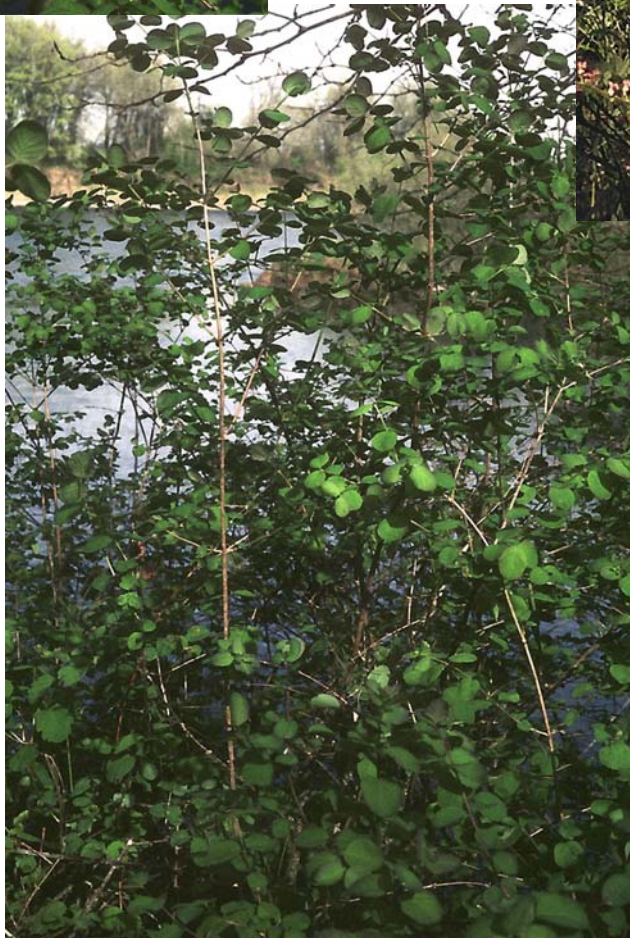
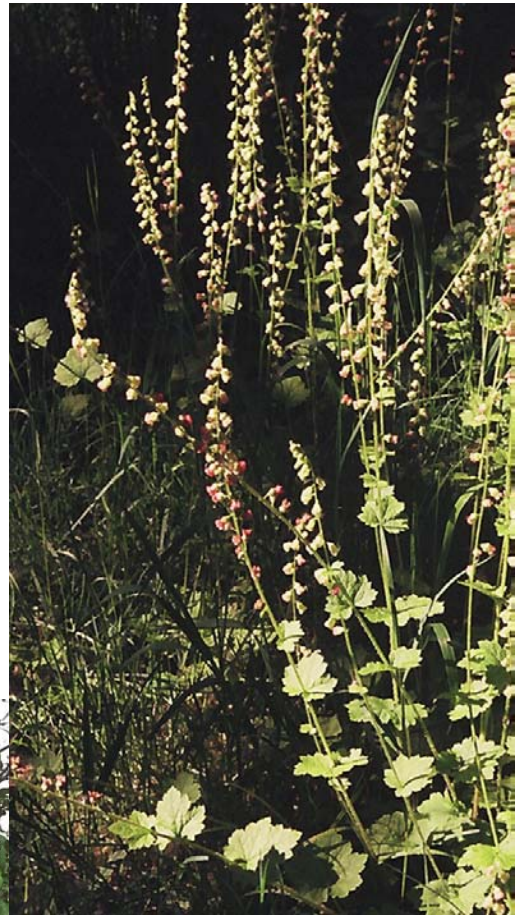


Willamette Valley



**Top left: Indian plum
Top right: fringecup
Lower center: common
snowberry
Willamette River in
background.**

Willamette Valley key

- A. Scouring rush the dominant herb under black cottonwood overstory
..... **Black cottonwood/scouring-rush** p. 256

- B. Starry false Solomon's seal the dominant herb
 - 1. Common snowberry the dominant shrub under hardwood overstory
..... **Forested common snowberry/starry false Solomon' seal** p. 281

 - 2. Snowberry absent or minor, western redcedar dominant overstory species
..... **Western redcedar/starry false Solomon's seal** p. 285

- C. Salmonberry dominant or co-dominant shrub under hardwood overstory
 - 1. Common snowberry present (>trace).....
(Black cottonwood-Oregon ash)/salmonberry-common snowberry
p. 271

