



What the FAC is Up with Aspen in the Pacific Northwest?



DEPARTMENT OF
ECOLOGY
State of Washington

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Washington Botanical Symposium

March 8, 2023

Cheeky puns aside...

Classifying plants for wetlands

Populus tremuloides classification

I have concerns...

What am I going to do?

A crash course in identifying wetlands:

“...areas that are inundated or saturated by surface...or ground water at a frequency and duration sufficient to support and, that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”



Water



Frequency and duration

Soil



Hydric indicators

Plants



Wetland indicator status

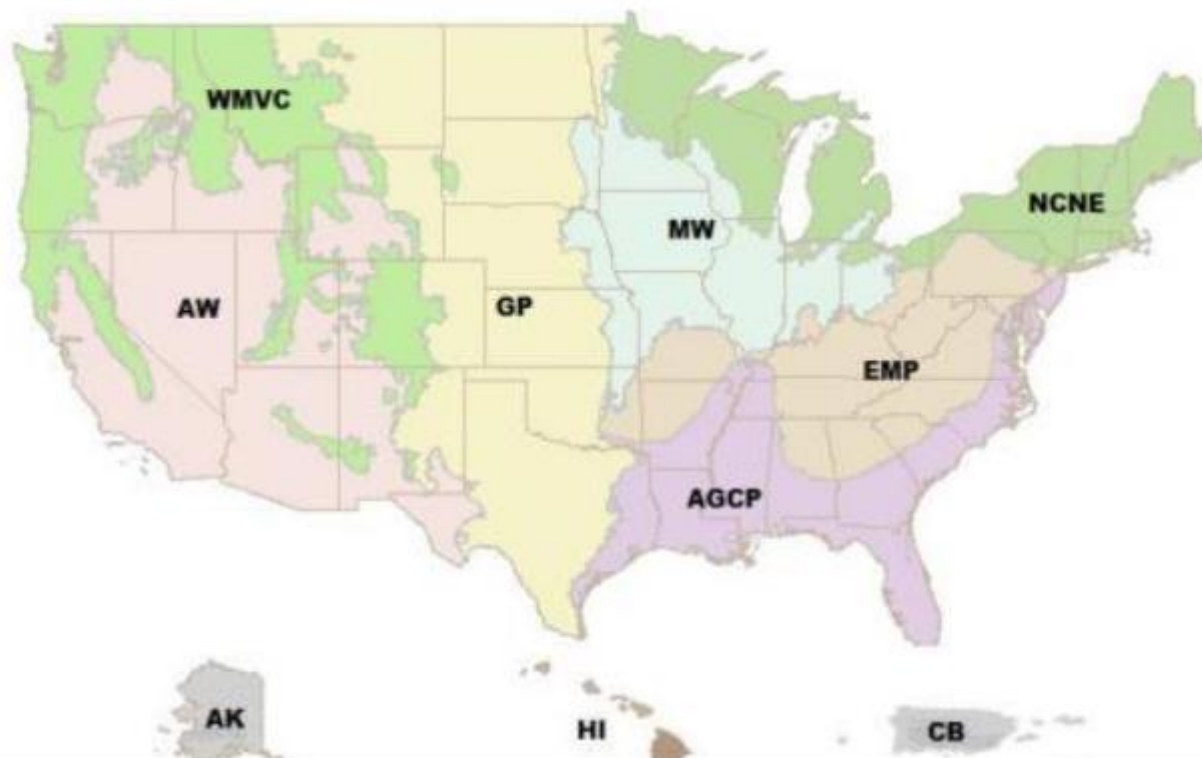
Wetland indicator status of plants

Indicator Status Ratings

Indicator Status	Abrv.	Definitions - Short Version (ERDC/CRREL TN-12-1)
Obligate	OBL	Almost always occur in wetlands.
Facultative Wetland	FACW	Usually occur in wetlands, but may occur in non-wetlands.
Facultative	FAC	Occur in wetlands and nonwetlands.
Facultative Upland	FACU	Usually occur in non-wetlands, but may occur in wetlands.
Upland	UPL	Almost never occur in wetlands.

Displayed on the right is the Wetland Regions Map for the Corps of Engineers

- NCNE Northcentral and Northeast
- MW Midwest
- EMP Eastern Mountains and Piedmont
- GP Great Plains
- AW Arid West
- AGCP Atlantic and Gulf Coastal Plain
- WMVC Western Mountains, Valleys & Coast
- AK Alaska
- HI Hawaii
- CB Caribbean



To download the ESRI Shapefile for the Corps of Engineers Wetland Regions :

[Click Here to Download](#) (4.58 Mb)

National Wetland Plant List

https://wetland-plants.usace.army.mil/nwpl_static/v34/home/home.html

2020 NWPL v3.5 - Species Detail Tool

Populus tremuloides

Enter a NWPL Scientific Name in the Search Box below :



US Army Corps of Engineers

[Open Species Print Window](#)





☐ Search Synonyms

Populus tremuloides (Quaking Aspen) SALICACEAE (Willow Family)

AGCP	AW	CB	EMP	GP	HI	MW	NCNE	WMVC	AK
FAC	FACU		FAC	FAC		FAC	FACU	FACU	FACU

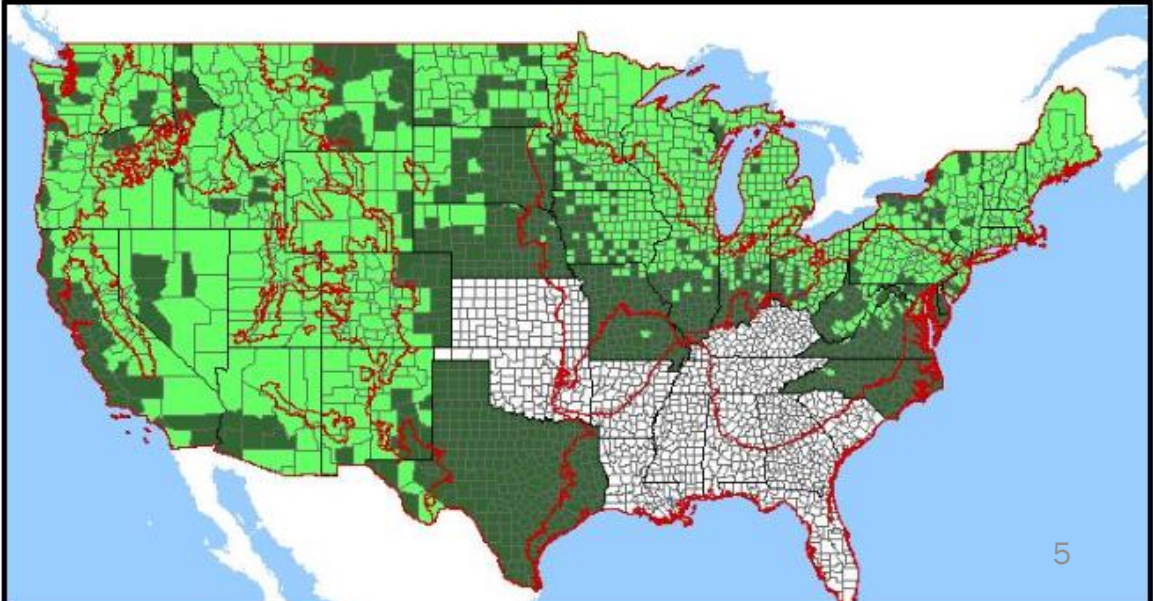
Click the **Species Voting Rounds** Checkbox, in the right column, to View Species Voting data by Region.

