Checklist of the Vascular Plants of Cedar Flats Research Natural Area

Lynn C. Cornelius and S. Reid Schuller

Abstract
Lists 185 vascular plant taxa found in the 275-hectare Cedar Flats Research Natural Area in the Gifford Pinchot National Forest. Notes on habitats, community types, and abundance are included for most taxa.

Keywords: Vascular plants, checklists (vascular plants), natural areas (research), Washington (Cedar Flats Research Natural Area).

Purpose
This report provides scientists, educators, and land managers with baseline information on the presence, location, and abundance of vascular plants in the Cedar Flats Research Natural Area. In the future, changes in the vegetation—additions, deletions, changes in abundance, and shifts in habitat—can be determined from this baseline. The checklist can also be used in evaluating the effects of human activities in equivalent ecosystem types.

Environment
Cedar Flats Research Natural Area occupies a 275-hectare (680-acre) tract in the Gifford Pinchot National Forest in the Cascade Range of southern Washington (fig. 1). The Research Natural Area (RNA), administered by the St. Helens Ranger District, was established in 1946 to exemplify the western redcedar stands found on valley bottom habitats in the Cascade Range of Washington (Franklin and others 1972). Typical ecosystems, communities or habitats, or aggregations of rare plants or animals have been identified as requiring representation in a regional natural area system. The RNA fills four needs in the Western Hemlock Zone of the Western Slopes and Crest Physiographic Province: (1) old-growth Douglas-fir—western hemlock forest, southern portion of the Province; (2) old-growth western redcedar forest, southern portion; (3) marsh and swamp ecosystem; and (4) western redcedar swamp (Dyrness and others 1975).

Most of the Cedar Flats RNA occupies a gently undulating series of benches along the Muddy River. The northwest corner of the area is located on moderately steep slopes at the foot of some mountain ridges. Elevations range from about 366 to 640 meters (1,200 to 2,000 ft) (Franklin and others 1972).

LYNN C. CORNELIUS is a contract field botanist; and S. REID SCHULLER a plant ecologist with the Washington Natural Heritage Program, The Nature Conservancy. The work reported was done under contract with the Pacific Northwest Forest and Range Experiment Station and the Pacific Northwest Natural Area Committee.
The climate is wet and cool. Precipitation is seasonal, peaking during winter months and reaching low levels during the summer period (Franklin and others 1972).

Soils within the RNA have not been carefully examined. Soil types belonging to the Brown Podzolic, Sols Bruns Acides, Alluvial, and Humic Gley great soil groups have been identified. Organic soils are associated with some of the swamp and marsh habitat (Franklin and others 1972).

Cedar Flats Research Natural Area falls within the Tsuga heterophylla Zone described by Franklin and Dymnes (1973). Stands occupied by Douglas-fir occupy the bulk of the area, but stands of old-growth western redcedar and associated swamps and marshes are also distinctive features (Franklin and others 1972).
Five major habitats or plant community types were identified within the RNA (fig. 2). Since plant taxa in this checklist are related to these habitats or community types, the habitats and types are briefly described below.

Douglas-fir—western hemlock forest.—Dominated by Douglas-fir (*Pseudotsuga menziesii*) and western hemlock (*Tsuga heterophylla*), this type covers most of the RNA, including old-growth and second-growth age classes.

Western redcedar forest.—Moist to wet woods dominated by western redcedar (*Thuja plicata*) with an understory dominated by vine maple (*Acer circinatum*) and swordfern (*Polystichum munitum*). Associated with marsh and swamp habitats.

Deciduous forest.—Moist forest along the river bank, including wet seeps and rivulets. Dominated by red alder (*Alnus rubra*), with bigleaf maple (*Acer macrophyllum*) as a minor component. Various moist-site herbs and shrubs make up the understory.
Wetland-marsh and swamp.—Seasonally to continuously wet areas dominated by a mosaic of shrub- and herb-dominated wetlands. Dominants include Carex sitchensis, Spiraea douglasii, Salix lasiandra, Salix sitchensis, Pyrus fusca, Carex obnupta, and Carex rostrata.

River edge.—Open sand and gravel bars adjacent to stream channels along the Muddy River flood plain.