 - 2. Common snowberry absent
..... **Hardwood/salmonberry/Pacific waterleaf** p. 269

- D. Common snowberry the dominant shrub, salmonberry absent or minor; under hardwood overstory
 - 1. Starry false Solomon's seal the dominant herb
..... **Forested common snowberry/starry false Solomon' seal** p. 281

 - 2. Common camas the dominant herb under Oregon ash overstory
..... **Oregon ash/common snowberry/common camas** p. 283

 - 3. Nettle and/or Pacific waterleaf together >5%
..... **Common snowberry/nettle group** p. 259

- a. Indian plum >5%
**Common snowberry-nettle-(Big leaf maple-black cottonwood)/
*Indian plum phase*** p. 265

- b. Oregon ash an overstory dominant, red elderberry dominant or co-
 dominant shrub
**Common snowberry-nettle-Oregon ash/red elderberry-California
*hazel phase*** p. 261

- c. Common snowberry the dominant shrub, or co-dominant with
 California hazel
**Common snowberry-nettle-(Big leaf maple-black cottonwood)/
*California hazel phase*** p. 263

- 4. Nettle and Pacific waterleaf absent, herb layer sparse, trailing blackberry
 generally present
 - a. Oregon ash or Oregon white oak overstory, slough sedge absent or
 minor....(**Oregon ash-Oregon white oak**)/common snowberry p. 274

 - b. Big leaf maple and/or black cottonwood overstory
**Big leaf maple/common snowberry** p. 279

- 5. Nettle and Pacific waterleaf absent, slough sedge >20% under Oregon
 ash overstory
 *Fraxinus latifolia/Symphoricarpus albus* Association (Christy p. 27)

- E. California hazel dominant shrub under hardwood overstory
 - 1. Common snowberry >5%
**Common snowberry-nettle-(Big leaf maple-black cottonwood)/
*California hazel phase*** p. 263

 - 2. Common snowberry <5%
(Oregon ash-black cottonwood)/California hazel/Pacific waterleaf
 p. 257

- F. Red elderberry dominant shrub, common snowberry also important shrub species, Oregon ash an overstory dominant, nettle and/or Pacific waterleaf >5%
Common snowberry-nettle-Oregon ash/red elderberry-California hazel phase p. 261
- G. Shrubs absent or trace, nettle >50, big leaf maple and/or alder overstory **(Big leaf maple-alder)/nettle** p. 254
- H. Douglas spiraea >10%, and dominant shrub
1. Douglas spiraea the dominant shrub under Oregon ash *Fraxinus latifolia/Spiraea douglasii* Association (Christy p. 26)
 2. Douglas spiraea thicket without tree canopy *Spiraea douglasii* Association (Christy p. 58)
- I. Red osier dogwood dominant shrub under black cottonwood overstory, jewelweed often dominant herb
Populus balsamifera ssp. trichocarpa/Cornus sericea, Impatiens capensis Association (Christy p. 32)
- J. Willow shrub swamp
1. Hooker willow shrub swamp, slough sedge often important herb *Salix hookeriana-(Salix sitchensis)* Association (Christy p. 53)
 2. Pacific willow shrub swamp
Salix lucida ssp. lasiandra/ Urtica dioica ssp. gracilis Association (Christy p. 55)
 3. Sitka willow dominant, with skunk cabbage and/or aquatic sedge the dominant herbs *Salix sitchensis* complex (Christy p. 57)

K. Oregon ash overstory above sedge dominated herb layer

1. Douglas spiraea $\leq 10\%$ but most abundant shrub, aquatic sedge $\geq 20\%$ and dominant herb under Oregon ash overstory
...Fraxinus latifolia/Carex aquatilis var. aquatilis Association (Christy p. 23)
2. Dewey sedge and/or spreading rush dominant herbs under Oregon ash overstory, trailing blackberry and Douglas spiraea may be present.....
Fraxinus latifolia/Carex deweyana-Urtica dioica ssp. gracilis Association
 (Christy p. 24)
3. Slough sedge $\geq 20\%$ and dominant herb under Oregon ash overstory, trailing blackberry, Douglas spiraea, and common snowberry may be present.....
Fraxinus latifolia/Carex obnupta Association (Christy p. 25)

For more herb-dominated communities (aquatic beds, emergent marshes, marshes, fens/peatlands, or wet prairies), see herbaceous wetlands key (Christy pp. 18-20).

