

# Wetland Plant Associations of the Western Hemlock Zone In the Central Coastal and Cascade Mountains

Interim Report



Oregon

NATURAL  
HERITAGE  
PROGRAM

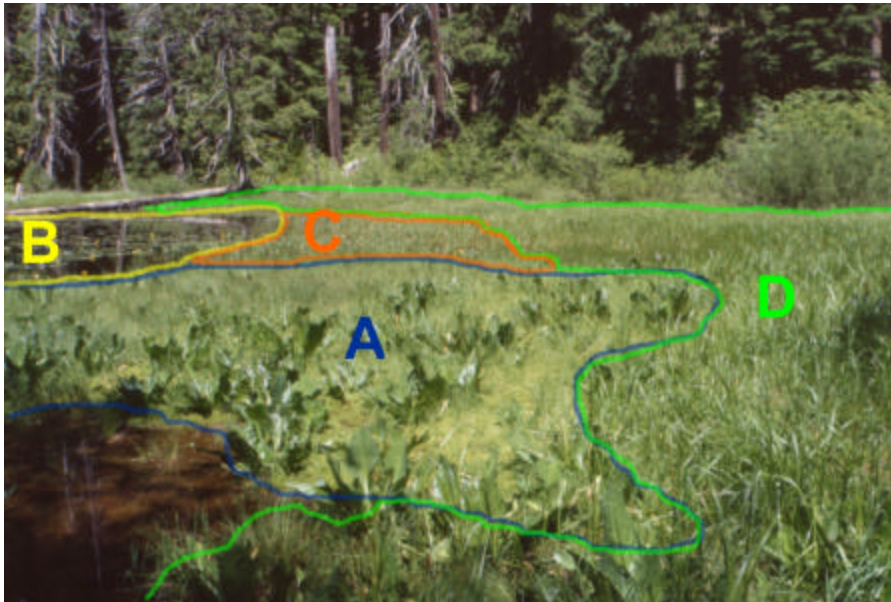
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Mosaic of associations found near Hidden Lake, Willamette NF. A) *Sphagnum angustifolium* – *Menyanthes trifoliata*, B) *Nuphar lutea* ssp. *polysepalum*, C) *Dulichium arundinaceum* (unclassified), and D) *Boykinia major*.

## Acknowledgements

This project came about as a result of Cindy McCain's efforts to integrate wetland classifications for northwestern Oregon. It is hoped that this will be a step towards completing this goal. Cindy wanted to further an effort started by the Oregon Natural Heritage Program's (ONHP) wetlands and terrestrial ecologists, John Christy and Jonathan Titus - inventorying, mapping and classifying wetlands along the coast and in bottomlands of the Willamette Valley. She also wanted to integrate riparian and wetland classification data she and Jane Kertis had collected from the Willamette and Siuslaw National Forests, with similar data collected on the Mount Hood and Gifford Pinchot National Forests. The Mount Hood data was used to develop the publication, *Riparian ecological types: Gifford Pinchot and Mount Hood National Forests, Columbia River Gorge National Scenic Area* and was created by Nancy Diaz and T. Kim Mellen.

The Bureau of Land Management provided much of the funding for this effort through the U.S. Forest Service, so it was a truly cooperative project.

This project could not have occurred without the knowledge and support of the following federal participants: Nancy Wogen, Kris Ward, Kathy Pendergrass, Carol Jorgensen, Ryan Turner, and Rudy Wiedenbeck from Eugene BLM; Barb Raible, Claire Hibler, Terry Fennell, and Ron Exeter from Salem BLM; Dan Segotta, Jack Sleeper, and Carol Bickford from the Siuslaw National Forest; Jenny Lippert, Pat Ford, Alice Smith, Mike Roantree, and Kim McMahan from the Willamette National Forest; Chris Topik, John Haglund, Mark Boyll, Caitlin Cray, Paul Bakke, Paula Brooks, Tom High, Gordon Whitehead, Fred Small, Jennifer Selliken and her son Peter from the Mount Hood and Gifford Pinchot National Forests.

During the 1999 efforts, Rachel Schwindt (Siuslaw NF) skillfully contributed to every aspect of this project. John Christy (ONHP), Nick Otting and Danna Lytgen ably sampled plots and identified taxa. John also provided suggestions for management and restoration which are incorporated in this report. Soil expertise was provided by OSU's Dr. Herb Huddleston and Louis Emerhiser. Jimmy Kagan initiated ONHP's participation in this project and reviewed early drafts of this report. Michael Murray coordinated field sampling during 1999, classified the data, and compiled this document.

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## Background

This report was derived from field data collected by personnel of the US Forest Service (USFS) and Oregon Natural Heritage Program (ONHP). The area examined encompasses four National Forests (Gifford Pinchot, Willamette, Mt. Hood, and Siuslaw) and two Bureau of Land Management Districts (Salem and Eugene). It does not include the Willamette Valley floor. Sampling focused on the *Tsuga heterophylla* zone, however some sites are transitional with the lower subalpine zone, reaching 5,300 feet elevation. Wetland sites with very obvious human development (e.g., dams and roads) were avoided to provide an account of relatively unmanipulated communities. However, most sites examined were peripheral to intensively managed forest and likely have been affected to some degree.

A suite of field methods were employed. Some techniques (e.g., tree measurements, downed woody debris survey, and soil color classification) were performed but not used in the data analysis presented here. All potential sample sites were first identified by USFS and BLM personnel familiar with wetland distribution on their jurisdictions. Sampling methods varied slightly between USFS and ONHP with plot sizes of 10m<sup>2</sup>, 50m<sup>2</sup>, and 100m<sup>2</sup>. Ocular estimates of percent canopy cover were recorded. Plants not rooted within the plot but overhanging were not considered in this association classification. At, or very near each plot, a soil pit was dug to 1m depth. Soil stratification depths according to texture and organic composition were determined as well as depth to water table. Topographical measurements (slope, aspect, position, elevation) were made. Every wetland site was mapped for its association boundaries, plot locations, adjacent terrestrial vegetation, surface water, roads, etc.

## Data Analysis

A total of 638 plots were analyzed. Of these, 465 were from a dataset provided by Cindy McCain, Ecologist (USFS). These were collected by the Gifford Pinchot, Mount Hood, Siuslaw, and Willamette National Forests. The Oregon Natural Heritage Program sampled an additional 173 plots. Before classifying, all subspecies were lumped to the species level (except for species with only a single subspecies, trees, willows, and *Carex aquatilis* var. *dives*) because taxa on many plots had not been identified at the subspecies level. Species composition and environmental data were entered into spreadsheets. Data was converted using PC-Ord software which was also used for classification and generation of association tables. A cluster analysis was performed using Ward's hierarchical grouping method based on Euclidean (Pythagorean) distance measuring. Resulting association tables included the more abundant and common species.

## Naming Convention

Taxonomic nomenclature is derived from the USDA Plants Database which is available online at: <http://plants.usda.gov/plants> (USDA, NRCS 1999. The PLANTS database. National Plant Data Center, Baton Rouge, LA 70874-4490 USA). Association names follow the U.S. National Vegetation Classification System (<http://consci.tnc.org/library/pubs/class/>) which has been approved as the uniform

standard by the relevant federal agencies. This system was developed cooperatively by The Nature Conservancy and the National Natural Heritage programs of the U.S., with support from the U.S. Forest Service and the Gap Analysis Program. More specifically, association names are derived from the dominant and diagnostic species are derived from the species composition tables. Species occurring in the same vertical stratum are separated by a hyphen (-) and those existing in different strata are separated by a slash (/). Species with less than 100% constancy but still common are placed in parentheses. Since associations are plant assemblages which are repeatable across a region, each association in this report was found to exist at more than one site (Appendix A).

## Results

Based on 638 plots, eighty-seven associations were classified. Most of these are dominated by herbaceous species (Figure 1). Thirty associations are distinct and have not been identified previously, thus they should be considered new. An additional thirty-three associations closely match accepted associations already classified by ONHP. The remaining associations resemble ONHP types but are neither close matches or unique enough to consider as new associations.

We also provide a cross-reference to a previous classification performed by the USFS (Nancy Diaz) (Appendix B). Her digital dataset consisted of fifty-nine associations which were sampled on the Gifford Pinchot and Mt. Hood National Forests. Locations of all plots are provided in Appendices C and D.

In the context of conservation, five associations are deemed imperiled in the state of Oregon (Table 1). Natural Heritage Program conservation rankings have not yet been made for the thirty new communities (see Table 1, page 6 for an explanation). A total of 648 plant species were identified. Species which are rare or declining and are included in *Rare, Threatened and Endangered Species of Oregon*, by ONHP are documented in Table 2.

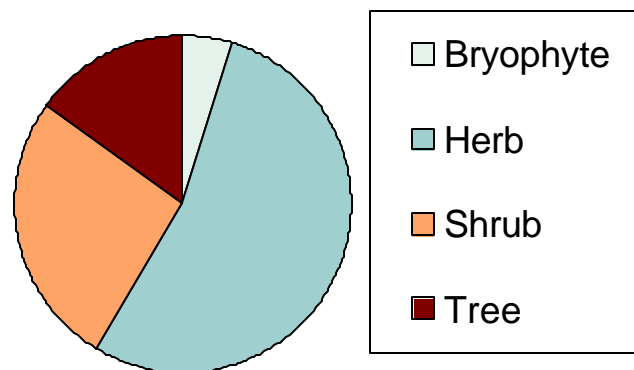


Figure 1. Number of associations by dominant lifeform.

## Plant Associations

### Bryophyte-dominated

*Sphagnum*  
*Sphagnum* – *Carex aquatilis* var. *dives*  
*Sphagnum angustifolium* – *Menyanthes trifoliata*  
*Vaccinium uliginosum* / *Sphagnum*

### Herb-dominated

*Bidens cernua*  
*Boykinia major*  
*Calamagrostis canadensis*  
*Caltha leptosepala*  
*Carex amplifolia*  
*Carex aperta*  
*Carex aquatilis* var. *dives*  
*Carex aquatilis* var. *dives* - (*Eleocharis quinqueflora*)  
*Carex cusickii*  
*Carex exsiccata*  
*Carex lenticularis*  
*Carex obnupta*  
*Carex utriculata*  
*Deschampsia cespitosa* - (*Aster occidentalis*)  
*Deschampsia cespitosa* - (*Ligusticum grayi*)  
*Eleocharis palustris*  
*Eleocharis quinqueflora*  
*Equisetum arvense* – *Juncus ensifolius*  
*Equisetum telmateia*  
*Eriophorum angustifolium* ssp. *subarcticum* var. *majus*  
*Fauria crista-galli*  
*Glyceria elata* – *Caltha leptosepala*  
*Hypericum anagalloides*  
*Juncus articulatus*  
*\*Juncus balticus*  
*\*Juncus balticus* – *Polygonum bistortoides*  
*Juncus effusus*  
*Lemna minor*  
*Lysichiton americanum* - (*Athyrium filix-femina*)  
*Menyanthes trifoliata*  
*Nuphar lutea* ssp. *polysepalum*  
*Oenanthe sarmentosa*  
*Oplopanax horridus* – *Acer circinatum*  
*Phalaris arundinacea*  
*Potamogeton*  
*Pteridium aquilinum*  
*Sanguisorba officinalis*  
*Scirpus microcarpus*  
*Senecio triangularis* - (*Trifolium longipes*)  
*Sparganium angustifolium*  
*Torreyochloa pallida* var. *pauciflora*  
 - *Veronica americana* - (*Juncus effusus*)  
*Trautvetteria caroliniensis*  
*Trautvetteria caroliniensis* - *Senecio triangularis*

*Trichophorum cespitosum* - (*Tofieldia glutinosa*)  
*Typha latifolia*  
*\*Veratrum californicum* - *Carex angustata*  
 - *Solidago canadensis*  
*Xerophyllum tenax*

### Shrub-dominated

*Alnus incana* / (*Lysichiton americanum*)  
*\*Alnus incana* / *Senecio triangularis*  
*Alnus viridis* ssp. *sinuata* / *Athyrium filix-femina*  
 - (*Lysichiton americanum*)  
*Alnus viridis* ssp. *sinuata* / *Equisetum fluviatile*  
*Alnus viridis* ssp. *sinuata* / *Rubus spectabilis*  
*Alnus viridis* ssp. *sinuata* / *Rubus spectabilis* / *Athyrium filix-femina*  
*Cornus sericea* ssp. *sericea* / *Lysichiton americanum*  
*Ledum glandulosum* - *Gaultheria shallon* -  
*Pteridium aquilinum*  
*Myrica gale*  
*Ribes bracteosum* / *Athyrium filix-femina*  
 (*Rubus spectabilis*) / *Athyrium filix-femina*  
*Salix commutata*  
*Salix geyeriana* - (*Spiraea douglasii*) / (*Carex aquatilis* var. *dives*)  
*Salix pedicellaris* / (*Carex aquatilis* var. *dives*)  
*Salix planifolia* ssp. *planifolia* / (*Carex aquatilis* var. *dives*)  
*Salix sitchensis*  
*Salix sitchensis* / (*Equisetum arvense*)  
*Salix sitchensis* – *Equisetum telmateia*  
*Spiraea douglasii*  
*Spiraea douglasii* / *Fontinalis antipyretica*  
*Spiraea douglasii* - *Viburnum edule* / *Viola palustris*  
*Vaccinium ovalifolium*  
*Vaccinium uliginosum* / (*Carex aquatilis* var. *dives*)

### Tree-dominated

*Abies amabilis* / *Vaccinium ovalifolium*  
*Alnus rubra*  
*Alnus rubra* / (*Athyrium filix-femina* – *Lysichiton americanum*)  
*Alnus rubra* / *Carex aquatilis* var. *dives*  
*Alnus rubra* / *Claytonia sibirica* var. *sibirica*  
*Alnus rubra* / *Glyceria elata*  
*Alnus rubra* / *Oplopanax horridus* / *Oxalis oregana*  
*Alnus rubra* / *Rubus spectabilis*  
*Betula nana* / (*Carex aquatilis* var. *dives*)  
*Fraxinus latifolia* / *Corylus cornuta* / *Carex obnupta*  
*\*Populus balsamifera* ssp. *trichocarpa*  
*Thuja plicata* / (*Lysichiton americanum*)  
*Thuja plicata* / *Athyrium filix-femina*

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\*Only on east side of Cascade Crest

Table 1. Oregon rare or imperiled associations identified in this report. Many additional associations documented elsewhere in the report are new and thus rankings have not been determined yet. (ONHP. 2000. Data on file at Oregon Natural Heritage Program, Portland)

Association	Rank
<i>Carex aperta</i>	G1 S1
<i>Carex lenticularis</i>	G3 S2
<i>Eleocharis quinqueflora</i>	G4 S2
<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	G4 S1
<i>Thuja plicata</i> / <i>Athyrium filix-femina</i>	G3 S2

\*G (global), S(State of Oregon), 1 – Critically imperiled, 2 – Imperiled, 3 – Rare or uncommon, 4 – somewhat widespread or abundant and potentially secure, 5 – demonstrably secure.



Table 2. Oregon listed species and their respective associations (ONHP. 1998. Rare, threatened, and endangered species of Oregon. ONHP Report. Portland, OR. 92 pp.)

Species	USFS Status <sup>1</sup>	BLM Status <sup>1</sup>	ONHP status <sup>2</sup>	Association
<i>Eriophorum angustifolium subarcticum</i> var. <i>majus</i>	-	M	4	Many associations and unclassified plots
<i>Dulichium arundinaceum</i>	-	M	4	<i>Carex cusickii</i> One unclassified plot
<i>Lycopodium annotinum</i>	-	M	4	<i>Sphagnum</i> – <i>Carex aquatilis</i> var. <i>dives</i>
<i>Myrica gale</i>	-	A	3	<i>Trichophorum cespitosum</i> - ( <i>Tofieldia glutinosa</i> ) <i>Myrica gale</i>
<i>Rhynchospora alba</i>	-	A	3	<i>Hypericum anagalloides</i>
<i>Sidalcea cusickii</i>	-	M	4	<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> ) One unclassified plot (where it is dominant)
<i>Tauschia stricklandii</i>	S	S	2	<i>Xerophyllum tenax</i> <i>Deschampsia cespitosa</i> - ( <i>Ligusticum grayi</i> ) One unclassified plot
<i>Utricularia minor</i>	S	S	2	<i>Nuphar lutea</i> ssp. <i>polysepalum</i>
<i>Vaccinium oxycoccos</i>	-	M	4	<i>Sphagnum</i> <i>Vaccinium uliginosum</i> / <i>Sphagnum</i> <i>Sphagnum</i> – <i>Carex aquatilis</i> var. <i>dives</i> <i>Trichophorum cespitosum</i> - ( <i>Tofieldia glutinosa</i> ) <i>Hypericum anagalloides</i> <i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> ) <i>Eleocharis quinqueflora</i> <i>Vaccinium ovalifolium</i> <i>Eriophorum angustifolium</i> ssp. <i>subarcticum</i> var. <i>majus</i>

<sup>1</sup>S – sensitive, M – monitor, A – assessment. <sup>2</sup>2 – threatened or endangered, 3 – suspected to be threatened or endangered but not enough information exists, 4 – rare or declining but not threatened or endangered

## Management and Restoration

### Logging

Most of the wetlands sampled had visible signs of logging impacts which occurred in prior decades. Trees were cut and extracted, opening up the canopy and favoring less shade-resistant understory species. Impacts such as removing mature trees and disturbing soils have likely resulted in long-term shifts in species composition at sites. At several sites, downed trees were left in abundance, lying in the wetlands. These residuals were both floating in the water and resting on dry substrate. It is unclear what effects this has had. One site showed impacts from logs being floated and redeposited in different positions every year, leaving patches of denuded vegetation. Old skid roads were commonly positioned within wetlands. Relatively few wetland sites were bordered by uncut (old-growth) forest. No recent logging within wetlands was observed. However, clearcutting immediately adjacent to and surrounding wetlands, with no buffers, was commonplace. This surely has long-term impacts on wetland hydrology as well as plant and animal composition.

### Roads

Roads were commonly found within 100 feet of wetlands. In many cases, they abutted wetland edges, forming a barrier to surface flow. This barrier could be to inflow or outflow depending on the position of the road relative to the wetland site. Obstruction to outflow can result in retention of water at the site. Barriers to inflow have the opposite effect. These impacts will alter species composition within wetlands.

### Non-Native Species

The sampling design generally excluded sites which were dominated by non-natives (e.g., *Nymphaea odorata*, *Phalaris arundinacea*). However, twenty-one non-native species were found as non-dominating plants (Table 3). *Phalaris arundinacea* (canary reed grass) was found as both a dominant and incidental species. Several sites were sampled where it was abundant, but most similar sites were unsampled. Where reed canary grass dominates – forming an association, it appears to be positively correlated with logging and roading activity. This perennial has readily colonized exposed silt deposited along water courses by runoff from nearby roads, roadcuts, and clearcuts. Once established, it appears to exclude other native flora.

Table 3. Non-native species recorded in plots.

Species	No. Plots
<i>Phalaris arundinacea</i>	19
<i>Cirsium arvense</i>	11
<i>Poa pratensis</i>	11
<i>Mycelis muralis</i>	10
<i>Poa palustris</i>	9
<i>Cirsium vulgare</i>	6
<i>Taraxacum officinale</i>	5
<i>Anthoxanthum odoratum</i>	4
<i>Conium maculatum</i>	3
<i>Digitalis purpurea</i>	3
<i>Polygonum hydropiper</i>	3
<i>Bromus tectorum</i>	2
<i>Poa trivialis</i>	2
<i>Agrostis stolonifera</i>	1

<i>Arrhenatherum elatius</i>	1
<i>Bromus briziformis</i>	1
<i>Bromus vulgaris</i>	1
<i>Crataegus monogyna</i>	1
<i>Dactylis glomerata</i>	1
<i>Polygonum hydropiper</i>	1
<i>Solanum dulcamara</i>	1

### Other Factors

In addition to introducing exotic species, building roads, and logging, humans have impacted regional wetlands in other ways. The most significant are livestock grazing, channelization, draining, foot trampling, and off-road vehicles. Although examples of all of these were found, they were not nearly as extensive as roads and logging.

### Management and Restoration Recommendations

Ideally, assessments and management recommendations should be provided for each association. However, such an exhaustive effort is beyond the scope of this project. Instead, an overview highlighting communities needing management attention is provided here.

All wetlands, regardless of association-rarity are important habitats for wildlife species. Efforts should focus on protecting all sites from new roads or logging. Buffers should be established at least 30 meters around wetland perimeters where no manipulation is allowed. This has rarely been implemented, even in the most recent clearcuts. Moreover, careful planning should ensure that logging and road-building do not contribute significant sediment loads upstream of wetlands from beyond their buffers.

Emerging threats such as foot trails and off-road vehicles are likely to increase in the future. Managers should monitor use at popular recreational sites to ensure degradation is not occurring. Priority for site selection should be based on threats, vulnerability, and conservation status. There are notable associations which deserve special attention due to their rarity, uniqueness, and habitat for rare plants (Table 4).

Before restoration efforts at any site is initiated, the question of whether it is needed should be carefully considered. If deemed necessary, an interdisciplinary team should coordinate efforts. It is recommended that the following general guidelines be used.

- Examine reference sites, historical records and old aerial photographs to estimate composition and structure of high-quality wetlands.
- Anticipate future changes
- Restore natural structure (e.g., coarse woody debris, soil morphology, vegetation layers).
- Work within the watershed/landscape context
- Use passive restoration, when appropriate (e.g., facilitating regrowth of large-diameter trees)

- Understand the potential of the watershed
- Restore native species, avoid non-native species
- Address ongoing causes of degradation
- Develop clear, achievable and measurable goals
- Monitor and adapt where changes are necessary
- Focus on feasibility
- Restore hydrologic regime
- Be confident that restoration activities will not further impact sites (i.e., the cure is not worse than the disease.)

Based on observations from this study, roads and logging have caused the most impacts to natural wetlands. The complete removal of overstory trees will have long-term impacts on hydrology and sunlight budgets that cannot be easily ameliorated. As a tree canopy returns, the pre-disturbance wetland species composition can be expected to slowly return.

Because logging and roading over the past 50 years have been so ubiquitous in the region, finding unmanipulated reference sites for controls is problematic. Managers must use careful judgement when selecting reference sites and deciding their applicability. The management history of the surrounding terrestrial environment and watercourses should be investigated before selecting a particular site. Because such careful review was not done for the sites sampled in this report, it is assumed most have been impacted at least indirectly. Therefore, the plant association descriptions herein should not be considered as specific targets for achieving pristine examples of wetlands in restoration projects. However, they should serve as general descriptions of the native species to be expected and serve as loose templates of relatively intact wetlands.

Table 4. Preliminary list of associations with important natural features.

Association	<sup>1</sup> Administered by	Importance
<i>Carex aperta</i>	Detroit RD Sweet Home RD	ONHP-listed association
<i>Carex lenticularis</i>	Middle Fork RD Willamette NF	ONHP-listed association
<i>Eleocharis quinqueflora</i>	Willamette NF	ONHP-listed association
<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> ) [old-growth]	Willamette NF	ONHP-listed association
<i>Thuja plicata</i> / <i>Athyrium filix-femina</i> [old-growth]	Willamette NF	ONHP-listed association
<i>Fauria crista-galli</i>	Salem BLM	Only known occurrence of species and association in Oregon
<sup>2</sup> <i>Ledum glandulosum</i> – <i>Gaultheria shallon</i> – <i>Pteridium aquilinum</i>	Eugene BLM	Only known occurrence of association in Oregon. Found at boundary of Willamette Valley and Coast Range ecoregions.
<i>Trichophorum cespitosum</i> – ( <i>Tofieldia glutinosa</i> )	Willamette NF	Habitat for <i>Myrica gale</i>
<i>Myrica gale</i>	Willamette NF	Habitat for <i>Myrica gale</i>
<i>Hypericum anagalloides</i>	Hebo RD Middle Fork RD Salem BLM Willamette NF	Habitat for <i>Rhynchospora alba</i>
<i>Xerophyllum tenax</i>	Willamette NF	Habitat for <i>Tauschia stricklandii</i>

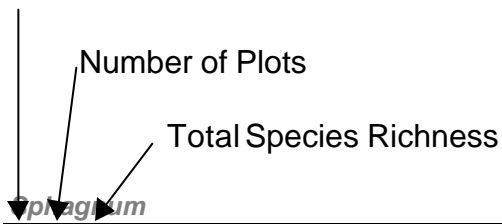
<i>Deschampsia cespitosa</i> – ( <i>Ligusticum grayi</i> )	Willamette NF	Habitat for <i>Tauschia stricklandii</i>
<i>Nuphar lutea ssp. polysepalum</i>	Blue River RD Willamette NF	Habitat for <i>Utricularia minor</i>

<sup>1</sup>Precision for location varies by data source.

<sup>2</sup>Should be considered a provisional association since only one site found.