The list includes all vascular plant taxa identified in the Cedar Flats RNA during field visits on May 9, 25, and 26; June 14; July 1; and August 5, 1979. A few taxa are included that were not observed during these visits but are reported from other sources. Plants occurring along road margins and in clearcuts were not included unless found elsewhere in the RNA.

Collections were verified in the herbaria at the University of Washington, Seattle, and at Oregon State University, Corvallis. Vouchers are deposited at the University of Washington, Seattle. Collection numbers are given in parentheses at the end of appropriate listings in the checklist. Taxa for which no collection numbers are given were identified in the field by the authors.

Families, genera, and species are arranged alphabetically. Scientific nomenclature and taxonomy follow Hitchcock and Cronquist (1973); common names are from Franklin and Dyrness (1973), Garrison and others (1976), and Hitchcock and Cronquist (1973). Additional floristic references include Hitchcock and others (1955-69).

Habitats and plant community types in which a given taxon occurs are indicated by symbols in the checklist:

- PSME = Douglas-fir—western hemlock forest
- THPL = Western redcedar forest
- DECID = Deciduous forest
- WET = Wetland-marsh and swamp
- RIVER = River edge.

Major distribution among habitats and plant community types is identified for most species. Species abundance was qualitatively estimated in the field and is recorded as rare, infrequent, occasional, frequent, or abundant. Where distribution and abundance information are considered inadequate, only the collection site is listed.

**Aceraceae**

_Acer circinatum_ Pursh, vine maple. Abundant in PSME, THPL, and DECID.

_Acer macrophyllum_ Pursh, bigleaf maple. Occasional to frequent in DECID, THPL, and PSME.

**Alismataceae**

_Alisma plantago-aquatica_ L., American water-plantain. One sterile individual in THPL.

**Araceae**

_Lysichitum americanum_ Hultén & St. John, skunk cabbage. Frequent in THPL, and WET.
Araliaceae

*Oplopanax horridum* (Smith) Miq., devil's club. Occasional to frequent in WET places and along streams in PSME and THPL.

Aristolochiaceae

*Asarum caudatum* Lind., wild ginger. Occasional in PSME and THPL.

Berberidaceae

*Achlys triphylla* (Smith) DC., deerfoot vanillaleaf. Abundant in PSME and THPL.

*Berberis nervosa* Pursh, Oregon grape. Occasional to frequent in PSME.

*Vancouveria hexandra* (Hook.) Morr. & Dec., white inside-out-flower. Abundant in PSME, THPL, and DECID.

Betulaceae

*Alnus rubra* Bong., red alder. Frequent to abundant in DECID, RIVER, WET, and occasional along streams in PSME and DECID.

*Corylus cornuta* Marsh var. *californica* (DC.) Sharp, California hazel. Occasional in PSME and THPL.

Campanulaceae

*Campanula scouleri* Hook., Scouler bellflower. Sighted in DECID.

Caprifoliaceae

*Linnaea borealis* L., twin flower. Occasional in PSME and THPL.

*Sambucus racemosa* L. var. *arborescens* (T. & G.) Gray, red elderberry. Occasional in open areas and along edges in PSME, THPL, and DECID.

*Symphoricarpos albus* (L.) Blake var. *laevigatus* Fern., common snowberry. Infrequent along lower edges of DECID.

*Viburnum edule* (Michx.) Raf., high-bush cranberry. Infrequent in WET.

Caryophyllaceae

*Arenaria macrophylla* Hook., bigleaf sandwort. Occasional on sand in RIVER.

*Cerastium vulgatum* L., common chickweed. Occasional on sand in RIVER.

*Stellaria calycantha* (Ledeb.) Bong. var. *bongardiana* Fern., northern starwort. Occasional on sand in RIVER.

*Stellaria crispa* Cham. & Schlecht., crisped starwort. Infrequent on sand in RIVER.

Compositae (Asteraceae)

*Achillea millefolium* L. ssp. *lanulosa* (Nutt.) Piper, western yarrow. Occasional on sand in RIVER.

*Adenocaulon bicolor* Hook., trailplant. Occasional to locally frequent in PSME, DECID, and THPL.

*Anaphalis margaritacea* (L.) B. & H., pearly everlasting. Occasional on sand in RIVER.

*Aster modestus* Lindl. in Hook., few-flowered or great northern aster. Infrequent where moist in River (C & S 630).

*Chrysanthemum leucanthemum* L., oxeye-daisy or moon-daisy. Occasional in RIVER.