For more shrub-dominated communities (shrub swamps), see shrubland wetlands key (Christy p. 15-17).

For more tree-dominated communities (forested swamps), see forest and woodlands wetlands key (Christy p. 13-14).

Willamette Valley

(Big leaf maple-alder)/nettle: (ACMA3-ALNUS)/URDI p. 254

Black cottonwood/scouring-rush: POBAT/EQHY p. 256

(Oregon ash-black cottonwood)/California hazel/Pacific waterleaf:
(FRLA-POBAT)/COCO6/HYTE p. 257

Common snowberry/nettle group: SYAL/URDI GROUP p. 259

- Common snowberry/nettle-*Oregon ash/red elderberry-California hazel phase*: SYAL/URDI-FRLA/*SARA2-COCO6 phase* p. 261
- Common snowberry/nettle-*(big leaf maple-black cottonwood)/California hazel phase*: SYAL/URDI-*(ACMA3-POBAT)/COCO6 phase* p. 263
- Common snowberry/nettle-*(Big leaf maple-black cottonwood)/Indian plum phase*: SYAL/URDI-*(ACMA3-POBAT)/OECE phase* p. 265

Oregon ash/vine maple/Pacific waterleaf-nettle, FRLA/ACCI/HYTE-URDI ... p. 267

Hardwood/salmonberry/Pacific waterleaf, Hardwood /RUSP/HYTE p. 269

(Black cottonwood/Oregon ash)/salmonberry-common snowberry,
(POBAT-FRLA)/RUSP-SYAL p. 271

(Oregon ash-Oregon white oak)/common snowberry,
(FRLA-QUGA4)/SYAL p. 274

Big leaf maple/common snowberry, ACMA3/SYAL p. 279

Forested common snowberry/starry false Solomon’s seal,
Forested SYAL/MAST4 p. 281

Oregon ash/common snowberry/common camas, FRLA/SYAL/CAQU2 p. 283

Western redcedar/ starry false Solomon’s seal, THPL/MAST4 p. 285

A note on alder: Both white alder (*Alnus rhombifolia*) and red alder (*Alnus rubra*) are present in riparian areas of low elevations of the central and southern Willamette Valley. The two species have similar appearance, and can grow right next to each other. Red alder is found at slightly higher elevations along the valley margin and in the NW Oregon Cascades and Coast Range. No white alder was recorded in the Willamette Valley plots; only 6 of the sites sampled had alder. Unfortunately, it is not possible to tell if the two alder species were not distinguished in the field. Field visits in 2004 to the three most northerly alder sites showed only red alder present. Whether the same is true in the more southerly Willamette Valley riparian zones is uncertain. Therefore, most references in the Willamette Valley section have been generalized to *Alnus/Alder*.

**(*Acer macrophyllum*-*Alnus*)/*Urtica dioica*
 (Big leaf maple-alder)/nettle
 (ACMA3-ALNUS)/URDI**

N=6 (Willamette Valley 6)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Acer macrophyllum</i>	Big leaf maple	50	100
<i>Alnus</i>	Alder	50	62
Shrubs			
<i>Sambucus racemosa</i>	Red elderberry	50	1
Herbs			
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	100	76
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	100	44
<i>Carex deweyana</i>	Dewey's sedge	83	7
<i>Tellima grandiflora</i>	Fringecup	67	9
<i>Galium aparine</i>	Cleaver	67	8
<i>Claytonia sibirica</i>	Siberian miner's lettuce	33	5
<i>Equisetum arvense</i>	Common horsetail	33	4
<i>Stellaria calycantha</i>	Northern starwort	33	Tr

Elevations: less than 600 feet.

Community: (*Big leaf maple- alder*)/nettle is a deciduous forested floodplain community of the Willamette Valley. The overstory can be either big leaf maple or alder. Black cottonwood and Oregon ash can also occur. With Oregon ash, the forb component has more wet indicator species. The shrub layer is sparse; red elderberry is the most typical species, though at trace amounts, and in only half the plots. The understory is a thick herbaceous layer dominated by nettle and Pacific waterleaf. Dewey's sedge, fringecup, and cleaver are common associated species.



Pacific waterleaf and nettle in early spring.