## Species Composition

Association Code



3 15 98	Avg Cover (%)	Constancy (%)
<i>Sphagnum</i>	85	100.0
<i>Tofieldia glutinosa</i>	3	45.0

## Bryophyte-dominated Associations

### ***Sphagnum***

3 15 98	Avg Cover (%)	Constancy (%)
<i>Sphagnum</i>	85	100.0
<i>Tofieldia glutinosa</i>	3	45.0
<i>Carex utriculata</i>	4	40.0
<i>Salix pedicellaris</i>	2	40.0
<i>Lysichiton americanum</i>	1	35.0
<i>Spiraea douglasii</i>	12	30.0
<i>Vaccinium oxycoccos</i>	9	30.0
<i>Kalmia microphylla</i>	5	30.0
<i>Carex aquatilis</i> var. <i>dives</i>	4	25.0
<i>Pedicularis groenlandica</i>	2	25.0
<i>Hypericum anagalloides</i>	1	25.0
<i>Equisetum arvense</i>	1	25.0

### ***Sphagnum - Carex aquatilis* var. *dives***

4a 11 96	Avg Cover (%)	Constancy (%)
<i>Sphagnum</i>	35	100.0
<i>Carex aquatilis</i>	22	100.0
<i>Vaccinium uliginosum</i>	5	90.9
<i>Dodecatheon jeffreyi</i>	8	63.6
<i>Caltha leptosepala</i> ssp. <i>howell</i>	6	54.6
<i>Hypericum anagalloides</i>	5	54.6
<i>Tofieldia glutinosa</i>	3	54.6
<i>Platanthera dilatata</i> var. <i>dila</i>	Trace	45.5
<i>Salix pedicellaris</i>	4	36.4
<i>Kalmia microphylla</i>	3	36.4
<i>Spiraea douglasii</i>	3	36.4
<i>Trientalis europaea</i> ssp. <i>arcti</i>	1	36.4

<i>Agrostis thurberiana</i>	1	36.4
<i>Pinus monticola</i> (regeneration)	Trace	36.4
<i>Epilobium ciliatum</i> ssp. <i>glandu</i>	Trace	36.4
<i>Spiraea splendens</i> var. <i>splende</i>	3	27.3
<i>Tsuga mertensiana</i>	1	27.3

***Sphagnum angustifolium* – *Menyanthes trifoliata***

<i>3a 2 10</i>	Avg Cover (%)	Constancy (%)
<i>Sphagnum angustifolium</i>	97	100
<i>Menyanthes trifoliata</i>	15	100
<i>Carex limosa</i>	3	100
<i>Carex echinata</i> ssp. <i>echinata</i>	Trace	100
<i>Carex arcta</i>	6	50
<i>Carex utriculata</i>	5	50
<i>Cicuta douglasii</i>	2.5	50
<i>Cinna latifolia</i>	2.5	50
<i>Drosera rotundifolia</i>	2.5	50
<i>Lysichiton americanum</i>	2.5	50

***Vaccinium uliginosum* / *Sphagnum***

<i>3b 3 37</i>	Avg Cover (%)	Constancy (%)
<i>Sphagnum</i>	78	100
<i>Vaccinium uliginosum</i>	23	100
<i>Salix pedicellaris</i>	5	100
<i>Tofieldia glutinosa</i>	2	100
<i>Carex aquatilis</i>	4	67
<i>Kalmia microphylla</i>	3	67
<i>Dodecatheon jeffreyi</i>	3	67
<i>Eleocharis quinqueflora</i>	3	67
<i>Agrostis thurberiana</i>	2	67
<i>Trientalis europaea</i> ssp. <i>arctica</i>	1	67
<i>Equisetum arvense</i>	1	67

## Herb-dominated Associations

***Bidens cernua***

<i>95 2 2</i>	Avg Cover (%)	Constancy (%)
<i>Bidens cernua</i>	25	100.0
<i>Panicum capillare</i>	5	50.0



**Boykinia major**

79 2 19	Avg Cover (%)	Constancy (%)
<i>Boykinia major</i>	60	100.0
Moss (unknown)	15	100.0
<i>Lysichiton americanum</i>	12	100.0
<i>Carex echinata</i> ssp. <i>echinata</i>	3	100.0
<i>Hypericum anagalloides</i>	Trace	100.0
<i>Carex utriculata</i>	15	50.0
<i>Blechnum spicant</i>	8	50.0
<i>Calamagrostis canadensis</i>	5	50.0
<i>Cicuta douglasii</i>	5	50.0
<i>Juncus ensifolius</i>	5	50.0
<i>Pellia neesiana</i>	3	50.0
<i>Sphagnum palustre</i>	3	50.0
<i>Viola</i>	3	50.0
<i>Carex obnupta</i>	1	50.0
<i>Juncus</i>	Trace	50.0
<i>Spiraea douglasii</i>	Trace	50.0
<i>Carex</i>	Trace	50.0
<i>Carex arcta</i>	Trace	50.0
<i>Holcus lanatus</i>	Trace	50.0

**Calamagrostis canadensis**

25 6 64	Avg Cover (%)	Constancy (%)
<i>Calamagrostis canadensis</i>	66	100.0
<i>Carex aquatilis</i> var. <i>dives</i>	12	50.0
<i>Lysichiton americanum</i>	5	50.0
<i>Spiraea douglasii</i>	2	50.0
<i>Glyceria elata</i>	Trace	50.0
<i>Canadanthus modestus</i>	3	33.3
<i>Comarum palustre</i>	3	33.3
<i>Viola palustris</i>	Trace	33.3
<i>Sphagnum</i>	Trace	33.3
<i>Dodecatheon jeffreyi</i>	Trace	33.3
<i>Senecio triangularis</i>	Trace	33.3
<i>Athyrium filix-femina</i>	Trace	33.3
<i>Camassia leichtlinii</i>	Trace	33.3
<i>Platanthera dilatata</i>	Trace	33.3
<i>Alnus rubra</i> (mature)	3	16.7
<i>Salix planifolia</i> ssp. <i>planifolia</i>	3	16.7

**Caltha leptosepala**

32 15 130	Avg Cover (%)	Constancy (%)
<i>Caltha leptosepala</i>	50	100.0
<i>Senecio triangularis</i>	2	60.0
<i>Platanthera stricta</i>	Trace	53.3
<i>Dodecatheon jeffreyi</i>	6	46.7
<i>Mitella pentandra</i>	Trace	46.7

<i>Viola palustris</i>	2	40.0
<i>Trautvetteria caroliniensis</i>	2	40.0
<i>Ligusticum grayi</i>	1	40.0
<i>Vaccinium ovalifolium</i>	2	33.3
<i>Valeriana sitchensis</i>	Trace	33.3
<i>Equisetum arvense</i>	Trace	33.3
<i>Glyceria elata</i>	2	26.7
<i>Athyrium filix-femina</i>	Trace	26.7
<i>Rubus pedatus</i>	Trace	26.7
<i>Carex luzulina</i>	Trace	26.7
<i>Pedicularis groenlandica</i>	Trace	26.7
<i>Salix planifolia</i> ssp. <i>planifolia</i>	7	20.0

### ***Carex amplifolia***

86 2 24	Avg Cover (%)	Constancy (%)
<i>Carex amplifolia</i>	30	100.0
<i>Glyceria elata</i>	13	100.0
<i>Scirpus microcarpus</i>	10	100.0
<i>Carex obnupta</i>	15	50.0
<i>Oenanthe sarmentosa</i>	15	50.0
<i>Lotus</i>	13	50.0
<i>Brachythecium frigidum</i>	8	50.0
<i>Lysichiton americanum</i>	8	50.0
<i>Mentha X piperita</i>	8	50.0
<i>Plagiomnium medium</i>	8	50.0
<i>Mimulus guttatus</i>	3	50.0
<i>Angelica</i>	2	50.0
<i>Sorbus dumosa</i>	2	50.0

### ***Carex aperta***

61 2 3	Avg Cover (%)	Constancy (%)
<i>Carex aperta</i>	93	100.0
<i>Carex exsiccata</i>	4	100.0
<i>Spiraea douglasii</i>	3	50.0

### ***Carex aquatilis* var. *dives***

29+5b 26 105	Avg Cover (%)	Constancy (%)
<i>Carex aquatilis</i>	74	100.0
<i>Cicuta douglasii</i>	2	34.6
<i>Lysichiton americanum</i>	1	26.9
<i>Spiraea douglasii</i>	Trace	23.1
<i>Equisetum fluviatile</i>	1	19.2
<i>Hypericum anagalloides</i>	1	19.2
<i>Equisetum arvense</i>	Trace	19.2
<i>Platanthera dilatata</i> var. <i>dila</i>	Trace	19.2
<i>Dodecatheon jeffreyi</i>	Trace	15.4

<i>Senecio triangularis</i>	Trace	15.4
<i>Trientalis europaea</i> ssp. <i>arcti</i>	Trace	15.4
<i>Deschampsia cespitosa</i>	Trace	15.4
<i>Platanthera stricta</i>	Trace	15.4
<i>Viola palustris</i>	Trace	15.4

***Carex aquatilis* var. *dives* - *Eleocharis quinqueflora***

89 3 36	Avg Cover (%)	Constancy (%)
<i>Carex aquatilis</i>	23	100.0
<i>Hypericum anagalloides</i>	2	100.0
<i>Eleocharis quinqueflora</i>	14	100.0
<i>Vaccinium uliginosum</i>	7	66.7
<i>Carex limosa</i>	3	66.7
<i>Comarum palustre</i>	Trace	66.7
<i>Dodecatheon jeffreyi</i>	Trace	66.7
<i>Epilobium</i>	Trace	66.7
<i>Spiraea douglasii</i>	20	33.3
<i>Drosera anglica</i>	8	33.3
<i>Sphagnum capillifolium</i>	7	33.3
<i>Sphagnum squarrosum</i>	7	33.3
<i>Muhlenbergia richardsonis</i>	3	33.3
<i>Carex canescens</i>	2	33.3
<i>Carex luzulina</i>	2	33.3
Moss (unknown)	2	33.3
<i>Viola macloskeyi</i>	1	33.3
<i>Mimulus guttatus</i>	1	33.3
<i>Polygonum bistortoides</i>	1	33.3
<i>Tofieldia glutinosa</i>	1	33.3

***Carex cusickii***

22 7 23	Avg Cover (%)	Constancy (%)
<i>Carex cusickii</i>	77	100.0
<i>Spiraea douglasii</i>	21	57.1
<i>Sphagnum</i>	19	57.1
<i>Lychnis coronaria</i>	4	57.1
<i>Elymus caninus</i>	Trace	42.9
<i>Menyanthes trifoliata</i>	Trace	42.9
<i>Hypericum anagalloides</i>	Trace	28.6
<i>Lemna minor</i>	Trace	28.6

***Carex exsiccata***

8 18 20	Avg Cover (%)	Constancy (%)
<i>Carex exsiccata</i>	80	100.0
<i>Lemna minor</i>	Trace	16.7
<i>Fontinalis antipyretica</i>	3	11.1
<i>Torreyochloa pallida</i> var. <i>pauciflora</i>	2	11.1

<i>Nuphar lutea</i> ssp. <i>polysepalum</i>	2	11.1
<i>Veronica scutellata</i>	2	11.1
<i>Deschampsia cespitosa</i>	1	11.1

**Carex lenticularis**

52 5 53	Avg Cover (%)	Constancy (%)
<i>Carex lenticularis</i>	60	100.0
<i>Equisetum arvense</i>	3	80.0
<i>Viola palustris</i>	6	60.0
<i>Mimulus guttatus</i>	2	60.0
<i>Veronica americana</i>	1	60.0
<i>Polygonum bistortoides</i>	1	60.0
<i>Carex luzulina</i>	Trace	60.0
<i>Senecio triangularis</i>	Trace	60.0
<i>Caltha leptosepala</i>	8	40.0
<i>Pedicularis groenlandica</i>	4	40.0
<i>Carex exsiccata</i>	4	40.0
<i>Dodecatheon jeffreyi</i>	4	40.0
<i>Salix sitchensis</i>	Trace	40.0
<i>Erigeron peregrinus</i>	Trace	40.0
<i>Hypericum anagalloides</i>	Trace	40.0
<i>Carex aquatilis</i> var. <i>dives</i>	10	20.0
<i>Carex leptalea</i>	8	20.0

**Carex obnupta**

7 14 91	Avg Cover (%)	Constancy (%)
<i>Carex obnupta</i>	75	100.0
<i>Athyrium filix-femina</i>	2	50.0
<i>Lysichiton americanum</i>	6	42.9
<i>Spiraea douglasii</i>	3	42.9
<i>Fraxinus latifolia</i> (mature)	8	35.7
<i>Juncus effusus</i>	Trace	35.7
<i>Polystichum munitum</i>	Trace	28.6
<i>Alnus rubra</i> (regeneration)	Trace	28.6
<i>Rubus ursinus</i>	Trace	28.6
<i>Stellaria calycantha</i>	Trace	28.6
<i>Galium trifidum</i>	Trace	28.6
<i>Oenanthe sarmentosa</i>	Trace	28.6

**Carex utriculata**

10 22 86	Avg Cover (%)	Constancy (%)
<i>Carex utriculata</i>	64	100.0
<i>Cicuta douglasii</i>	Trace	36.4
<i>Scirpus microcarpus</i>	2	31.8
<i>Carex lenticularis</i>	Trace	31.8
<i>Hypericum anagalloides</i>	7	27.3

*Juncus ensifolius* Trace 27.3

***Deschampsia cespitosa - (Aster occidentalis)***

45 4 34	Avg Cover (%)	Constancy (%)
<i>Deschampsia cespitosa</i>	56	100.0
<i>Aster occidentalis</i>	3	75.0
<i>Carex aquatilis</i> var. <i>dives</i>	10	50.0
<i>Dodecatheon jeffreyi</i>	2	50.0
<i>Carex exsiccata</i>	9	25.0
<i>Pedicularis groenlandica</i>	6	25.0
<i>Juncus effusus</i>	5	25.0
<i>Muhlenbergia filiformis</i>	5	25.0
<i>Ranunculus alismifolius</i>	5	25.0
<i>Carex</i>	4	25.0
<i>Carex utriculata</i>	1	25.0
<i>Hypericum anagalloides</i>	1	25.0
<i>Viola palustris</i>	1	25.0

***Deschampsia cespitosa - (Ligusticum grayi)***

88 5 64	Avg Cover (%)	Constancy (%)
<i>Deschampsia cespitosa</i>	19	100.0
<i>Ligusticum grayi</i>	5	80.0
<i>Carex luzulina</i>	4	60.0
<i>Juncus balticus</i>	3	60.0
<i>Trifolium longipes</i>	3	60.0
<i>Polygonum bistortoides</i>	2	60.0
<i>Pedicularis groenlandica</i>	1	60.0
<i>Hypericum anagalloides</i>	Trace	60.0
<i>Lupinus latifolius</i>	10	40.0
<i>Dodecatheon jeffreyi</i>	7	40.0
<i>Oreostemma alpigenum</i> var. <i>alpigenum</i>	3	40.0
<i>Tofieldia glutinosa</i>	3	40.0
<i>Tauschia stricklandii</i>	3	40.0
<i>Caltha leptosepala</i>	2	40.0
<i>Potentilla drummondii</i>	1	40.0
<i>Senecio triangularis</i>	1	40.0
<i>Agrostis thurberiana</i>	1	40.0
<i>Platanthera dilatata</i>	1	40.0
<i>Ranunculus alismifolius</i>	1	40.0
<i>Stenanthium occidentale</i>	Trace	40.0
<i>Juncus howellii</i>	Trace	40.0
<i>Danthonia intermedia</i>	Trace	40.0

***Eleocharis palustris***

43 2 6	Avg Cover (%)	Constancy (%)
<i>Eleocharis palustris</i>	93	100.0

<i>Deschampsia cespitosa</i>	3	50.0
<i>Juncus tenuis</i>	2	50.0
<i>Plagiobothrys figuratus</i>	2	50.0
<i>Alopecurus saccatus</i>	Trace	50.0
<i>Myosotis laxa</i>	Trace	50.0

***Eleocharis quinqueflora***

47 9 54	Avg Cover (%)	Constancy (%)
<i>Eleocharis quinqueflora</i>	44	100.0
<i>Platanthera dilatata</i>	Trace	77.8
<i>Deschampsia cespitosa</i>	8	66.7
<i>Dodecatheon jeffreyi</i>	4	66.7
<i>Carex aquatilis</i> var. <i>dives</i>	7	55.6
<i>Saxifraga oregana</i>	2	55.6
Unk. USFS Code	2	55.6
<i>Sphagnum</i>	3	44.4
<i>Juncus ensifolius</i>	Trace	44.4
<i>Castilleja miniata</i>	Trace	44.4
<i>Senecio cymbalarioides</i>	Trace	44.4
<i>Tofieldia glutinosa</i>	Trace	44.4
<i>Eriophorum angustifolium</i>	Trace	44.4
<i>Salix pedicellaris</i>	8	33.3
<i>Vaccinium uliginosum</i>	3	33.3
<i>Trientalis europaea</i> ssp. <i>arctica</i>	Trace	33.3
<i>Pedicularis groenlandica</i>	Trace	33.3
<i>Carex canescens</i>	Trace	33.3
<i>Hypericum anagalloides</i>	Trace	33.3
<i>Salix planifolia</i> ssp. <i>planifolia</i>	6	22.2

***Equisetum arvense - Juncus ensifolius***

76 2 40	Avg Cover (%)	Constancy (%)
<i>Equisetum arvense</i>	65	100.0
<i>Juncus ensifolius</i>	9	100.0
<i>Salix sitchensis</i>	13	50.0
<i>Hypericum anagalloides</i>	8	50.0
<i>Typha latifolia</i>	8	50.0
<i>Pseudotsuga menziesii</i> (mature)	6	50.0
<i>Mimulus guttatus</i>	5	50.0
<i>Pinus ponderosa</i> (mature)	5	50.0
<i>Adenocaulon bicolor</i>	3	50.0
<i>Carex fracta</i>	3	50.0
<i>Prunella vulgaris</i>	3	50.0
<i>Rosa nutkana</i>	3	50.0
<i>Anemone oregana</i>	2	50.0
<i>Carex brunnescens</i>	2	50.0
<i>Lysichiton americanum</i>	1	50.0
<i>Salix lucida</i> ssp. <i>lasiandra</i>	1	50.0

***Equisetum telmateia***

73 2 30	Avg Cover (%)	Constancy (%)
<i>Equisetum telmateia</i>	73	100.0
<i>Athyrium filix-femina</i>	9	100.0
<i>Oenanthe sarmentosa</i>	2	100.0
<i>Rubus ursinus</i>	1	100.0
<i>Alnus rubra (mature)</i>	2	50.0
<i>Scirpus microcarpus</i>	1	50.0
<i>Veronica americana</i>	1	50.0

***Eriophorum angustifolium ssp. subarcticum var. majus***

93 2 20	Avg Cover (%)	Constancy (%)
<i>Eriophorum angustifolium</i>	28	100.0
<i>Vaccinium oxycoccus</i>	10	50.0
<i>Carex lenticularis</i>	4	50.0
<i>Drosera anglica</i>	3	50.0
<i>Juncus filiformis</i>	3	50.0
<i>Tofieldia glutinosa</i>	3	50.0
<i>Carex illota</i>	1	50.0

***Fauria crista-galli***

1a 2 14	Avg Cover (%)	Constancy (%)
<i>Fauria crista-galli</i>	75	100
<i>Carex aquatilis</i>	12	100
<i>Boykinia major</i>	9	100
<i>Tofieldia glutinosa</i>	4	100
<i>Polygonum bistortoides</i>	3	100
<i>Parnassia fimbriata</i>	1	100
<i>Agrostis thurberiana</i>	Trace	100
<i>Senecio triangularis</i>	Trace	100
<i>Carex laeviculmis</i>	3	50
<i>Epilobium ciliatum ssp. watsonii</i>	Trace	50
<i>Platanthera dilatata var. dila</i>	Trace	50
<i>Platanthera stricta</i>	Trace	50
<i>Hypericum anagalloides</i>	Trace	50
<i>Luzula campestris</i>	Trace	50

***Glyceria elata - Caltha leptosepala***

100 2 15	Avg Cover (%)	Constancy (%)
<i>Glyceria elata</i>	60	100.0
<i>Caltha leptosepala</i>	28	100.0
<i>Aster</i>	13	50.0
<i>Angelica genuflexa</i>	8	50.0
<i>Carex utriculata</i>	5	50.0

<i>Carex lenticularis</i>	4	50.0
<i>Carex laeviculmis</i>	3	50.0
<i>Viola palustris</i>	3	50.0
<i>Platanthera stricta</i>	2	50.0
<i>Sanguisorba officinalis</i>	2	50.0
<i>Scirpus microcarpus</i>	1	50.0
<i>Spiraea douglasii</i>	Trace	50.0
<i>Claytonia cordifolia</i>	Trace	50.0
<i>Streptopus amplexifolius</i>	Trace	50.0

### ***Hypericum anagalloides***

16 18 147	Avg Cover (%)	Constancy (%)
<i>Hypericum anagalloides</i>	9	100.0
<i>Tofieldia glutinosa</i>	3	50.0
<i>Platanthera dilatata</i> var. <i>dilata</i>	1	44.4
Unk. USFS Code	6	38.9
<i>Vaccinium uliginosum</i>	5	38.9
<i>Dodecatheon jeffreyi</i>	4	38.9
<i>Juncus ensifolius</i>	3	38.9
<i>Caltha leptosepala</i> ssp. <i>howellii</i>	3	33.3
<i>Deschampsia cespitosa</i>	2	33.3
<i>Equisetum arvense</i>	2	33.3
<i>Gentiana sceptrum</i>	1	33.3
<i>Juncus effusus</i>	10	27.8
<i>Eriophorum angustifolium</i>	3	27.8
<i>Sphagnum</i>	2	27.8
<i>Carex luzulina</i>	2	27.8
<i>Drosera rotundifolia</i>	2	27.8
<i>Trientalis europaea</i> ssp. <i>arctica</i>	0	27.8
<i>Viola palustris</i>	0	27.8

### ***Juncus articulatus***

80 2 19	Avg Cover (%)	Constancy (%)
<i>Juncus articulatus</i>	65	100.0
<i>Equisetum arvense</i>	4	50.0
<i>Juncus bolanderi</i>	1	50.0
<i>Typha latifolia</i>	1	50.0
<i>Agrostis diegoensis</i>	Trace	50.0
<i>Angelica genuflexa</i>	Trace	50.0
<i>Cinna latifolia</i>	Trace	50.0
<i>Eleocharis palustris</i>	Trace	50.0
<i>Epilobium</i>	Trace	50.0
<i>Epilobium ciliatum</i>	Trace	50.0
<i>Galium triflorum</i>	Trace	50.0
<i>Hippuris vulgaris</i>	Trace	50.0
<i>Juncus tenuis</i>	Trace	50.0
<i>Lycopus americanus</i>	Trace	50.0
<i>Myosotis laxa</i>	Trace	50.0



<i>Polypogon monspeliensis</i>	Trace	50.0
<i>Potamogeton natans</i>	Trace	50.0
<i>Schoenoplectus acutus</i>	Trace	50.0
<i>Veronica americana</i>	Trace	50.0

***Juncus balticus***

83 4 77	Avg Cover (%)	Constancy (%)
<i>Juncus balticus</i>	20	100.0
<i>Hypericum anagalloides</i>	6	100.0
<i>Ligusticum grayi</i>	1	100.0
<i>Polygonum bistortoides</i>	6	75.0
<i>Caltha leptosepala</i>	4	75.0
<i>Mimulus guttatus</i>	4	75.0
<i>Pedicularis groenlandica</i>	3	75.0
<i>Platanthera dilatata</i>	2	75.0
<i>Dodecatheon jeffreyi</i>	2	75.0
<i>Equisetum arvense</i>	Trace	75.0
<i>Erigeron peregrinus</i>	Trace	75.0
<i>Trifolium longipes</i>	9	50.0
<i>Carex luzulina</i>	6	50.0
<i>Saxifraga oregana</i>	4	50.0
<i>Carex scopulorum</i> var. <i>bracteos</i>	4	50.0
<i>Picea engelmannii</i> (mature)	4	50.0
<i>Ranunculus alismifolius</i>	3	50.0
<i>Senecio triangularis</i>	3	50.0
<i>Senecio cymbalarioides</i>	3	50.0
<i>Carex illota</i>	1	50.0
<i>Eriophorum angustifolium</i>	1	50.0

***Juncus balticus* - *Polygonum bistortoides***

63 2 10	Avg Cover (%)	Constancy (%)
<i>Juncus balticus</i>	68	100.0
<i>Polygonum bistortoides</i>	55	100.0
<i>Aster</i>	6	100.0
<i>Penstemon procerus</i>	3	100.0
<i>Ranunculus orthorhynchus</i>	30	50.0
<i>Ranunculus occidentalis</i>	5	50.0
<i>Agoseris aurantiaca</i>	Trace	50.0
<i>Epilobium anagallidifolium</i>	Trace	50.0
<i>Montia linearis</i>	Trace	50.0
<i>Trifolium longipes</i>	Trace	50.0

***Juncus effusus***

40 3 46	Avg Cover (%)	Constancy (%)
<i>Juncus effusus</i>	65	100.0
<i>Athyrium filix-femina</i>	8	100.0

<i>Carex stipata</i>	1	100.0
<i>Veronica americana</i>	1	100.0
<i>Juncus ensifolius</i>	Trace	100.0
<i>Sparganium angustifolium</i>	5	66.7
<i>Myosotis laxa</i>	2	66.7
<i>Phalaris arundinacea</i>	1	66.7
<i>Salix sitchensis</i>	Trace	66.7
<i>Galium trifidum</i>	Trace	66.7
<i>Mimulus moschatus</i>	Trace	66.7
<i>Typha latifolia</i>	20	33.3
<i>Oenanthe sarmentosa</i>	7	33.3
<i>Carex obnupta</i>	2	33.3

