fringe-cup. Occasional. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann 301-2 (det. Brown).*

Tolmeia menziesii (Pursh) T. & G.—Youth-on-age, pig-a-back plant. Common. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and ruderal. *Wiedemann 304-2 (det. Brown), Wiedemann 304-3 (det. Brown), Schwennesen 153.*

Tiarella trifoliata L. var. *trifoliata*—Trefoil foamflower. Occasional. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest and salmonberry—skunk-cabbage riparian bogs. *Lohmann 19.*

SCROPHULARIACEAE—Figwort Family

**Digitalis purpurea* L.—Foxglove. Locally abundant. Ruderal. Native to Eurasia. *Wiedemann 310-1, Wiedemann 310-2, Schwennesen 155.*

Mimulus guttatus DC. var. *guttatus*—Yellow monkeyflower. Occasional. Ruderal. *Schwennesen 157, Schwennesen 158.*

**Parentucellia iscosa* (L.) Car.—Yellow parentucellia. Locally abundant. Fields and ruderal. Native to Mediterranean. *Schwennesen 159, Schwennesen 160, Schwennesen 161, Wiedemann 361-3, Wiedemann 361-4.*

Synthyris reniformis (Dougl.) Benth.—Spring queen, snow-queen, round-leaved synthyris. Western red-cedar—western hemlock forest. Not observed in the field during this study. *Wiedemann 314-2 (det. Gerrish), Peterson 314-3.*

Veronica scutellata L.—Marsh speedwell. Wet meadow. Not observed in the field during this study. *Schwennesen 165.*

**Veronica serpyllifolia* L. var. *serpyllifolia*. Common. Ruderal. Native to Europe. *Wiedemann 410-1 (det. Gerrish), Wiedemann 410-2 (det. Gerrish).*

URTICACEAE—Nettle Family

Urtica dioica L. var. *lyallii* (Wats.) Hitchc.—Stinging nettle. Locally abundant. Moist ditches and edges of red alder—bigleaf maple woodland. *Lohmann 29.*

VIOLACEAE—Violet Family

Viola glabella Nutt.—Stream violet. Occasional. Red alder—bigleaf maple woodland and red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Lohmann 39.*

Viola sempervirens Greene—Evergreen violet. Occasional. All forest types. *Wiedemann 400-1, Smith (unnumbered)*.

Monocotyledoneae

ARACEAE—Arum Family

Lysichitum americanum Hultén & St. John—Skunk cabbage. Locally abundant.
Salmonberry—skunk-cabbage riparian bogs. *Wiedemann 3*.

CYPERACEAE—Sedge Family

Carex amplifolia Boott.—Big-leaf sedge, ample-leafed sedge. Locally abundant.
Salmonberry—skunk-cabbage riparian bogs. *Wozniak 9*.
Carex cf. *deweyana* Schw.—Dewey's sedge. Occasional. Red alder—bigleaf maple—
Douglas-fir—western red-cedar forest. *Lohmann 16*.
Carex lyngbyei Hornem var. *robusta* (Bailey) Cronq.—Lyngby's sedge. Locally
dominant. Salt marsh. *Lohmann 25*.
Carex cf. *obnupta* Bailey—Slough sedge. Ruderal. *Schwennesen 63*.

JUNCACEAE—Rush Family

Juncus effusus L. ssp. *pacificus* (Fernald & Wigand) Lint.—Soft rush, common rush.
Common. Ruderal. *Schwennesen 85 (det. Zika)*.
Juncus tenuis Willd.—Slender rush. Ruderal. Not observed in the field during this study.
Schwennesen 91 (det. Zika).
Juncus ensifolius Wikst. Dagger-leaf rush. Not observed in the field during this study.
Wet meadow. *Schwennesen 87*.
Luzula campestris (L.) DC.—Field woodrush. Occasional. Sandy cliffs near beach, red
alder—bigleaf maple—Douglas-fir—western red-cedar forest, and ruderal.
Lohmann 10, Lohmann 49.

JUNCAGINACEAE—Arrowgrass Family

Triglochin maritimum L.—Maritime arrowgrass. Locally abundant. Salt marsh. *Lohmann 26*.