Geomorphic environment: Environmental data for this type are minimal. Sites were classed as floodplain forests. Two plots are from Clackamas County (Willamette and Clackamas Rivers), two plots from Marion

County (Mill Creek), and two from Polk County (Luckiamute River). The plots ranged from 0 to 15 feet above summer flow (average 6 feet), and from 0 to 200 feet from the main channel (average 52 feet).

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	33%
Wetland indicators among dominant species	44% (range 10-75%)

Non-natives: Orchard grass was the only exotic species found on one plot in the sample.

Populus trichocarpa/Equisetum hyemale
Black cottonwood/scouring-rush
POBAT/EQHY

N=5 (Willamette Valley 5)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Populus trichocarpa</i>	Black cottonwood	80	66
<i>Alnus</i>	Alder	40	42
<i>Acer macrophyllum</i>	Big leaf maple	40	33
Shrubs			
<i>Symphoricarpos albus</i>	Common snowberry	40	5
<i>Acer circinatum</i>	Vine maple	40	4
<i>Rubus ursinus</i>	Trailing blackberry	40	1
Herbs			
<i>Equisetum hyemale</i>	Scouring-rush	100	64
<i>Polystichum munitum</i>	Sword fern	80	13
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	40	2

Elevations: average 480 feet.

Community: Black cottonwood/scouring-rush is a forested floodplain community of the Willamette Valley. The overstory is most often black cottonwood and/or alder or big leaf maple, but alder can be the only tree species present. Grand fir and Douglas fir were also recorded on one plot. The shrub layer is generally sparse, with common snowberry, vine maple, and trailing blackberry present at low cover on 40% of the samples. The herb layer is a dense sward of scouring-rush with sword fern. Nettle is also present on 40% of the plots.

Geomorphic environment: One site was in Yamhill County (Willamette River), and 4 sites were in Marion County (North Santiam River-Geren Island). The sampling ecologist noted locations as temporarily flooded higher terraces near the large rivers, such as the Willamette and North Santiam. Plots averaged 20 feet above the main channel, and were from 200-500 feet from the main channel. No soils data are available.

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	20%
Wetland indicators among dominant species	49% (range 40-75%)

Non-natives: No exotic species were recorded in the sample.

(*Fraxinus latifolia*-*Populus trichocarpa*)/*Corylus cornuta*/*Hydrophyllum tenuipes***(Oregon ash-black cottonwood)/California hazel/Pacific waterleaf (FRLA-POBAT)/COCO6/HYTE**

N=5 (Willamette Valley 5)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Fraxinus latifolia</i>	Oregon ash	40	83
<i>Populus trichocarpa</i>	Black cottonwood	40	70
<i>Acer macrophyllum</i>	Big leaf maple	20	25
Shrubs			
<i>Corylus cornuta</i>	California hazel	100	50
<i>Oemleria cerasiformis</i>	Indian plum	60	8
<i>Rubus spectabilis</i>	Salmonberry	60	1
<i>Symphoricarpos albus</i>	Common snowberry	40	2
<i>Sambucus racemosa</i>	Red elderberry	40	1
<i>Acer circinatum</i>	Vine maple	40	1
Herbs			
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	100	75
<i>Galium aparine</i>	Cleaver	60	Tr
<i>Carex deweyana</i>	Dewey's sedge	60	Tr
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	40	5
<i>Stachys cooleyae</i>	Cooley's betony	40	3
<i>Athyrium filix-femina</i>	Lady fern	40	1
<i>Claytonia sibirica</i>	Siberian miner's lettuce	40	1
<i>Tellima grandiflora</i>	Fringecup	40	Tr

Elevations: less than 600 feet.

Community: (Oregon ash-black cottonwood)/California hazel/Pacific waterleaf is generally a forested floodplain community of the Willamette Valley. The overstory is dominated by Oregon ash, black cottonwood, or sometimes big leaf maple. One plot did not have a tree overstory. California hazel is the dominant shrub, though Indian plum and salmonberry are common associated species. Common snowberry, red elderberry, and vine maple occur in 40% of the plots, at low cover. Ninebark can be abundant. The herb layer is a carpet of Pacific waterleaf, with cleaver and Dewey's sedge as common associates. Nettle and Cooley's betony are also often present.