Populus tremuloides

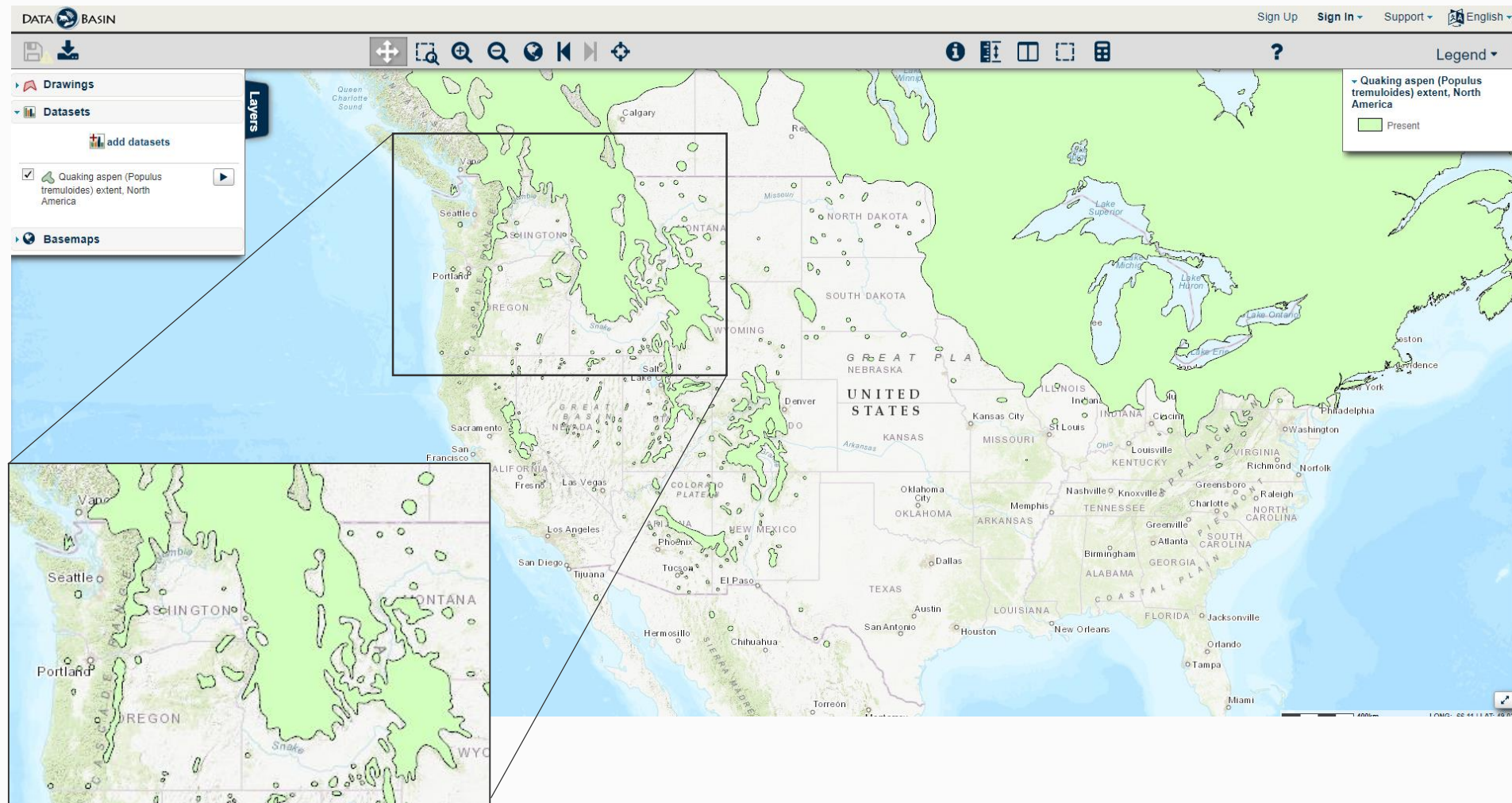
- Populus aurea
- Populus cercidiphylla
- Populus X polygonifolia
- Populus tremula ssp. tremuloides
- Populus tremuloides var. aurea
- Populus tremuloides var. cercidiphylla
- Populus tremuloides var. intermedia
- Populus tremuloides var. magnifica
- Populus tremuloides var. rhomboidea
- Populus tremuloides var. vancouveriana
- Populus vancouveriana

Michx.

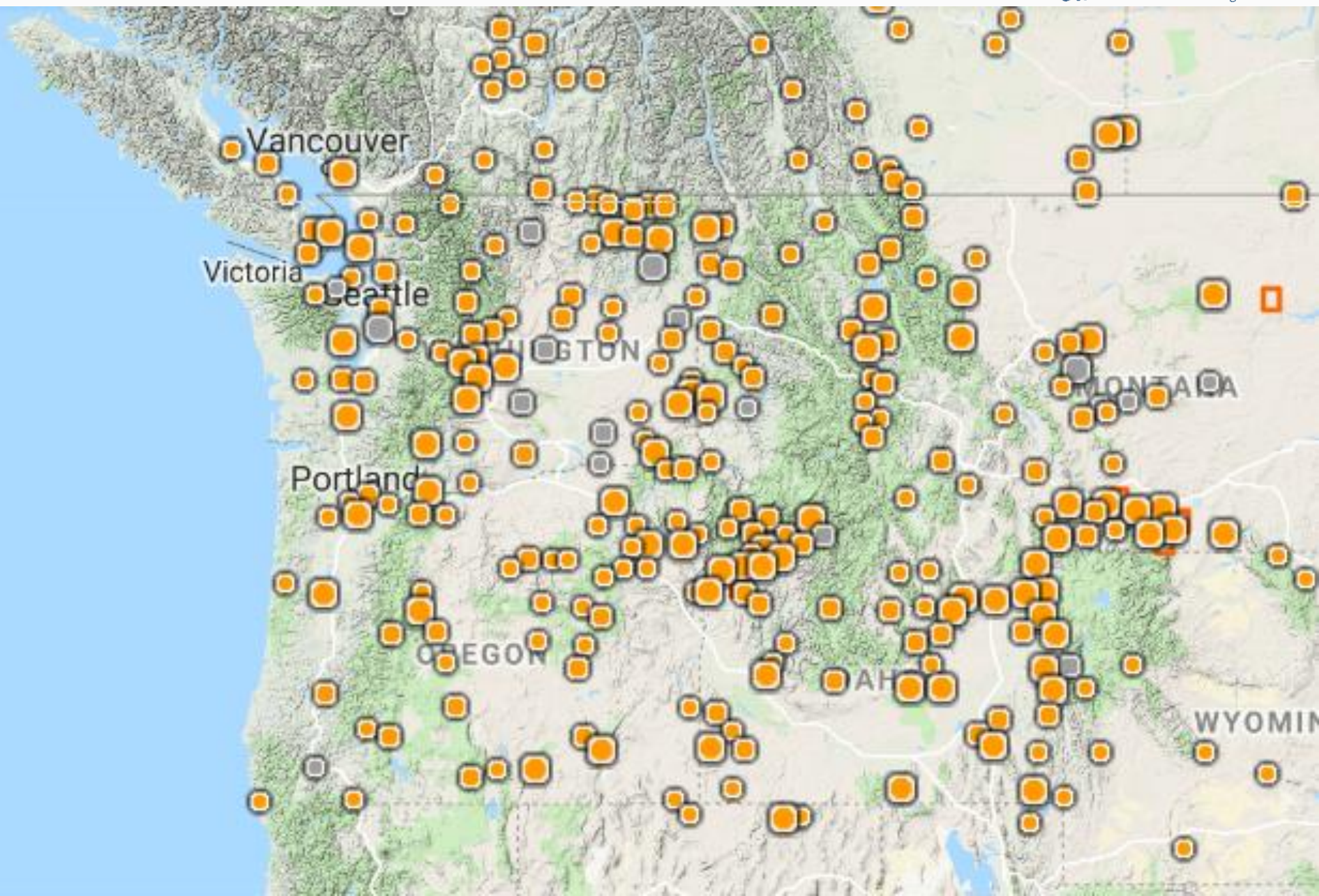
- Tidestrom
- Britt.
- Bernard
- (Michx.) A. & D. Löve
- (Tidestrom) Daniels
- (Britt.) Sudworth
- Victorin
- Victorin
- Victorin
- (Trel.) Sarg.
- Trel.



Quaking Aspen in the PNW?



Populus tremuloides in the PNW:



1988 NWPL

Populus tremula

Quaking Aspen



FACU



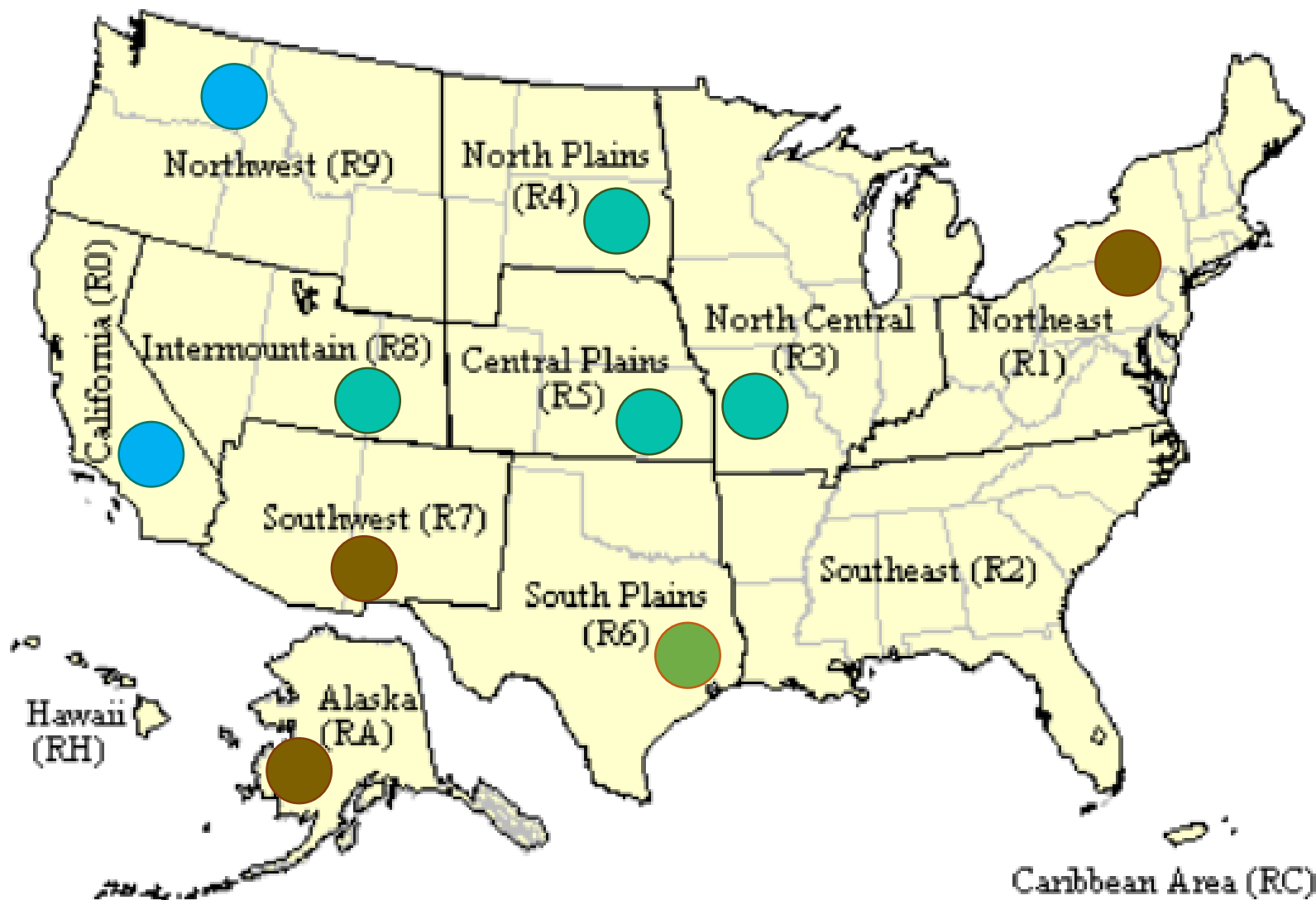
FAC-



FAC



FAC+



1996 NWPL

Populus tremuloides

Quaking Aspen



FACU-



FACU



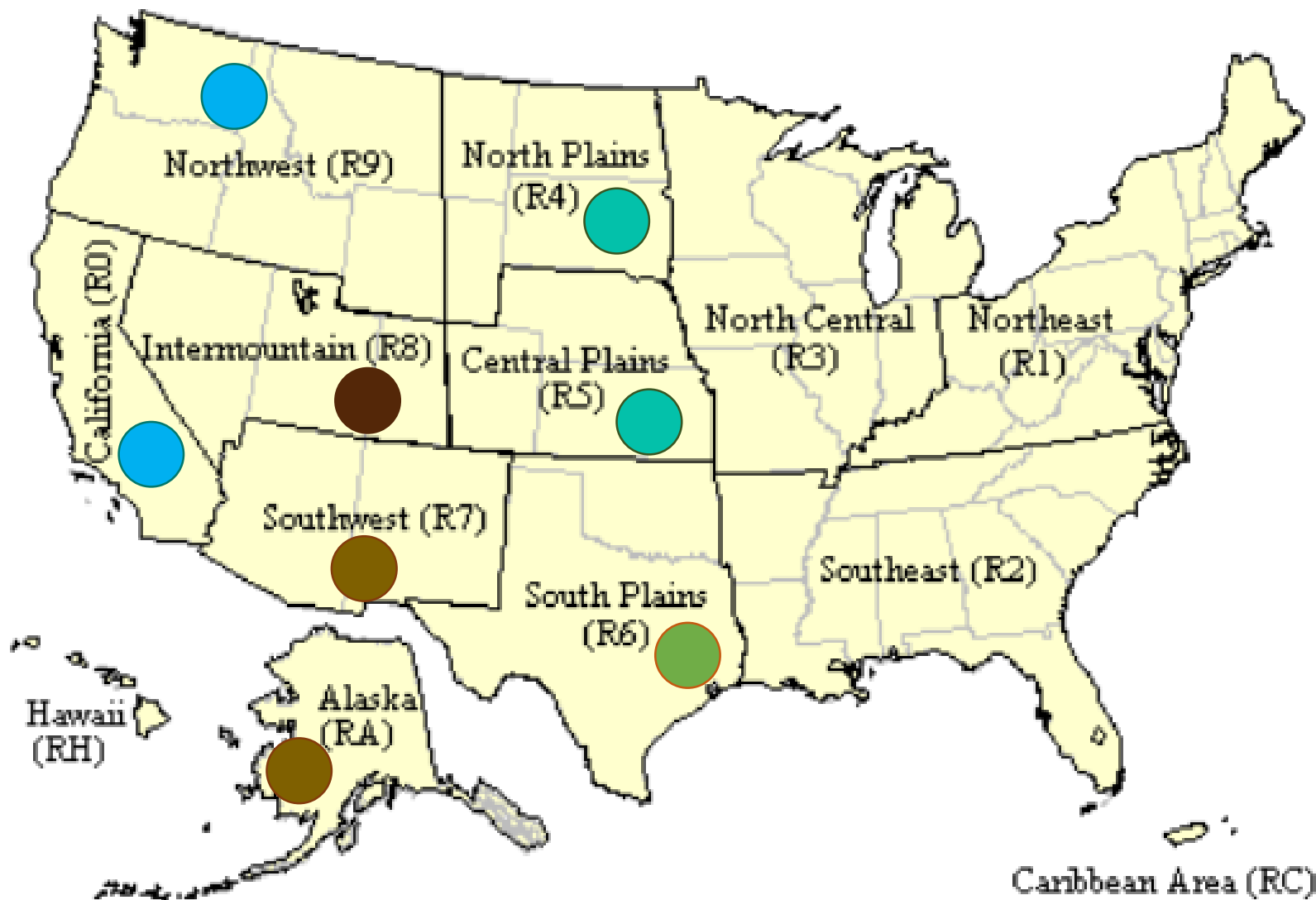
FAC-



FAC



FAC+



2012-2022 NWPL

Populus tremuloides

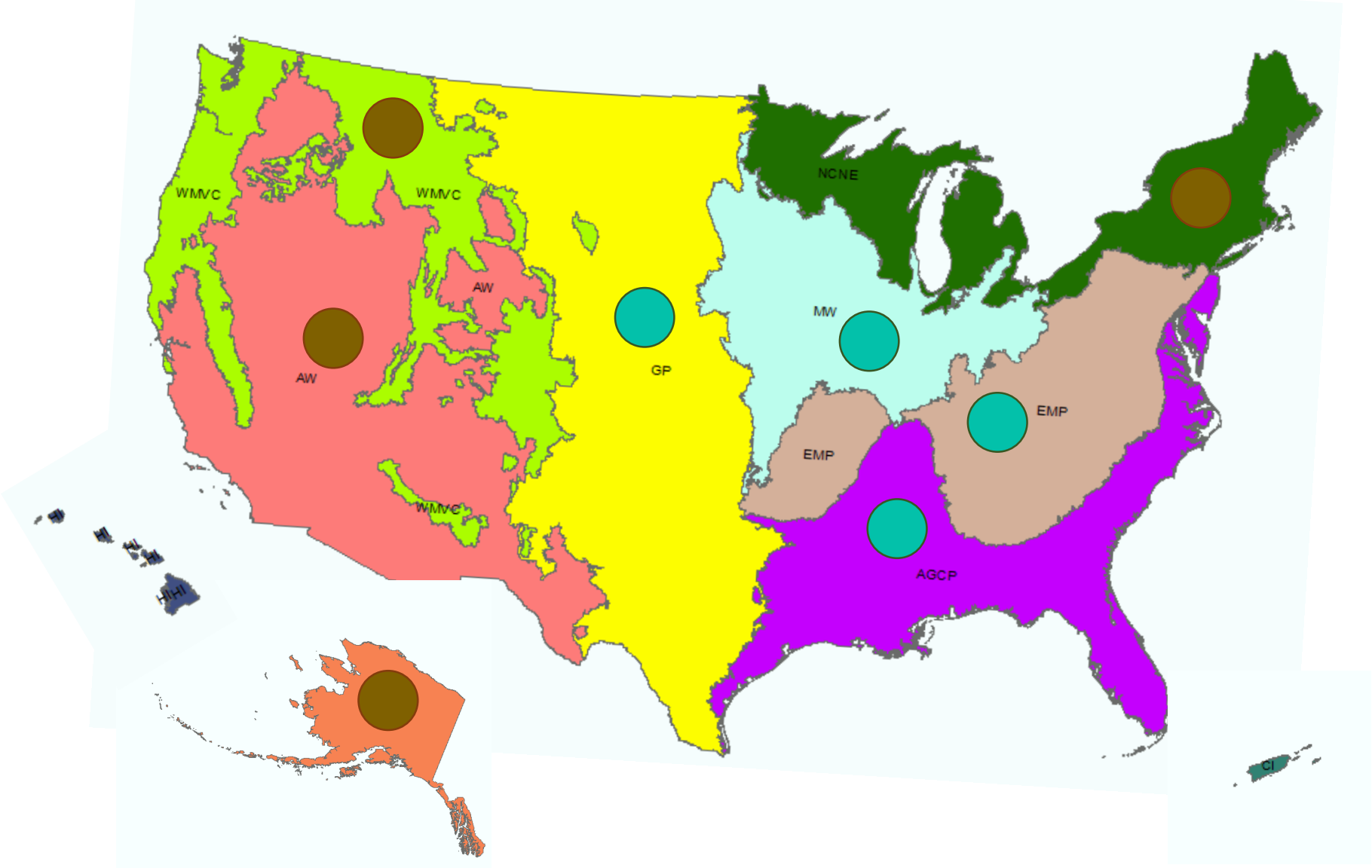
Quaking Aspen



FACU



FAC



NWPL Change request process

- Literature citations
- Regional floras
- Herbaria records
- Personal observations
- Field data
- Other references



Daubenmire. R. 1970. *Steppe Vegetation of Washington*. Washington State University Agricultural Experiment Station Technical Bulletin No. 62.



