



Native Plant Communities

Beyond Right Plant, Right Place

Irene Weber, Kitsap County Parks
Native Plant Workshop

September 16, 2025 | Island Lake County Park



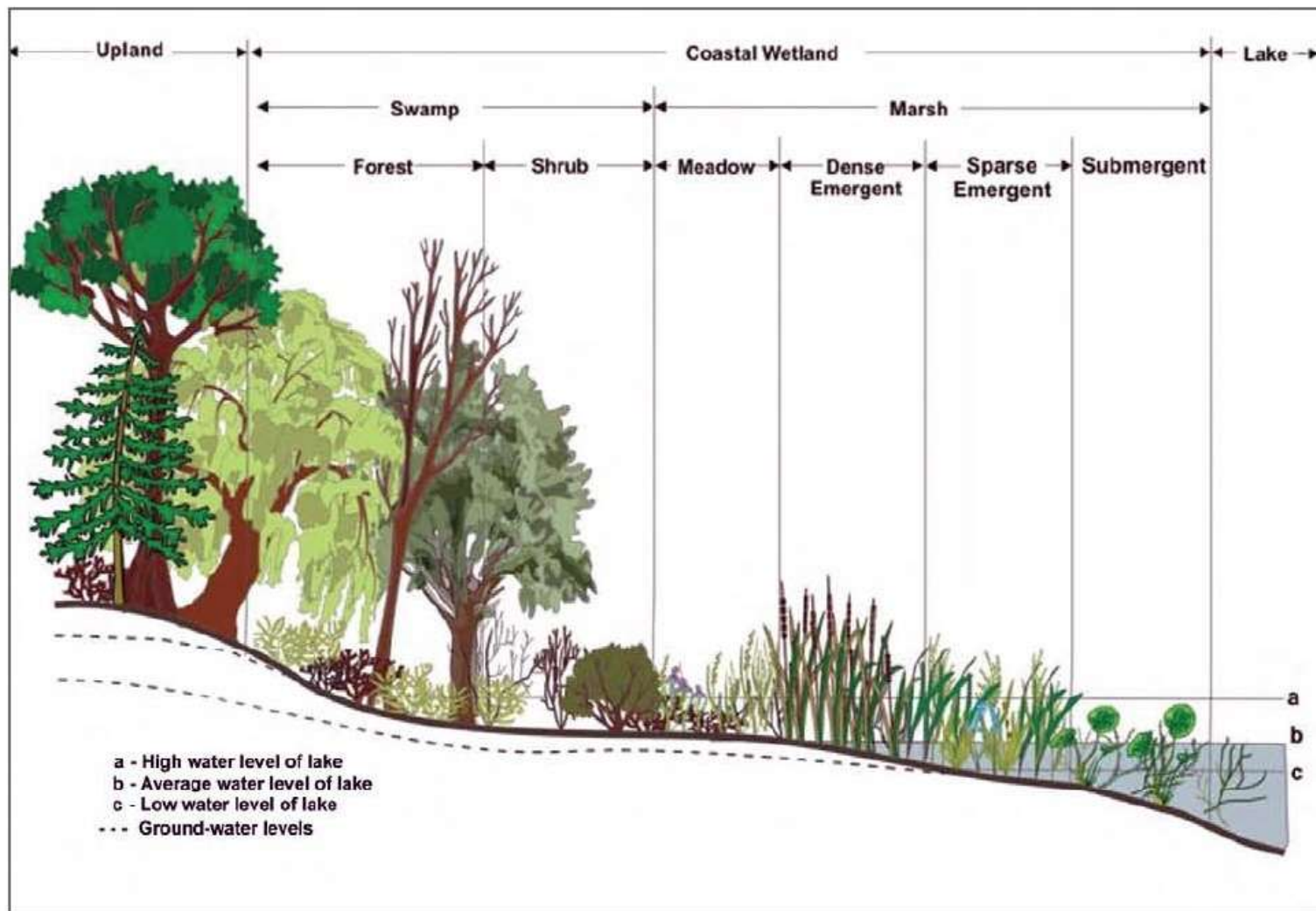
KitsapCounty



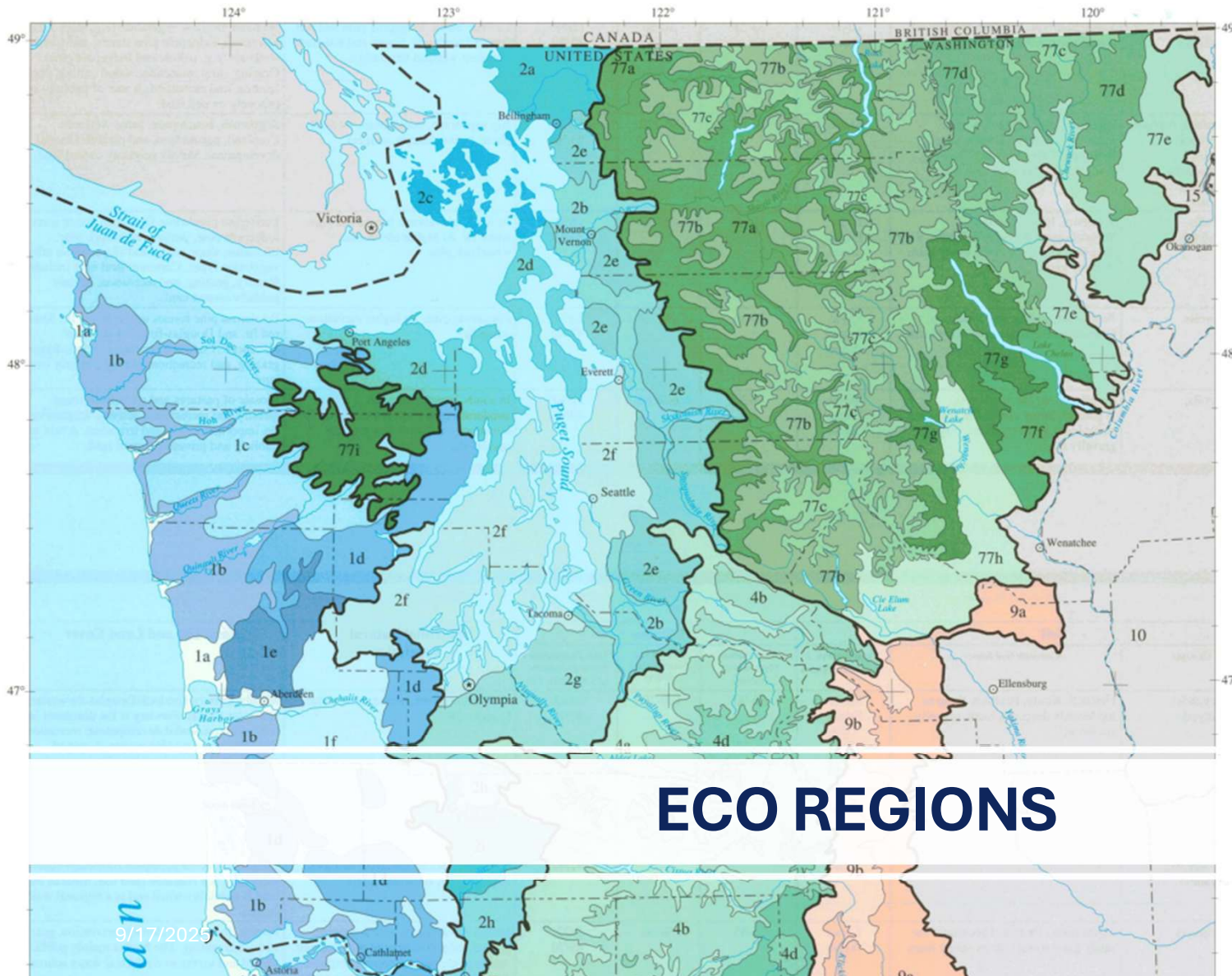
Vegetation Community:

- “Provides means for humans to conceptualize a complex phenomenon to communicate about it for purposes such as conservation, management, and environmental education (Lea, NPS 2011)”
- A common language to compare vegetation communities over years and across organizations





By Douglas A. Wilcox, Todd A. Thompson, Robert K. Booth, and J.R. Nicholas - USGS Document, Circular 1311, Lake-Level Variability and Water Availability in the Great Lakes, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=19748553>