Similar types: This type seems somewhat wetter than the strongly related Common snowberry/nettle group: (Oregon ash/red elderberry-California hazel phase and (Big leaf maple-black cottonwood)/California hazel phase). (Oregon

ash-black cottonwood)/California hazel/Pacific waterleaf has less trailing blackberry, red elderberry, common snowberry and nettle, and more California hazel, Indian plum, and Pacific waterleaf.

Geomorphic environment: Environmental data for this type are minimal. Sites were classed as floodplain forests, slough or shrub. Three plots are from Clackamas County (Willamette River, Pudding River, Eagle Creek), two plots from Marion County (Willamette River). The plots ranged from 3 to 21 feet above summer flow (average 13 feet), and from 9 to 500 feet from the main channel (average 232 feet).

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	0%
Wetland indicators among dominant species	31% (range 17-50%)

Non-natives: Reed canary grass was the only exotic recorded in the sample. It was present in trace amounts on one plot. Field notes suggest that similar habitats often contain more reed canarygrass, but were purposely excluded from the sample.

Forested *Symphoricarpos albus/Urtica dioica* group
Forested common snowberry/nettle group
Forested SYAL/URDI group



Group constancy table followed by descriptions for three phases:
Symphoricarpos albus/Urtica dioica-Fraxinus latifolia/Sambucus racemosa-Corylus cornuta phase, *Symphoricarpos albus/Urtica dioica-(Acer macrophyllum-Populus trichocarpa)/Sambucus racemosa-Corylus cornuta* phase and *Symphoricarpos albus/Urtica dioica-(Acer macrophyllum-Populus trichocarpa)/Sambucus racemosa-Oemleria cerasiformis* phase

N=34 (Willamette Valley 34)

Oregon ash, big leaf maple, and black cottonwood over common snowberry. Willamette River.

Constancy table for the group as a whole:

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Acer macrophyllum</i>	Big leaf maple	65	70
<i>Populus trichocarpa</i>	Black cottonwood	38	58
<i>Fraxinus latifolia</i>	Oregon ash	26	46
Shrubs			
<i>Symphoricarpos albus</i>	Common snowberry	91	37
<i>Sambucus racemosa</i>	Red elderberry	50	9
<i>Corylus cornuta</i>	California hazel	41	15
<i>Rubus ursinus</i>	Trailing blackberry	38	12
Herbs			
<i>Oemleria cerasiformis</i>	Indian plum	38	8
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	88	39
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	85	32
<i>Galium aparine</i>	Cleaver	50	1
<i>Carex deweyana</i>	Dewey's sedge	47	3
<i>Claytonia sibirica</i>	Siberian miner's lettuce	44	14

Community: The Common snowberry/nettle group is the most commonly sampled type in the communities from the Willamette Valley.

Wetland rating:

Community meets wetland test?	No-none of the 3 phases
-------------------------------	-------------------------



Nettle with stringlike flowers along Willamette River trail. Stinging nettle is a menace for summer adventurers on the floodplain.



Himalayan blackberry has invaded this Oregon ash-big leaf maple/common snow-berry community. This is typical of many sites on floodplains in the Willamette Valley.

Symphoricarpos albus/Urtica dioica-Fraxinus latifolia/Sambucus racemosa-Corylus cornuta phase
Common snowberry/nettle-Oregon ash/red elderberry-California hazel phase
SYAL/URDI-FRLA/SARA2-COCO6 phase

N=7 (Willamette Valley 7)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
Fraxinus latifolia	Oregon ash	100	44
Alnus	Alder	29	60
Shrubs			
Sambucus racemosa	Red elderberry	100	15
Corylus cornuta	California hazel	57	16
Symphoricarpos albus	Common snowberry	57	13
Rubus ursinus	Trailing blackberry	43	31
Acer circinatum	Vine maple	29	42
Crataegus douglasii	Black hawthorn	29	30
Rubus spectabilis	Salmonberry	29	2
Herbs			
Urtica dioica ssp. gracilis	Nettle	100	51
Hydrophyllum tenuipes	Pacific waterleaf	71	53
Tellima grandiflora	Fringecup	57	14
Carex deweyana	Dewey's sedge	57	8
Athyrium filix-femina	Lady fern	29	2
Claytonia sibirica	Siberian miner's lettuce	29	1
Tolmiea menziesii	Piggyback plant	29	1
Marah oreganus	Manroot	29	1
Cardamine oligosperma	Little western bitter-cress	29	Tr
Polystichum munitum	Sword fern	29	Tr

Elevations: less than 600 feet.