***Lemna minor***

6 2 40	Avg Cover (%)	Constancy (%)
<i>Lemna minor</i>	90	100.0
<i>Carex obnupta</i>	35	50.0
<i>Lysichiton americanum</i>	5	50.0
<i>Callitriche heterophylla</i>	Trace	50.0

***Lysichiton americanum - (Athyrium filix-femina)***

14 13 112	Average	Constancy (%)
<i>Lysichiton americanum</i>	63	100.0
<i>Athyrium filix-femina</i>	6	69.2
<i>Glyceria elata</i>	2	53.9
<i>Oenanthe sarmentosa</i>	3	46.2
<i>Carex laeviculmis</i>	8	38.5
<i>Rubus spectabilis</i>	2	38.5
<i>Alnus rubra</i> (mature)	5	30.8
<i>Senecio triangularis</i>	1	30.8
<i>Veronica americana</i>	1	30.8
<i>Claytonia sibirica</i> var. <i>sibiri</i>	Trace	30.8
<i>Stachys cooleyae</i>	1	23.1
<i>Equisetum telmateia</i>	Trace	23.1
<i>Tiarella trifoliata</i> var. <i>unifo</i>	Trace	23.1
<i>Epilobium ciliatum</i> ssp. <i>watson</i>	Trace	23.1
<i>Galium triflorum</i>	Trace	23.1
<i>Viola palustris</i>	Trace	23.1
Moss (unknown)	4	15.4
<i>Veratrum californicum</i>	2	15.4
<i>Alnus rubra</i> (regeneration)	2	15.4
<i>Alnus incana</i> (mature)	2	15.4
<i>Tsuga heterophylla</i> (mature)	1	15.4
<i>Trautvetteria caroliniensis</i>	1	15.4

**Menyanthes trifoliata**

77 3 9	Avg Cover (%)	Constancy (%)
<i>Menyanthes trifoliata</i>	50	100.0
<i>Fontinalis antipyretica</i>	20	33.3
<i>Utricularia macrorhiza</i>	8	33.3
<i>Equisetum fluviatile</i>	7	33.3
<i>Potamogeton</i>	5	33.3
<i>Carex aquatilis</i> var. <i>dives</i>	2	33.3
<i>Nuphar lutea</i> ssp. <i>polysepalum</i>	1	33.3
<i>Carex utriculata</i>	Trace	33.3
<i>Lysichiton americanum</i>	Trace	33.3

**Nuphar lutea ssp. polysepalum**

81 3 15	Avg Cover (%)	Constancy (%)
<i>Nuphar lutea</i> ssp. <i>polysepalum</i>	40	100.0
<i>Equisetum fluviatile</i>	13	33.3
<i>Sparganium angustifolium</i>	10	33.3
<i>Lemna minor</i>	5	33.3
<i>Veronica americana</i>	3	33.3
<i>Carex canescens</i>	1	33.3
<i>Alnus rubra</i> (regeneration)	1	33.3
<i>Cicuta douglasii</i>	1	33.3
<i>Salix sitchensis</i>	Trace	33.3
<i>Potamogeton natans</i>	Trace	33.3
<i>Melica aristata</i>	Trace	33.3
<i>Menyanthes trifoliata</i>	Trace	33.3
<i>Spiraea douglasii</i>	Trace	33.3
<i>Typha latifolia</i>	Trace	33.3
<i>Utricularia minor</i>	Trace	33.3

**Oenanthe sarmentosa**

34 6 47	Avg Cover (%)	Constancy (%)
<i>Oenanthe sarmentosa</i>	72	100.0
<i>Callitriche heterophylla</i>	12	33.3
<i>Typha latifolia</i>	7	33.3
<i>Eleocharis palustris</i>	6	33.3
<i>Alnus rubra</i> (mature)	3	33.3
<i>Athyrium filix-femina</i>	1	33.3
<i>Beckmannia syzigachne</i>	Trace	33.3
<i>Carex densa</i>	Trace	33.3
<i>Myosotis laxa</i>	Trace	33.3
<i>Rumex crispus</i>	Trace	33.3

**Oplopanax horridus - Acer circinatum**

65 2 39	Avg Cover (%)	Constancy (%)
<i>Oplopanax horridus</i>	65	100.0

<i>Acer circinatum</i>	13	100.0
<i>Athyrium filix-femina</i>	8	100.0
<i>Lysichiton americanum</i>	4	100.0
<i>Circaea alpina</i>	3	100.0
<i>Streptopus amplexifolius</i>	Trace	100.0
<i>Thuja plicata (mature)</i>	18	50.0
<i>Tsuga heterophylla (mature)</i>	18	50.0
<i>Oxalis trillifolia</i>	10	50.0
<i>Asarum caudatum</i>	8	50.0
<i>Vaccinium ovalifolium</i>	2	50.0
<i>Abies grandis (mature)</i>	2	50.0
<i>Claytonia sibirica var. sibirica</i>	2	50.0
<i>Stachys cooleyae</i>	1	50.0
<i>Tiarella trifoliata var. unifoliata</i>	1	50.0
<i>Viola</i>	1	50.0

### ***Phalaris arundinacea***

17 7 56	Avg Cover (%)	Constancy (%)
<i>Phalaris arundinacea</i>	89	100.0
<i>Urtica dioica</i>	Trace	42.9
<i>Athyrium filix-femina</i>	Trace	42.9
<i>Fraxinus latifolia (mature)</i>	16	28.6
<i>Rubus discolor</i>	6	28.6
<i>Carex</i>	4	28.6
<i>Equisetum telmateia</i>	2	28.6
<i>Fraxinus latifolia (regeneration)on)</i>	Trace	28.6
<i>Cirsium</i>	Trace	28.6
<i>Cardamine</i>	Trace	28.6
<i>Cardamine breweri</i>	Trace	28.6
<i>Carex arcta</i>	Trace	28.6
<i>Carex unilateralis</i>	Trace	28.6
<i>Galium aparine</i>	Trace	28.6
<i>Galium triflorum</i>	Trace	28.6
<i>Polygonum punctatum</i>	Trace	28.6
<i>Rubus ursinus</i>	Trace	28.6

### ***Potamogeton***

78 3 9	Avg Cover (%)	Constancy (%)
<i>Potamogeton natans</i>	50	100.0
<i>Ranunculus flammula</i>	20	33.3
<i>Utricularia</i>	20	33.3
<i>Potamogeton</i>	15	33.3
<i>Spirodela polyrhiza</i>	7	33.3
<i>Polygonum</i>	2	33.3
<i>Myosotis laxa</i>	Trace	33.3
<i>Carex lenticularis</i>	Trace	33.3
<i>Polygonum hydropiper</i>	Trace	33.3

***Pteridium aquilinum***

103 2 24	Avg Cover (%)	Constancy (%)
<i>Pteridium aquilinum</i>	60	100.0
<i>Rubus ursinus</i>	2	100.0
<i>Alnus rubra (mature)</i>	20	50.0
<i>Symphoricarpos albus</i>	13	50.0
<i>Populus balsamifera ssp. trichocarpa</i>	10	50.0
<i>Cornus sericea ssp. sericea</i>	8	50.0
<i>Galium triflorum</i>	8	50.0
<i>Elymus glaucus</i>	5	50.0
<i>Tolmiea menziesii</i>	5	50.0
<i>Maianthemum stellatum</i>	4	50.0
<i>Acer circinatum</i>	4	50.0
<i>Cirsium arvense</i>	3	50.0
<i>Heracleum maximum</i>	3	50.0
<i>Populus balsamifera ssp. trichocarpa</i>	3	50.0
<i>Rosa nutkana</i>	3	50.0
<i>Rosa woodsii</i>	3	50.0
<i>Salix</i>	2	50.0
<i>Carex deweyana</i>	1	50.0
<i>Salix scouleriana</i>	1	50.0
<i>Acer macrophyllum (regeneration)</i>	Trace	50.0
<i>Abies grandis (mature)</i>	Trace	50.0
<i>Circaea alpina</i>	Trace	50.0
<i>Equisetum arvense</i>	Trace	50.0
<i>Stachys cooleyae</i>	Trace	50.0

***Sanguisorba officinalis***

30 4 23	Avg Cover (%)	Constancy (%)
<i>Sanguisorba officinalis</i>	68	100.0
<i>Carex aquatilis var. dives</i>	12	66.7
<i>Platanthera dilatata</i>	Trace	66.7
<i>Carex aquatilis var. dives</i>	23	33.3
<i>Carex utriculata</i>	7	33.3
<i>Sphagnum subsecundum</i>	7	33.3
<i>Trientalis europaea ssp. arctica</i>	3	33.3
<i>Carex</i>	2	33.3
<i>Sphagnum</i>	2	33.3
<i>Viola adunca</i>	1	33.3

***Scirpus microcarpus***

9 23 178	Avg Cover (%)	Constancy (%)
<i>Scirpus microcarpus</i>	70	100.0
<i>Athyrium filix-femina</i>	5	56.5
<i>Lysichiton americanum</i>	4	52.2
<i>Glyceria elata</i>	4	52.2

<i>Veronica americana</i>	Trace	39.1
<i>Viola palustris</i>	Trace	34.8
<i>Tsuga heterophylla</i> (regeneration)	Trace	30.4
<i>Senecio triangularis</i>	Trace	26.1

***Senecio triangularis* - (*Trifolium longipes*)**

84 8 101	Avg Cover (%)	Constancy (%)
<i>Senecio triangularis</i>	17	100.0
<i>Trifolium longipes</i>	14	87.5
<i>Polygonum bistortoides</i>	6	87.5
<i>Caltha leptosepala</i>	4	62.5
<i>Ligusticum grayi</i>	4	62.5
<i>Arnica mollis</i>	2	62.5
<i>Platanthera stricta</i>	Trace	62.5
<i>Veratrum californicum</i>	2	50.0
<i>Abies lasiocarpa</i> (regeneration)	1	50.0
<i>Carex luzulina</i>	Trace	50.0
<i>Picea engelmannii</i> (mature)	4	37.5
<i>Streptopus lanceolatus</i> var. <i>roseus</i>	4	37.5
<i>Trautvetteria caroliniensis</i>	4	37.5
<i>Viola palustris</i>	3	37.5
<i>Streptopus amplexifolius</i>	2	37.5
<i>Carex scopulorum</i> var. <i>bracteos</i>	1	37.5
<i>Mimulus guttatus</i>	1	37.5
<i>Vaccinium membranaceum</i>	1	37.5
<i>Picea engelmannii</i> (regeneration)	1	37.5
<i>Mitella pentandra</i>	Trace	37.5
<i>Orthilia secunda</i>	Trace	37.5
<i>Tsuga mertensiana</i>	Trace	37.5
<i>Valeriana sitchensis</i>	Trace	37.5
<i>Dodecatheon jeffreyi</i>	Trace	37.5
<i>Erigeron peregrinus</i>	Trace	37.5
<i>Osmorhiza berteroi</i>	Trace	37.5
<i>Rubus lasiococcus</i>	Trace	37.5
<i>Mitella breweri</i>	Trace	37.5
<i>Oreostemma alpigenum</i> var. <i>alpigenum</i>	4	25.0
<i>Epilobium angustifolium</i>	3	25.0
<i>Geum macrophyllum</i>	3	25.0
<i>Abies lasiocarpa</i> (mature)	3	25.0
<i>Saxifraga nelsoniana</i>	2	25.0
<i>Abies amabilis</i> (mature)	1	25.0

***Sparganium angustifolium***

51+96 4 16	Avg Cover (%)	Constancy (%)
<i>Sparganium angustifolium</i>	60	100.0
<i>Oenanthe sarmentosa</i>	10	50.0
<i>Callitriche</i>	2	50.0
<i>Torreyochloa pallida</i> var. <i>pauc</i>	Trace	50.0

<i>Potamogeton natans</i>	15	25.0
<i>Callitriche heterophylla</i>	13	25.0
<i>Juncus effusus</i>	3	25.0
<i>Lemna minor</i>	Trace	25.0
<i>Juncus</i>	Trace	25.0
<i>Lycopus uniflorus</i>	Trace	25.0
<i>Mimulus moschatus</i>	Trace	25.0
<i>Epilobium ciliatum</i> ssp. <i>watson</i>	Trace	25.0
<i>Equisetum arvense</i>	Trace	25.0
<i>Galium aparine</i>	Trace	25.0
<i>Stellaria calycantha</i>	Trace	25.0
<i>Veronica americana</i>	Trace	25.0

***Torreyochloa pallida* var. *pauciflora* - *Veronica americana* - (*Juncus effusus*)**

39 4 31	Avg Cover (%)	Constancy (%)
<i>Torreyochloa pallida</i> var. <i>pauciflora</i>	56	100.0
<i>Veronica americana</i>	Trace	100.0
<i>Juncus effusus</i>	13	75.0
<i>Oenanthe sarmentosa</i>	1	75.0
<i>Scirpus microcarpus</i>	Trace	75.0
<i>Typha latifolia</i>	7	50.0
<i>Callitriche</i>	3	50.0
<i>Sparganium angustifolium</i>	2	50.0
<i>Phalaris arundinacea</i>	Trace	50.0
<i>Stellaria calycantha</i>	Trace	50.0
<i>Lysichiton americanum</i>	13	25.0
<i>Juncus ensifolius</i>	1	25.0

***Trautvetteria caroliniensis***

94 2 36	Avg Cover (%)	Constancy (%)
<i>Trautvetteria caroliniensis</i>	25	100.0
<i>Streptopus amplexifolius</i>	2	100.0
<i>Senecio triangularis</i>	1	100.0
<i>Abies amabilis</i> (regeneration)	Trace	100.0
<i>Erigeron peregrinus</i>	13	50.0
<i>Viola palustris</i>	8	50.0
<i>Tsuga heterophylla</i> (mature)	4	50.0
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	3	50.0
<i>Athyrium filix-femina</i>	3	50.0
<i>Heracleum maximum</i>	3	50.0
<i>Lysichiton americanum</i>	3	50.0
<i>Epilobium minutum</i>	2	50.0
<i>Valeriana sitchensis</i>	2	50.0
<i>Elymus glaucus</i>	2	50.0
<i>Trifolium longipes</i>	2	50.0
<i>Epilobium angustifolium</i>	1	50.0
<i>Lupinus latifolius</i>	1	50.0

***Trautvetteria caroliniensis* - *Senecio triangularis***

60 3 88	Avg Cover (%)	Constancy (%)
<i>Trautvetteria caroliniensis</i>	62	100.0
<i>Senecio triangularis</i>	13	100.0
<i>Platanthera stricta</i>	4	100.0
<i>Athyrium filix-femina</i>	2	100.0
<i>Picea engelmannii</i> (mature)	18	66.7
<i>Veratrum</i>	8	66.7
<i>Abies grandis</i> (mature)	7	66.7
<i>Achlys triphylla</i>	6	66.7
<i>Valeriana sitchensis</i>	3	66.7
<i>Picea engelmannii</i> (regeneration)	2	66.7
<i>Maianthemum stellatum</i>	2	66.7
<i>Mitella breweri</i>	2	66.7
<i>Ribes lacustre</i>	2	66.7
<i>Orthilia secunda</i>	1	66.7
<i>Abies grandis</i> (regeneration)	Trace	66.7
<i>Clintonia uniflora</i>	Trace	66.7
<i>Anemone deltoidea</i>	Trace	66.7
<i>Glyceria elata</i>	Trace	66.7
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	Trace	66.7
<i>Viola palustris</i>	Trace	66.7
<i>Galium triflorum</i>	Trace	66.7
<i>Osmorhiza berteroi</i>	Trace	66.7
<i>Pyrola minor</i>	Trace	66.7
<i>Streptopus amplexifolius</i>	Trace	66.7
<i>Lysichiton americanum</i>	10	33.3

***Trichophorum cespitosum* - (*Tofieldia glutinosa*)**

15 13 77	Avg Cover (%)	Constancy (%)
<i>Trichophorum cespitosum</i>	56	100.0
<i>Tofieldia glutinosa</i>	5	92.3
<i>Hypericum anagalloides</i>	23	84.6
<i>Caltha leptosepala</i>	8	69.2
<i>Sphagnum</i>	6	69.2
<i>Vaccinium uliginosum</i>	2	69.2
<i>Trientalis europaea</i> ssp. <i>arctica</i>	2	61.5
<i>Dodecatheon jeffreyi</i>	3	53.9
Unk. USFS Code	1	53.9
<i>Sanguisorba officinalis</i>	7	46.2
<i>Carex aquatilis</i> var. <i>dives</i>	4	46.2
<i>Carex luzulina</i>	3	46.2
<i>Senecio cymbalarioides</i>	2	46.2
<i>Eriophorum angustifolium</i>	Trace	46.2
<i>Platanthera dilatata</i>	Trace	46.2
<i>Agrostis thurberiana</i>	Trace	38.5
<i>Deschampsia cespitosa</i>	Trace	38.5
<i>Drosera rotundifolia</i>	3	30.8
<i>Pedicularis groenlandica</i>	1	30.8
<i>Parnassia fimbriata</i>	Trace	30.8



*Equisetum arvense* Trace 30.8

***Typha latifolia***

41 6 32	Avg Cover (%)	Constancy (%)
<i>Typha latifolia</i>	58	100.0
<i>Myosotis laxa</i>	6	33.3
<i>Carex stipata</i>	2	33.3
<i>Cicuta douglasii</i>	Trace	33.3
<i>Athyrium filix-femina</i>	Trace	33.3
<i>Fontinalis neomexicana</i>	16	16.7
<i>Mentha</i>	5	16.7
<i>Scirpus microcarpus</i>	5	16.7
<i>Nuphar lutea ssp. polysepalum</i>	4	16.7
<i>Hippuris vulgaris</i>	3	16.7

***Veratrum californicum - Carex angustata - Solidago canadensis***

71+72 4 32	Avg Cover (%)	Constancy (%)
<i>Veratrum californicum</i>	31	100.0
<i>Carex angustata</i>	29	100.0
<i>Solidago canadensis</i>	16	100.0
<i>Juncus balticus</i>	7	75.0
<i>Lupinus latifolius</i>	6	75.0
<i>Allium validum</i>	2	75.0
<i>Ranunculus orthorhynchus</i>	2	75.0
<i>Mimulus guttatus</i>	2	50.0
<i>Achillea millefolium</i>	1	50.0
<i>Polygonum bistortoides</i>	1	50.0
<i>Arabis glabra</i>	Trace	50.0
<i>Poa pratensis</i>	Trace	50.0
<i>Viola palustris</i>	Trace	50.0
<i>Epilobium anagallidifolium</i>	Trace	50.0
<i>Veronica wormskjoldii</i>	Trace	50.0
<i>Heracleum maximum</i>	10	25.0
<i>Hydrophyllum tenuipes</i>	5	25.0
<i>Senecio triangularis</i>	4	25.0
<i>Delphinium X occidentale</i>	3	25.0
<i>Polemonium occidentale</i>	3	25.0
<i>Carex jonesii</i>	1	25.0
<i>Platanthera dilatata</i>	1	25.0
<i>Pedicularis groenlandica</i>	1	25.0
<i>Potentilla gracilis</i>	1	25.0

***Xerophyllum tenax***

68 2 40	Avg Cover (%)	Constancy (%)
<i>Xerophyllum tenax</i>	50	100.0
<i>Ligusticum grayi</i>	2	100.0

<i>Vaccinium membranaceum</i>	13	50.0
<i>Rhododendron albiflorum</i>	8	50.0
<i>Sanguisorba officinalis</i>	5	50.0
<i>Tauschia stricklandii</i>	5	50.0
<i>Vaccinium membranaceum</i>	5	50.0
<i>Vaccinium uliginosum</i>	5	50.0
<i>Tofieldia glutinosa</i>	4	50.0
<i>Cassiope mertensiana</i>	3	50.0
<i>Cornus canadensis</i>	3	50.0
<i>Gaultheria ovatifolia</i>	3	50.0
<i>Spiraea splendens</i>	3	50.0
<i>Vaccinium ovalifolium</i>	3	50.0
<i>Gaultheria humifusa</i>	2	50.0
<i>Kalmia microphylla</i>	2	50.0
<i>Oreostemma alpigenum</i> var. <i>alpigenum</i>	2	50.0
<i>Rubus lasiococcus</i>	2	50.0
<i>Senecio cymbalarioides</i>	2	50.0
<i>Abies amabilis</i> (regeneration)	1	50.0
<i>Pedicularis racemosa</i>	1	50.0
<i>Tsuga heterophylla</i> (mature)	1	50.0

## Shrub-dominated Associations

### *Alnus incana* / (*Lysichiton americanum*)

37a 5 84	Avg Cover (%)	Constancy (%)
<i>Alnus incana</i> (mature)	68	100.0
<i>Lysichiton americanum</i>	16	60.0
<i>Veronica americana</i>	Trace	60.0
<i>Carex aquatilis</i> var. <i>dives</i>	12	40.0
<i>Picea engelmannii</i> (mature)	7	40.0
<i>Athyrium filix-femina</i>	6	40.0
<i>Carex disperma</i>	5	40.0
<i>Cornus canadensis</i>	4	40.0
<i>Dodecatheon jeffreyi</i>	3	40.0
<i>Equisetum arvense</i>	2	40.0
<i>Ribes bracteosum</i>	2	40.0
<i>Glyceria elata</i>	Trace	40.0
<i>Veratrum californicum</i>	Trace	40.0
<i>Platanthera stricta</i>	Trace	40.0
<i>Sphagnum</i>	14	20.0

### *Alnus incana* / *Senecio triangularis*

59 6 93	Avg Cover (%)	Constancy (%)
<i>Alnus incana</i> (regeneration)	46	100.0
<i>Senecio triangularis</i>	10	100.0
<i>Glyceria elata</i>	9	100.0
<i>Stachys cooleyae</i>	8	100.0
<i>Athyrium filix-femina</i>	6	100.0
<i>Trautvetteria caroliniensis</i>	6	83.3
<i>Maianthemum stellatum</i>	3	83.3
<i>Platanthera stricta</i>	Trace	83.3
<i>Lysichiton americanum</i>	13	66.7
<i>Picea engelmannii</i> (mature)	3	66.7
<i>Aster</i>	2	66.7
<i>Picea engelmannii</i> (regeneration)	1	66.7
<i>Veronica americana</i>	Trace	66.7
<i>Equisetum arvense</i>	Trace	66.7
<i>Carex laeviculmis</i>	4	50.0
<i>Mimulus guttatus</i>	4	50.0
<i>Tsuga heterophylla</i> (regeneration)	2	50.0
<i>Galium triflorum</i>	Trace	50.0
<i>Geum macrophyllum</i>	Trace	50.0
<i>Viola glabella</i>	Trace	50.0
<i>Mitella breweri</i>	Trace	50.0

### *Alnus viridis* ssp. *sinuata* / *Athyrium filix-femina* - (*Lysichiton americanum*)

31a 4 91	Avg Cover (%)	Constancy (%)
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<i>Athyrium filix-femina</i>	7	100.0
<i>Lysichiton americanum</i>	22	75.0
<i>Senecio triangularis</i>	12	75.0
<i>Glyceria elata</i>	6	75.0
<i>Spiraea douglasii</i>	5	75.0
<i>Alnus viridis ssp. sinuata (ma</i>	30	50.0
<i>Alnus viridis ssp. sinuata (re</i>	8	50.0
<i>Carex aquatilis</i>	6	50.0
<i>Thuja plicata (regeneration)</i>	4	50.0
<i>Ribes bracteosum</i>	2	50.0
<i>Tsuga heterophylla (regenerati</i>	1	50.0
<i>Rhododendron macrophyllum</i>	1	50.0
<i>Mimulus guttatus</i>	1	50.0
<i>Angelica arguta</i>	Trace	50.0
<i>Cornus canadensis</i>	Trace	50.0
<i>Polygonum bistortoides</i>	Trace	50.0
<i>Veronica americana</i>	Trace	50.0
<i>Alnus viridis ssp. sinuata</i>	17	25.0
<i>Salix geeyeriana</i>	4	25.0
<i>Scirpus microcarpus</i>	4	25.0
<i>Achnatherum nelsonii ssp. dore</i>	4	25.0
<i>Thuja plicata (mature)</i>	4	25.0
<i>Viola glabella</i>	4	25.0

***Alnus viridis ssp. sinuata / Equisetum fluviatile***

31c 3 44	Average	Constancy (%)
<i>Alnus viridis ssp. sinuata (regeneration)</i>	33	100.0
<i>Equisetum fluviatile</i>	2	100.0
<i>Carex aquatilis</i>	15	66.7
<i>Spiraea douglasii</i>	2	66.7
<i>Salix</i>	2	66.7
<i>Epilobium ciliatum ssp. glandu</i>	1	66.7
<i>Juncus ensifolius</i>	1	66.7
<i>Platanthera dilatata var. dilatata</i>	Trace	66.7
<i>Pyrola asarifolia</i>	Trace	66.7
<i>Alnus viridis ssp. sinuata (mature)</i>	23	33.3
<i>Carex muricata</i>	7	33.3
<i>Carex aquatilis var. dives</i>	5	33.3
<i>Carex utriculata</i>	5	33.3
<i>Carex canescens</i>	3	33.3
<i>Betula nana</i>	2	33.3
<i>Lysichiton americanum</i>	2	33.3
<i>Comarum palustre</i>	2	33.3