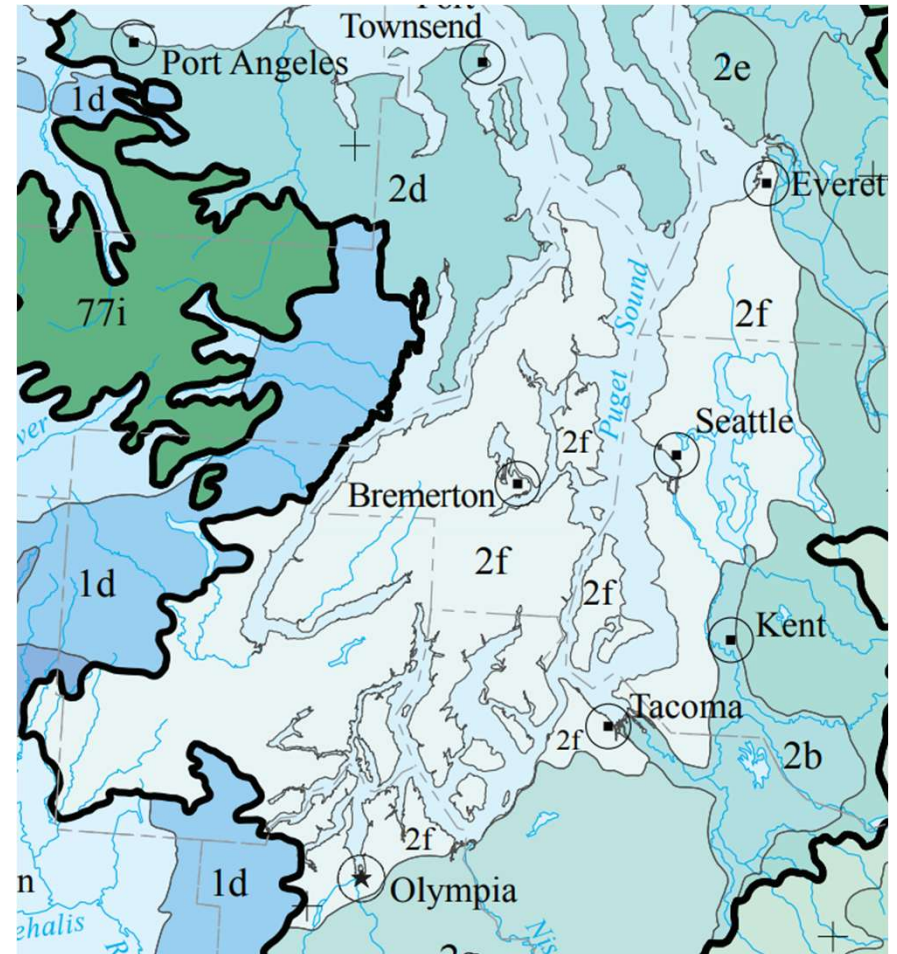
- 1 Coast Range**
- 1a Coastal Lowlands
 - 1b Coastal Uplands
 - 1c Low Olympics
 - 1d Volcanics
 - 1e Outwash
 - 1f Willapa Hills
 - 1g Mid-Coastal Sedimentary
 - 1h Southern Oregon Coastal Mountains
 - 1i Redwood Zone
- 2 Puget Lowland**
- 2a Fraser Lowland
 - 2b Eastern Puget Riverine Lowlands
 - 2c San Juan Islands
 - 2d Olympic Rainshadow
 - 2e Eastern Puget Uplands
 - 2f Central Puget Lowland
 - 2g Southern Puget Prairies
 - 2h Cowlitz/Chehalis Foothills
 - 2i Cowlitz/Newaukum Prairie Floodplains
- 3 Willamette Valley**
- 3a Portland/Vancouver Basin
 - 3b Willamette River and Tributaries Gallery
 - 3c Prairie Terraces
 - 3d Valley Foothills
- 4 Cascades**
- 4a Western Cascades Lowlands and Valleys
 - 4b Western Cascades Montane Highlands
 - 4c Cascade Crest Montane Forest
 - 4d Cascades Subalpine/Alpine
 - 4e High Southern Cascades Montane Forest
 - 4f Umpqua Cascades
 - 4g Southern Cascades

ECO REGIONS

9/17/2025

Central Puget Lowlands Ecoregion

- 0-1000 ft elevation
- Undulating glacial drift plains
- Mesic/Xeric
- Limited moisture holding capacity
- Western hemlock, western red cedar, Douglas-fir; some red alder, bigleaf maple.