Populus tremuloides/*Crataegus douglasii* (FAC)/*Heracleum maximum* (FACW)
Populus tremuloides/*Crataegus douglasii* (FAC)/*Symphoricarpos albus* (FACU)

Franklin, J. F. & C. T. Dyrness.
1988. *Natural Vegetation of
Oregon and Washington*. Oregon
State University Press.

Figure 125.—Groves of *Populus tremuloides*
are common on riparian and poorly
drained habitats within the *Pinus ponderosa*
Zone (Colville Indian Reservation,
Washington).



Crowe, E.A. and R.R. Clausnitzer. 1997. Mid-montane Wetland Plant Associations of the Malheur, Umatilla, and Wallowa-Whitman National Forests. U.S. Dept. of Agriculture, Forest Service. R6-NR-ECOL-TP-22-97

- EWA WMVC:

- *Populus tremuloides* / *Calamagrostis canadensis* (FACW)
- *Populus tremuloides* / *Carex pellita* (OBL)

- EWA WMVC/AW:

- *Populus tremuloides* / *Cornus sericea* (FACW)

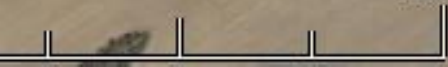


Crawford, R.C. 2003. *Riparian Vegetation Classification of the Columbia Basin, Washington*. Washington Department of Natural Resources, Natural Heritage Program Report 2003-03. Olympia WA



Crataegus douglasii (FAC) – *Populus tremuloides* – *Betula occidentalis* (FACW)

181 m

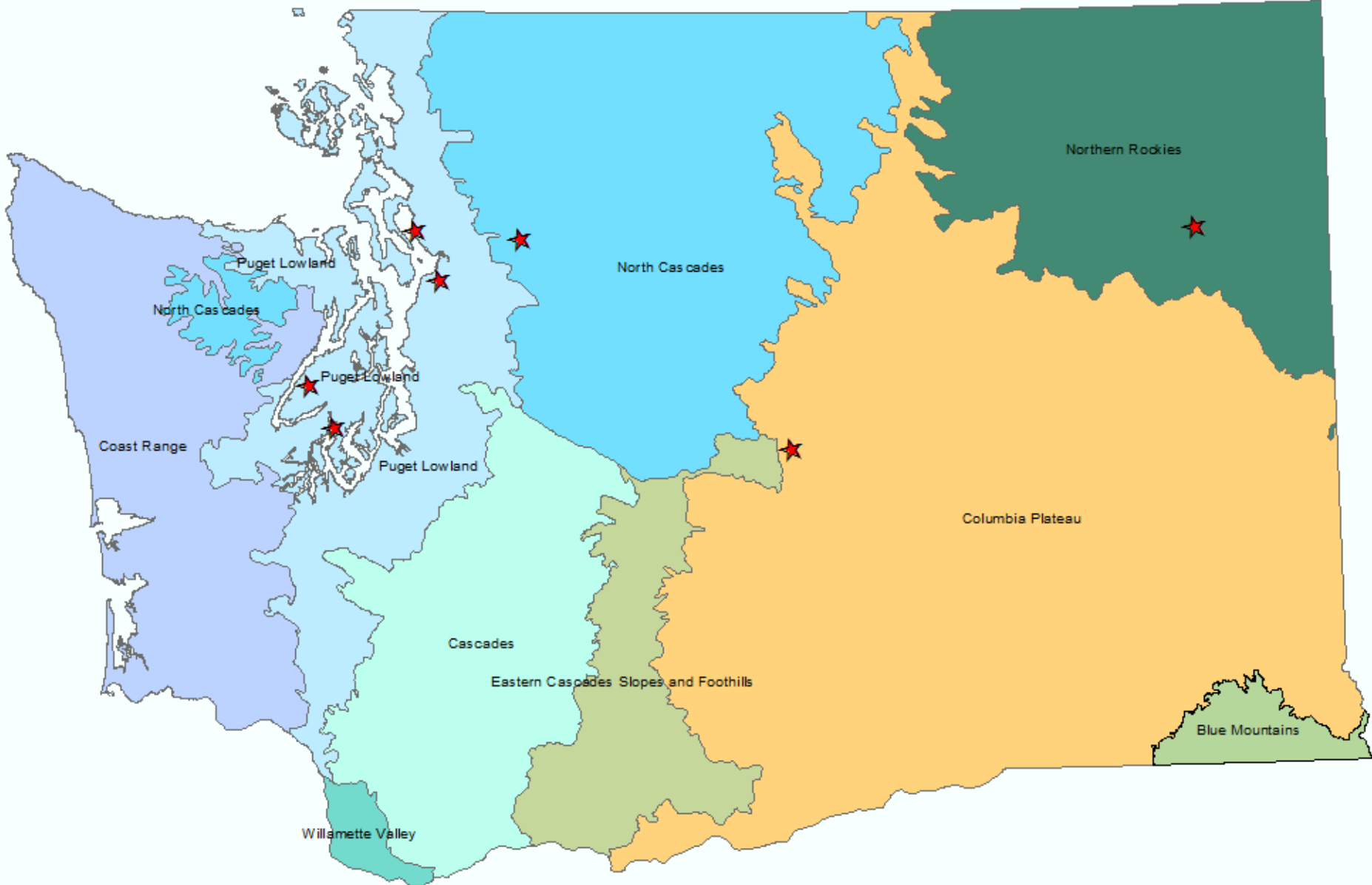




WA Natural Heritage Program Key to Wetland Plant Associations (draft)



Rigg, G. B. (1958). *Peat Resources of Washington*. (Bulletin No. 44). Olympia, WA: Division of Mines and Geology, Washington State Department of Conservation.



Populus tremuloides in a peatland





Personal observations:

OR Department of State Lands staff

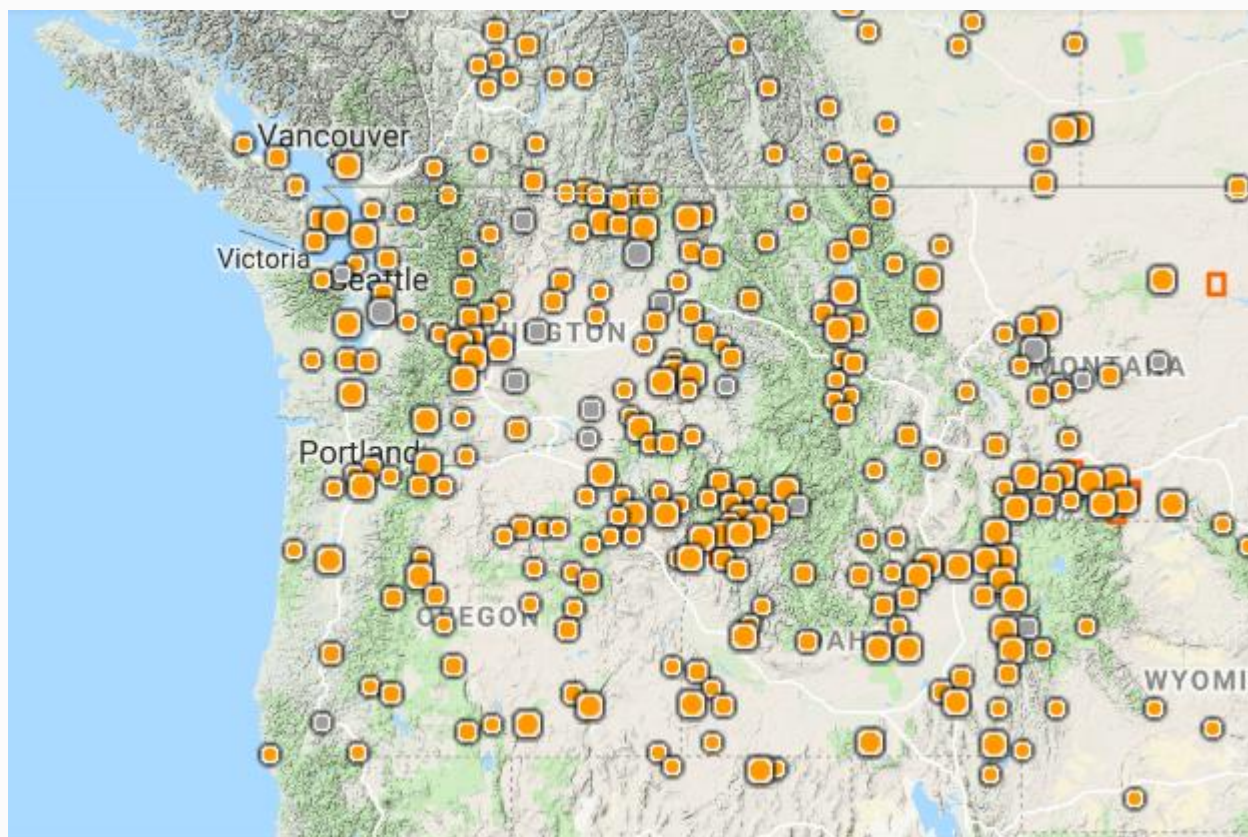
WA Department of Ecology staff

WA Natural Heritage Program staff

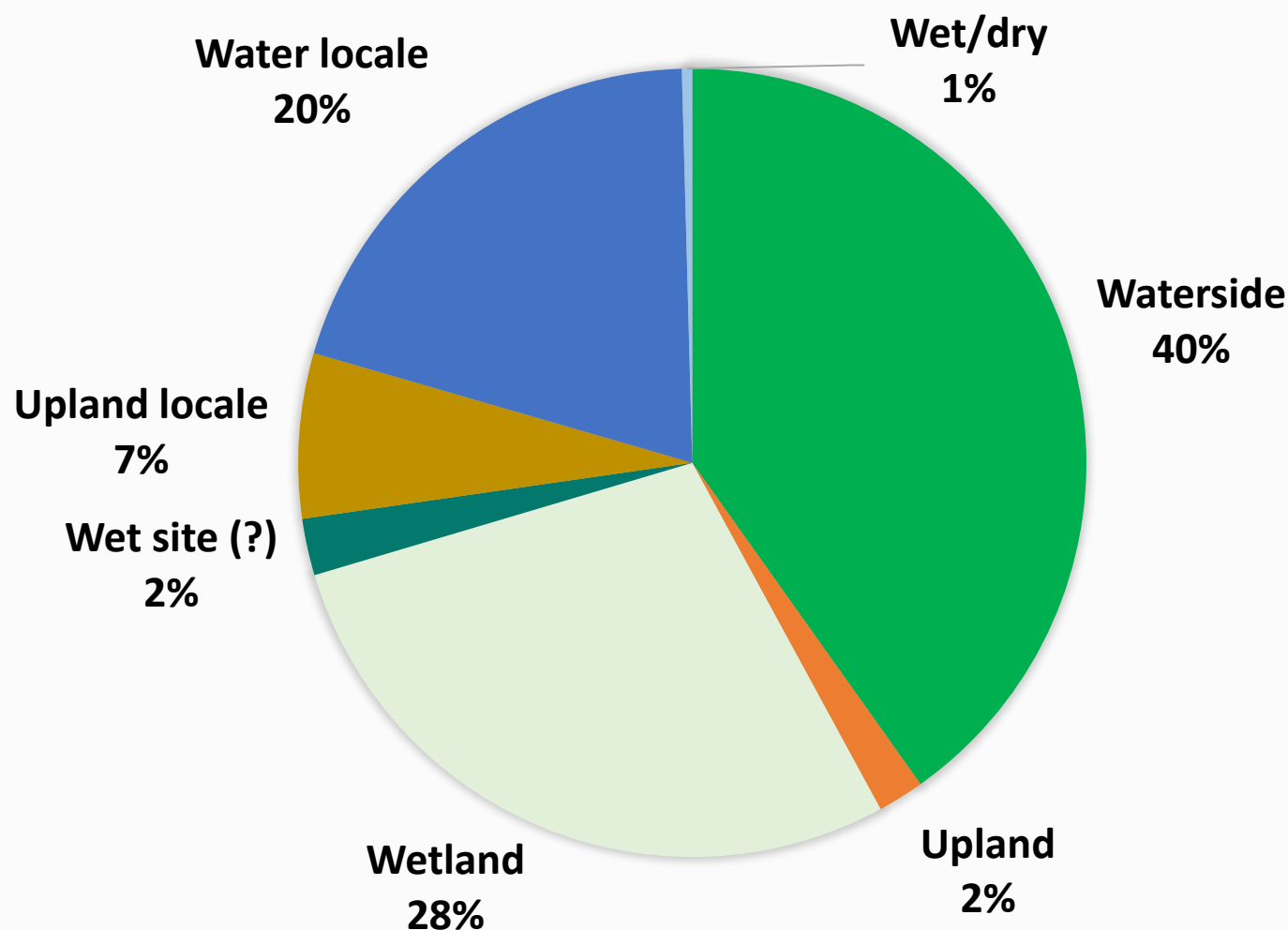
USFWS staff at Turnbull National Wildlife Refuge