***Alnus viridis ssp. sinuata - Rubus spectabilis***

31b 4 91	Average	Constancy (%)
<i>Rubus spectabilis</i>	2	100.0
<i>Cornus canadensis</i>	3	75.0
<i>Viburnum edule</i>	Trace	75.0
<i>Alnus viridis ssp. sinuata (mature)</i>	38	50.0
<i>Alnus viridis ssp. sinuata (regeneration)</i>	21	50.0
<i>Vaccinium ovalifolium</i>	6	50.0
<i>Sorbus sitchensis</i>	4	50.0
<i>Ribes bracteosum</i>	3	50.0
<i>Picea engelmannii (mature)</i>	2	50.0
<i>Abies lasiocarpa (mature)</i>	2	50.0
<i>Rubus lasiococcus</i>	1	50.0
<i>Maianthemum stellatum</i>	1	50.0
<i>Glyceria elata</i>	1	50.0
<i>Abies amabilis (regeneration)</i>	1	50.0
<i>Epilobium ciliatum ssp. glandulosa</i>	1	50.0
<i>Galium triflorum</i>	1	50.0
<i>Viola palustris</i>	1	50.0
<i>Tiarella trifoliata var. unifoliata</i>	Trace	50.0
<i>Achlys triphylla</i>	Trace	50.0
<i>Picea engelmannii (regeneration)</i>	Trace	50.0
<i>Orthilia secunda</i>	Trace	50.0
<i>Trientalis europaea ssp. arctica</i>	Trace	50.0
<i>Tolmiea menziesii</i>	5	25.0
<i>Alnus incana (regeneration)</i>	3	25.0
<i>Equisetum arvense</i>	3	25.0
<i>Scirpus microcarpus</i>	2	25.0

***Alnus viridis ssp. sinuata / Rubus spectabilis / Athyrium filix-femina***

31+49 9 79	Avg Cover (%)	Constancy (%)
<i>Rubus spectabilis</i>	18	100.0
<i>Athyrium filix-femina</i>	7	100.0
<i>Alnus viridis ssp. sinuata (mature)</i>	33	66.7
<i>Alnus viridis ssp. sinuata (regeneration)</i>	29	66.7
<i>Senecio triangularis</i>	Trace	66.7
<i>Viola palustris</i>	3	55.6
<i>Trautvetteria caroliniensis</i>	Trace	55.6
<i>Trillium ovatum</i>	Trace	55.6
<i>Viola glabella</i>	9	44.4
<i>Oplopanax horridus</i>	4	44.4
<i>Maianthemum stellatum</i>	2	44.4
<i>Veratrum viride</i>	1	44.4
<i>Abies amabilis (regeneration)</i>	Trace	44.4
<i>Lysichiton americanum</i>	6	33.3
<i>Streptopus lanceolatus var. ro</i>	1	33.3
<i>Lonicera involucrata</i>	Trace	33.3
<i>Caltha leptosepala ssp. howell</i>	Trace	33.3
<i>Thuja plicata (regeneration)</i>	Trace	33.3
<i>Spiraea douglasii</i>	5	22.2

***Cornus sericea ssp. sericea / Lysichiton americanum***

44 3 39	Avg Cover (%)	Constancy (%)
<i>Cornus sericea ssp. sericea</i>	87	100.0
<i>Lysichiton americanum</i>	12	100.0
<i>Acer circinatum</i>	2	66.7
<i>Athyrium filix-femina</i>	1	66.7
<i>Glyceria elata</i>	Trace	66.7
<i>Frangula purshiana</i>	5	33.3
<i>Circaea alpina</i>	3	33.3
<i>Dryopteris campyloptera</i>	2	33.3
<i>Fraxinus latifolia (regeneration)</i>	2	33.3
<i>Angelica genuflexa</i>	2	33.3
<i>Lemna minor</i>	2	33.3
<i>Oxalis oregana</i>	2	33.3
<i>Ribes bracteosum</i>	2	33.3
<i>Rosa pisocarpa</i>	2	33.3
<i>Oplopanax horridus</i>	1	33.3
<i>Carex obnupta</i>	1	33.3
<i>Maianthemum stellatum</i>	1	33.3

***Ledum glandulosum - Gaultheria shallon - Pteridium aquilinum***

99 2 9	Avg Cover (%)	Constancy (%)
<i>Ledum glandulosum</i>	80	100.0
<i>Gaultheria shallon</i>	40	100.0
<i>Pteridium aquilinum</i>	23	100.0
<i>Carex obnupta</i>	4	100.0
<i>Spiraea douglasii</i>	2	100.0
<i>Equisetum arvense</i>	Trace	100.0
Moss (unknown)	10	50.0
<i>Blechnum spicant</i>	1	50.0
<i>Rubus ursinus</i>	Trace	50.0

***Myrica gale***

74 3 16	Avg Cover (%)	Constancy (%)
<i>Myrica gale</i>	50	100.0
<i>Carex saxatilis</i>	25	66.7
<i>Carex leptalea</i>	1	66.7
<i>Spiraea douglasii</i>	Trace	66.7
<i>Platanthera dilatata</i>	Trace	66.7
<i>Carex aquatilis var. dives</i>	8	33.3
<i>Sanguisorba officinalis</i>	8	33.3
<i>Eriophorum angustifolium</i>	2	33.3
<i>Salix pedicellaris</i>	2	33.3

<i>Sphagnum</i>	2	33.3
<i>Betula nana</i>	Trace	33.3
<i>Agrostis thurberiana</i>	Trace	33.3
<i>Aster occidentalis</i>	Trace	33.3
<i>Carex limosa</i>	Trace	33.3
<i>Tofieldia glutinosa</i>	Trace	33.3
<i>Torreyochloa pallida</i> var. <i>pauciflora</i>	Trace	33.3

***Ribes bracteosum* / *Athyrium filix-femina***

48 3 35	Avg Cover (%)	Constancy (%)
<i>Ribes bracteosum</i>	82	100.0
<i>Athyrium filix-femina</i>	6	100.0
<i>Viola glabella</i>	1	100.0
<i>Hydrophyllum tenuipes</i>	20	66.7
<i>Rubus spectabilis</i>	8	66.7
<i>Mitella pentandra</i>	6	66.7
<i>Senecio triangularis</i>	5	66.7
<i>Streptopus lanceolatus</i> var. <i>roseus</i>	2	66.7
<i>Oplopanax horridus</i>	2	66.7
<i>Trillium ovatum</i>	Trace	66.7
<i>Streptopus amplexifolius</i>	Trace	66.7
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	Trace	66.7
<i>Lysichiton americanum</i>	10	33.3
<i>Oxalis trilliifolia</i>	10	33.3
<i>Mitella</i>	7	33.3
<i>Abies amabilis</i> (mature)	2	33.3
<i>Delphinium glaucum</i>	2	33.3

**(*Rubus spectabilis*) / *Athyrium filix-femina***

67 5 76	Avg Cover (%)	Constancy (%)
<i>Athyrium filix-femina</i>	27	100.0
<i>Rubus spectabilis</i>	19	80.0
<i>Viola palustris</i>	3	80.0
<i>Ribes bracteosum</i>	11	60.0
<i>Thuja plicata</i> (mature)	11	60.0
<i>Oplopanax horridus</i>	6	60.0
<i>Stachys cooleyae</i>	5	60.0
<i>Vaccinium ovalifolium</i>	4	60.0
<i>Senecio triangularis</i>	1	60.0
<i>Thuja plicata</i> (regeneration)	Trace	60.0
<i>Tsuga heterophylla</i> (regeneration)	Trace	60.0
<i>Platanthera stricta</i>	Trace	60.0
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	Trace	60.0
<i>Alnus viridis</i> ssp. <i>sinuata</i> (regeneration)	5	40.0
<i>Tsuga heterophylla</i> (mature)	4	40.0
<i>Lysichiton americanum</i>	3	40.0
<i>Sambucus racemosa</i>	2	40.0
<i>Streptopus lanceolatus</i> var. <i>roseus</i>	2	40.0

<i>Angelica genuflexa</i>	1	40.0
<i>Maianthemum stellatum</i>	1	40.0
<i>Sphagnum</i>	1	40.0

***Salix commutata***

28 4 42	Avg Cover (%)	Constancy (%)
<i>Salix commutata</i>	83	100.0
<i>Carex utriculata</i>	3	50.0
<i>Canadanthus modestus</i>	3	50.0
<i>Viola palustris</i>	2	50.0
<i>Angelica genuflexa</i>	Trace	50.0
<i>Carex aquatilis var. dives</i>	20	25.0
<i>Torreyochloa pallida var. pauciflora</i>	16	25.0
<i>Caltha leptosepala</i>	5	25.0
<i>Pyrola asarifolia</i>	5	25.0
<i>Carex exsiccata</i>	4	25.0
<i>Dodecatheon jeffreyi</i>	4	25.0
<i>Spiraea douglasii</i>	4	25.0
<i>Ranunculus</i>	3	25.0
<i>Carex aquatilis var. dives</i>	2	25.0

***Salix geyeriana - (Spiraea douglasii) / (Carex aquatilis var. dives)***

27 4 36	Avg Cover (%)	Constancy (%)
<i>Salix geyeriana</i>	87	100.0
<i>Spiraea douglasii</i>	20	75.0
<i>Carex aquatilis var. dives</i>	11	75.0
<i>Carex utriculata</i>	20	50.0
<i>Viola</i>	15	50.0
<i>Pyrola asarifolia</i>	Trace	50.0
<i>Veronica americana</i>	Trace	50.0
<i>Fontinalis antipyretica</i>	15	25.0
<i>Lycopus uniflorus</i>	15	25.0
<i>Scirpus microcarpus</i>	5	25.0
<i>Hypericum anagalloides</i>	4	25.0
<i>Carex obnupta</i>	3	25.0
<i>Cicuta douglasii</i>	1	25.0
<i>Equisetum arvense</i>	1	25.0

***Salix pedicellaris / (Carex aquatilis var. dives)***

46 5 46	Avg Cover (%)	Constancy (%)
<i>Salix pedicellaris</i>	48	100.0
<i>Carex aquatilis var. dives</i>	22	80.0
<i>Castilleja miniata</i>	Trace	60.0
<i>Sanguisorba officinalis</i>	5	40.0
<i>Dodecatheon jeffreyi</i>	1	40.0
<i>Parnassia fimbriata</i>	Trace	40.0



<i>Agrostis thurberiana</i>	Trace	40.0
<i>Cicuta douglasii</i>	Trace	40.0
<i>Senecio cymbalarioides</i>	Trace	40.0
<i>Phalaris arundinacea</i>	10	20.0

***Salix planifolia ssp. planifolia / (Carex aquatilis var. dives)***

24 6 38	Avg Cover (%)	Constancy (%)
<i>Salix planifolia ssp. planifolia</i>	68	100.0
<i>Carex aquatilis var. dives</i>	19	83.3
<i>Spiraea douglasii</i>	5	50.0
<i>Vaccinium uliginosum</i>	4	50.0
<i>Trientalis europaea ssp. arctica</i>	Trace	50.0
<i>Lysichiton americanum</i>	1	33.3
<i>Viola palustris</i>	Trace	33.3
<i>Equisetum arvense</i>	Trace	33.3

***Salix sitchensis***

12 4 38	Avg Cover (%)	Constancy (%)
<i>Salix sitchensis</i>	76	100.0
<i>Carex obnupta</i>	33	50.0
<i>Lysichiton americanum</i>	33	50.0
<i>Athyrium filix-femina</i>	5	50.0
<i>Oenanthe sarmentosa</i>	3	50.0
<i>Scirpus microcarpus</i>	2	50.0
<i>Vaccinium parvifolium</i>	Trace	50.0
<i>Ribes bracteosum</i>	Trace	50.0
<i>Mitella</i>	5	25.0
<i>Myosotis laxa</i>	4	25.0
<i>Rubus spectabilis</i>	1	25.0
<i>Senecio triangularis</i>	1	25.0
<i>Spiraea douglasii</i>	1	25.0

***Salix sitchensis / (Equisetum arvense)***

35 9 51	Avg Cover (%)	Constancy (%)
<i>Salix sitchensis</i>	9	100.0
<i>Equisetum arvense</i>	3	55.6
<i>Carex lenticularis</i>	5	44.4
<i>Lysichiton americanum</i>	1	44.4
<i>Viola palustris</i>	Trace	44.4
<i>Senecio triangularis</i>	3	33.3
<i>Cornus sericea ssp. sericea</i>	1	33.3
<i>Juncus ensifolius</i>	Trace	33.3
<i>Alnus viridis ssp. sinuata (regeneration)</i>	4	22.2
<i>Carex aquatilis var. dives</i>	4	22.2
<i>Spiraea douglasii</i>	2	22.2
<i>Picea engelmannii (regeneration)</i>	1	22.2

Unk. USFS Code	1	22.2
<i>Pyrola asarifolia</i>	1	22.2
<i>Viburnum edule</i>	1	22.2
<i>Achlys triphylla</i>	Trace	22.2
<i>Cornus canadensis</i>	Trace	22.2
<i>Glyceria elata</i>	Trace	22.2
<i>Abies amabilis</i> (regeneration)	Trace	22.2

***Salix sitchensis* - *Equisetum telmateia***

92 2 37	Avg Cover (%)	Constancy (%)
<i>Salix sitchensis</i>	30	100.0
<i>Equisetum telmateia</i>	15	100.0
<i>Athyrium filix-femina</i>	4	100.0
<i>Mimulus moschatus</i>	2	100.0
<i>Cardamine</i>	Trace	100.0
<i>Carex deweyana</i>	Trace	100.0
<i>Galium aparine</i>	Trace	100.0
<i>Cirsium</i>	Trace	100.0
<i>Lysichiton americanum</i>	8	50.0
<i>Scirpus microcarpus</i>	8	50.0
<i>Chrysosplenium glechomifolium</i>	5	50.0
<i>Glyceria grandis</i>	5	50.0
<i>Salix hookeriana</i>	3	50.0
<i>Sorbus dumosa</i>	3	50.0
<i>Carex amplifolia</i>	2	50.0
<i>Rubus spectabilis</i>	2	50.0
<i>Tolmiea menziesii</i>	2	50.0
<i>Typha latifolia</i>	2	50.0
<i>Juncus</i>	1	50.0
<i>Stenanthium occidentale</i>	1	50.0

***Spiraea douglasii***

56+2 28 147	Avg Cover (%)	Constancy (%)
<i>Spiraea douglasii</i>	67	100.0
<i>Carex aquatilis</i>	4	32.1
<i>Lysichiton americanum</i>	2	25.0
<i>Dodecatheon jeffreyi</i>	3	17.9
<i>Senecio triangularis</i>	2	17.9
<i>Vaccinium uliginosum</i>	1	17.9
<i>Viola palustris</i>	1	17.9
<i>Spiraea splendens</i> var. <i>splende</i>	3	14.3
<i>Glyceria elata</i>	1	14.3
<i>Viburnum edule</i>	Trace	14.3
<i>Polygonum bistortoides</i>	Trace	14.3
<i>Populus balsamifera</i> ssp. <i>trich</i>	4	10.7
<i>Calamagrostis canadensis</i>	1	10.7
<i>Caltha leptosepala</i> ssp. <i>howell</i>	1	10.7
<i>Salix planifolia</i> ssp. <i>planifol</i>	1	10.7

<i>Moss (unknown)</i>	1	10.7
<i>Scirpus microcarpus</i>	1	10.7
<i>Viola glabella</i>	1	10.7
<i>Athyrium filix-femina</i>	Trace	10.7
<i>Malus fusca (mature)</i>	Trace	10.7

***Spiraea douglasii* / *Fontinalis antipyretica***

1 3 15	Avg Cover (%)	Constancy (%)
<i>Spiraea douglasii</i>	93	100.0
<i>Fontinalis antipyretica</i>	78	100.0
<i>Rosa pisocarpa</i>	6	66.7
<i>Carex aperta</i>	6	66.7
<i>Carex exsiccata</i>	Trace	66.7
<i>Veronica scutellata</i>	Trace	66.7
<i>Ranunculus gormanii</i>	Trace	66.7
<i>Hypericum anagalloides</i>	4	33.3
<i>Ranunculus flammula</i>	4	33.3
<i>Glyceria elata</i>	2	33.3
<i>Carex fracta</i>	Trace	33.3
<i>Juncus effusus</i>	Trace	33.3
<i>Agrostis exarata</i>	Trace	33.3
<i>Agrostis scabra</i>	Trace	33.3
<i>Botrychium multifidum</i>	Trace	33.3

***Spiraea douglasii* - *Viburnum edule* / *Viola palustris***

56a 9 89	Avg Cover (%)	Constancy (%)
<i>Spiraea douglasii</i>	34	100.0
<i>Viola palustris</i>	6	100.0
<i>Viburnum edule</i>	5	100.0
<i>Athyrium filix-femina</i>	1	66.7
<i>Senecio triangularis</i>	Trace	66.7
<i>Platanthera dilatata var. dila</i>	Trace	66.7
<i>Caltha leptosepala ssp. howell</i>	4	50.0
<i>Salix planifolia ssp. planifol</i>	3	50.0
<i>Scirpus microcarpus</i>	2	50.0
<i>Equisetum arvense</i>	1	50.0
<i>Maianthemum stellatum</i>	1	50.0
<i>Lonicera involucrata</i>	1	50.0
<i>Lysichiton americanum</i>	5	33.3
<i>Alnus viridis ssp. sinuata (ma</i>	5	33.3
<i>Rubus spectabilis</i>	2	33.3
<i>Streptopus lanceolatus var. ro</i>	1	33.3
<i>Abies lasiocarpa (mature)</i>	1	33.3
<i>Cornus canadensis</i>	Trace	33.3
<i>Agrostis thurberiana</i>	Trace	33.3
<i>Dodecatheon jeffreyi</i>	Trace	33.3
<i>Epilobium ciliatum ssp. glandu</i>	Trace	33.3
<i>Platanthera stricta</i>	Trace	33.3

<i>Ligusticum grayi</i>	Trace	33.3
<i>Stachys cooleyae</i>	Trace	33.3
<i>Trautvetteria caroliniensis</i>	Trace	33.3
<i>Tsuga heterophylla (regenerati</i>	Trace	33.3
<i>Vaccinium ovalifolium</i>	Trace	33.3

***Vaccinium ovalifolium***

50 3 47	Avg Cover (%)	Constancy (%)
<i>Vaccinium ovalifolium</i>	72	100.0
<i>Cornus canadensis</i>	18	66.7
<i>Spiraea douglasii</i>	7	66.7
<i>Lysichiton americanum</i>	1	66.7
<i>Polytrichum commune</i>	30	33.3
<i>Abies amabilis (mature)</i>	15	33.3
<i>Sphagnum capillifolium</i>	10	33.3
<i>Sphagnum squarrosum</i>	10	33.3
<i>Carex aquatilis</i>	7	33.3
<i>Calamagrostis canadensis</i>	5	33.3
<i>Thuja plicata (mature)</i>	5	33.3
<i>Tsuga heterophylla (mature)</i>	5	33.3
<i>Rubus pedatus</i>	3	33.3
<i>Alnus viridis ssp. sinuata (ma</i>	2	33.3
<i>Aster occidentalis</i>	2	33.3
<i>Kalmia microphylla</i>	2	33.3
<i>Abies amabilis (regeneration)</i>	1	33.3
<i>Alnus viridis ssp. sinuata</i>	1	33.3
<i>Athyrium filix-femina</i>	1	33.3

***Vaccinium uliginosum / (Carex aquatilis var. dives)***

26 17 117	Avg Cover (%)	Constancy (%)
<i>Vaccinium uliginosum</i>	50	100.0
<i>Carex aquatilis var. dives</i>	10	70.6
<i>Dodecatheon jeffreyi</i>	5	52.9
<i>Salix pedicellaris</i>	9	47.1
<i>Sphagnum</i>	10	41.2
<i>Pinus contorta (mature)</i>	4	35.3
<i>Eriophorum angustifolium</i>	Trace	35.3
<i>Platanthera dilatata</i>	Trace	35.3
<i>Spiraea douglasii</i>	3	29.4
<i>Deschampsia cespitosa</i>	1	29.4
<i>Hypericum anagalloides</i>	Trace	29.4
<i>Tofieldia glutinosa</i>	Trace	29.4

## Tree-dominated Associations

### ***Abies amabilis* / *Vaccinium ovalifolium***

69 12 138	Avg Cover (%)	Constancy (%)
<i>Vaccinium ovalifolium</i>	16	100.0
<i>Abies amabilis</i> (mature)	8	100.0
<i>Abies amabilis</i> (regeneration)	4	91.7
<i>Cornus canadensis</i>	6	83.3
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	2	75.0
<i>Clintonia uniflora</i>	Trace	66.7
<i>Caltha leptosepala</i>	4	58.3
<i>Rubus spectabilis</i>	2	58.3
<i>Athyrium filix-femina</i>	2	58.3
<i>Viola palustris</i>	Trace	58.3
<i>Rhododendron albiflorum</i>	10	50.0
<i>Chamaecyparis nootkatensis</i> (mature)	6	50.0
<i>Achlys triphylla</i>	5	50.0
<i>Spiraea douglasii</i>	4	50.0
<i>Senecio triangularis</i>	3	50.0
<i>Tsuga heterophylla</i> (mature)	3	50.0
<i>Lysichiton americanum</i>	2	50.0
<i>Chamaecyparis nootkatensis</i> (regeneration,	2	50.0
<i>Glyceria elata</i>	1	50.0
<i>Valeriana sitchensis</i>	Trace	50.0
<i>Viburnum edule</i>	Trace	50.0
<i>Sorbus sitchensis</i>	Trace	50.0
<i>Streptopus lanceolatus</i> var. <i>roseus</i>	Trace	50.0
<i>Platanthera stricta</i>	Trace	50.0
<i>Rubus lasiococcus</i>	Trace	50.0

### ***Alnus rubra***

98 2 37	Avg Cover (%)	Constancy (%)
<i>Alnus rubra</i> (regeneration)	30	100.0
<i>Viola palustris</i>	6	100.0
<i>Streptopus lanceolatus</i> var. <i>roseus</i>	3	100.0
<i>Senecio triangularis</i>	Trace	100.0
<i>Scirpus microcarpus</i>	10	50.0
<i>Spiraea splendens</i>	8	50.0
<i>Cornus sericea</i> ssp. <i>sericea</i>	5	50.0
<i>Salix sitchensis</i>	5	50.0
<i>Athyrium filix-femina</i>	4	50.0
<i>Rosa gymnocarpa</i>	4	50.0
<i>Salix planifolia</i> ssp. <i>planifolia</i>	3	50.0
<i>Thuja plicata</i> (mature)	3	50.0
<i>Maianthemum dilatatum</i>	2	50.0
<i>Viburnum edule</i>	2	50.0

***Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)***

108-111 25 147	Avg Cover (%)	Constancy (%)
<i>Alnus rubra</i> (mature)	71	100.0
<i>Athyrium filix-femina</i>	8	92.0
<i>Lysichiton americanum</i>	27	88.0
<i>Stachys cooleyae</i>	2	52.0
<i>Oenanthe sarmentosa</i>	3	48.0
<i>Claytonia sibirica</i> var. <i>sibirica</i>	2	48.0
<i>Tolmiea menziesii</i>	4	44.0
<i>Rubus spectabilis</i>	4	44.0
<i>Glyceria elata</i>	3	40.0
<i>Equisetum telmateia</i>	Trace	36.0
<i>Galium triflorum</i>	Trace	36.0
<i>Veronica americana</i>	Trace	32.0
<i>Alnus rubra</i> (regeneration)	3	28.0
<i>Acer circinatum</i>	2	28.0
<i>Carex deweyana</i>	2	28.0
<i>Viola glabella</i>	Trace	28.0
<i>Viola palustris</i>	Trace	28.0
<i>Circaea alpina</i>	Trace	28.0
<i>Oxalis oregana</i>	2	24.0
<i>Spiraea douglasii</i>	1	24.0
<i>Senecio triangularis</i>	Trace	24.0
<i>Angelica arguta</i>	Trace	24.0
<i>Maianthemum dilatatum</i>	Trace	24.0

***Alnus rubra / Carex aquatilis var. dives***

106 2 15	Avg Cover (%)	Constancy (%)
<i>Alnus rubra</i> (mature)	80	100.0
<i>Carex aquatilis</i> var. <i>dives</i>	48	100.0
<i>Athyrium filix-femina</i>	15	100.0
<i>Lysichiton americanum</i>	8	100.0
<i>Stellaria crispa</i>	15	50.0
<i>Viola palustris</i>	13	50.0
<i>Rubus spectabilis</i>	8	50.0
<i>Viola glabella</i>	5	50.0
<i>Conium maculatum</i>	3	50.0
<i>Phalaris arundinacea</i>	Trace	50.0
<i>Angelica genuflexa</i>	Trace	50.0
<i>Equisetum fluviatile</i>	Trace	50.0
<i>Lycopus uniflorus</i>	Trace	50.0
<i>Veronica americana</i>	Trace	50.0

***Alnus rubra / Claytonia sibirica var. sibirica***

104 4 54	Avg Cover (%)	Constancy (%)
<i>Alnus rubra</i> (mature)	31	100.0
<i>Claytonia sibirica</i> var. <i>sibirica</i>	14	100.0

<i>Athyrium filix-femina</i>	2	100.0
<i>Stachys cooleyae</i>	13	75.0
<i>Carex deweyana</i>	5	75.0
<i>Osmorhiza berteroi</i>	1	75.0
<i>Urtica dioica</i>	5	50.0
<i>Nemophila parviflora</i>	2	50.0
<i>Oenanthe sarmentosa</i>	2	50.0
<i>Circaea alpina</i>	2	50.0
<i>Mitella breweri</i>	1	50.0
<i>Rubus spectabilis</i>	1	50.0
<i>Galium triflorum</i>	Trace	50.0
<i>Hydrophyllum tenuipes</i>	Trace	50.0