*Cirsium arvense* (L.) Scop. var. *horridum* Wim. & Grab., Canadian thistle. Occasional in RIVER.

*Cirsium edule* Nutt., indian thistle. Infrequent on sand in RIVER.
Cirsium vulgare (Savi) Tenore, common thistle. Occasional in RIVER.

Conyza canadensis (L.) Cronq. var. glabrata (Gray) Cronq., horseweed. Occasional in RIVER.

Eriophyllum lanatum (Pursh) Forbes, common woolly sunflower. Rare in RIVER.

Hieracium albiflorum Hook., white hawkweed. Occasional along trail in PSME, and RIVER.

Hypochaeris radicata L., spotted catsear. Occasional on sand in RIVER.

Petasites frigidus (L.) Fries var. palmatus (Ait.) Cronq., sweet coltsfoot. Infrequent in DECID.

Senecio jacobaea L., tansy ragwort. Occasional in RIVER.

Senecio triangularis Hook., arrowleaf groundsel. Occasional to frequent in WET.

Senecio vulgaris L., common groundsel. Infrequent in RIVER.

**Cornaceae**

Cornus canadensis L., bunchberry dogwood. Frequent in PSME and THPL.

Cornus nuttallii Aud. ex T. & G., Pacific dogwood. Frequent in PSME and THPL.

**Cruciferae (Brassicaceae)**

Cardamine occidentalis (Wats.) Howell, western bittercress. Frequent in WET and in wet areas in RIVER.

**Cupressaceae**

Thuja plicata Donn, western redcedar. Frequent to abundant in THPL, occasional to frequent in PSME and DECID.

**Cyperaceae**

Carex amplifolia Boott, big-leaf sedge. Locally abundant in a small marsh in the southwest corner of the RNA in WET (C & S 645).

Carex arcta Boott, northern clustered sedge. Locally abundant in one clearing in WET (C & S 642).

Carex canescens Bailey, gray sedge. Occasional along edges in WET and wet places in PSME, THPL, and DECID (C & S 643).

Carex deweyana Schw., Dewey sedge. Occasional along trails in PSME and THPL, and along edges in WET (C & S 648).

Carex interior Bailey, inland sedge. Collected along trail in THPL (C & S 636).

Carex interrupta Boeck, green-fruited sedge. Occasional to frequent in wet places in RIVER (C & S 637, 639).

Carex lenticularis Michx., Kellogg’s sedge. Occasional along edges of WET and in wet places in RIVER. (C & S 634, 640, 649).


Carex mertensii Prescott, Merten’s sedge. Infrequent in wet places in RIVER.

Carex muricata L., western stellate sedge. Infrequent in wet places in RIVER.

Carex obnupta Bailey, slough sedge. Occasional in RIVER where wet, abundant in outer areas in WET.
Carex pachystachya Cham., thick-headed sedge. Infrequent in RIVER (C & S 641).

Carex rostrata Stokes ex With., beaked sedge. Frequent in wettest areas in WET.

Carex sitchensis Prescott, Sitka sedge. Occasional in wet areas in RIVER, frequent in wettest areas in WET.

Carex stipata Muhl., sawbeak sedge. Collected in WET from the small marsh in the southwest corner of the RNA (C & S 654).

Carex vesicaria L., inflated sedge. Collected from one clearing in WET (C & S 655).

Scirpus microcarpus Presl, small-fruited bulrush. Occasional to frequent in WET and where wet in RIVER.

Equisetaceae

Equisetum hyemale L. var. affine (Engelm.) A.A. Eat., Dutch rush. Collected in WET.

Equisetum telmateia Ehrh. var. braunii Milde, giant horsetail. Occasional in WET.

Equisetum sp., horsetail. Sterile fronds sighted in RIVER.

Ericaceae

Chimaphila menziesii (R. Br.) Spreng., little prince’s pine. Occasional in higher areas in PSME.

Chimaphila umbellata (L.) Bart. var. occidentalis (Rydb.) Blake, western prince’s pine. Occasional in higher areas in PSME.

Gaultheria shallon Pursh, salal. Frequent in PSME.

Monotropa uniflora L., indian-pipe. Occasional in PSME.

Pyrola asarifolia Michx., large pyrola. Collected from a higher area in PSME.