Private consultants

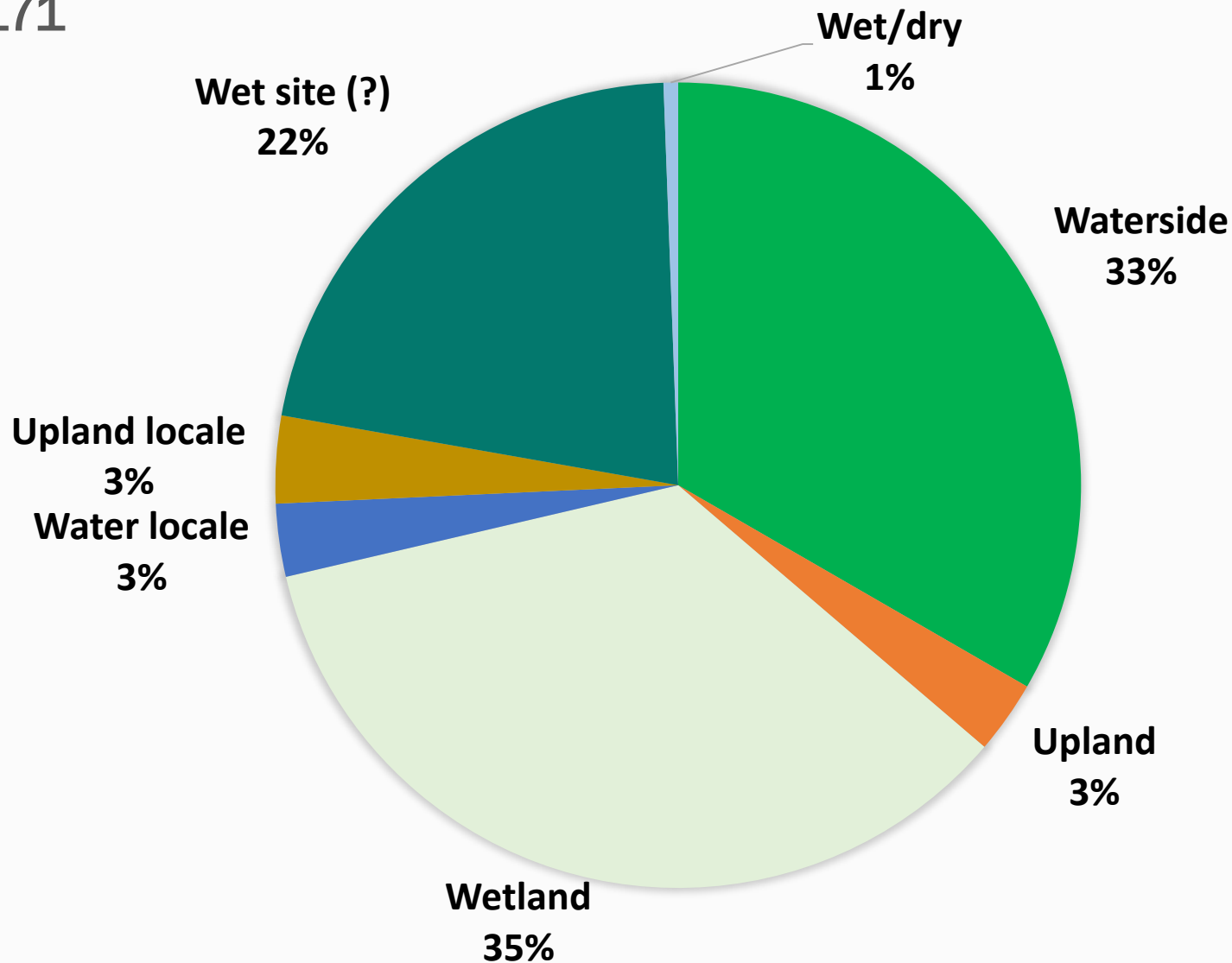
Herbarium record review



PNW HERBARIA RECORDS
OR WA ID NV MT WY
N=473



PNW HERBARIA RECORDS
OR WA
N=171



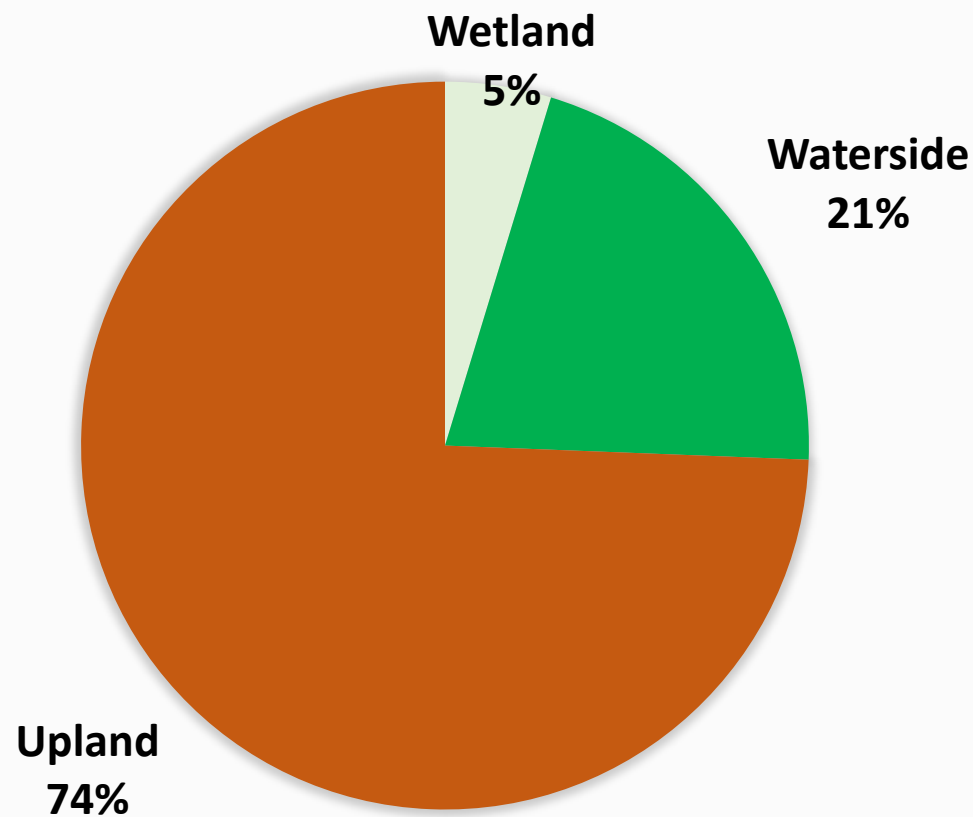
Submitted change request in 2015

Corps Wetland Region or State	Scientific Name	NWPL 2014 Rating	Best Professional Judgement (BPJ)	Field Observations (FO)	Herbaria Records (HR)	Literature (L)	Online Resources (OR)	Regional Panel Rating (RP)	National Panel Rating (NP)	Draft NWPL 2015 Rating	Common Name	Link to FWS or CRREL Literature
WMVC	<i>Populus tremuloides</i>	FACU		FO				FAC	FAC	FAC	Quaking Aspen	Populus tremuloides
WMVC	<i>Rosa rubiginosa</i>	FACW	BPJ	FO				UPL	UPL	UPL	Sweetbrier	Rosa rubiginosa
WMVC	<i>Rubus armeniacus</i>	FACU		FO				FAC	FAC	FAC	Himalayan Blackberry	Rubus armeniacus
WMVC	<i>Rumex dentatus</i>	OBL		FO				FACW	FACW	FACW	Toothed Dock	Rumex dentatus
WMVC	<i>Sambucus nigra</i>	FACU		FO				FACW	FACW	FACW	Black Elder	Sambucus nigra
WMVC	<i>Sinapis alba</i>	OBL		FO				FAC	FAC	FAC	White-Mustard	Sinapis alba
WMVC	<i>Sisyrinchium pallidum</i>	NOL	BPJ					FACU	FACU	FACU	Pale Blue-eyed Grass	Sisyrinchium pallidum
WMVC	<i>Spergularia echinosperma</i>	FACU			HR			OBL	OBL	OBL	Bristle-Seed Sandspurry	Spergularia echinosperma
WMVC	<i>Stephanomeria fluminea</i>	NOL	BPJ					FACW	FACW	FACW	Teton Wirelettuce	Stephanomeria fluminea
WMVC	<i>Symphotrichum pilosum</i>	UPL		FO				FACU	FACU	FACU	White Oldfield American-Aster	Symphyotrichum pilosum

ACOE HERBARIA RECORD REVIEW WMVC/AW

N=2783

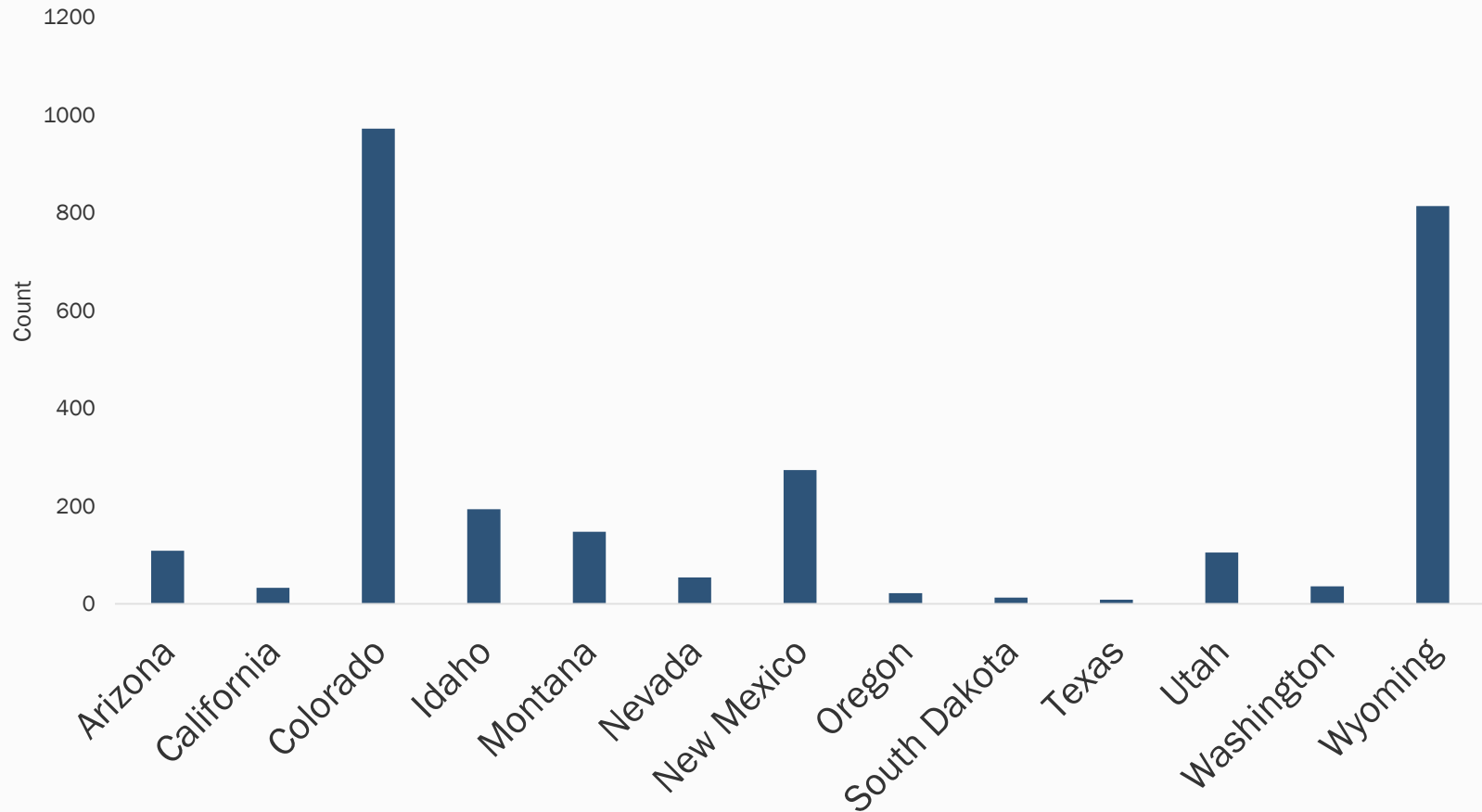
Data from SEINet - Arizona Chapter Data Portal <https://swbiodiversity.org/seinet/index.php>