***Alnus rubra* / *Glyceria elata***

101 5 76	Avg Cover (%)	Constancy (%)
<i>Glyceria elata</i>	34	100.0
<i>Alnus rubra</i> (mature)	27	100.0
<i>Veronica americana</i>	3	100.0
<i>Scirpus microcarpus</i>	11	80.0
<i>Stachys cooleyae</i>	5	80.0
<i>Athyrium filix-femina</i>	5	80.0
<i>Lysichiton americanum</i>	4	80.0
<i>Rubus spectabilis</i>	2	80.0
<i>Alnus rubra</i> (regeneration)	1	60.0
<i>Tolmiea menziesii</i>	Trace	60.0
<i>Oenanthe sarmentosa</i>	3	40.0
<i>Mimulus guttatus</i>	1	40.0
<i>Senecio triangularis</i>	1	40.0
<i>Juncus ensifolius</i>	1	40.0
<i>Mimulus moschatus</i>	1	40.0
<i>Viola glabella</i>	1	40.0

***Alnus rubra* / *Oplopanax horridus* / *Oxalis oregana***

105 2 41	Avg Cover (%)	Constancy (%)
<i>Alnus rubra</i> (mature)	80	100.0
<i>Oplopanax horridus</i>	60	100.0
<i>Oxalis oregana</i>	58	100.0
<i>Rubus spectabilis</i>	15	100.0
<i>Athyrium filix-femina</i>	8	100.0
<i>Vaccinium ovalifolium</i>	7	100.0
<i>Lysichiton americanum</i>	6	100.0
<i>Ribes bracteosum</i>	4	100.0
<i>Viola palustris</i>	2	100.0
<i>Cornus canadensis</i>	Trace	100.0
<i>Polystichum munitum</i>	Trace	100.0
<i>Streptopus amplexifolius</i>	Trace	100.0
<i>Vaccinium ovalifolium</i>	3	50.0
<i>Thuja plicata</i> (mature)	2	50.0

*Cimicifuga laciniata* 1 50.0

***Alnus rubra / Rubus spectabilis***

107 2 26	Avg Cover (%)	Constancy (%)
<i>Alnus rubra (mature)</i>	70	100.0
<i>Rubus spectabilis</i>	53	100.0
<i>Alnus rubra (regeneration)</i>	9	100.0
<i>Stachys cooleyae</i>	7	100.0
<i>Athyrium filix-femina</i>	3	100.0
<i>Tolmiea menziesii</i>	2	100.0
<i>Asarum caudatum</i>	2	100.0
<i>Fraxinus latifolia (mature)</i>	13	50.0
<i>Polystichum munitum</i>	13	50.0
<i>Carex aquatilis var. dives</i>	10	50.0
<i>Rubus parviflorus</i>	5	50.0
<i>Lysichiton americanum</i>	5	50.0
<i>Acer circinatum</i>	3	50.0
<i>Anaphalis margaritacea</i>	3	50.0
<i>Oemleria cerasiformis</i>	3	50.0
<i>Glyceria elata</i>	2	50.0
<i>Viola palustris</i>	1	50.0

***Betula nana / (Carex aquatilis var. dives)***

23 8 56	Avg Cover (%)	Constancy (%)
<i>Betula nana</i>	54	100.0
<i>Carex aquatilis var. dives</i>	31	75.0
<i>Vaccinium uliginosum</i>	12	62.5
<i>Spiraea douglasii</i>	6	50.0
<i>Salix pedicellaris</i>	3	50.0
<i>Dodecatheon jeffreyi</i>	Trace	50.0
<i>Salix geyeriana</i>	7	37.5
<i>Viola palustris</i>	5	37.5
<i>Trientalis europaea ssp. arctica</i>	Trace	37.5
<i>Lysichiton americanum</i>	Trace	37.5
<i>Platanthera dilatata</i>	Trace	37.5
<i>Lonicera involucrata</i>	3	25.0

***Fraxinus latifolia / Corylus cornuta / Carex obnupta***

5a 3 46	Avg Cover (%)	Constancy (%)
<i>Fraxinus latifolia (mature)</i>	82	100.0
<i>Carex obnupta</i>	57	100.0
<i>Corylus cornuta</i>	20	100.0
<i>Carex deweyana</i>	8	100.0
<i>Rubus ursinus</i>	2	100.0
<i>Symphoricarpos albus</i>	20	66.7
<i>Circaea alpina</i>	5	66.7



<i>Oenanthe sarmentosa</i>	4	66.7
<i>Acer circinatum</i>	1	66.7
<i>Galium aparine</i>	1	66.7
<i>Fraxinus latifolia (regeneration)</i>	1	66.7
<i>Athyrium filix-femina</i>	1	66.7
<i>Claytonia sibirica var. sibirica</i>	Trace	66.7
<i>Poa palustris</i>	Trace	66.7
<i>Polystichum munitum</i>	Trace	66.7
<i>Rudbeckia occidentalis</i>	8	33.3
Moss (unknown)	7	33.3
<i>Glyceria elata</i>	5	33.3
<i>Mimulus guttatus</i>	3	33.3
<i>Salix lucida ssp. lasiandra</i>	3	33.3
<i>Equisetum telmateia</i>	2	33.3
<i>Elymus glaucus</i>	2	33.3
<i>Stachys ajugoides var. rigida</i>	2	33.3
<i>Viola glabella</i>	2	33.3
<i>Salix sitchensis</i>	1	33.3

***Populus balsamifera ssp. trichocarpa***

102 2 40	Avg Cover (%)	Constancy (%)
<i>Populus balsamifera ssp. trichocarpa</i>	53	100.0
<i>Maianthemum stellatum</i>	6	100.0
<i>Salix</i>	3	100.0
<i>Botrychium multifidum</i>	Trace	100.0
<i>Symphoricarpos albus</i>	33	50.0
<i>Carex aquatilis var. dives</i>	10	50.0
<i>Rosa woodsii</i>	8	50.0
<i>Calamagrostis canadensis</i>	5	50.0
<i>Osmorhiza berteroi</i>	4	50.0
<i>Anemone deltoidea</i>	4	50.0
<i>Cornus sericea ssp. sericea</i>	4	50.0
<i>Aster</i>	3	50.0
<i>Heracleum maximum</i>	3	50.0
<i>Lysichiton americanum</i>	3	50.0
<i>Salix scouleriana</i>	3	50.0
<i>Senecio triangularis</i>	3	50.0
<i>Rosa nutkana</i>	2	50.0
<i>Rubus ursinus</i>	1	50.0

***Thuja plicata / (Lysichiton americanum)***

66 13 147	Avg Cover (%)	Constancy (%)
<i>Lysichiton americanum</i>	15	92.3
<i>Thuja plicata (mature)</i>	17	84.6
<i>Thuja plicata (regeneration)</i>	2	69.2
<i>Tsuga heterophylla (regeneration)</i>	Trace	69.2
<i>Athyrium filix-femina</i>	2	61.5
<i>Rubus spectabilis</i>	Trace	61.5

<i>Abies amabilis</i> (mature)	9	53.9
<i>Tsuga heterophylla</i> (mature)	9	53.9
<i>Abies amabilis</i> (regeneration)	Trace	53.9
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	Trace	53.9
<i>Galium triflorum</i>	Trace	53.9
<i>Senecio triangularis</i>	3	46.2
<i>Glyceria elata</i>	2	46.2
<i>Vaccinium ovalifolium</i>	2	46.2
<i>Cornus canadensis</i>	1	46.2
<i>Streptopus amplexifolius</i>	1	46.2
<i>Trautvetteria caroliniensis</i>	Trace	46.2
<i>Platanthera stricta</i>	Trace	46.2
<i>Picea engelmannii</i> (mature)	4	38.5
<i>Blechnum spicant</i>	4	38.5
<i>Carex brunnescens</i>	2	38.5
<i>Viola glabella</i>	1	38.5
<i>Maianthemum dilatatum</i>	Trace	38.5
<i>Linnaea borealis</i>	Trace	38.5
<i>Veronica americana</i>	Trace	38.5
<i>Picea engelmannii</i> (regeneration)	Trace	38.5
<i>Mitella breweri</i>	Trace	38.5
<i>Orthilia secunda</i>	Trace	38.5

***Thuja plicata* / *Athyrium filix-femina***

11 6 91	Avg Cover (%)	Constancy (%)
<i>Thuja plicata</i> (mature)	69	100.0
<i>Athyrium filix-femina</i>	2	100.0
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	Trace	83.3
<i>Lysichiton americanum</i>	21	66.7
<i>Rubus spectabilis</i>	9	66.7
<i>Viola glabella</i>	Trace	66.7
<i>Stachys cooleyae</i>	5	50.0
<i>Maianthemum stellatum</i>	2	50.0
<i>Clintonia uniflora</i>	Trace	50.0
<i>Streptopus amplexifolius</i>	Trace	50.0
<i>Tsuga heterophylla</i> (regeneration)	Trace	50.0
<i>Vaccinium ovalifolium</i>	Trace	50.0
<i>Asarum caudatum</i>	Trace	50.0
<i>Galium triflorum</i>	Trace	50.0
<i>Senecio triangularis</i>	Trace	50.0
<i>Oplopanax horridus</i>	6	33.3
<i>Pseudotsuga menziesii</i> (mature)	4	33.3
<i>Tsuga heterophylla</i> (mature)	4	33.3

## Physical Environment Characteristics

Microposition (Microp) designates topography within less than 100 feet of plot: 1=Ridgetop/saddle; 2=Upper 1/3 of slope; 3=Middle 1/3; 4=Lower 1/3; 5=Bench/Narrow flat; 6=Toe of slope; 7=Canyon bottom, and; 8=Basin. Microvertical (Microv) and microhorizontal (Microh) designate ground surface: 1=Convex; 2=Flat; 3=Concave, and; 4=Undulating.

	<b>Elev</b> (feet)	<b>Slope</b> (%)	<b>Aspect</b> (degrees)	<b>Microp</b>	<b>Microv</b>	<b>Microh</b>
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## Bryophyte-dominated Associations

### *Sphagnum*

Average	3384	1	159	8	2	2
Minimum	2300	0	0	2	1	1
Maximum	4600	6	300	9	4	4

Found in small basins and lakesides. Fens (water is flowing from outside of community) and bogs (precipitation is predominant) both support this association. Often, it is within a mosaic of other communities. Deep organic peat soils are characteristic. The water table is usually near the surface. These sites are easily disturbed by prodding feet which loosen the sphagnum layer and bring inflow to depressions.

### *Sphagnum - Carex aquatilis var. dives*

Average	3880	1	155	8	2	2
Minimum	3160	0	98	8	2	2
Maximum	4520	5	212	8	4	4

### *Sphagnum angustifolium - Menyanthes trifoliata*

Average	3285	0	95	5	2	2
Minimum	3285	0	0	5	2	2
Maximum	3285	0	190	5	2	2

### *Vaccinium uliginosum / Sphagnum*

Average	3350	1	252	8	2	2
Minimum	2950	0	252	8	2	2
Maximum	4000	2	252	8	2	2

## Herb-dominated Associations

### *Boykinia major*

Average	1648	0	243	#N/A	#N/A	#N/A
Minimum	10	0	180	5	2	2
Maximum	3285	0	305	10	3	3

Found in a wet depressed meadow and on the edge of a peatland. Soil is organic to 22cm or greater, then sand and organic mixture becoming more sandy. These soils appear to be permanently saturated.

***Calamagrostis canadensis***

Average	3200	1	215	8	2	2
Minimum	3000	0	215	8	2	2
Maximum	3600	2	215	8	2	3

***Caltha leptosepala***

Average	4367	4	142	8	1	4
Minimum	4000	0	30	6	1	1
Maximum	4900	10	297	9	4	4

Found in a wet meadow. The upper layer is primarily organic with some gravel and charcoal. Water table is 12cm deep where sand predominates. A clay layer is apparent below 25cm. This description is from a single site – Moon Lake.

***Carex amplifolia***

Average	2225	4	318	#N/A	2	2
Minimum	1000	0	280	3	2	2
Maximum	3450	7	355	9	2	2

Found in both a river floodplain and peatland. Saturated silt or muck changing to predominantly sand or clay at about 40cm depth. Appears that water table retreats to 40cm depth after spring flooding.

***Carex aperta***

1 plot only	3150	3	60	6	3	2
Minimum	1970	0	140	7	1	1
Maximum	2200	0	315	8	2	2

Situated in wet meadow and upper stream banks. Soils are variable with clay and sand.

***Carex aquatilis var. dives***

Average	3896	1	183	8	2	2
Minimum	2720	0	0	3	1	1
Maximum	4920	3	320	9	2	2

Deep mucky soils which are homogenous to about 80cm depth. There's a network of fine roots and rhizomes afforded by the dense cover of *Carex aquatilis var. dives*. Logs can sometimes be found in much to depth of 80cm depth. Water is commonly at or above soil surface, remaining saturated into late summer.

***Carex aquatilis var. dives - (Eleocharis quinqueflora)***

Average	4217	2	157	8	2	3
Minimum	3690	0	157	1	2	2
Maximum	4480	3	157	8	2	3

Wet depressed meadows. Typified by deep saturated organic mantle or peat. Dense root matter is characteristic. Surface water may appear in spring and early summer.

***Carex cusickii***

Average	2057	0	250	8	2	2
Minimum	1970	0	140	7	1	1
Maximum	2200	0	315	8	2	2

Sites are peatlands and ponds. The association is supported by saturated mucks as well as old floating and sunken logs and floating mats of litter and root mass. The logs may serve as sponges by soaking up water and making it available to plants.

***Carex lenticularis***

1 plot only	4920	0	0	6	2	2
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***Carex obnupta***

Average	1362	1	216	8	2	2
Minimum	1000	0	36	5	2	1
Maximum	2560	2	340	9	5	5

Commonly found at upland sites away from water permanent surface water. This association is most often underlain by a hardpan of clay occurring below 50cm. Above this is a mixture of clay and organic soil. At many sites the organics in the upper layer is probably alluvial.

***Carex exsiccata***

Average	2620	0	133	8	2	2
Minimum	1000	0	0	4	1	2
Maximum	4440	2	350	9	3	3

These associations are usually found in small depressions of several acres or less where meltwater or groundwater forms temporary ponds. Surface inlets and outlets are lacking. Such microbasins can support surface water, but it is usually ephemeral. Where water persists, the *Nuphar lutea* ssp. *polysepalum* association is common. Mucky silt-laden organic soils to 50cm depth, then silty sand is common. Soils are saturated into the summer.

***Carex utriculata***

Average	2651	0	152	8	2	2
Minimum	1080	0	5	5	2	2
Maximum	3510	1	330	9	2	3

In small basins and old beaver ponds. Soils are organic peat and silt laden.

***Deschampsia cespitosa* - (*Aster occidentalis*)**

No Data

***Deschampsia cespitosa* - (*Ligusticum grayi*)**

Average	1660	0	-	5	4	4
Minimum	1660	0	0	5	4	4
Maximum	1660	0	0	5	4	4

***Eleocharis palustris***

1 plot only	1900	0		8	2	2
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***Eleocharis quinqueflora***

Average	4030	1	330	8	2	2
Minimum	3580	0	330	8	2	2
Maximum	4480	3	330	8	3	4

***Equisetum arvense* - *Juncus ensifolius***

Average	2379	9	215	3	3	3
Minimum	2329	0	215	3	2	2
Maximum	2480	13	215	8	3	3

***Equisetum telmateia***

1 plot only	521	5	78	6	1	2
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Site is located in a complex of beaver ponds. The upper layer of soil is sand with clay becoming more important with depth until it is almost entirely clay at 70cm depth. This description is from a single plot.

***Eriophorum angustifolium* ssp. *subarcticum* var. *majus***

No Data

***Fauria crista-galli***

Average	3585	4	147	3	2	3
Minimum	3550	2	144	3	2	3
Maximum	3620	6	150	3	2	3

Wet gently sloping meadows. Soils are saturated into late summer.

***Glyceria elata - Caltha leptosepala***

No Data

***Hypericum anagalloides***

Average	3027	3	180	8	2	2
Minimum	1600	0	33	2	2	2
Maximum	4280	7	340	8	3	3

Sites are small depressions, peatlands, and wet meadows. The soil is primarily peat underlain by silt and silty clay. Water at surface is common.

***Juncus articulatus***

No Data

***Juncus balticus***

1 plot only	5250	6	156	3	2	2
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***Juncus balticus - Polygonum bistortoides***

No Data

***Juncus effusus***

Average	950	0	218	9	2	2
Minimum	900	0	210	9	2	2
Maximum	1000	0	226	9	2	2

A variety of sites including active beaver ponds and streamsides. Soils are primarily silt.

***Lemna minor***

1 plot only	8000	0	254	9	2	2
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***Lysichiton americanum - (Athyrium felix-femina)***

Average	2716	3	195	8	2	2
Minimum	920	0	20	1	2	2
Maximum	4580	18	340	9	3	3

Sites are variable, occurring in small basins, glades, seeps, along ponds, concave benches, and above stream channels. Upper soil horizons are sandy silt mucks with water usually near surface. Middle horizons are silty, sometimes containing buried coarse wood. Lower horizons beginning at 50cm or greater are cobbles, gravel, or sand. These sites retain saturated conditions well into summer.

***Menyanthes trifoliata***

Average	3950	0	243	8	2	2
Minimum	3320	0	215	8	2	2
Maximum	4580	0	270	8	2	2

On edges of lakes and ponds. Soil is deep (>80cm) muck with buried sticks and logs.

***Nuphar lutea ssp. polysepalum***

1 plot only	3320	0	190	8	2	2
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This association is supported by lakes and ponds. Standing water is common into late summer. A deep (>1.5m) much is characteristic.

***Oenanthe sarmentosa***

Average	1860	0	226	8	3	3
Minimum	900	0	226	8	2	2
Maximum	2340	1	226	9	3	3

Found in an active beaver pond complex. Silty soils with buried wood. This description is from a single plot only.

***Oplopanax horridus - Acer circinatum***

Average	2867	18	22	3	4	3
Minimum	2400	15	4	3	4	2
Maximum	3800	24	58	3	4	3

Site found is a hillside seep. Gravel is comon to all soil horizons. The upper 20cm is predominantly silt underlain by clayey silt. Becomes rocky at depths greater than 50cm where the water table is also present. This description is from a single plot.

***Phalaris arundinacea***

Average	440	0	52	5	2	2
Minimum	400	0	0	5	1	2
Maximum	520	1	104	8	2	2

Only several sites were sampled. These were sandy sites above stream channels. A thick layer of grass litter (5cm deep) is apparent. Periodic stream flooding is likely.

***Potamogeton***

Average	900	0	-		2	2
Minimum	600	0	-	5	2	2
Maximum	1200	0	-	7	2	2

Found in beaver ponds. These wetlands typically retain surface water nearly all growing season. Soil is sandy silt with significant root matter. The sandy silt can be as deep as 1.5m.

***Pteridium aquilinum***

Average	2275	0	-	8	2	2
Minimum	1800	0	0	8	2	2
Maximum	2750	0	0	8	3	3

***Sanguisorba canadensis***

Average	2682	3	217	8	2	2
Minimum	560	0	0	1	1	1
Maximum	4310	25	360	9	5	4

***Sanguisorba offinalis***

1 plot only	2650	0	0	9	2	2
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Found in a wet meadow. Upper 30cm of soil is organic with thick impenetrable root mass. Water table is 20cm deep. This description is from only a single plot which is located in Lost Prairie.

***Scirpus microcarpus***

Average	2682	3	217	8	2	2
Minimum	560	0	0	1	1	1
Maximum	4310	25	360	9	5	4

This is found on a variety of sites including old oxbows, on banks above streams, small basins, and open glades surrounded by forest. At some sites standing water may be as deep as 20-30cm. At more terrestrial sites, surface water may only reach several centimeters for very short periods in early spring. Soils are silt and silty clay.

***Senecio triangularis - (Trifolium longipes)***

Average	5055	10	77	4	2	3
Minimum	4960	10	44	2	2	3
Maximum	5150	10	109	4	2	3

***Sparganium angustifolium***

Average	1328	0	239	8	2	2
Minimum	880	0	114	8	2	2
Maximum	2200	0	350	9	3	3

Beaver pond and peatlands. Soils are mucks or fine organic mantles.

***Torreyochloa pallida var. paucifloriflora - Veronica americana - (Juncus effusus)***

Average	1325	1	128	9	2	2
Minimum	880	0	0	5	2	2
Maximum	1960	2	285	9	4	4

Beaver pond and wet meadows. Soils vary from the upper soil layer being highly organic with an underlying layer of clay perching the water above old river cobbles at about 50cm depth, to simply silty sand in the upper layer to sandy silt at lower reaches.

***Trautvetteria caroliniensis***

No Data

***Trautvetteria caroliniensis - Senecio triangularis***

Average	4390	9	80	3	4	4
Minimum	4020	8	76	3	4	4
Maximum	4760	9	84	3	4	4

***Trichophorum cespitosum - (Tofieldia glutinosa)***

No data

***Typha latifolia***

Average	1447	1	144	9	2	#N/A
Minimum	944	0	0	9	2	2
Maximum	1950	1	288	9	2	3

Old beaver ponds or small basins. Standing water up to 30cm deep. Soils are silty mucks. A dense layer of cattail litter floating on surface, or alternately moss (*Fontinalis neomexicana*) may be typical.

***Veratrum californicum - Carex angustata - Solidago canadensis***

No Data

***Veronica americana - (Juncus effusus)***

No Data

***Xerophyllum tenax***

Average	3817	5	70	8	2	2
Minimum	3690	0	70	1	2	2
Maximum	3880	7	70	8	2	2



## Shrub-dominated Associations

### *Alnus incana* / *Senecio triangularis*

Average	3939	7	115			
Minimum	3320	0	90	2	2	2
Maximum	4760	15	150	9	4	4

### *Alnus viridis ssp. sinuata* / *Athyrium filix-femina* - (*Lysichiton americanum*)

Average	3355	0	168			
Minimum	2100	0	133	8	2	2
Maximum	4400	1	210	8	4	4

### *Alnus viridis ssp. sinuata* / *Equisetum fluviatile*

Average	4300	20	320			
Minimum	4300	20	320	9	2	4
Maximum	4300	20	320	9	2	4

### *Alnus viridis ssp. sinuata* - *Rubus spectabilis*

Average	3925	9	219	8	2	2
Minimum	3400	5	120	2	1	2
Maximum	4300	20	320	9	2	4

### *Alnus viridis ssp. sinuata* / *Rubus spectabilis* / *Athyrium filix-femina*

Average	3598	3	196	8	2	2
Minimum	3000	0	20	5	2	2
Maximum	4280	6	348	9	4	4

### *Alnus rubra* / *Rubus spectabilis*

Average	1850	3	240			
Minimum	1100	0	240	8	2	2
Maximum	2600	5	240	8	4	4

### *Cornus sericea ssp. sericea* / *Lysichiton americanum*

Average	2533	0	244	8	2	3
Minimum	1640	0	208	8	2	2
Maximum	3600	1	280	9	3	3

Found in a small micro-basin. Water is 15cm deep over a very loose and deep muck. A tangled web of moss-covered roots exists several centimeters above the water surface. This description is from a single plot.

### *Crataegus douglasii* / (*Juncus effusus*)

1 plot only	3400	0		8	2	2
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### *Ledum glandulosum* - *Gaultheria shallon* - *Pteridium aquilinum*

1 site only	1030	4	40	5	2	2
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***Myrica gale***

Average	3300	0	188	8	2	2
Minimum	3100	0	188	8	2	2
Maximum	3400	1	188	8	2	2

***Ribes bracteosum* / *Athyrium filix-femina***

Average	3707	8	186	#N/A	#N/A	3
Minimum	3320	3	74	2	2	3
Maximum	4000	10	304	8	4	4

Found in a fen. This wetland association has a mix of fine organic and mineral matter in upper 10cm of soil. Mineral content increases with depth to about 75cm where a clay layer perches water. This description is from a single plot.

***(Rubus spectabilis) / Athyrium filix-femina***

Average	3086	4	230	8	2	2
Minimum	2600	0	138	3	1	2
Maximum	3320	21	358	8	3	4

***Salix commutata***

Average	4013	0	250	8	2	#N/A
Minimum	3280	0	250	8	1	1
Maximum	4400	1	250	8	2	3

Sites are wet meadows. Soils are saturated and organic with discernible litter. From about 15cm to 70cm depth is more organic matter consisting primarily of fine roots.

***Salix geyeriana - (Spiraea douglasii) / (Carex aquatilis var. dives)***

Average	3655	0	201	9	2	-
Minimum	2560	0	53	8	1	1
Maximum	4900	0	315	9	3	4

Sites are old beaver ponds and wet meadows. It is commonly between the forest edge and Carex associations. Upper soil layer is organic mixture of fine roots and litter underlain by silty clay and sandy clay.

***Salix pedicellaris / (Carex aquatilis var. dives)***

Average	3076	0	253	8	2	2
Minimum	2000	0	253	8	2	2
Maximum	3600	2	253	8	2	2

***Salix planifolia ssp. planifoliaia / (Carex aquatilis var. dives)***

Average	3917	2	238	8	2	2
Minimum	3600	0	190	8	1	2
Maximum	4100	6	303	8	3	2

***Salix sitchensis***

Average	2220	1	226	8	2	2
Minimum	1200	0	150	8	2	2
Maximum	3360	2	270	9	3	3

Found in a variety of sites including beaver ponds, on benches, and fens. Organic soils underlain by sandy clay. Water depth and soil saturation is variable, but these sites are probably flooded in the spring.