LILIACEAE—Lily Family

Disporum hookeri (Torr.) Nicholson var. *oreganum* (Wats.) Jones—Hooker fairy-bell.
Rare. Western red-cedar—western hemlock forest. *Lohmann 17*.
Lilium columbianum Hanson—Tiger lily. Rare. Western red-cedar—western hemlock
forest. Not observed in the field during this study. *Wiedemann 177-1, Wiedemann 177-2*.
Maianthemum dilatatum (Wood) Nels. & Macbr.—Beadruby, deerberry, may-lily, false
lily-of-the-valley. Common. Moist areas in all forest types. *Schwennesen 102*.

Smilacina racemosa (L.) Desf.—False Solomon’s seal, false spikenard, western Solomon-plume. Common. Red alder—bigleaf maple—Douglas-fir—western red-cedar forest. *Wiedemann 180-1, Schwennesen 104, Schwennesen 105, Neill 4678.*

Smilacina stellata (L.) Desf.—Starry Solomon-plume. Occasional. Salmonberry—skunk-cabbage riparian bogs and western red-cedar—western hemlock forest. *Lohmann 18.*

Streptopus amplexifolius (L.) DC. var. *americanus* Schult.—Clasping-leaved twisted-stalk. Occasional. Salmonberry—skunk-cabbage riparian bogs. *Lohmann 11, Lohmann 12.*

Trillium ovatum Pursh—Wake-robin. Occasional. Douglas-fir forest and western red-cedar—western hemlock forest. *Peterson 184-3, Wiedemann 184-2, Lohmann 2.*

ORCHIDACEAE—Orchid Family

Calypso bulbosa (L.) Oakes.—Fairy-slipper, Venus-slipper. Rare. Western red-cedar—western hemlock forest. Not collected due to small population size.

Corallorhiza maculata Raf.—Spotted coralroot. Occasional. Douglas-fir forest. *Lohmann 7.*

Goodyera oblongifolia Raf.—Western rattlesnake plantain. Occasional. Douglas-fir forest. Not observed in the field during this study. *Schwennesen 118, Schwennesen 119, Wiedemann 201-1, Brockway & Williams 201-2.*

Spiranthes romanzoffiana Cham. Ladies-tresses. Rare. Wet meadow, moist roadsides. Not observed in the field during this study. *Schwennesen 120, Schwennesen 121, S. B. H. & R. S. 16, Gerrish 202-2.*

POACEAE—Grass Family

**Aira caryophyllea* L.—Silver hairgrass. Common. Non-native perennial grasslands. Native to Europe. *S.B.H. and R. S. 44.*

**Aira praecox* L.—Early hairgrass, little hairgrass. Rare. Non-native perennial grasslands. Native to Europe. *S.B.H. and R.S. 40 (det. Smith).*

**Anthoxanthum odoratum* L.—Sweet vernalgrass. Common, locally dominant. Non-native perennial grasslands and ruderal. Native to Europe. *Lohmann 15.*

**Dactylis glomerata* L. Orchard-grass, cock’s-foot grass. Abundant. Non-native perennial grasslands and ruderal. Native to Eurasia. *Wozniak 1.*

Festuca cf. *ovina* L., var. *rydbergii* St.-Yves—Sheep fescue. Occasional. Non-native perennial grasslands. *Wozniak 11.*

Festuca cf. *subuliflora* Scribn.—Coast Range fescue, crinkle awn fescue. Common. Non-native perennial grasslands. *Wozniak 15.*

Glyceria borealis (Nash) Batch.—Northern mannagrass. Rare. Around Seminar II Building. *Wozniak 10.*

**Holcus lanatus* L.—Common velvetgrass. Common, locally dominant. Non-native perennial grasslands and ruderal. Native to Europe. *Lohmann 30.*

**Holcus mollis* L.—Creeping softgrass, creeping velvetgrass. Occasional. Meadow near longhouse. Native to Europe. *Wozniak 8.*

**Lolium multiflorum* Lam.—Italian ryegrass, Australian ryegrass. Common. Non-native perennial grasslands. Native to Europe. *Wozniak 5.*

- **Lolium perenne* L.—Perennial ryegrass, English ryegrass. Occasional. Non-native perennial grasslands. Native to Europe. *Wozniak 6*.
- **Phleum pratense* L.—Common timothy. Occasional. Grassy areas near Longhouse and organic farm house. Native to Europe. *Wozniak 2*.
- **Poa palustris* L.—Fowl bluegrass, fowl meadow-grass. Common, locally dominant. Non-native perennial grasslands. Native to Europe. *Wozniak 3*.
- Poa pratensis* L.—Kentucky bluegrass. Occasional. Non-native perennial grasslands. *Wozniak 4*.

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