Vaccinium alaskaense Howell, Alaska huckleberry. Occasional in PSME.

Vaccinium ovalifolium Smith, ovalleaf huckleberry. Frequent in PSME.

Vaccinium parvifolium Smith, red huckleberry. Frequent in PSME and THPL.

Fumariaceae

Dicentra formosa (Andr.) Walp., Pacific bleedingheart. Occasional in PSME and where moist in DECID and THPL.

Gramineae (Poaceae)

Agrostis sp., bentgrass. Infrequent along edge of WET.

Aira caryophyllea L., silver hairgrass. Infrequent on sand in RIVER.

Anthoxanthum odoratum L., sweet vernal grass. Infrequent in RIVER.

Elymus glaucus Buckl., blue wildrye. Frequent in RIVER.

Glyceria elata (Nash) Jones, tall mannagrass. Frequent in WET (C & S 657).
Holcus lanatus L., common velvetgrass. Collected on sand in RIVER.

Phalaris arundinacea L., reed canary grass. One location in wet ground along the trail in THPL.

Trisetum cernuum Trin., nodding trisetum. Collected along edge of trail in PSME.

Grossulariaceae

Ribes bracteosum Dougl., stink currant. Frequent along streams in PSME and THPL and where wet in DECID.

Ribes lacustre (Pers.) Poidr., prickly currant. Occasional in PSME and where moist in THPL.

Hydrophyllaceae

Hydrophyllum tenuipes Heller, Pacific waterleaf. Occasional in DECID.

Nemophila parviflora Dougl., small-flowered nemophila. Occasional in RIVER.

Nemophila pedunculata Dougl., meadow nemophila. Collected in RIVER.

Phacelia heterophylla Pursh, var. pseudohispida (Brand) Cronq., varileaf phacelia. Occasional in RIVER.

Phacelia nemoralis Greene, woodland phacelia. Occasional in RIVER.

Juncaceae

Juncus effusus L. var. gracilis Hook., common rush. Infrequent in wet areas in RIVER.

Juncus ensifolius Wikst., dagger-leaved rush. Infrequent in RIVER (C & S 635).

Juncus patens E. Meyer, spreading rush. Collected on sand in RIVER (C & S 632).

Juncus regelii Buch., Regel's rush. Collected from sand in RIVER (C & S 632b).

Juncus sp., rush. Sighted on sand in RIVER.

Luzula divaricata Wats., spreading woodrush. Infrequent to occasional in PSME, DECID, and THPL.

Labiatae (Lamiaceae)

Mentha arvensis L. var. glabrata (Benth.) Fern., corn mint. Sighted in moist sand in RIVER.

Prunella vulgaris L. var. lanceolata (Barton) Fern., heal-all. Occasional in sand in RIVER.

Stachys cooleyae Heller, Cooley's hedge-nettle. Occasional in WET and in wet areas in RIVER.

Leguminosae (Fabaceae)

Lotus corniculatus L., bird's-foot trefoil. Sighted in RIVER and on a hummock in THPL.

Lotus purshiana (Benth) Clements & Clements, Spanish clover. Sighted on sand in RIVER.

Lupinus lepidus Dougl. var. lobbii (Gray) Hitchc., prairie lupine. Occasional in sand and gravel in RIVER (C & S 629).

Trifolium pratense L., red clover. Sighted in sand in RIVER.

Trifolium repens L., white clover. Sighted in sand in RIVER.
Liliaceae

*Clintonia uniflora* (Schult.) Kunth., queencup beadelily. Infrequent in PSME.

*Disporum hookeri* (Torr.) Nicholson var. *oreganum* (Wats.) Jones, Hooker's fairybells. Occasional along streams in PSME and THPL.

*Lilium columbianum* Hanson, tiger lily. Sighted in RIVER.

*Maianthemum dilatatum* (Wood) Nels. & Macbr., false lily-of-the-valley. Frequent in PSME and THPL.

*Smilacina racemosa* (L.) Desf., western Solomon's seal. Occasional in PSME, THPL, and DECID.

*Smilacina stellata* (L.) Desf., starry solomonplume. Common in PSME.

*Trillium ovatum* Pursh, white trillium. Occasional in PSME, THPL, and DECID.

*Xerophyllum tenax* (Pursh) Nutt., common beargrass. Sighted along the edge of higher forest in PSME.