***Salix sitchensis* / (*Equisetum arvense*)**

Average	3647	2	175	8	2	2
Minimum	1900	0	70	7	2	2
Maximum	4550	7	290	8	4	4

***Salix sitchensis* - *Equisetum telmateia***

Average	1054	1	214			
Minimum	521	1	78	9	2	2
Maximum	1587	1	350	9	4	4

Old beaver ponds. Soils are sandy silt changing to silty sand with depth.

***Spiraea douglasii***

Average	3469	2	156	8	2	2
Minimum	1320	0	40	4	1	1
Maximum	4900	2	210	8	4	3

Locations are highly variable. These may be adjacent to dry meadows or lakes. Soils vary from organic loams to silt. Usually there is a dense root layer and cobbles within soil layer is not uncommon. Sand may become important at depths greater than 50cm. Water table is usually not detected but redox evidence of early season flooding up to ground surface.

***Spiraea douglasii* / *Fontinalis antipyretica***

Average	2407	0	241	8	2	2
Minimum	2260	0	148	5	2	2
Maximum	2560	0	315	8	2	2

Typically located in small basins with no permanent surface water. Soils vary from deep organic peat (>70cm) to silty and sandy clays. A dense network of fine and larger roots with buried shrub litter is characteristic. The layer of moss and underlying root system are resistant to disturbance such as trampling. Elk trails have been created through many years of use. This association does not retain surface water long into the summer.

***Spiraea douglasii* - *Viola palustris***

Average	3352	2	219	8	2	2
Minimum	1900	0	94	2	1	1
Maximum	4440	7	330	9	3	4

***Vaccinium ovalifolium***

Average	3654	1	142	8	4	4
Minimum	3040	0	45	8	1	1
Maximum	4440	3	270	8	4	4

Found at a wet meadow and an ephemeral pool. Soils have an organic layer or peat down to a depth of 22-60 cm and underlain with sandy silt.

***Vaccinium uliginosum* / (*Carex aquatilis* var. *dives*)**

Average	3572	0	181	8	2	2
Minimum	1900	0	30	8	1	1
Maximum	5360	2	296	8	4	3

**Tree-dominated Associations*****Abies amabilis* / *Vaccinium ovalifolium***

Average	3989	2	187	8	4	4
Minimum	1900	0	326	1	2	2
Maximum	4520	5	342	9	4	4

***Alnus rubra***

Average	3580	0	-	8	2	2
Minimum	3560	0	0	1	2	2
Maximum	3600	0	0	8	2	2

***Alnus rubra* / (*Athyrium filix-femina* - *Lysichiton americanum*)**

Average	2117	3	183	8	2	2
Minimum	1040	0	70	3	1	1
Maximum	3700	15	340	9	4	4

Found in a small swale and at the edge of a peatland. Characterized by deep muck or silty loam generous roots and occasional buried logs.

***Alnus rubra* / *Carex aquatilis* var. *dives***

Average	2360	0	-	8	2	2
Minimum	2000	0	0	8	2	2
Maximum	2720	0	0	8	2	2

***Alnus rubra* / *Claytonia sibirica* var. *sibirica***

Average	2234	3	156	8	2	2
Minimum	1774	0	68	1	1	2
Maximum	2640	6	244	8	4	3

***Alnus rubra* / *Glyceria elata***

Average	2376	3	106	9	2	2
Minimum	900	0	72	3	2	2
Maximum	3540	6	227	9	3	3

Found in a beaver pond complex. This single plot had a deep silt soil.

***Alnus rubra* / *Oplopanax horridus* / *Oxalis oregana***

Average	3100	33	120	3	1	4
Minimum	3000	30	105	3	1	3
Maximum	3200	35	135	4	3	4

***Alnus rubra* / *Rubus spectabilis***

No Data

***Betula nana* / (*Carex aquatilis* var. *dives*)**

Average	3500	0	300	8	2	2
Minimum	3000	0	300	8	2	2
Maximum	4400	1	300	8	2	2

***Fraxinus latifolia* / *Corylus cornuta* / *Carex obnupta***

Average	1180	0	201	9	2	2
Minimum	1000	0	0	9	2	2
Maximum	1460	1	332	9	2	2

Loam to silty clay loam. Soils are commonly saturated to surface. This association is often flooded in early spring, either from underground seepage or nearby streams.

***Populus balsamifera* ssp. *trichocarpa***

Average	3317	4	50	8	2	2
Minimum	2750	0	50	8	2	2
Maximum	3600	6	50	8	3	3

***Thuja plicata / (Lysichiton americanum)***

Average	3336	10	164	3	2	2
Minimum	2340	0	4	1	1	2
Maximum	4550	40	306	9	4	4

***Thuja plicata / Athyrium filix-femina***

Average	2752	7	171	8	2	2
Minimum	1200	0	155	3	1	2
Maximum	4550	32	187	9	4	4

Appendix A. Wetland associations and their relationship with documented associations of the National Vegetation Classification System (NVCS). Primary= synonymous, Secondary= similar.

	NVCS Primary Match	NVCS Secondary Match	New Association (No. Sites/No. Plots)
<b>Bryophyte-dominated</b>			
<i>Sphagnum</i>		Multiple	
<i>Sphagnum - Carex aquatilis var. dives</i>			10/11
<i>Sphagnum angustifolium – Menyanthes trifoliata</i>			2/2
<i>Vaccinium uliginosum / Sphagnum</i>		New341	
<b>Herb-dominated</b>			
<i>Bidens cernua</i>	CWWA000050		
<i>Boykinia major</i>			2/2
<i>Calamagrostis canadensis</i>	CEGL001559		
<i>Caltha leptosepala</i>	CWWA000054		
<i>Carex amplifolia</i>	new151		
<i>Carex aperta</i>	CWWA000056		
<i>Carex aquatilis var. dives</i>	CEGL001826		
<i>Carex aquatilis var. dives - Eleocharis quinqueflora</i>			3/3
<i>Carex cusickii</i>	CWWA000010		
<i>Carex exsiccata</i>	CWWA000070		
<i>Carex lenticularis</i>	CWWA000011		
<i>Carex obnupta</i>	CWWA000067		
<i>Carex utriculata</i>	CEGL001562		
<i>Deschampsia cespitosa - (Aster occidentalis)</i>	new173	new 504	
<i>Deschampsia cespitosa - (Ligusticum grayi)</i>			4/5
<i>Eleocharis palustris</i>	CEGL001833		
<i>Eleocharis quinqueflora</i>	CEGL001836		
<i>Equisetum arvense - Juncus ensifolius</i>			2/2
<i>Equisetum telmateia</i>			2/2
<i>Eriophorum angustifolium ssp. subarcticum var. majus</i>			2/2
<i>Fauria crista-galli</i>			2/2
<i>Glyceria elata - Caltha leptosepala</i>		CWWA000017	
<i>Hypericum anagalloides</i>			15/17
<i>Juncus articulatus</i>			2/2
<i>Juncus balticus</i>	CEGL001838		
<i>Juncus balticus - Polygonum bistortoides</i>		CEGL001838	
<i>Juncus effusus</i>	CWWA000092		
<i>Lemna minor</i>	CWWA000097		
<i>Lysichiton americanum - (Athyrium filix-femina)</i>	CWWA000100		
<i>Menyanthes trifoliata</i>	CWWA000104		
<i>Nuphar lutea ssp. polysepalum</i>	CEGL002001		
<i>Oenanthe sarmentosa</i>	CWWA000113		
<i>Oplopanax horridus - Acer circinatum</i>		CWWA000114	
<i>Phalaris arundinacea</i>			Exotic
<i>Potamogeton</i>		new510, new300	
<i>Pteridium aquilinum</i>			2/2
<i>Sanguisorba officinalis</i>			2/4
<i>Scirpus microcarpus</i>	CWWA000025		

<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )			6/8
<i>Sparganium angustifolium</i>	CEGL001990		
<i>Torreyochloa pallida</i> var. <i>pauciflora</i>			4/4
- <i>Veronica americana</i> - ( <i>Juncus effusus</i> )			
<i>Trautvetteria caroliniensis</i>			2/2
<i>Trautvetteria caroliniensis</i> - <i>Senecio triangularis</i>			3/3
<i>Trichophorum cespitosum</i> - ( <i>Tofieldia glutinosa</i> )			12/13
<i>Typha latifolia</i>	CEGL002010		
<i>Veratrum californicum</i> - <i>Carex angustata</i>		new152	
- <i>Solidago canadensis</i>			
<i>Xerophyllum tenax</i>		CEGL000120	
<b>Shrub-dominated</b>			
<i>Alnus incana</i> / ( <i>Lysichiton americanum</i> )		CEGL002628, new609, CEGL001146	
<i>Alnus incana</i> / <i>Senecio triangularis</i>			6/6
<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Athyrium filix-femina</i>		CEGL001156	
- ( <i>Lysichiton americanum</i> )			
<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Equisetum fluviatile</i>			3/3
<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i>		CWWA000045	
<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i>	CWWA000045		
/ <i>Athyrium filix_femina</i>			
<i>Cornus sericea</i> ssp. <i>sericea</i> / <i>Lysichiton americanum</i>		new33	3/3
<i>Ledum glandulosum</i> - <i>Gaultheria shallon</i>		new190, CEGL000477	1/2*
- <i>Pteridium aquilinum</i>			
<i>Myrica gale</i>		new192	2/3
<i>Ribes bracteosum</i> / <i>Athyrium filix-femina</i>		CWWA000135	3/3
( <i>Rubus spectabilis</i> ) / <i>Athyrium filix-femina</i>	CWWA000045	CWWA000135	
<i>Salix commutata</i>			4/4
<i>Salix geyeriana</i> - ( <i>Spiraea douglasii</i> )		new577	
/ ( <i>Carex aquatilis</i> var. <i>dives</i> )			
<i>Salix pedicellaris</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )			4/5
<i>Salix planifolia</i> ssp. <i>planifolia</i>			5/6
/ ( <i>Carex aquatilis</i> var. <i>dives</i> )			
<i>Salix sitchensis</i>	new553		
<i>Salix sitchensis</i> / ( <i>Equisetum arvense</i> )		CWWA000145	
<i>Salix sitchensis</i> - <i>Equisetum telmateia</i>			2/2
<i>Spiraea douglasii</i>	CEGL001129		
<i>Spiraea douglasii</i> / <i>Fontinalis antipyretica</i>		CEGL001129, CWWA000154	3/3
<i>Spiraea douglasii</i> - <i>Viburnum edule</i> / <i>Viola palustris</i>			5/6
<i>Vaccinium ovalifolium</i>			3/3
<i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )	new340	CEGL001250, new341	
<b>Tree-dominated</b>			
<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>		CEGL000233	10/12
<i>Alnus rubra</i>			2/2
<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i>	CWWA000036	CWWA000171	
- <i>Lysichiton americanum</i> )			
<i>Alnus rubra</i> / <i>Carex aquatilis</i> var. <i>dives</i>		CWWA000171	2/2
<i>Alnus rubra</i> / <i>Claytonia sibirica</i> var. <i>sibirica</i>		CWWA000035	4/4
<i>Alnus rubra</i> / <i>Glyceria elata</i>			5/5
<i>Alnus rubra</i> / <i>Oplopanax horridus</i> / <i>Oxalis oregana</i>		CWWA000038	
<i>Alnus rubra</i> / <i>Rubus spectabilis</i>		CEGL000639	

<i>Betula nana</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )			7/8
<i>Fraxinus latifolia</i> / <i>Corylus cornuta</i> / <i>Carex obnupta</i>		CEGL000640	3/3
<i>Populus balsamifera</i> ssp. <i>trichocarpaocarpa</i>		CWWA000130	
<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> ) [old-growth]	CEGL000478		
<i>Thuja plicata</i> / <i>Athyrium filix-femina</i> [old-growth]	new455		

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\* Association historically existed at more than one site



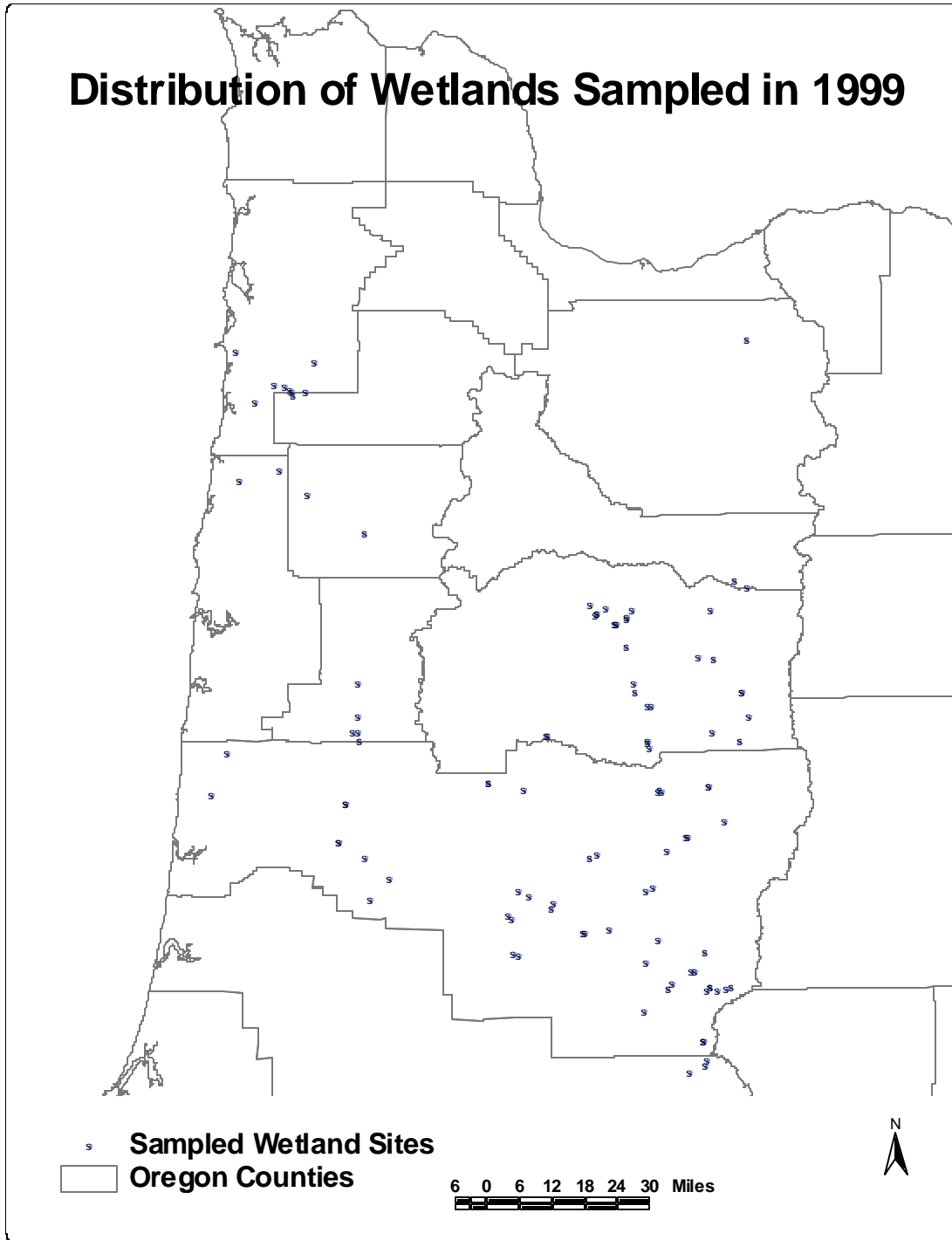
Appendix B. A comparison of associations classified by USFS (Diaz), this report (Primary= synonymous, Secondary= similar), and the National Vegetation Classification System (NVCS).

<b>USFS (Diaz)</b>	<b>Primary</b>	<b>Secondary</b>	<b>NVCS</b>
ATFI-LYAM	<i>Lysichiton americanum</i> - ( <i>Athyrium filix-femina</i> )	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> )	CWWA000100
CAAQD	<i>Carex aquatilis</i> var. <i>dives</i>	<i>Carex aquatilis</i> var. <i>dives</i> - ( <i>Eleocharis quinqueflora</i> )	CEGL001826
CABI	<i>Caltha leptosepala</i>	<i>Glyceria elata</i> – <i>Caltha leptosepala</i>	CWWA000054
CACA	<i>Calamagrostis canadensis</i>		CEGL001559
CAOB	<i>Carex obnupta</i>		CWWA000067
CAREX			
CAUT	<i>Carex utriculata</i>		CEGL001562
DECA	<i>Deschampsia cespitosa</i> - ( <i>Aster occidentalis</i> ) <i>Deschampsia cespitosa</i> - ( <i>Ligusticum grayi</i> )		new505
ELPA	<i>Eleocharis palustris</i>		CEGL001833
GRASS			
HYAN	<i>Hypericum anagaloides</i>		
JUNCUS		<i>Juncus balticus</i> , <i>Juncus articulatus</i>	
PHAR	<i>Phalaris arundinacea</i>		
SCMI	<i>Scirpus microcarpus</i>		CWWA000025
SETR-TRLO	<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )		
SETR-VASI		<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	
SOCA		<i>Veratrum californicum</i> - <i>Carex angustata</i> - <i>Solidago canadensis</i>	
TYLA-EQFL		<i>Typha latifolia</i>	
ALRU/ACCI		<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	
ALRU/CAAQD		<i>Alnus rubra</i> / <i>Carex aquatilis</i> var. <i>dives</i>	
ALRU/LYAM		<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> ) <i>Alnus rubra</i> / <i>Oplopanax horridus</i> / <i>Oxalis oregana</i>	
ALRU/OPHO		<i>Alnus rubra</i> / <i>Oplopanax horridus</i> / <i>Oxalis oregana</i>	
ALRU/OXOR		<i>Alnus rubra</i> / <i>Oplopanax horridus</i> / <i>Oxalis oregana</i>	
ALRU/RUSP/OXOR	<i>Alnus rubra</i> / <i>Oplopanax horridus</i> / <i>Oxalis oregana</i>		
ALRU/RUSP/TOME	<i>Alnus rubra</i> / <i>Rubus spectabilis</i>		
ALRU/SCMI		<i>Alnus rubra</i> / <i>Glyceria elata</i>	
ALRU/SPDO		<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> ) <i>Alnus rubra</i>	

ALRU/STCO4		<i>Alnus rubra</i> / <i>Claytonia sibirica</i> var. <i>sibirica</i> <i>Alnus rubra</i> / <i>Glyceria elata</i>	
ALRU/TOME-MOSI		<i>Alnus rubra</i> / <i>Rubus spectabilis</i> <i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> ) <i>Alnus rubra</i> / <i>Claytonia sibirica</i> var. <i>sibirica</i>	
FRLA/RUSP/POMU-CAAQD		<i>Alnus rubra</i> / <i>Rubus spectabilis</i>	
POTR2/SPDO		<i>Spiraea douglasii</i>	
ALIN-VAOV		<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> ) <i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> <i>Spiraea douglasii</i> - <i>Viburnum edule</i> / <i>Viola palustris</i>	new108
ALIN/CAAQD		<i>Alnus incana</i> / ( <i>Lysichiton americanum</i> )	new609
ALIN/SETR	<i>Alnus incana</i> / <i>Senecio triangularis</i>		
ALSI-RUSP		<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> / <i>Athyrium filix_femina</i> <i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i>	
ALSI-SPIRA-SALI		<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Equisetum fluviatile</i> <i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Athyrium filix-femina</i> - ( <i>Lysichiton americanum</i> ) <i>Scirpus microcarpus</i> <i>Hypericum anagalloides</i> <i>Spiraea douglasii</i> - <i>Viburnum edule</i> / <i>Viola palustris</i> <i>Salix sitchensis</i> / ( <i>Equisetum arvense</i> ) <i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i>	
COST	<i>Cornus sericea</i> ssp. <i>sericea</i> / <i>Lysichiton americanum</i>		new33
MYGA	<i>Myrica gale</i>		
OPHO		<i>Oplopanax horridus</i> - <i>Acer circinatum</i>	CWWA000114
SACO2	<i>Salix commutata</i>		
SAPE3	<i>Salix pedicellaris</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )		
SAPE3-VAOC2		<i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> ) <i>Salix pedicellaris</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> ) <i>Sphagnum</i> – <i>Carex aquatilis</i> var. <i>dives</i> <i>Betula nana</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> ) <i>Sphagnum</i> <i>Eleocharis quinqueflora</i>	
SAPH	<i>Salix planifolia</i> ssp. <i>planifolia</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )		
SASI2	<i>Salix sitchensis</i> <i>Salix sitchensis</i> / ( <i>Equisetum arvense</i> )		new553
SPDO	<i>Spiraea douglasii</i>		CEGL001129

VAOC2	<i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )		
ABAM/LYAM		<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> ) <i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i> <i>Alnus incana</i> / <i>Senecio triangularis</i> <i>Vaccinium ovalifolium</i> <i>Lysichiton americanum</i> - ( <i>Athyrium filix-femina</i> ) <i>Scirpus microcarpus</i>	
ABAM/MEFE		<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i> <i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )	CEGL000224
ABAM/RHAL		<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>	
ABAM/VAOV/CABI	<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>		
ABGR-THPL/LYAM		<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	new102
ABLA2-PIEN		<i>Trautvetteria caroliniensis</i> - <i>Senecio triangularis</i> <i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> ) <i>Caltha leptosepala</i>	
PICO/AOC2		<i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> ) <i>Carex aquatilis</i> var. <i>dives</i>	
THPL/ATFI-STCO4	<i>Thuja plicata</i> / <i>Athyrium filix-femina</i>		
TSHE/LYAM		<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	
TSHE/OPHO		<i>Thuja plicata</i> / <i>Athyrium filix-femina</i>	new334
TSHE/OPHO/POMU		<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	CEGL000497
TSME/PHEM-VADE			new420
TSME/RHAL		<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i> <i>Sphagnum</i> - <i>Carex aquatilis</i> var. <i>dives</i>	new423

Appendix C.