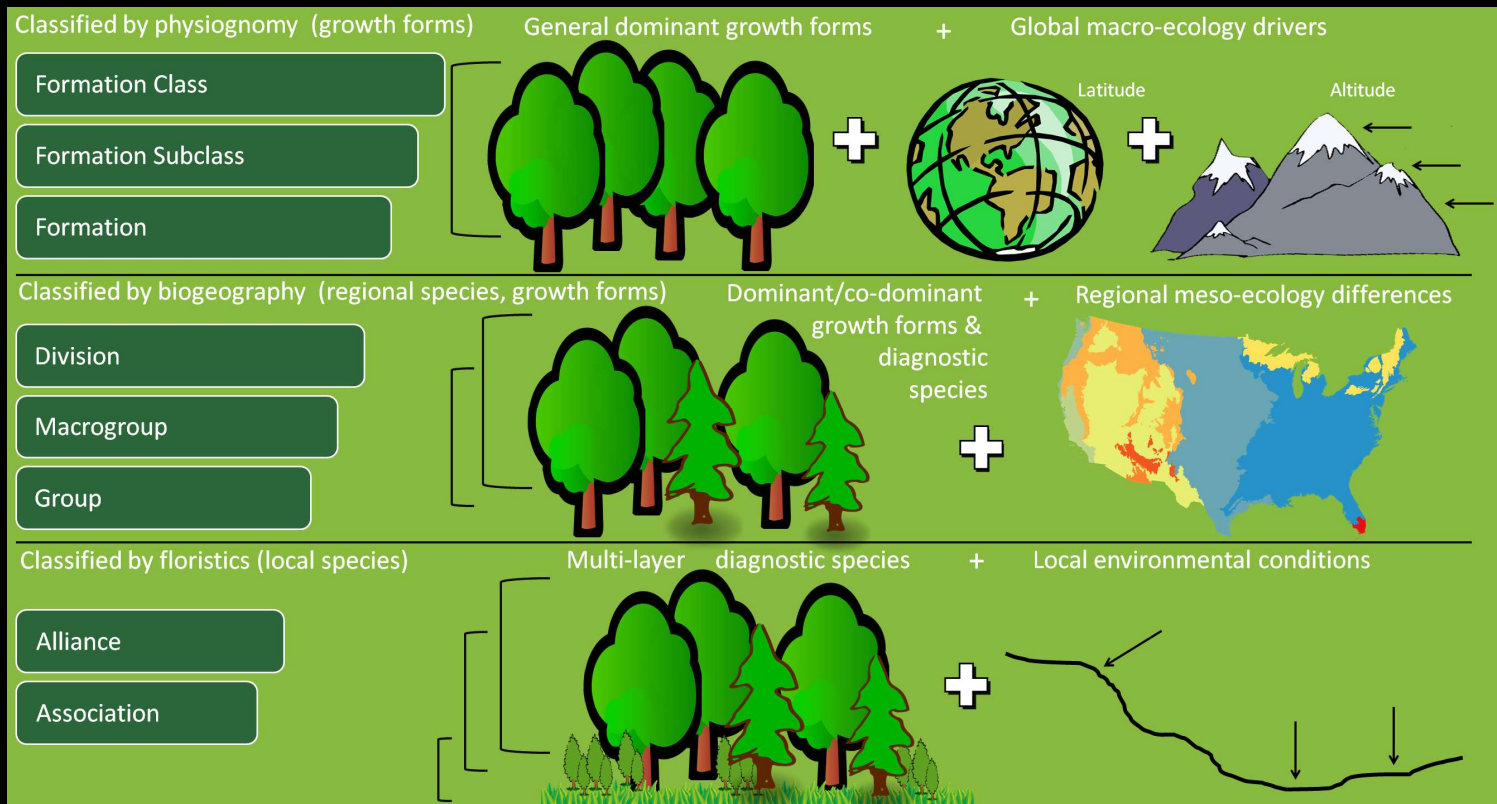


USNVC

- US National Vegetation Classification
- Originated in 1997
- USNVC Version 2.04, June 2022
- Natural and “Unnatural” communities
- Peer reviewed



USNVC (United States National Vegetation Classification) Database Ver 2.032. 2022. Federal Geographic Data Committee, Vegetation Subcommittee. Washington D.C.

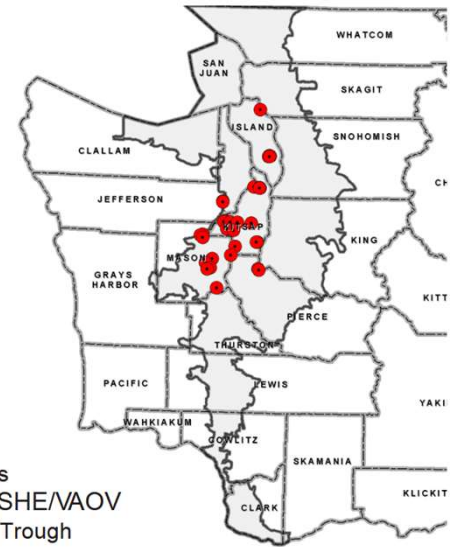


Hierarchy	Name
Formation Class	1 Forest & Woodland Class
Formation Subclass	1.B Temperate & Boreal Forest & Woodland Subclass
Formation	1.B.2 Cool Temperate Forest & Woodland Formation
Division	1.B.2.Nd Vancouverian Forest & Woodland Division
Macrogroup	MG024 Western Hemlock - Sitka Spruce - Redwood Rainforest Macrogroup
Group	G240 Douglas-fir - Western Hemlock / Salal Rainforest Group
Alliance	A3379 Western Hemlock - Douglas-fir / Oceanspray Dry Forest Alliance
Association	CEGL002614 Pseudotsuga menziesii - Tsuga heterophylla / Vaccinium ovatum Forest

CEGL002614 *Pseudotsuga menziesii* - *Tsuga heterophylla* / *Vaccinium ovatum* Forest



Chris Chappell photo



Plot locations
of PSME-TSHE/VAOV
in the Puget Trough

CEGL002614 *Pseudotsuga menziesii* - *Tsuga heterophylla* / *Vaccinium ovatum* Forest

- Endemic to the Puget Trough ecoregion.
- Evergreen huckleberry provides >5% cover, Pacific rhododendron <5% cover, and sword fern <3% cover, Salal usually co-dominates with evergreen huckleberry
- These sites are moderately dry and appear to be relatively nutrient-poor.

Vegetation Composition Table (selected species):

Con = constancy, the percent of plots within which each species was found;
Cov = cover, the mean crown cover of the species in plots where it was found;
+ = trace (< 0.5% cover).