Lycopodiaceae

*Lycopodium clavatum* L., runningpine club-moss. Infrequent in PSME.

Onagraceae

*Circaea alpina* L., alpine circaea. Sighted near a stream in PSME.

*Epilobium paniculatum* Nutt., autumn willowweek. Occasional in RIVER.

*Epilobium watsonii* Barby var. *occidentale* (Trel.) Hitchc., Watson's willowweed. Occasional in RIVER.

Ophioglossaceae

*Botrychium multifidum* (Gmel.) Trevis., leathery grape-fern. Collected near the edge of WET.

*Botrychium virginianum* (L.) Swartz., Virginia grape-fern. Sighted in PSME.

Orchidaceae

*Calypso bulbosa* (L.) Oakes, calypso. Occasional in PSME.

*Corallorhiza mertensiana* Bong., Merten's coralroot. Infrequent in PSME and THPL.

*Goodyera oblongifolia* Raf., rattlesnake plantain. Occasional in PSME.

Oxalidaceae

*Oxalis trillifolia* Hook., great oxalis. Frequent in moist PSME and THPL.

Pinaceae

*Abies amabilis* (Dougl.) Forbes, Pacific silver fir. Occasional in PSME and THPL.

*Abies grandis* (Dougl.) Forbes, grand fir. Infrequent to occasional in PSME, THPL, DECID, and RIVER.

*Pinus monticola* Dougl. ex D. Don, western white pine. Infrequent in PSME and RIVER.

*Pseudotsuga menziesii* (Mirb.) Franco, Douglas-fir. Abundant in PSME, occasional in THPL.

*Tsuga heterophylla* (Raf.) Sarg., western hemlock. Abundant in PSME, occasional in THPL.
Plantaginaceae  
*Plantago lanceolata* L., English plantain. Infrequent in RIVER.

Polemoniaceae  
*Microsteris gracilis* (Hook.) Greene var. *humilior* (Hook.) Cronq., pink annual phlox. Occasional in RIVER.

Polygonaceae  
*Polygonum* sp., knotweed. On sand in RIVER.  
*Rumex acetosella* L., sheep sorrel. Frequent on sand in RIVER.

Polypodiaceae  
*Adiantum pedatum* L., western maidenhair fern. Occasional to frequent where wet and along streams in PSME and THPL.  
*Athyrium filix-femina* (L.) Roth., ladyfern. Frequent in THPL and moist areas in PSME and DECID.  
*Blechnum spicant* (L.) Roth., deerfern. Frequent in THPL and moist areas in PSME and DECID.  
*Dryopteris expansa* (Presl) Fraser-Jenkins and Jermy, mountain woodfern. Frequent in PSME and THPL.  
*Gymnocarpium dryopteris* (L.) Newm., oakfern. Abundant in PSME and THPL.  
*Polypodium glycyrrhiza* D. C. Eat., licoricefern. Collected in THPL.  
*Polystichum munitum* (Kaulf.) Presl, swordfern. Frequent in PSME, THPL, and DECID.  
*Pteridium aquilinum* (L.) Kuhn. var. *pubescens* Underw., bracken fern. Rare to infrequent along edges in PSME, THPL, and DECID.

Portulacaceae  
*Montia parvifolia* (Mod.) Greene var. *flagellaris* (Bong.) Hitchc., streambank springbeauty. Occasional in RIVER and DECID.  
*Montia parvifolia* (Moc.) Greene var. *parvifolia*, streambank springbeauty. Collected in RIVER.  
*Montia sibirica* (L.) Howell, western springbeauty. Occasional in DECID and wet areas in PSME.

Primulaceae  
*Trientalis latifolia* Hook., starflower. Occasional in higher areas in PSME.

Ranunculaceae  
*Actaea rubra* (Alt.) Willd., baneberry. Infrequent to occasional in PSME and THPL.  
*Anemone deltoidea* Hook., threeleaf anemone. Occasional in PSME and THPL.  
*Ranunculus uncinatus* D. Don. var. *parviflorus* (Torr.) Benson, little buttercup. Occasional in DECID and near the marsh edge in THPL.

Rhamnaceae  
*Rhamnus purshiana* DC., cascara. Occasional in RIVER and WET.
Rosaceae

*Amelanchier alnifolia* Nutt. var. *humptulipensis* (Jones) Hitchc., Saskatoon serviceberry. One large individual in WET, one small shrub on sand in RIVER.