## Appendix D. Location of wetland sites by federal administration.

Admin.*	T R S	UTM E	UTM N	ASSOCIATION	Plot No.
BAR	T4SR10ES13			<i>Alnus incana</i> / <i>Senecio triangularis</i>	p8211
BAR	T4SR10ES11			<i>Alnus incana</i> / <i>Senecio triangularis</i>	p8213
BAR	T2SR11ES31			<i>Alnus incana</i> / <i>Senecio triangularis</i>	p8237
BAR	T3SR11ES5			<i>Alnus incana</i> / <i>Senecio triangularis</i>	p8244
BAR	T2SR10ES2			<i>Betula nana</i> / ( <i>Carex aquatilis</i> )	p8032
BAR	T3SR10ES1			<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8242
BAR	T3SR10ES1			<i>Carex lenticularis</i>	p8240
BAR	T2SR10ES2			<i>Deschampsia cespitosa</i> - ( <i>Ligusticum grayi</i> )	p8031
BAR	T4SR11ES27			<i>Equisetum arvense</i> - <i>Juncus ensifolius</i>	p8208
BAR	T4SR11ES3			<i>Hypericum anagalloides</i>	p8204
BAR	T4SR11ES27			<i>Hypericum anagalloides</i>	p8209
BAR	T3SR10ES1			<i>Juncus balticus</i>	p8238
BAR	T3SR10ES1			<i>Juncus balticus</i>	p8239
BAR	T2SR10ES25			<i>Juncus balticus</i>	p8249
BAR	T2SR10ES2			<i>Juncus balticus</i> - <i>Polygonum bistortoides</i>	p8026
BAR	T2SR10ES2			<i>Juncus balticus</i> - <i>Polygonum bistortoides</i>	p8027
BAR	T4SR11ES3			<i>Scirpus microcarpus</i>	p8205
BAR	T3SR10ES1			<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	p8241
BAR	T3SR10ES1			<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	p8247
BAR	T3SR10ES1			<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	p8248
BAR	T2SR10ES25			<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	p8250
BAR	T4SR11ES28			<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	p8207
BAR	T4SR10ES14			<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	p8210
BAR	T3SR11ES5			<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	p8243
BAR	T4SR10ES13			<i>Thuja plicata</i> / <i>Athyrium filix-femina</i>	p8212
BAR	T3SR11ES5			<i>Thuja plicata</i> / <i>Athyrium filix-femina</i>	p8245
BAR	T4SR10ES11			<i>Trautvetteria caroliniensis</i> - <i>Senecio triangularis</i>	p8214
BAR	T2SR11ES31			<i>Trautvetteria caroliniensis</i> - <i>Senecio triangularis</i>	p8236
BAR	T2SR10ES2			<i>Veratrum californicum</i> - <i>Carex angustata</i> - <i>Solidago canadensis</i>	p8023
BAR	T2SR10ES2			<i>Veratrum californicum</i> - <i>Carex angustata</i> - <i>Solidago canadensis</i>	p8028
BAR	T2SR10ES2			<i>Veratrum californicum</i> - <i>Carex angustata</i> - <i>Solidago canadensis</i>	p8029
BAR	T2SR10ES2			<i>Veratrum californicum</i> - <i>Carex angustata</i> - <i>Solidago canadensis</i>	p8030

BES	T6SR8ES1		<i>Alnus rubra</i>	p8095
BES	T3SR9ES26		<i>Alnus viridis ssp. sinuata / Equisetum fluviatile</i>	p8035
BES	T5SR85ES2		<i>Betula nana / (Carex aquatilis)</i>	p8042
BES	T5SR85ES2		<i>Betula nana / (Carex aquatilis)</i>	p8043
BES	T5SR8ES16		<i>Calamagrostis canadensis</i>	p8099
BES	T3SR9ES26		<i>Carex aquatilis var. dives</i>	p8034
BES	T5SR85ES2		<i>Carex aquatilis var. dives</i>	p8040
BES	T4SR9ES7		<i>Carex aquatilis var. dives</i>	p8045
BES	T5SR8ES16		<i>Carex aquatilis var. dives</i>	p8097
BES	T3SR9ES30		<i>Carex aquatilis var. dives</i>	p8033
BES	T5SR8ES16		<i>Deschampsia cespitosa - (Aster occidentalis)</i>	p8098
BES	T7SR8ES1		<i>Deschampsia cespitosa - (Aster occidentalis)</i>	p8140
BES	T7SR8ES1		<i>Eleocharis palustris</i>	p8139
BES	T4SR9ES7		<i>Eleocharis quinqueflora</i>	p8047
BES	T3SR9ES25		<i>Hypericum anagalloides</i>	p8039
BES	T4SR9ES7		<i>Hypericum anagalloides</i>	p8051
BES	T5SR8ES9		<i>Hypericum anagalloides</i>	p8104
BES	T7SR8ES1		<i>Potamogeton</i>	p8138
BES	T5SR8ES9		<i>Salix planifolia ssp. planifolia / (Carex aquatilis)</i>	p8105
BES	T3SR9ES25		<i>Scirpus microcarpus</i>	p8037
BES	T6SR8ES1		<i>Sphagnum</i>	p8092
BES	T6SR8ES1		<i>Sphagnum - Carex aquatilis var. dives</i>	p8093
BES	T5SR8ES16		<i>Sphagnum - Carex aquatilis var. dives</i>	p8102
BES	T4SR9ES7		<i>Spirea douglasii</i>	p8048
BES	T7SR8ES1		<i>Spirea douglasii</i>	p8142
BES	T4SR9ES7		<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8049
BES	T6SR8ES1		<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8094
BR	T18SR04ES22	555363 4870073	<i>Spirea douglasii</i>	38-01
BR	T18SR05ES08	561195 4874523	<i>Boykinia major</i>	39-01
BR	T18SR05ES08		<i>Sphagnum angustifolium – Menyanthes trifoliata</i>	39-02
BR	T18SR05ES08		<i>Dulichium arundinaceum UNCLASSIFIED</i>	39-03
BR	T18SR05ES08	561354 4874275	<i>Sphagnum angustifolium – Menyanthes trifoliata</i>	40-01

BR	T17SR06ES28	572473	4878727	<i>Carex aquatilis</i> var. <i>dives</i> - ( <i>Eleocharis quinqueflora</i> )	41-01
BR	T15SR06ES06	568957	4905609	<i>Nuphar lutea</i> ssp. <i>polysepalum</i>	46-01
BR	T15SR06ES06			<i>Carex aquatilis</i> var. <i>dives</i>	46-02
BR	T15SR06ES06			<i>Menyanthes trifoliata</i>	46-03
BR	T16SR04ES28	553833	4888085	<i>Fraxinus latifolia</i> / <i>Corylus cornuta</i> / <i>Carex obnupta</i>	70-01
BR	T16SR04ES28	552938	4888057	<i>Carex obnupta</i>	71-01
BR	T16SR04ES28	552947	4888198	<i>Carex utriculata</i>	72-01
CLA	T7SR7ES21			<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>	p8276
CLA	T7SR7ES21			<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>	p8277
CLA	T7SR7ES33			<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>	p8279
CLA	T8SR7ES33			<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>	p8286
CLA	T5SR6ES36			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8000
CLA	T5SR6ES36			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8002
CLA	T6SR7ES26			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8012
CLA	T6SR6ES35			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8021
CLA	T6SR6ES3			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8272
CLA	T6SR6ES11			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8273
CLA	T6SR6ES35			<i>Alnus rubra</i> / <i>Claytonia sibirica</i> var. <i>sibirica</i>	p8020
CLA	T6SR7ES26			<i>Alnus rubra</i> / <i>Glyceria elata</i>	p8013
CLA	T6sR7ES36			<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Athyrium filix-femina</i> - ( <i>Lysichiton americanum</i> )	p8016
CLA	T8SR7ES28			<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8057
CLA	T6SR6ES35			<i>Carex aquatilis</i> var. <i>dives</i>	p8019
CLA	T6SR6ES3			<i>Carex obnupta</i>	p8270
CLA	T6SR7ES26			<i>Carex utriculata</i>	p8011
CLA	T6SR7ES36			<i>Carex utriculata</i>	p8014
CLA	T8SR7ES28			<i>Deschampsia cespitosa</i> - ( <i>Ligusticum grayi</i> )	p8054
CLA	T8SR7ES28			<i>Deschampsia cespitosa</i> - ( <i>Ligusticum grayi</i> )	p8055
CLA	T8SR8ES25			<i>Eleocharis quinqueflora</i>	p8134
CLA	T8SR8ES25			<i>Eleocharis quinqueflora</i>	p8135
CLA	T5SR6ES36			<i>Lysichiton americanum</i> - ( <i>Athyrium felix-femina</i> )	p8003
CLA	T6SR7ES26			<i>Lysichiton americanum</i> - ( <i>Athyrium felix-femina</i> )	p8015
CLA	T8SR8ES25			<i>Salix commutata</i>	p8137
CLA	T8SR8ES35			<i>Salix sitchensis</i> / ( <i>Equisetum arvense</i> )	p8144

CLA	T7SR7ES21			<i>Scirpus microcarpus</i>	p8274
CLA	T8SR7ES28			<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	p8056
CLA	T8SR7ES28			<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	p8058
CLA	T8SR8ES35			<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	p8143
CLA	T6SR6ES35			<i>Sphagnum</i>	p8018
CLA	T8SR7ES33			<i>Sphagnum</i> - <i>Carex aquatilis</i> var. <i>dives</i>	p8285
CLA	T5SR7ES20			<i>Sphagnum</i> - <i>Carex aquatilis</i> var. <i>dives</i>	p8288
CLA	T6SR6ES3			<i>Thuja plicata</i> / <i>Athyrium filix-femina</i>	p8271
CLA	T7SR7ES33			<i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> )	p8278
CLA	T9SR8ES26			<i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> )	p8280
CLA	T8SR8ES25			<i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> )	p8133
COAST	T16SR01WS29	512860	4888384	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	1-01
COAST	T17SR07WS19			<i>Salix hookeriana</i> / <i>Carex obnupta</i> - <i>Eurychium praelongum</i> UNCLASSIFIED	2-02
COAST	T15SR06WS08	464147	4902448	<i>Scirpus microcarpus</i>	3-02
COAST	T17SR07WS11	460140	4884060	<i>Phalaris arundinacea</i>	4-01
COAST	T17SR07WS11	460115	4884056	<i>Phalaris arundinacea</i>	4-02
COAST	T18SR07WS15	458248	4872999	<i>Salix sitchensis</i> - <i>Equisetum telmateia</i>	5-01
COAST	T18SR07WS15	458221	4873096	<i>Equisetum telmateia</i>	5-02
COAST	T18SR06WS33	465999	4867971	<i>Ledum glandulosum</i> - <i>Gaultheria shallon</i> - <i>Pteridium aquilinum</i> UNCLASSIFIED	22-01
COAST	T18SR06WS33			<i>Ledum glandulosum</i> - <i>Gaultheria shallon</i> - <i>Pteridium aquilinum</i> UNCLASSIFIED	22-02
COG	T2sR8ES6			( <i>Rubus spectabilis</i> ) / <i>Athyrium filix-femina</i>	p8076
COG	T1SR7ES21			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8080
COG	T2sR8ES6			<i>Alnus rubra</i> / <i>Oplopanax horridus</i> / <i>Oxalis oregana</i>	p8075
COG	T2SR7ES5			<i>Alnus rubra</i> / <i>Oplopanax horridus</i> / <i>Oxalis oregana</i>	p8215
COG	T2SR5ES3			<i>Alnus rubra</i> / <i>Rubus spectabilis</i>	p8220
COG	T1NR7ES7			<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Athyrium filix-femina</i> - ( <i>Lysichiton americanum</i> )	p8074
COG	T1NR7ES20			<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> / <i>Athyrium filix_femina</i>	p8218
COG	T1NR6ES24			<i>Calamagrostis canadensis</i>	p8066
COG	T1SR7ES21			<i>Carex aquatilis</i> var. <i>dives</i>	p8081
COG	T1SR7ES21			<i>Carex aquatilis</i> var. <i>dives</i>	p8083
COG	T1SR7ES17			<i>Carex aquatilis</i> var. <i>dives</i>	p8128
COG	T1NR7ES17			<i>Deschampsia cespitosa</i> - ( <i>Ligusticum grayi</i> )	p8118



COG	T1NR6ES27			<i>Glyceria elata - Caltha leptosepala ssp. howell</i>	p8126
COG	T1SR7ES21			<i>Hypericum anagalloides</i>	p8145
COG	T1NR6ES24			<i>Myrica gale</i>	p8069
COG	T1NR6ES4			<i>Phalaris arundinacea</i>	p8267
COG	T1NR6ES4			<i>Phalaris arundinacea</i>	p8268
COG	T1NR6ES4			<i>Phalaris arundinacea</i>	p8266
COG	T1NR7ES7			<i>Salix pedicellaris / (Carex aquatilis var. dives)</i>	p8071
COG	T1NR7ES7			<i>Salix pedicellaris / (Carex aquatilis var. dives)</i>	p8072
COG	T1NR6ES21			<i>Sanguisorba officinalis</i>	p8124
COG	T1NR6ES21			<i>Sanguisorba officinalis</i>	p8125
COG	T1NR7ES7			<i>Sphagnum</i>	p8073
COG	T1NR6ES24			<i>Sphagnum - Carex aquatilis var. dives</i>	p8070
COG	T1SR7ES17			<i>Spirea douglasii</i>	p8129
COG	T1nR6ES21			<i>Spirea douglasii - Viburnum edule / Viola palustris</i>	p8123
COG	T1SR7ES21			<i>Thuja plicata / (Lysichiton americanum)</i>	p8127
COG	T1SR7ES21			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8082
COG	T1NR7ES17			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8119
COG	T1nR6ES21			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8121
COG	T1nR6ES21			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8122
COG	T1NR7ES20			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8219
COG	T1NR6ES24			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8068
COG	T1NR7ES17			<i>Xerophyllum tenax</i>	p8120
DET	T10SR07ES19	579306	4948300	<i>Carex cusickii</i>	51-01
DET	T10SR06ES14	575543	4950263	<i>Spirea douglasii / Fontinalis antipyretica</i>	52-01
DET	T10SR06ES14			<i>Carex aperta</i>	52-02
DET	T11SR05ES12	568435	4941473	<i>Carex exsiccata</i>	53-01
EST	T6SR6ES32			<i>Abies amabilis / Vaccinium ovalifolium</i>	p8065
EST	T9SR6ES5			<i>Abies amabilis / Vaccinium ovalifolium</i>	p8287
EST	T7SR6ES14			<i>Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)</i>	p8060
EST	T7SR6ES10			<i>Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)</i>	p8114
EST	T7SR6ES10			<i>Alnus rubra / Oplopanax horridus / Oxalis oregana</i>	p8113
EST	T4SR6ES13			<i>Alnus viridis ssp. sinuata / Athyrium filix-femina - (Lysichiton americanum)</i>	p8109

EST	T8SR5ES10			<i>Alnus viridis ssp. sinuata / Rubus spectabilis</i>	p8052
EST	T6SR6ES32			<i>Carex aquatilis var. dives</i>	p8063
EST	T4SR6ES25			<i>Carex obnupta</i>	p8006
EST	T8SR5ES8			<i>Carex utriculata</i>	p8053
EST	T4SR6ES13			<i>Carex utriculata</i>	p8106
EST	T4SR6ES13			<i>Carex utriculata</i>	p8107
EST	T7SR6ES14			<i>Pteridium aquilinum</i>	p8062
EST	T7SR6ES10			<i>Salix pedicellaris / (Carex aquatilis var. dives)</i>	p8112
EST	T6SR6ES9			<i>Salix sitchensis / (Equisetum arvense)</i>	p8009
EST	T6SR6ES32			<i>Salix sitchensis / (Equisetum arvense)</i>	p8064
EST	T7SR6ES14			<i>Scirpus microcarpus</i>	p8059
EST	T6SR6ES9			<i>Spirea douglasii</i>	p8010
EST	T4SR6ES13			<i>Spirea douglasii</i>	p8108
EST	T4SR6ES13			<i>Spirea douglasii</i>	p8116
EST	T7SR6ES14			<i>Typha latifolia</i>	p8061
EST	T6SR6ES9			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8007
EST	T6SR6ES9			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8008
HEBO	T04SR08WS19	443593	5006956	<i>Carex exsuccata</i>	25-01
HEBO	T04SR08WS19	443991	5006061	<i>Carex exsuccata</i>	26-01
HEBO	T03SR10WS17	427512	5018213	<i>Boykinia major</i>	27-01
HEBO	T03SR10WS17			<i>Brodiaea - (Hypochaeris radicata) UNCLASSIFIED</i>	27-02
HEBO	T04SR09WS15	439014	5008340	<i>Salix sitchensis</i>	28-01
HEBO	T04SR09WS13	442319	5007937	<i>Gaultheria shallon / Sphagnum mendocinum UNCLASSIFIED</i>	29-01
HEBO	T04SR09WS13			<i>Sphagnum</i>	29-02
HEBO	T03SR08WS23	450749	5015105	<i>Scirpus microcarpus - Oenanthe sarmentosa UNCLASSIFIED</i>	30-01
HEBO	T03SR08WS23			<i>Hypericum anagalloides</i>	30-02
HEBO	T03SR08WS23			<i>Hypericum anagalloides</i>	30-03
HEBO	T04SR08WS19	444192	5005599	<i>Spirea douglasii</i>	33-01
HEBO	T04SR08WS19			<i>Deschampsia cespitosa - (Gaura parviflora) UNCLASSIFIED</i>	33-02
HEBO	T04SR08WS22	448454	5006579	<i>Carex exsuccata</i>	34-01
HEBO	T04SR10WS36	433192	5003364	<i>Carex exsuccata</i>	35-01
HEBO	T07SR10WS16	428629	4979908	<i>Lemna minor</i>	32-01

HOR	T1SR8ES16			<i>(Rubus spectabilis) / Athyrium filix-femina</i>	p8255
HOR	T3SR9ES7			<i>Abies amabilis / Vaccinium ovalifolium</i>	p8225
HOR	T1SR9ES19			<i>Abies amabilis / Vaccinium ovalifolium</i>	p8233
HOR	T1SR10ES14			<i>Alnus incana / (Lysichiton americanum)</i>	p8228
HOR	T3SR10ES7			<i>Alnus incana / Senecio triangularis</i>	p8251
HOR	T1SR8ES9			<i>Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)</i>	p8261
HOR	T3SR10ES12			<i>Alnus viridis ssp. sinuata / Rubus spectabilis</i>	p8264
HOR	T1SR8ES16			<i>Alnus viridis ssp. sinuata / Rubus spectabilis / Athyrium filix_femina</i>	p8254
HOR	T1SR8ES16			<i>Alnus viridis ssp. sinuata / Rubus spectabilis / Athyrium filix_femina</i>	p8258
HOR	T2SR9ES35			<i>Carex aquatilis var. dives</i>	p8131
HOR	T1SR8ES16			<i>Carex aquatilis var. dives</i>	p8253
HOR	T1SR8ES9			<i>Carex aquatilis var. dives</i>	p8260
HOR	T1SR9ES7			<i>Carex utriculata</i>	p8231
HOR	T1SR8ES16			<i>Hypericum anagalloides</i>	p8259
HOR	T2SR9ES35			<i>Juncus balticus</i>	p8130
HOR	T3sR10ES5			<i>Populus balsamifera ssp. trichocarpa</i>	p8234
HOR	T1NR10ES35			<i>Populus balsamifera ssp. trichocarpa</i>	p8227
HOR	T1NR10ES35			<i>Pteridium aquilinum</i>	p8226
HOR	T3SR10ES12			<i>Salix sitchensis / (Equisetum arvense)</i>	p8265
HOR	T3SR9ES12			<i>Scirpus microcarpus</i>	p8222
HOR	T3SR10ES5			<i>Scirpus microcarpus</i>	p8235
HOR	T3SR10ES7			<i>Scirpus microcarpus</i>	p8252
HOR	T1SR9ES19			<i>Sphagnum - Carex aquatilis var. dives</i>	p8232
HOR	T1SR8ES16			<i>Sphagnum - Carex aquatilis var. dives</i>	p8256
HOR	T3SR9ES12			<i>Spirea douglasii</i>	p8224
HOR	T1SR9ES7			<i>Spirea douglasii</i>	p8229
HOR	T3SR10ES12			<i>Thuja plicata / (Lysichiton americanum)</i>	p8263
HOR	T1SR8ES16			<i>Thuja plicata / Athyrium filix-femina</i>	p8257
HOR	T3SR9ES12			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8223
HOR	T1SR8ES9			<i>Vaccinium ovalifolium</i>	p8262
LOW	T21SR02ES07	530433	4845821	<i>Carex aquatilis var. dives</i>	80-01
LOW	T18SR02ES29	532310	4868153	<i>Fraxinus latifolia / Corylus cornuta / Carex obnupta</i>	89-01
LOW	T18SR02ES27	534899	4868842	<i>Carex obnupta</i>	90-01

LOW	T21SR02ES01	538222	4847148	<i>Carex amplifolia</i>	91-01
LOW	T21SR02ES07	531159	4846082	<i>Hypericum anagalloides</i>	92-01
LOW	T21SR02ES07			<i>Kalmia latifolia</i> / <i>Ranunculus gormanii</i> UNCLASSIFIED	92-02
LOW	T21SR02ES07			<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> / <i>Athyrium filix_femina</i>	92-03
LOW	T21SR02ES07			<i>Spirea douglasii</i>	92-04
LOW	T20SR01ES18	520843	4853262	<i>Alnus rubra</i> / <i>Carex obnupta</i> UNCLASSIFIED	93-01
LOW	T20SR01ES07	521689	4854403	<i>Lysichiton americanum</i> – ( <i>Athyrium filix-femina</i> )	94-01
MAPL	T16SR11WS34	420138	4886935	<i>Juncus ensifolius</i> - <i>Ludwigia palustris</i> UNCLASSIFIED	55-01
MCK	T16SR05ES24	567588	4889483	<i>Torreyochloa pallida</i> var. <i>pauciflora</i> - <i>Veronica americana</i> - ( <i>Juncus effusus</i> )	43-01
MCK	T16SR05ES24			<i>Fraxinus latifolia</i> / <i>Corylus cornuta</i> / <i>Carex obnupta</i>	43-02
MCK	T16SR05ES24	567764	4889480	<i>Rosa gymnocarpa</i> / <i>Carex obnupta</i> UNCLASSIFIED	44-01
MCK	T15SR06ES12	576776	4902701	<i>Spirea douglasii</i> / <i>Fontinalis antipyretica</i>	45-01
MCK	T14SR07ES20	579869	4909665	<i>Carex utriculata</i>	69-01
MCK	T14SR07ES20			<i>Salix geyeriana</i> - ( <i>Spirea douglasii</i> ) / ( <i>Carex aquatilis</i> )	69-02
MCK	T13SR07ES31	577437	4917140	<i>Carex exsiccata</i>	77-01
MCK	T13SR06ES31			<i>Carex aperta</i>	77-02
MCK	T13SR06ES25			<i>Carex utriculata</i>	77-03
MCK	T13SR07ES25	577437	4917140	<i>Spirea douglasii</i> - <i>Viburnum edule</i> / <i>Viola palustris</i>	77-04
MK	T19SR01WS33	514403	4856881	<i>Lysichiton americanum</i> – ( <i>Athyrium filix-femina</i> )	10-01
MK	T19SR01WS31	511472	4858291	<i>Carex obnupta</i>	11-01
MK	T19SR01WS31			<i>Ranunculus aquatilis</i> - <i>Callitriche</i> UNCLASSIFIED	11-02
MK	T16SR02WS19	502315	4890288	<i>Carex exsiccata</i>	12-01
MK	T16SR02WS19			<i>Sparganium</i> sp UNCLASSIFIED	12-02
MK	T16SR02WS19	502279	4890171	<i>Carex obnupta</i>	13-01
MK	T15SR01WS01	519876	4904353	<i>Typha latifolia</i>	14-01
MK	T15SR01WS01	519410	4904384	<i>Torreyochloa pallida</i> var. <i>pauciflora</i> - <i>Veronica americana</i> - ( <i>Juncus effusus</i> )	15-01
MP-N	T07SR08WS27	448839	4975886	<i>Carex exsiccata</i>	23-01
MP-N	T08SR06WS33	465445	4964698	<i>Potamogeton</i>	24-01
MTA	T8NR9ES36			( <i>Rubus spectabilis</i> ) / <i>Athyrium filix-femina</i>	p8731

MTA	T8NR9ES33	<i>Alnus incana</i> / ( <i>Lysichiton americanum</i> )	p8702
MTA	T8NR9ES36	<i>Alnus incana</i> / <i>Senecio triangularis</i>	p8729
MTA	T7NR9ES19	<i>Alnus rubra</i>	p8707
MTA	T7NR11ES18	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8648
MTA	T8NR8ES14	<i>Alnus rubra</i> / <i>Claytonia sibirica</i> var. <i>sibirica</i>	p8668
MTA	T5NR9ES20	<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Equisetum fluviatile</i>	p8536
MTA	T8NR9ES22	<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Equisetum fluviatile</i>	p8673
MTA	T8NR8ES36	<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i>	p8660
MTA	T7NR8ES9	<i>Betula nana</i> / ( <i>Carex aquatilis</i> )	p8642
MTA	T8NR9ES27	<i>Betula nana</i> / ( <i>Carex aquatilis</i> )	p8677
MTA	T7NR8ES18	<i>Betula nana</i> / ( <i>Carex aquatilis</i> )	p8681
MTA	T8NR8ES36	<i>Calamagrostis canadensis</i>	p8661
MTA	T7NR8ES18	<i>Calamagrostis canadensis</i>	p8680
MTA	T7NR8ES9	<i>Calamagrostis canadensis</i>	p8646
MTA	T8NR8ES36	<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8662
MTA	T6NR9ES2	<i>Carex aquatilis</i> var. <i>dives</i>	p8528
MTA	T7NR8ES9	<i>Carex aquatilis</i> var. <i>dives</i>	p8645
MTA	T8NR8ES14	<i>Carex utriculata</i>	p8667
MTA	T7NR9ES19	<i>Carex utriculata</i>	p8687
MTA	T8NR8ES36	<i>Deschampsia cespitosa</i> - ( <i>Aster occidentalis</i> )	p8657
MTA	T10NR10ES35	<i>Deschampsia cespitosa</i> - ( <i>Aster occidentalis</i> )	p8725
MTA	T7NR8ES9	<i>Eleocharis quinqueflora</i>	p8641
MTA	T6NR9ES2	<i>Eleocharis quinqueflora</i>	p8525
MTA	T6NR9ES2	<i>Eleocharis quinqueflora</i>	p8670
MTA	T10NR10ES35	<i>Eleocharis quinqueflora</i>	p8727
MTA	T10NR10ES35	<i>Eleocharis quinqueflora</i>	p8728
MTA	T6NR9ES2	<i>Eriophorum angustifolium</i> ssp. <i>arcticum</i>	p8529
MTA	T7NR10ES31	<i>Oplopanax horridus</i> - <i>Acer circinatum</i>	p8640
MTA	T7NR75ES13	<i>Salix commutata</i>	p8679
MTA	T6NR9ES2	<i>Salix pedicellaris</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )	p8526
MTA	T7NR8ES9	<i>Salix pedicellaris</i> / ( <i>Carex aquatilis</i> var. <i>dives</i> )	p8644
MTA	T7NR8ES9	<i>Salix planifolia</i> ssp. <i>planifolia</i> / ( <i>Carex aquatilis</i> )	p8643
MTA	T8NR8ES36	<i>Salix planifolia</i> ssp. <i>planifolia</i> / ( <i>Carex aquatilis</i> )	p8665
MTA	T8NR9ES16	<i>Scirpus microcarpus</i>	p8709