ACOE HERBARIA RECORD REVIEW

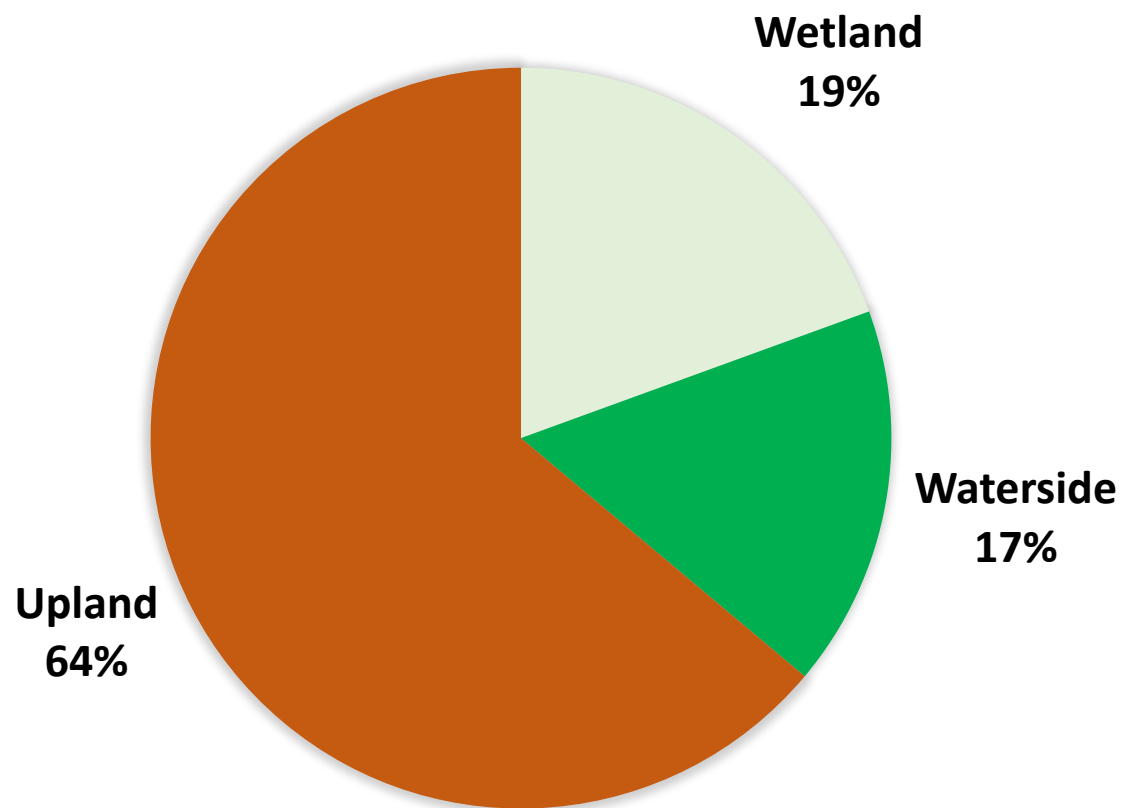
WMVC/AW

N=2783

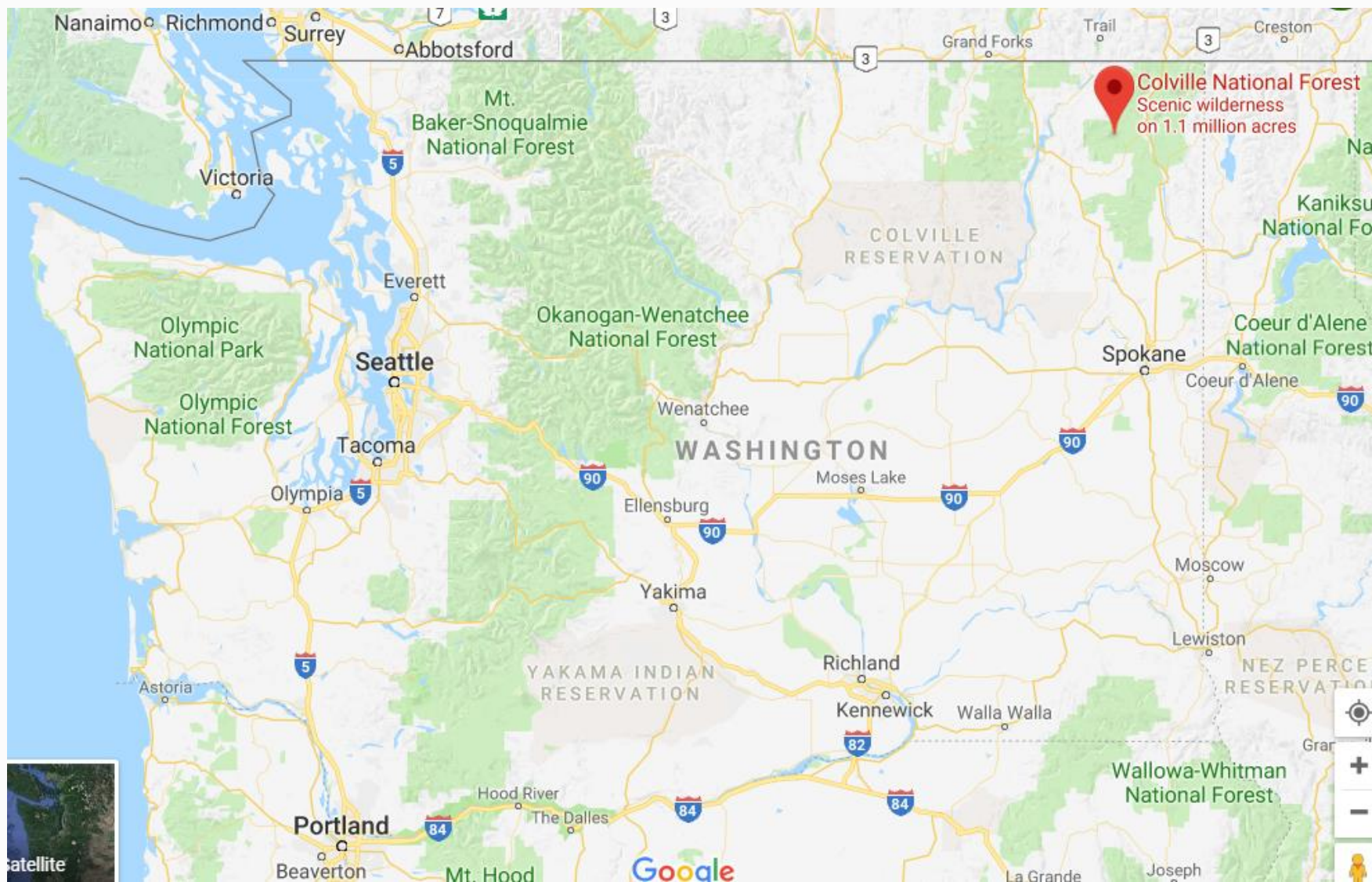


CO, WY, NM = 74%

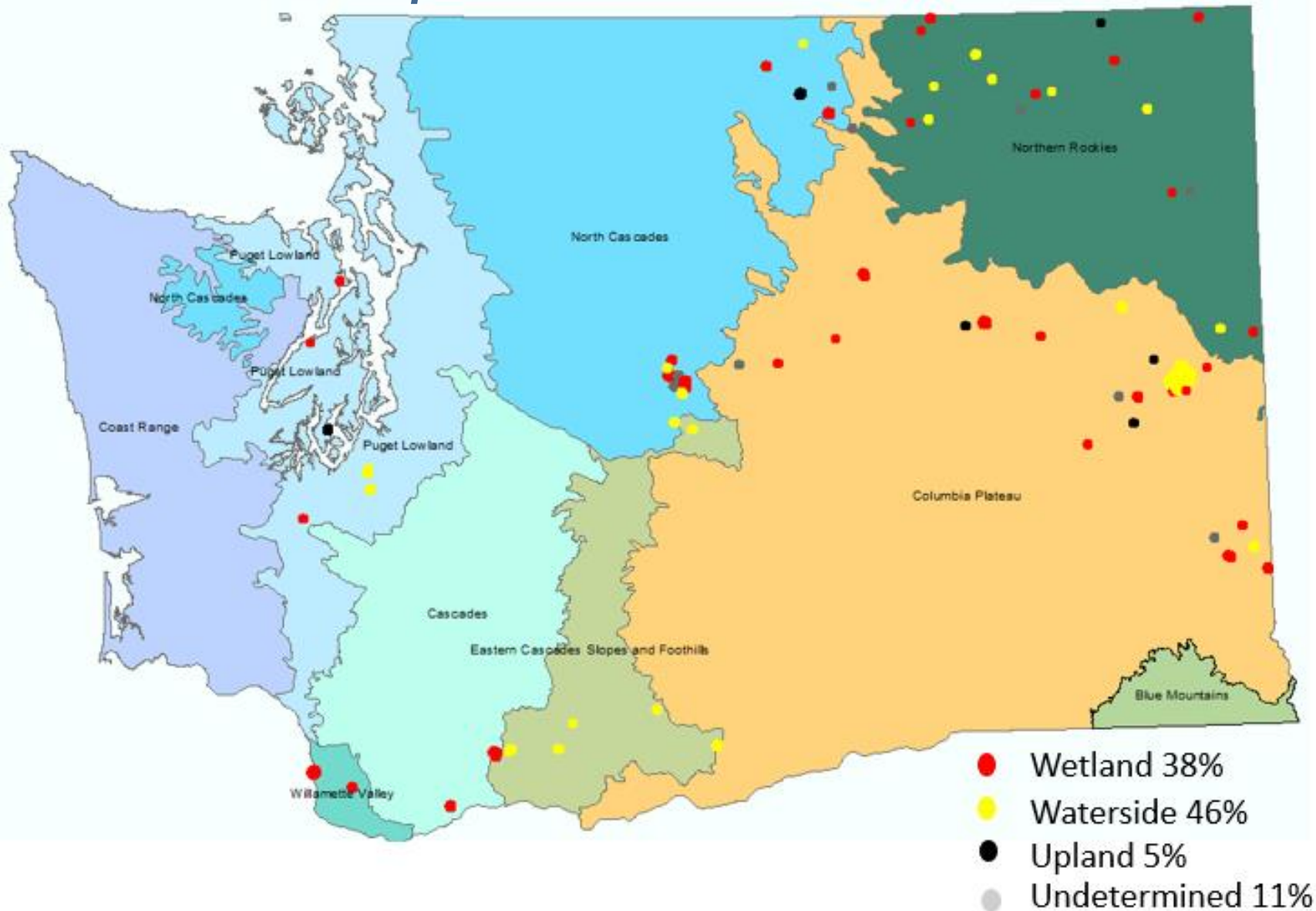
ACOE HERBARIA RECORD REVIEW
WA
N=36



70% of records from Colville National Forest



WA Natural Heritage Program Database – Records with *Populus tremuloides*



Next step – gather some more data and resubmit (you can help!)