*Aruncus sylvester* Kostel, goatsbeard. Infrequent in RIVER.

*Fragaria vesca* L. var. *crinita* (Rydb.) Hitchc., California strawberry. Infrequent in RIVER.

*Holodiscus discolor* (Pursh) Maxim., creambush oceanspray. Infrequent in PSME.

*Oemleria cerasiformis* (H. & A.) Landon, indian plum. Rare to infrequent in PSME, THPL, and DECID.

*Potentialla glandulosa* Lindl. var. *intermedia* (Rydb.) Hitchc., gland cinquefoil. Collected from sand in RIVER.

*Prunus emarginata* (Dougl.) Walp., bitter cherry. Not sighted during field visits in 1979 but reported in Franklin and others (1972).

*Pyrus fusca* Raf., western crabapple. Abundant in WET.

*Rosa gymnocarpa* Nutt., baldhip rose. Infrequent to occasional in PSME and THPL.

*Rosa nutkana* Presl, Nootka rose. Occasional along edges of WET.

*Rosa pisocarpa* Gray, clustered wild rose. Frequent in WET.

*Rubus lasiococcus* Gray, dwarf blackberry. Infrequent in higher areas in PSME.

*Rubus leucodermis* Dougl., blackcap or black raspberry. Infrequent in RIVER.

*Rubus parviflorus* Nutt., thimbleberry. Occasional in RIVER, DECID, and along open edges in PSME and THPL.

*Rubus pedatus* J. E. Smith, strawberry-leaf blackberry. Sighted on a downed log in WET in the southwest corner of the RNA.

*Rubus spectabilis* Pursh, salmonberry. Occasional to locally frequent in wet places where more open in PSME, THPL, and DECID; occasional along edges in WET.

*Rubus ursinus* Cham. & Schlecht, trailing blackberry. Occasional in RIVER.

*Spiraea douglasii* Hook. var. *douglasii*, Douglas spirea. Frequent in WET.

Rubiacae

*Galium triflorum* Michx., sweetscented bedstraw. Infrequent to occasional in PSME, THPL, and DECID.

Salicaceae

*Populus trichocarpa* T. & G., black cottonwood. Frequent in THPL, WET, and RIVER.

*Salix lasiandra* Benth., red willow. Frequent in WET and RIVER.

*Salix sitchensis* Sanson, Sitka willow. Frequent in WET and RIVER.

*Salix sp.*, willow. One sterile shrub on sand in RIVER.
Saxifragaceae

*Boykinia elata* (Nutt.) Greene, slender boykinia. Occasional along edge of river where shady in DECID.

*Mitella caulescens* Nutt., leafy mitrewort. Occasional in moist areas in PSME and THPL.

*Tiarella trifoliata* L. var. *unifoliata* (Hook.) Kurtz., western coolwort. Abundant in PSME, THPL, and DECID.

*Tolmiea menziesii* (Pursh) T. & G., youth-on-age. Frequent along streams and seeps in PSME, THPL, and DECID.

Scrophulariaceae

*Mimulus moschatus* Dougl., muskflower. Rare in THPL and where moist in RIVER.

*Penstemon davidsonii* Greene var. *menziesii* (Keck) Cronq., Davidson penstemon. Occasional on sand in RIVER.

*Penstemon serrulatus* Menzies, coast penstemon. Sighted in RIVER.

*Veronica americana* Schwein, American brooklime. Infrequent to occasional in WET, DECID, and where moist in RIVER.

*Veronica scutellata* L., marsh speedwell. Sighted in WET.

Taxaceae

*Taxus brevifolia* Nutt., western yew. Occasional in THPL and PSME.

Umbelliferae (Apiaceae)

*Angelica genuflexa* Nutt., kneeling angelica. Occasional in WET.

*Cicuta douglasii* (DC.) Coult. & Rose, western waterhemlock. Occasional in WET.

*Heracleum lanatum* Michx., common cowparsnip. Infrequent in RIVER.

*Oenanthe sarmentosa* Presl, waterparsley. Occasional to frequent in WET.

*Osmorhiza chilensis* H. & A., mountain sweetroot. Occasional to locally frequent in PSME, THPL, and DECID (C & S 621).