MTA	T8NR9ES36			<i>Scirpus microcarpus</i>	p8730
MTA	T5NR9ES20			<i>Sphagnum</i>	p8535
MTA	T5NR9ES20			<i>Sphagnum</i>	p8538
MTA	T8NR8ES36			<i>Sphagnum</i>	p8659
MTA	T8NR9ES22			<i>Sphagnum</i>	p8674
MTA	T7NR9ES19			<i>Sphagnum</i>	p8685
MTA	T7NR8ES18			<i>Sphagnum - Carex aquatilis var. dives</i>	p8682
MTA	T7NR11ES18			<i>Spirea douglasii</i>	p8647
MTA	T6NR9ES2			<i>Spirea douglasii</i>	p8724
MTA	T8NR8ES36			<i>Spirea douglasii</i>	p8664
MTA	T6NR8ES34			<i>Spirea douglasii - Viburnum edule / Viola palustris</i>	p8533
MTA	T7NR8ES2			<i>Spirea douglasii - Viburnum edule / Viola palustris</i>	p8666
MTA	T8NR9ES33			<i>Spirea douglasii - Viburnum edule / Viola palustris</i>	p8703
MTA	T7NR9ES30			<i>Thuja plicata / (Lysichiton americanum)</i>	p8705
MTA	T7NR8ES24			<i>Thuja plicata / (Lysichiton americanum)</i>	p8733
MTA	T7NR9ES19			<i>Trautvetteria caroliniensis</i>	p8706
MTA	T8NR9ES27			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8676
MTA	T8NR8ES36			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8663
MTA	T6NR8ES34			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8532
MTA	T6NR9ES2			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8669
MTA	T8NR9ES22			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8672
MTA	T7NR9ES19			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8686
OAK	T21SR05ES26	566499	4840192	<i>Alnus incana / (Lysichiton americanum)</i>	42-01
OAK	T22SR05ES16	562496	4834476	<i>Carex exsiccata</i>	78-01
OAK	T22SR05ES16			<i>Spirea douglasii / Fontinalis antipyretica</i>	78-02
OAK	T22SR05ES16			<i>Salix geyeriana - (Spirea douglasii) / (Carex aquatilis)</i>	78-03
OAK	T22SR05ES16			<i>Carex obnupta</i>	78-04
OAK	T22SR05ES36	567976	4829528	<i>Carex exsiccata</i>	81-01
OAK	T22SR05ES36			<i>Spirea douglasii - Carex exsiccata UNCLASSIFIED</i>	81-02
OAK	T22SR05ES36			<i>(Vaccinium ovalifolium)</i>	81-03
OAK	T22SR05ES36	568043	4829390	<i>Spirea douglasii - Viburnum edule / Viola palustris</i>	82-01
OAK	T22SR05ES36			<i>Carex exsiccata</i>	82-02
OAK	T23SR05ES01	567499	4828830	<i>Lysichiton americanum – (Athyrum felix-femina)</i>	83-01

OAK	T23SR05ES01			<i>Menyanthes trifoliata</i>	83-02
OAK	T23SR05ES01			<i>Lysichiton americanum</i> – ( <i>Athyrium filix-femina</i> )	83-03
OAK	T22SR05ES36	574362	4829382	<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Athyrium filix-femina</i> - ( <i>Lysichiton americanum</i> )	84-01
OAK	T22SR05ES36			<i>Carex aquatilis</i> var. <i>dives</i> - ( <i>Eleocharis quinqueflora</i> )	84-02
OAK	T22SR05ES36			( <i>Vaccinium ovalifolium</i> )	84-03
OAK	T22SR05ES36			<i>Alnus sinuata</i> / <i>Carex utriculata</i> - <i>Calamagrostis canadensis</i> UNCLASSIFIED	84-04
OAK	T22SR05ES35	573099	4829293	<i>Carex aquatilis</i> var. <i>dives</i>	85-01
OAK	T22SR05ES35			<i>Salix commutata</i>	85-02
OAK	T22SR05ES35			<i>Salix geyeriana</i> - ( <i>Spirea douglasii</i> ) / ( <i>Carex aquatilis</i> )	85-03
OAK	T23SR05ES04	570161	4828717	<i>Carex exsuccata</i>	86-01
OAK	T23SR05ES04			<i>Spirea douglasii</i>	86-02
OAK	T21SR04ES16	552850	4843622	<i>Carex amplifolia</i>	95-01
OAK	T21SR04ES16			<i>Hypericum anagalloides</i>	95-02
OAK	T21SR04ES16			<i>Scirpus microcarpus</i>	95-03
OAK	T19SR04ES29	551159	4858968	<i>Callitriche heterophylla</i> ssp. <i>heterophylla</i> UNCLASSIFIED	96-01
OAK	T19SR04ES29			<i>Equisetum</i> sp. UNCLASSIFIED	96-02
PAC	T14NR8ES29			<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>	p8551
PAC	T14NR8ES29			<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>	p8556
PAC	T14NR8ES5			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8735
PAC	T14NR8ES5			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8736
PAC	T14NR8ES17			<i>Alnus rubra</i> / <i>Glyceria elata</i>	p8741
PAC	T14NR8ES29			<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> / <i>Athyrium filix_femina</i>	p8554
PAC	T9NR9ES7			<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8716
PAC	T14NR8ES29			<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8555
PAC	T14NR8ES10			<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8737
PAC	T14NR8ES29			<i>Carex lenticularis</i>	p8550
PAC	T11NR11ES20			<i>Carex lenticularis</i>	p8597
PAC	T15NR7ES17			<i>Deschampsia cespitosa</i> - ( <i>Ligusticum grayi</i> )	p8594
PAC	T15NR7ES17			<i>Eriophorum angustifolium</i> ssp. <i>arcticum</i>	p8595
PAC	T14NR8ES17			<i>Hypericum anagalloides</i>	p8734
PAC	T13NR8ES13			<i>Menyanthes trifoliata</i>	p8601
PAC	T12NR10ES33			<i>Nuphar lutea</i> ssp. <i>polysepalum</i>	p8599
PAC	T11NR11ES20			<i>Salix sitchensis</i> / ( <i>Equisetum arvense</i> )	p8598

PAC	T13NR9ES36	<i>Scirpus microcarpus</i>	p8593
PAC	T13NR8ES13	<i>Scirpus microcarpus</i>	p8602
PAC	T9NR9ES18	<i>Sphagnum</i>	p8717
PAC	T13NR8ES13	<i>Spiraea douglasii</i>	p8604
PAC	T13NR9ES36	<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	p8592
PAC	T15NR7ES17	<i>Trautvetteria caroliniensis</i> - <i>Senecio triangularis</i>	p8740
PAC	T12NR10ES33	<i>Typha latifolia</i>	p8600
PAC	T14NR8ES29	<i>Xerophyllum tenax</i>	p8553
RAN	T9NR10ES18	<i>Abies amabilis</i> / <i>Vaccinium ovalifolium</i>	p8545
RAN	T11NR8ES34	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8521
RAN	T11NR8ES34	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8524
RAN	T10NR9ES6	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8633
RAN	T10NR9ES6	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8634
RAN	T11NR7ES10	<i>Alnus rubra</i> / <i>Claytonia sibirica</i> var. <i>sibirica</i>	p8625
RAN	T10NR9ES6	<i>Alnus rubra</i> / <i>Claytonia sibirica</i> var. <i>sibirica</i>	p8635
RAN	T10NR7ES33	<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> / <i>Athyrium filix_femina</i>	p8628
RAN	T12NR8ES34	<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> / <i>Athyrium filix_femina</i>	p8638
RAN	T12NR8ES34	<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> / <i>Athyrium filix_femina</i>	p8639
RAN	T13NR7ES32	<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8540
RAN	T13NR7ES32	<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8539
RAN	T13NR7ES32	<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8542
RAN	T10NR7ES33	<i>Carex aquatilis</i> var. <i>dives</i>	p8629
RAN	T12NR7ES33	<i>Carex obnupta</i>	p8520
RAN	T11NR8ES34	<i>Carex utriculata</i>	p8514
RAN	T10NR7ES33	<i>Carex utriculata</i>	p8626
RAN	T11NR8ES34	<i>Equisetum telmateia</i>	p8516
RAN	T12NR8ES34	<i>Hypericum anagalloides</i>	p8636
RAN	T11NR8ES34	<i>Juncus articulatus</i>	p8522
RAN	T12NR7ES33	<i>Juncus effusus</i>	p8518
RAN	T12NR8ES34	<i>Lysichiton americanum</i> - ( <i>Athyrium filix-femina</i> )	p8548
RAN	T12NR7ES33	<i>Phalaris arundinacea</i>	p8517
RAN	T13NR7ES32	<i>Ribes bracteosum</i> / <i>Athyrium filix-femina</i>	p8543
RAN	T10NR7ES33	<i>Salix planifolia</i> ssp. <i>planifolia</i> / ( <i>Carex aquatilis</i> )	p8627



RAN	T10NR7ES33			<i>Salix planifolia</i> ssp. <i>planifolia</i> / ( <i>Carex aquatilis</i> )	p8630
RAN	T12NR8ES34			<i>Salix planifolia</i> ssp. <i>planifolia</i> / ( <i>Carex aquatilis</i> )	p8637
RAN	T12NR7ES33			<i>Spirea douglasii</i>	p8519
RAN	T9NR10ES7			<i>Spirea douglasii</i>	p8546
RAN	T10NR7ES33			<i>Spirea douglasii</i>	p8631
RAN	T13NR7ES32			<i>Trautvetteria caroliniensis</i>	p8541
RAN	T11NR8ES34			<i>Typha latifolia</i>	p8515
RIG	T22SR04ES36	557305	4830516	<i>Carex exsiccata</i>	36-01
RIG	T22SR04ES06	549160	4837212	<i>Rosa pisocarpa</i> / <i>Carex obnupta</i> UNCLASSIFIED	37-01
RIG	T24SR05ES25	566157	4813431	<i>Sphagnum angustifolium</i> – <i>Menyanthes trifoliata</i>	79-01
RIG	T24SR05ES25	566230	4813424	<i>Carex aquatilis</i> var. <i>dives</i>	79-02
RIG	T24SR05ES25	566192	4813379	<i>Sphagnum angustifolium</i> – <i>Menyanthes trifoliata</i>	79-03
RIG	T22SR04ES34	555633	4829085	<i>Scirpus microcarpus</i>	87-01
RIG	T22SR05ES15	563561	4834123	<i>Scirpus microcarpus</i>	97-01
RIG	T23SR03ES25	548713	4822201	<i>Caltha leptosepala</i> ssp. <i>howellii</i>	98-01
RIG	T23SR03ES25			<i>Salix geyeriana</i> - ( <i>Spirea douglasii</i> ) / ( <i>Carex aquatilis</i> )	98-02
RIG	T23SR03ES25			<i>Caltha leptosepala</i> ssp. <i>howellii</i>	98-03
RIG	T23SR03ES25			<i>Spirea douglasii</i>	98-04
RIG	T25SR05ES02	567249	4808070	<i>Alnus incana</i> / ( <i>Lysichiton americanum</i> )	99-02
RIG	T25SR05ES02			<i>Scirpus microcarpus</i>	99-01
RIG	T25SR05ES14	567041	4806274	<i>Carex aquatilis</i> var. <i>dives</i>	100-01
RIG	T25SR05ES14			<i>Carex aquatilis</i> var. <i>dives</i> - ( <i>Eleocharis quinqueflora</i> )	100-02
RIG	T25SR05ES20	562109	4804265	<i>Salix commutata</i>	101-01
RIG	T25SR05ES20			<i>Carex lenticularis</i>	101-02
SBLM	T02SR07ES31	579096	5021914	<i>Potamogeton</i>	9-01
SBLM	T02SR07ES31			<i>Salix sitchensis</i>	9-02
SBLM	T02SR07ES31			<i>Carex obnupta</i>	9-03
SBLM	T02SR07ES31			<i>Typha latifolia</i>	9-04
SBLM	T11SR02ES05	532731	4943013	<i>Carex utriculata</i>	54-01
SBLM	T11SR02ES05			<i>Sphagnum</i>	54-02
SBLM	T12SR03ES09	543117	4930889	<i>Hypericum anagalloides</i>	62-01
SBLM	T12SR03ES09			<i>Lysichiton americanum</i> – ( <i>Athyrium felix-femina</i> )	62-02

SBLM	T11SR03ES19	540101	4937761	<i>Lysichiton americanum</i> – ( <i>Athyrium felix-femina</i> )	63-01
SBLM	T11SR03ES19			<i>Ribes bracteosum</i> / <i>Athyrium felix-femina</i>	63-02
SBLM	T11SR03ES19	540247	4937708	( <i>Vaccinium ovalifolium</i> )	64-01
SBLM	T11SR03ES19			<i>Sphagnum angustifolium</i> – <i>Menyanthes trifoliata</i>	64-02
SBLM	T11SR03ES19			<i>Sphagnum</i>	64-03
SBLM	T11SR03ES19	540490	4937686	<i>Salix sitchensis</i>	65-01
SBLM	T11SR03ES19			<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Lysichiton americanum</i> UNCLASSIFIED	65-02
SBLM	T11SR03ES10	544986	4941503	<i>Scirpus microcarpus</i>	66-01
SBLM	T11SR03ES10			<i>Carex exsiccata</i>	66-02
SBLM	T11SR03ES10			<i>Spirea douglasii</i>	66-03
SBLM	T11SR03ES16	543536	4938925	<i>Sphagnum squarrosum</i> UNCLASSIFIED	67-01
SBLM	T11SR03ES16	543598	4939470	<i>Carex utriculata</i>	68-01
SBLM	T11SR02ES09	534001	4940191	<i>Carex aquatilis</i> var. <i>dives</i>	73-01
SBLM	T11SR02ES09			<i>Fauria crista-galli</i>	73-02
SBLM	T11SR02ES09	534777	4940651	<i>Spirea douglasii</i>	74-01
SBLM	T11SR02ES09			<i>Carex utriculata</i>	74-02
SBLM	T11SR02ES02	537594	4941879	<i>Carex utriculata</i>	75-01
SBLM	T11SR02ES09	534324	4940571	<i>Fauria crista-galli</i>	76-01
SBLM	T13SR06WS19	463748	4919752	<i>Salix sitchensis</i> - <i>Equisetum telmateia</i>	2-01
SBLM	T15SR06WS06	463521	4905306	<i>Alnus rubra</i> / <i>Glyceria elata</i>	6-01
SBLM	T15SR06WS06			<i>Juncus effusus</i>	6-02
SBLM	T15SR06WS06			<i>Oenanthe sarmentosa</i>	6-03
SBLM	T15SR06WS06	462387	4905499	<i>Sparganium angustifolium</i>	7-01
SBLM	T15SR06WS06			<i>Sparganium angustifolium</i>	7-02
SBLM	T15SR06WS06			<i>Torreyochloa pallida</i> var. <i>pauciflora</i> - <i>Veronica americana</i> - ( <i>Juncus effusus</i> )	7-03
SBLM	T14SR06WS19	463635	4909834	<i>Torreyochloa pallida</i> var. <i>pauciflora</i> - <i>Veronica americana</i> - ( <i>Juncus effusus</i> )	8-01
SBLM	T14SR06WS19			<i>Juncus effusus</i>	8-02
SBLM	T07SR09WS02	440355	4982890	<i>Sanguisorba officinalis</i>	31-01
SBLM	T07SR09WS02			<i>Sanguisorba officinalis</i>	31-02
SH	T14SR04ES08	550936	4913255	<i>Lysichiton americanum</i> – ( <i>Athyrium felix-femina</i> )	47-01
SH	T14SR04ES07	549896	4913095	<i>Carex utriculata</i>	48-01
SH	T14SR04ES07			<i>Carex cusickii</i>	48-02
SH	T14SR04ES07			<i>Sparganium angustifolium</i>	48-03

SH	T12SR05ES26	564955	4927856	<i>Carex exsiccata</i>	49-01
SH	T12SR06ES30	569025	4927337	<i>Spirea douglasii</i> - <i>Viburnum edule</i> / <i>Viola palustris</i>	50-01
SH	T15SR04ES18	550382	4900735	<i>Lysichiton americanum</i> – ( <i>Athyrium filix-femina</i> )	57-01
SH	T15SR04ES07	549828	4902377	<i>Oplopanax horridus</i> - <i>Acer circinatum</i>	58-01
SH	T15SR04ES07	549780	4902086	<i>Lysichiton americanum</i> – ( <i>Athyrium filix-femina</i> )	59-01
SH	T13SR03ES27	545779	4917231	<i>Carex obnupta</i>	60-01
SH	T13SR03ES27	545369	4919578	<i>Carex exsiccata</i>	61-01
STH	T7NR7ES22			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8559
STH	T7NR6ES11			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8617
STH	T7NR6ES1			<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8719
STH	T7NR7ES22			<i>Alnus rubra</i> / <i>Glyceria elata</i>	p8557
STH	T8NR5ES35			<i>Alnus rubra</i> / <i>Oplopanax horridus</i> / <i>Oxalis oregana</i>	p8572
STH	T8NR7ES15			<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i>	p8564
STH	T9NR9ES14			<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8718
STH	T9NR9ES14			<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8619
STH	T8NR5ES35			<i>Carex aquatilis</i> var. <i>dives</i>	p8570
STH	T8NR5ES35			<i>Carex aquatilis</i> var. <i>dives</i>	p8571
STH	T8NR4ES17			<i>Carex lenticularis</i>	p8715
STH	T7NR7ES22			<i>Carex utriculata</i>	p8558
STH	T8NR4ES23			<i>Carex utriculata</i>	p8605
STH	T8NR4ES23			<i>Eleocharis palustris</i>	p8606
STH	T9NR4ES11			<i>Eleocharis palustris</i>	p8651
STH	T9NR4ES1			<i>Eleocharis palustris</i>	p8655
STH	T8NR4ES23			<i>Eleocharis quinqueflora</i>	p8613
STH	T9NR4ES11			<i>Equisetum arvense</i> - <i>Juncus ensifolius</i>	p8649
STH	T9NR7ES34			<i>Hypericum anagalloides</i>	p8721
STH	T8NR7ES15			<i>Hypericum anagalloides</i>	p8567
STH	T9NR4ES11			<i>Juncus articulatus</i>	p8650
STH	T7NR6ES11			<i>Lysichiton americanum</i> - ( <i>Athyrium filix-femina</i> )	p8720
STH	T8NR7ES15			<i>Myrica gale</i>	p8561
STH	T8NR7ES15			<i>Myrica gale</i>	p8562
STH	T8NR4ES23			<i>Salix sitchensis</i> / ( <i>Equisetum arvense</i> )	p8609
STH	T9NR9ES14			<i>Salix sitchensis</i> / ( <i>Equisetum arvense</i> )	p8622

STH	T7NR6ES11			<i>Scirpus microcarpus</i>	p8615
STH	T7NR6ES11			<i>Scirpus microcarpus</i>	p8616
STH	T8NR4ES23			<i>Sphagnum</i>	p8611
STH	T9NR9ES14			<i>Sphagnum - Carex aquatilis var. dives</i>	p8620
STH	T9NR9ES14			<i>Sphagnum - Carex aquatilis var. dives</i>	p8621
STH	T8NR7ES15			<i>Spirea douglasii</i>	p8566
STH	T7NR6ES11			<i>Spirea douglasii</i>	p8618
STH	T8NR7ES15			<i>Spirea douglasii - Viburnum edule / Viola palustris</i>	p8560
STH	T8NR7ES15			<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8565
STH	T8NR4ES23			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8608
STH	T8NR4ES23			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8607
STH	T9NR7ES34			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8722
STH	T9NR7ES34			<i>Vaccinium uliginosum / (Carex aquatilis)</i>	p8723
SV	T21SR01WS31	511519	4838950	<i>Carex obnupta</i>	16-01
SV	T21SR02WS25	509633	4839725	<i>Carex obnupta</i>	17-01
SV	T20SR02WS23	508088	4850930	<i>Cornus sericea ssp. sericea</i>	18-01
SV	T20SR02WS25	509185	4850035	<i>Glyceria pauciflora UNCLASSIFIED</i>	19-01
SV	T20SR06WS03	467287	4855872	<i>Scirpus microcarpus</i>	20-01
SV	T19SR05WS19	473013	4861788	<i>Scirpus microcarpus</i>	21-01
WALD	T15SR11WS24	424933	4899178	<i>Sparganium angustifolium</i>	56-01
WILL	T19SR03ES36	549076	4857947	<i>Eleocharis ovata UNCLASSIFIED</i>	88-01
WILL	T22SR04ES36			<i>Carex cusickii</i>	88-02
WILL	T22SR04ES36			<i>Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)</i>	88-03
WILL	T19SR03ES36			<i>Carex utriculata</i>	88-04
WIR	T5NR6ES15			<i>(Rubus spectabilis) / Athyrium filix-femina</i>	p8584
WIR	T4NR6ES14			<i>Abies amabilis / Vaccinium ovalifolium</i>	p8508
WIR	T5NR7ES32			<i>Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)</i>	p8504
WIR	T4NR6ES25			<i>Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)</i>	p8513
WIR	T5NR75ES25			<i>Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)</i>	p8574
WIR	T6NR7ES16			<i>Alnus rubra / (Athyrium filix-femina - Lysichiton americanum)</i>	p8581

WIR	T6NR6ES25	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8586
WIR	T4NR7ES16	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8714
WIR	T6NR7ES16	<i>Alnus rubra</i> / <i>Glyceria elata</i>	p8582
WIR	T6NR7ES21	<i>Alnus viridis</i> ssp. <i>sinuata</i> / <i>Rubus spectabilis</i> / <i>Athyrium filix_femina</i>	p8580
WIR	T6NR7ES24	<i>Betula nana</i> / ( <i>Carex aquatilis</i> )	p8573
WIR	T6NR7ES13	<i>Betula nana</i> / ( <i>Carex aquatilis</i> )	p8590
WIR	T6NR7ES13	<i>Calamagrostis canadensis</i>	p8588
WIR	T5NR5ES32	<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8713
WIR	T4NR6ES14	<i>Carex aquatilis</i> var. <i>dives</i>	p8505
WIR	T5NR75ES25	<i>Carex aquatilis</i> var. <i>dives</i>	p8575
WIR	T6NR7ES21	<i>Carex utriculata</i>	p8577
WIR	T5NR75ES25	<i>Cornus sericea</i> ssp. <i>sericea</i>	p8576
WIR	T4NR6ES14	<i>Eleocharis palustris</i>	p8506
WIR	T4NR6ES8	<i>Glyceria elata</i> - <i>Caltha leptosepala</i> ssp. <i>howell</i>	p8509
WIR	T5NR7ES32	<i>Phalaris arundinacea</i>	p8502
WIR	T4NR6ES8	<i>Ribes bracteosum</i> / <i>Athyrium filix-femina</i>	p8511
WIR	T5NR7ES32	<i>Scirpus microcarpus</i>	p8501
WIR	T5NR7ES32	<i>Scirpus microcarpus</i>	p8503
WIR	T4NR6ES8	<i>Senecio triangularis</i> - ( <i>Trifolium longipes</i> )	p8510
WIR	T6NR7ES21	<i>Spirea douglasii</i>	p8578
WIR	T4NR6ES14	<i>Spirea douglasii</i> - <i>Viburnum edule</i> / <i>Viola palustris</i>	p8507
WIR	T6NR7ES13	<i>Thuja plicata</i> / ( <i>Lysichiton americanum</i> )	p8589
WIR	T4NR7ES21	<i>Thuja plicata</i> / <i>Athyrium filix-femina</i>	p8710
WIR	T5NR6ES15	<i>Trichophorum cespitosum</i> - ( <i>Tofieldia glutinosa</i> )	p8583
WIR	T6NR7ES13	<i>Trichophorum cespitosum</i> - ( <i>Tofieldia glutinosa</i> )	p8591
WIR	T5NR5ES32	<i>Trichophorum cespitosum</i> - ( <i>Tofieldia glutinosa</i> )	p8711
WIR	T6NR7ES21	<i>Vaccinium uliginosum</i> / ( <i>Carex aquatilis</i> )	p8579
ZIG	T2SR8ES21	( <i>Rubus spectabilis</i> ) / <i>Athyrium filix-femina</i>	p8078
ZIG	T3SR8ES17	<i>Alnus rubra</i> / ( <i>Athyrium filix-femina</i> - <i>Lysichiton americanum</i> )	p8203
ZIG	T2SR8ES21	<i>Alnus rubra</i> / <i>Rubus spectabilis</i>	p8077
ZIG	T2SR7ES5	<i>Caltha leptosepala</i> ssp. <i>howellii</i>	p8202
ZIG	T2SR85ES26	<i>Cornus sericea</i> ssp. <i>sericea</i>	p8090
ZIG	T3SR85ES25	<i>Hypericum anagalloides</i>	p8087

ZIG	T3SR85ES25	<i>Hypericum anagalloides</i>	p8086
ZIG	T3SR8ES17	<i>Oenanthe sarmentosa</i>	p8201
ZIG	T2SR7ES5	<i>Sphagnum - Carex aquatilis var. dives</i>	p8216
ZIG	T3SR85ES25	<i>Thuja plicata / (Lysichiton americanum)</i>	p8085
ZIG	T2SR85ES26	<i>Thuja plicata / (Lysichiton americanum)</i>	p8089
ZIG	T3SR6ES9	<i>Thuja plicata / (Lysichiton americanum)</i>	p8091
ZIG	T3SR8ES17	<i>Thuja plicata / (Lysichiton americanum)</i>	p8200
ZIG	T2SR8ES21	<i>Thuja plicata / Athyrium filix-femina</i>	p8079
ZIG	T3SR85ES25	<i>Trichophorum cespitosum - (Tofieldia glutinosa)</i>	p8084

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\*BAR: Barlow RD

BES: Bear Springs RD

BR: Blue River RD

CLA: Clackamas RD

CLA: Clackamas RD

COAST: Coast Range RA

COG: Columbia Gorge RD

DET: Detroit RD

EST: Estacada RD

HOR: Hood River RD

HEBO: Hebo RD

LOW: Lowell RD

MAPL: Mapleton RD

MCK: McKenzie RD

MK: McKenzie RA

MP-N: Mary's Pk North RA

MTA: Mt. Adams RD

Oak: Oakdale RD

PAC: Packwood RD

RAN: Randall (Cowlitz Valley) RD

RIG: Rigdon RD

SBLM: Salem BLM

SH: Sweet Home RD

STH: St. Helens RD

SV: South Valley RA

STH: St. Helens RD

SV: South Valley RA

WALD: Waldport RD  
WILL: Willamette NF  
WIR: Wind River RD  
WALD: Waldport RD  
WILL: Willamette NF  
WIR: Wind River RD