Trees	Kartesz 2005 Name	Con	Cov
Douglas-fir	<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>	100	60
western hemlock	<i>Tsuga heterophylla</i>	89	37
western redcedar	<i>Thuja plicata</i>	82	9
western white pine	<i>Pinus monticola</i>	45	14
Shrubs and Dwarf-shrubs			
evergreen huckleberry	<i>Vaccinium ovatum</i>	100	28
salal	<i>Gaultheria shallon</i>	97	27
dwarf Oregon grape	<i>Mahonia nervosa</i>	53	3
red huckleberry	<i>Vaccinium parvifolium</i>	42	2
trailing blackberry	<i>Rubus ursinus</i> var. <i>macropetalus</i>	32	+
Pacific rhododendron	<i>Rhododendron macrophyllum</i>	16	3
Forbs and Ferns			
bracken fern	<i>Pteridium aquilinum</i> var. <i>pubescens</i>	68	2
sword fern	<i>Polystichum munitum</i>	37	1
twinflower	<i>Linnaea borealis</i> ssp. <i>longiflora</i>	16	4
western starflower	<i>Trientalis borealis</i> ssp. <i>latifolia</i>	16	+

Upland Plant Associations of the Puget Trough Ecoregion, Washington
2006. Christopher B. Chappell.

What does this Plant Community Tell Me?

- I'm in a dry site
- Soils are likely gravelly and might have a restrictive layer
- Depending on successional stage, I might see a lot of Doug fir, red cedar, or western hemlock in the canopy
- Fire is the primary natural disturbance, but return interval is long
- “Wet feet” plants might not do well here
- Great place to forage for berries!

What Should I Plant Here?

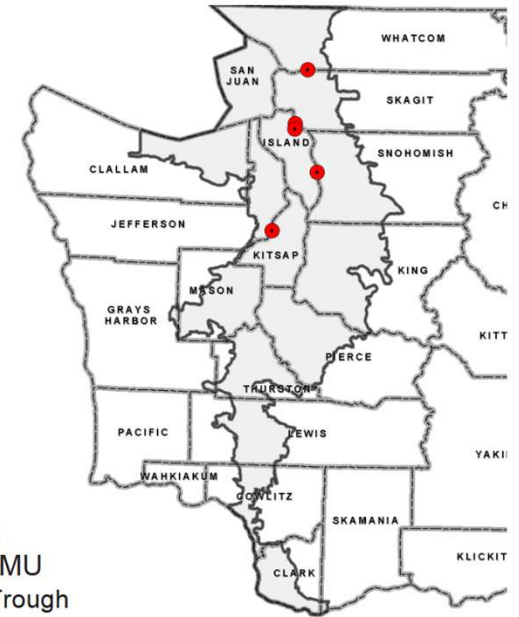
We can go to our plant association description and see what is commonly found in these types of forests:



CEGL000638 *Alnus rubra* / *Polystichum munitum* Forest



Chris Chappell photo



Plot locations
of ALRU/POMU
in the Puget Trough

CEGL000638 *Alnus rubra* / *Polystichum munitum* Forest

- Found throughout the Puget Trough ecoregion and surrounding areas
- Common after disturbance
- Red alder dominates with a sword fern understory
- Found on upland sites (not bluffs, landslides, or riparian terraces)

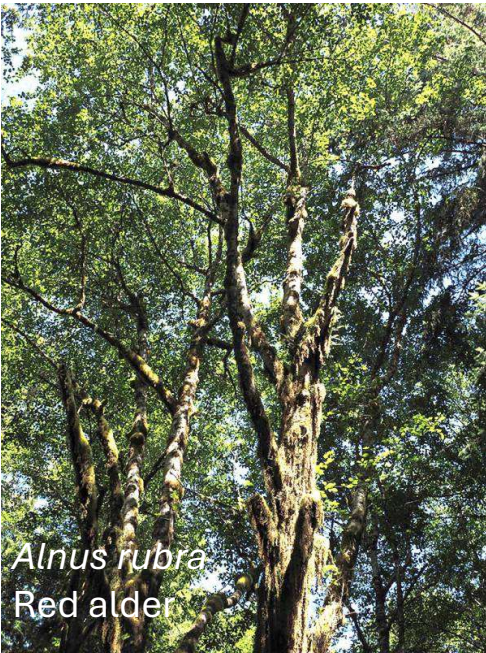
Upland Plant Associations of the Puget Trough Ecoregion, Washington 2006. Christopher B. Chappell.