*Osmorhiza purpurea* (Coult. & Rose) Suksd., purple sweetroot. Occasional in THPL.

Urticaceae

*Urtica dioica* L. ssp. *gracilis* (Ait.) Seland var. *lyallii* (Wats.) Hitchc., Lyall’s stinging nettle. Occasional to frequent in DECID.

Violaceae

*Viola glabella* Nutt., wood violet. Occasional to frequent in THPL, DECID, and moist areas in PSME.

*Viola palustris* L., marsh violet. Frequent in WET (C & S 616).

*Viola sempervirens* Greene, evergreen violet. Collected in THPL.
The following list shows how the 185 plant taxa are distributed among the 48 families in the checklist:

<table>
<thead>
<tr>
<th>Family</th>
<th>No. of Taxa</th>
<th>Family</th>
<th>No. of Taxa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aceraceae</td>
<td>2</td>
<td>Liliaceae</td>
<td>8</td>
</tr>
<tr>
<td>Alismataceae</td>
<td>1</td>
<td>Lycopodiaceae</td>
<td>1</td>
</tr>
<tr>
<td>Araceae</td>
<td>1</td>
<td>Onagraceae</td>
<td>3</td>
</tr>
<tr>
<td>Araliaceae</td>
<td>1</td>
<td>Ophioglossaceae</td>
<td>2</td>
</tr>
<tr>
<td>Aristolochiaceae</td>
<td>1</td>
<td>Orchidaceae</td>
<td>3</td>
</tr>
<tr>
<td>Berberidaceae</td>
<td>3</td>
<td>Oxalidaceae</td>
<td>1</td>
</tr>
<tr>
<td>Betulaceae</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campanulaceae</td>
<td>1</td>
<td>Pinaceae</td>
<td>5</td>
</tr>
<tr>
<td>Caprifoliaceae</td>
<td>4</td>
<td>Plantaginaceae</td>
<td>1</td>
</tr>
<tr>
<td>Caryophyllaceae</td>
<td>4</td>
<td>Polemoniaceae</td>
<td>1</td>
</tr>
<tr>
<td>Compositae</td>
<td>16</td>
<td>Polygonaceae</td>
<td>2</td>
</tr>
<tr>
<td>Cornaceae</td>
<td>3</td>
<td>Polypodiacae</td>
<td>8</td>
</tr>
<tr>
<td>Cruciferae</td>
<td>1</td>
<td>Portulacea</td>
<td>3</td>
</tr>
<tr>
<td>Cupressaceae</td>
<td>1</td>
<td>Primulaceae</td>
<td>1</td>
</tr>
<tr>
<td>Cyperaceae</td>
<td>17</td>
<td>Ranunculaceae</td>
<td>3</td>
</tr>
<tr>
<td>Equisetaceae</td>
<td>3</td>
<td>Rhamnaceae</td>
<td>1</td>
</tr>
<tr>
<td>Ericaceae</td>
<td>8</td>
<td>Rosaceae</td>
<td>18</td>
</tr>
<tr>
<td>Fumariaceae</td>
<td>1</td>
<td>Rubiaceae</td>
<td>1</td>
</tr>
<tr>
<td>Gramineae</td>
<td>8</td>
<td>Saxifragaceae</td>
<td>4</td>
</tr>
<tr>
<td>Grossulariaceae</td>
<td>2</td>
<td>Scrophulariaceae</td>
<td>5</td>
</tr>
<tr>
<td>Hydrophyllaceae</td>
<td>5</td>
<td>Taxaceae</td>
<td>1</td>
</tr>
<tr>
<td>Juncaceae</td>
<td>6</td>
<td>Umbelliferae</td>
<td>6</td>
</tr>
<tr>
<td>Labiatae</td>
<td>3</td>
<td>Urticaceae</td>
<td>1</td>
</tr>
<tr>
<td>Leguminosae</td>
<td>5</td>
<td>Violaece</td>
<td>3</td>
</tr>
</tbody>
</table>


The Forest Service of the U.S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.

The U.S. Department of Agriculture is an Equal Opportunity Employer. Applicants for all Department programs will be given equal consideration without regard to age, race, color, sex, religion, or national origin.

Pacific Northwest Forest and Range Experiment Station
809 NE Sixth Avenue
Portland, Oregon 97232