For example:

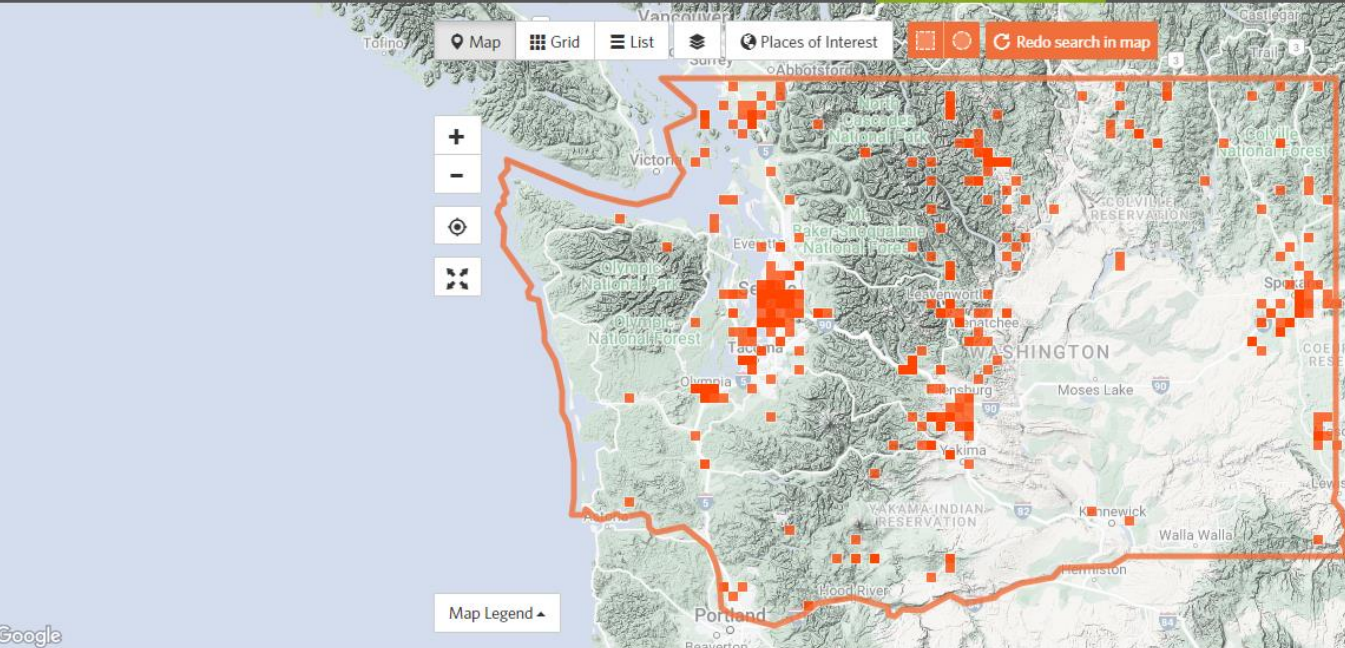
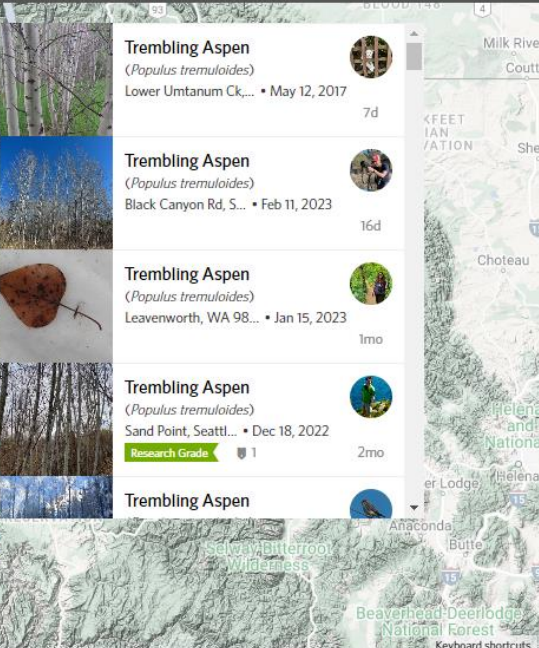
iNaturalist  Explore Community More

Observations

 Trembling Aspen Washington, USA  

Washington  **533** OBSERVATIONS 1 SPECIES 129 IDENTIFIERS 408 OBSERVERS

Map Grid List Places of Interest  Redo search in map

Trembling Aspen
(*Populus tremuloides*)
Lower Umtanum Ck... • May 12, 2017 7d

Trembling Aspen
(*Populus tremuloides*)
Black Canyon Rd, S... • Feb 11, 2023 16d

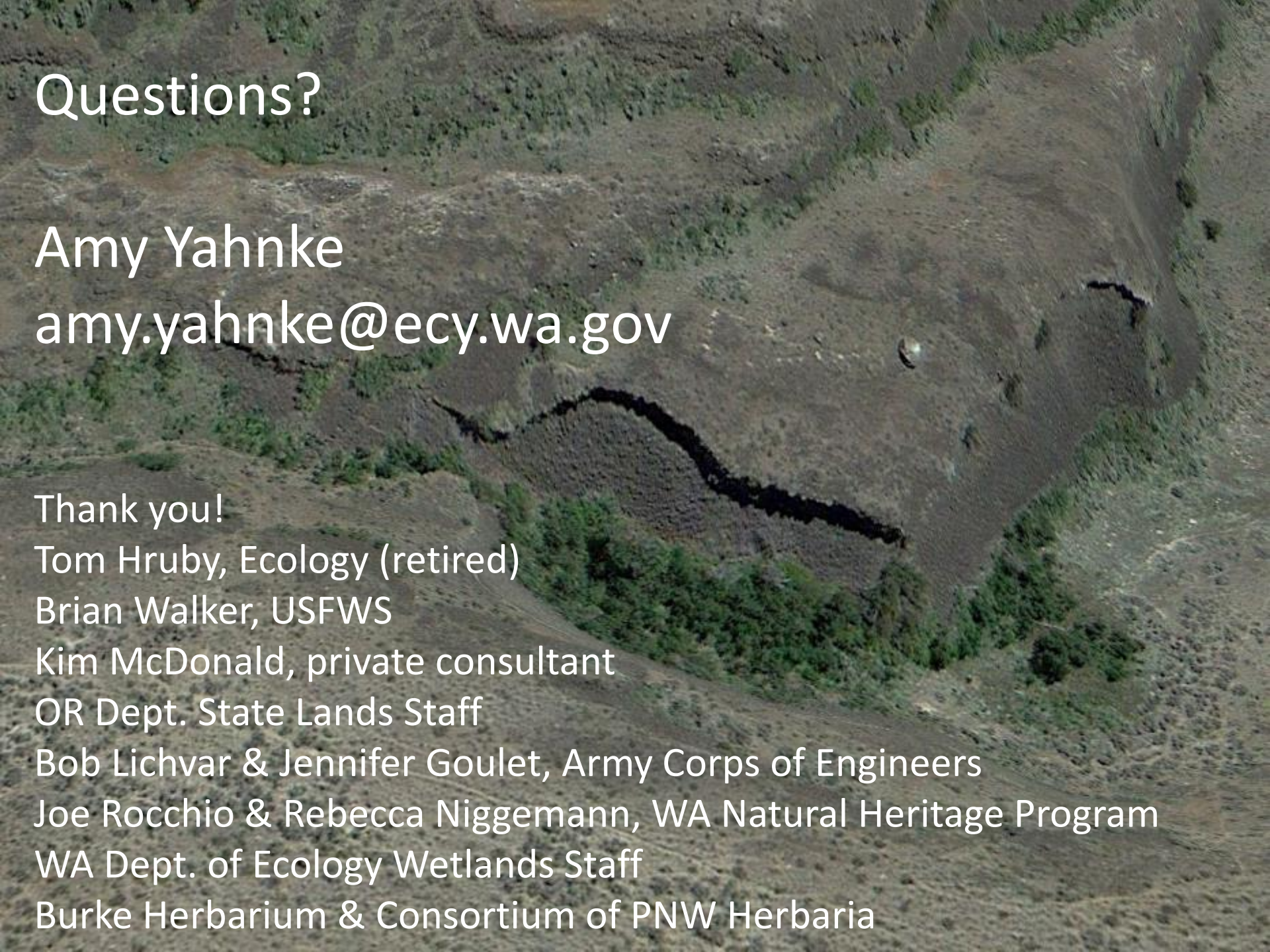
Trembling Aspen
(*Populus tremuloides*)
Leavenworth, WA 98... • Jan 15, 2023 1mo

Trembling Aspen
(*Populus tremuloides*)
Sand Point, Seattl... • Dec 18, 2022  1 2mo

Trembling Aspen

Map Legend

Google



Questions?

Amy Yahnke

amy.yahnke@ecy.wa.gov

Thank you!

Tom Hruby, Ecology (retired)

Brian Walker, USFWS

Kim McDonald, private consultant

OR Dept. State Lands Staff

Bob Lichvar & Jennifer Goulet, Army Corps of Engineers

Joe Rocchio & Rebecca Niggemann, WA Natural Heritage Program

WA Dept. of Ecology Wetlands Staff

Burke Herbarium & Consortium of PNW Herbaria