Trees	Kartesz 2005 Name	Con	Cov
red alder	<i>Alnus rubra</i>	100	82
western hemlock	<i>Tsuga heterophylla</i>	80	2
Douglas-fir	<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>	40	12
bigleaf maple	<i>Acer macrophyllum</i>	20	13
grand fir	<i>Abies grandis</i>	20	8
Shrubs and Dwarf-shrubs			
salmonberry	<i>Rubus spectabilis</i> var. <i>spectabilis</i>	100	33
trailing blackberry	<i>Rubus ursinus</i> ssp. <i>macropetalus</i>	80	8
red huckleberry	<i>Vaccinium parvifolium</i>	80	7
red elderberry	<i>Sambucus racemosa</i> var. <i>racemosa</i>	60	4
swamp currant	<i>Ribes lacustre</i>	60	2
oceanspray	<i>Holodiscus discolor</i>	40	7
dwarf Oregongrape	<i>Mahonia nervosa</i>	40	6
Graminoids			
Dewey's sedge	<i>Carex deweyana</i> var. <i>deweyana</i>	80	2
nodding trisetum	<i>Trisetum canescens</i>	60	2
Columbia brome	<i>Bromus vulgaris</i>	60	1
blue wildrye	<i>Elymus glaucus</i>	40	2
bearded fescue	<i>Festuca subulata</i>	40	2
Forbs and Ferns			
sword fern	<i>Polystichum munitum</i>	100	57
spreading woodfern	<i>Dryopteris expansa</i>	80	5
Siberian springbeauty	<i>Claytonia siberica</i> var. <i>siberica</i>	60	13
stinging nettle	<i>Urtica dioica</i> ssp. <i>gracilis</i>	60	8
bracken fern	<i>Pteridium aquilinum</i> var. <i>pubescens</i>	60	6
threeleaf foamflower	<i>Tiarella trifoliata</i> var. <i>trifoliata</i>	60	6
lady-fern	<i>Athyrium filix-femina</i> ssp. <i>cyclosorum</i>	60	3
sweet-scented bedstraw	<i>Galium triflorum</i>	60	1
enchanter's nightshade	<i>Circaea alpina</i> ssp. <i>pacifica</i>	40	4
fringecup	<i>Tellima grandiflora</i>	40	+
western starflower	<i>Trientalis borealis</i> ssp. <i>latifolia</i>	40	+
Pacific bleedingheart	<i>Dicentra formosa</i> ssp. <i>formosa</i>	20	3

What does this Plant Community Tell Me?

- Site is moist
- This area was likely disturbed (timber harvest, old road, etc.)
- Soils can be variable
- Depending on age of alders, I might see a Douglas fir or western hemlock in the understory
- Overtime, alders will die out and conifers will become the dominant tree on site
- English ivy and herb Robert may cause issues here

What Should I Plant Here?



Alnus rubra
Red alder



Acer macrophyllum
Big-leaf maple



Rubus spectabilis
Salmonberry

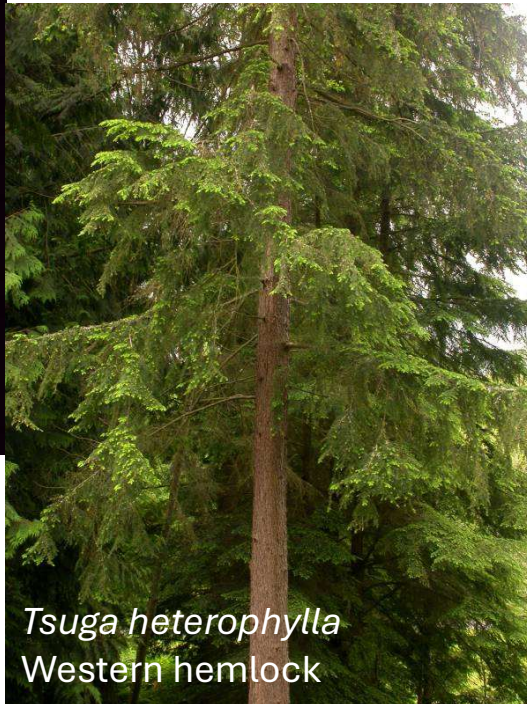


Dicentra formosa
Pacific bleedingheart

What Should I Plant Here?



Pseudotsuga menziesii
Douglas fir



Tsuga heterophylla
Western hemlock



Polystichum munitum
Swordfern



Tellima grandiflora
Fringecup

CEGL001796 *Leymus mollis* - *Abronia latifolia* Grassland



Range

- Known from Northern CA to BC
- Found on active coastal sand dunes and hummocks along the coast
- Actively moving sand and salt spray are required

Ebey's Landing National Historical Reserve Vegetation Classification and Mapping Project, Natural Resource Report
NPS/NCCN/NRR—2016/1127 Catharine Copass and Tynan Ramm-Granberg

What does this Plant Community Tell Me?

- I'm at the beach!
- Sand has been minimally stabilized
- Total plant cover is low
- There may be lots of driftwood
- This community will move and change overtime with the elements
- May co-occur with other plant communities depending on stabilization
- European beachgrass is a big threat to this community

What Should I Plant Here?



How do I find out?

The Washington Natural Heritage Program is the primary resource for vegetation community information in Washington



WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES
DAVE UPTEGROVE | COMMISSIONER OF PUBLIC LANDS

English ▾

How can we help you... 

PROGRAMS AND SERVICES ▾ ABOUT ▾ MANAGED LANDS ▾ WORKING AT DNR ▾ COMMISSIONER ▾

[Home](#) > [Natural Heritage Program](#) > [Ecosystems Of Washington](#) > U.S. National Vegetation Classification

PROGRAMS AND SERVICES

- U.S. National Vegetation Classification**
- Ecological Systems
- Wetland and Riparian Vegetation Types
- Ecological Integrity Assessment
- Floristic Quality Assessment
- WA Invasive Ranking System
- Reports



U.S. National Vegetation Classification

The [U.S. National Vegetation Classification](#) (USNVC) is a result of a 20-year collaborative effort to develop a unified and consistent national reporting system for plant communities. As a collaboration between NatureServe, the Ecological Society of America (ESA), and federal agencies the USNVC is a reporting standard organized to reflect the functional ecology of plant communities. The organizing framework of the classification helps scientists speak the same language, whether to monitor vegetation of a particular site or conduct broad scale analyses of trends across the North American continent.

NatureServe has worked with the U.S. Forest Service, U.S. Geological Survey, National Park Service, Bureau of Land Management, ESA's Panel on Vegetation Classification and state Natural Heritage Programs to ensure the scientific rigor of the classification and facilitate the classification's development. A peer view process for revisions and additions to the classification will be managed by ESA's Panel on Vegetation Classification. The process is similar to those required for publication in scientific journals.

CONTACT

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<https://dnr.wa.gov/natural-heritage-program/ecosystems-washington/us-national-vegetation-classification>

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English



Welcome to NatureServe Explorer!

NatureServe is the definitive source for information on rare and endangered species and ecosystems in the Americas. This online guide provides information on the 100,000 species and ecosystems that we track.

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U.S. National Vegetation Classification

Your guide to the nation's vegetation!



Great Basin Pinyon- Juniper Woodland Group
Zion National Park, Utah, USA

All Photos by Chris Lea/National Park Service

USNVC Database



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<https://usnvc.org/>





Burke Herbarium Image Collection

Vascular Plants, Macrofungi, & Lichenized Fungi of Washington



☒ Names ☐ Photos

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Philadelphus lewisii – Northrup Canyon, Douglas County, WA © Ben Legler



The Image Collection web site presents photographs and information for the vascular plants, macrofungi, and lichenized fungi of Washington state. Photographs are accompanied by distribution maps, species descriptions, synonymy, and links to additional resources. An easy to use identification key is provided for vascular plants.

Developed and hosted by the [University of Washington Herbarium](#) at the [Burke Museum](#), this site brings together **106,083** photographs and contributions from numerous photographers and botanists.

Washington is home to an estimated **3,451** species of vascular plants, **2,537** species of macrofungi, and **1,195** species of lichenized fungi across a diverse array of landscapes from lush coastal rainforests to dry sagebrush plains, high alpine meadows and much more in between.

The Burke Herbarium and its partners have also released [wildflower identification apps for Washington and Idaho](#) based in part on content from the Burke Herbarium Image Collection. The macrofungal portion of the Image Collection web site reproduces photographs and species descriptions from [Mushrooms of the Pacific Northwest](#), published by Timber Press.

Summary:

3,225 vascular plant species with photos

1,142 macrofungi species with photos

254 lichenized fungi species with photos

99,777 vascular plant photos

5,038 macrofungi photos

826 lichenized fungi photos

— by **729** photographers

<https://www.burkeherbarium.org/imagecollection/>



Observations



Species

Kitsap, WA

Go

Filters ¹

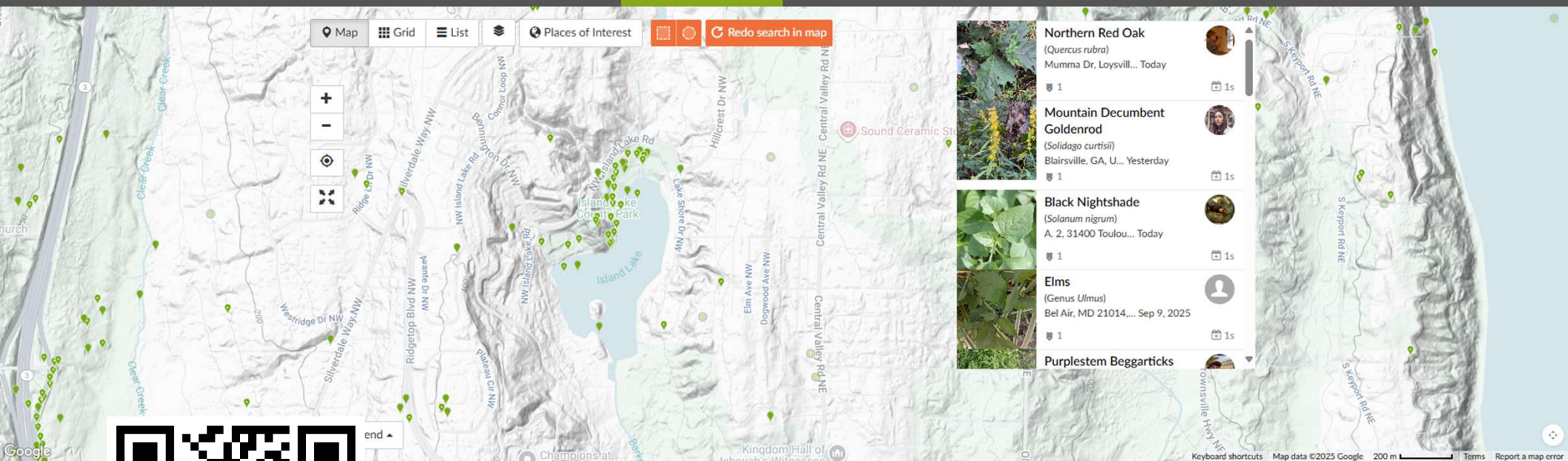
The World

109,013,775
OBSERVATIONS

177,502
SPECIES

260,318
IDENTIFIERS

2,623,988
OBSERVERS



Map Grid List Places of Interest

Redo search in map

end

Northern Red Oak
(*Quercus rubra*)
Mumma Dr, Loysvill... Today
1 1s

Mountain Decumbent Goldenrod
(*Solidago curtisii*)
Blairsville, GA, U... Yesterday
1 1s

Black Nightshade
(*Solanum nigrum*)
A. 2, 31400 Toulou... Today
1 1s

Elms
(Genus *Ulmus*)
Bel Air, MD 21014... Sep 9, 2025
1 1s

Purplestem Beggarticks



<https://www.inaturalist.org/>

Consortium of Pacific Northwest Herbaria

Providing access to specimen data and digital resources from herbaria throughout the Pacific Northwest of North America

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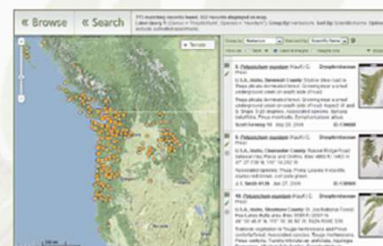
Herbarium specimens from the Pacific Northwest
3,284,765 specimen records and 1,743,940 images from 54 herbaria.

Alaska
British Columbia
Idaho
Montana
Oregon
Washington
Yukon Territory

About Us

The Consortium of Pacific Northwest Herbaria was created in 2007 to bring together regional herbaria and provide an online portal to the wealth of existing and emerging information about the flora of Pacific Northwest North America. Over 3.6 million specimen records and numerous online electronic resources are managed by the region's 60 herbaria, representing an irreplaceable storehouse of information for research and public education. [More...](#)

Search the database:



Erigeron aureus

Specimen Data:



Specimen Database

Search for herbarium specimens by label data or geographic location. Results show full label data, images of specimens sheets, and a distribution map. Results can also be downloaded or distilled into a species checklist.

Compiled Resources:



Species Checklists by County

Create species lists for any counties in Washington, Oregon, Idaho, or Montana. Lists can include vascular plants, bryophytes, lichens, algae, and/or fungi.

Documentation & Links:



Specimen Imaging Documentation

Learn how CPNWH images herbarium specimens. Included are detailed descriptions of our equipment and workflows. Software scripts are available for download.



<https://www.pnwherbaria.org/>

Welcome to SEINet

The Arizona - New Mexico Chapter of SEINet started as a gateway to distribute botanical data of interest to the environmental research community within Arizona and New Mexico. Over time this database grew to include many collections across North America. When you search this portal, or any of the other SEINet portal partners, you are getting results from our one central database. The SEINet portal network contains 24 million records from 456 collections. Collections are organized into regional consortia that are accessed through different websites but share a central database. Some examples include: the [Consortium of Midwest Herbaria](#), [Consortium of Southern Rocky Mountain Herbaria](#), [Intermountain Regional Herbarium Network](#), [Madrean Discovery Expeditions \(MDE\)](#), [Mid-Atlantic Herbaria Consortium](#), [North American Network of Small Herbaria](#), [North Great Plains Herbaria](#), [Red de Herbarios Mexicanos](#), [SERNEC \(Southeast USA\)](#), and the [Texas Oklahoma Regional Consortium of Herbaria \(TORCH\)](#).

Here you'll find taxon pages, checklists, and other tools to help you understand the plants in your region of interest.

Join SEINet as a regular visitor and please send your feedback to the [Support Hub HelpDesk \(help@symbiota.org\)](#). Visit the [Data Usage Policy](#) page for information on how to cite data obtained from this web resource.

More Arizona and New Mexico specimen data can be found here:

- Bryophytes: [Consortium of Bryophyte Herbaria](#)
- Fungi: [Mycology Collections Portal \(MyCoPortal\)](#)
- Lichens: [Consortium of Lichen Herbaria](#)
- Macroalgae: [Algae Herbarium Consortium](#)

Plant of the Day



What is this plant?

[Click here to test your knowledge](#)



<https://swbiodiversity.org/seinet/index.php>



Plant Communities and You

- Understanding natural plant assemblages can help you understand what native plants work together and why
- Integral part of restoration practices
- This information can help guide your planting plans
- Another way to see and appreciate the natural world



QUESTIONS?

THANK YOU!

Irene Weber

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Kitsap County Parks

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