Community: Common snowberry/nettle-Oregon ash/red elderberry-California hazel phase is a forested floodplain community of the Willamette Valley. The overstory is Oregon ash, often with alder and occasionally Oregon white oak. The shrub layer is dominated by red elderberry, with California hazel, common snowberry, and trailing blackberry as the most common associated species. Trailing blackberry can be abundant. The herb layer generally has nettles and Pacific waterleaf in high abundance. Fringecup and Dewey's sedge also occur in over half the plots.

Geomorphic environment: Environmental data for this type are minimal. Sites were classes as floodplain forests (79%) or sloughs (21%). Half the samples were from the mainstem Willamette River. Surface clay deposits were noted on 2 plots. Four plots are from Marion County, two plots each from Benton, Clackamas, Polk, and Yamhill Counties, and 1 plot from Linn County. The plots ranged from 1 to 21 feet above summer flow (average 12 feet), and from 0 to 500 feet from the channel (average 117 feet).

Similar types: This phase of the Common snowberry/nettle group has lower and less constant snowberry cover than the Big leaf maple-black cottonwood phase. With the overstory of Oregon ash and alder, it indicates a slightly wetter environment.

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	14%
Wetland indicators among dominant species	41% (range 20-80%)



Non-natives: The only exotic species recorded was creeping buttercup, present on one plot.

Elderberry blossoms on the floodplain of the Willamette River.

Symphoricarpos albus/Urtica dioica -(*Acer macrophyllum*-*Populus trichocarpa*)/*Corylus cornuta* phase
 Common snowberry/nettle-(*Big leaf maple*-*black cottonwood*)/*California hazel* phase
 SYAL/URDI-(*ACMA3-POBAT*)/*COCO6* phase

N=13 (Willamette Valley 13)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Acer macrophyllum</i>	Big leaf maple	69	75
<i>Populus trichocarpa</i>	Black cottonwood	54	64
Shrubs			
<i>Symphoricarpos albus</i>	Common snowberry	100	42
<i>Corylus cornuta</i>	California hazel	62	16
<i>Rubus ursinus</i>	Trailing blackberry	62	7
<i>Sambucus racemosa</i>	Red elderberry	62	5
<i>Rubus spectabilis</i>	Salmonberry	38	3
Herbs			
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	92	41
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	85	33
<i>Carex deweyana</i>	Dewey's sedge	38	1
<i>Galium triflorum</i>	Sweetscented bedstraw	31	11
<i>Claytonia sibirica</i>	Siberian miner's lettuce	31	Tr

Elevations: less than 600 feet.

Community: Common snowberry/nettle-(*Big leaf maple*-*black cottonwood*) *California hazel* phase is a forested floodplain community of the Willamette Valley. The overstory is big leaf maple and/or black cottonwood. The shrub layer is dominated by common snowberry, with California hazel, trailing blackberry, and red elderberry as the most common associated species. Nettles and Pacific waterleaf are both very abundant.

Geomorphic environment: Environmental data for this type are minimal. Sites were classes as floodplain forests (79%) or sloughs (21%). Half the samples were from the mainstem Willamette River. Surface clay deposits were noted on 2 plots. Four plots are from Marion County, two plots each from Benton, Clackamas, Polk, and Yamhill Counties, and 1 plot from Linn County. The plots ranged from 1 to 21 feet above summer flow (average 12 feet), and from 0 to 500 feet from the channel (average 117 feet).

Willamette Valley

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	8%
Wetland indicators among dominant species	35% (range 20-60%)

Non-natives: No exotic species were recorded in the sample.

Symphoricarpus albus/Urtica dioica-(Acer macrophyllum-Populus trichocarpa)/ Oemleria cerasiformis phase
Common snowberry/nettle-(Big leaf maple-black cottonwood)/Indian plum phase
SYAL/URDI-(ACMA3-POBAT)/OECE phase

N=14 (Willamette Valley 14)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Acer macrophyllum</i>	Big leaf maple	86	65
<i>Populus trichocarpa</i>	Black cottonwood	36	57
Shrubs			
<i>Symphoricarpus albus</i>	Common snowberry	100	40
<i>Oemleria cerasiformis</i>	Indian plum	71	11
Herbs			
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	93	23
<i>Galium aparine</i>	Cleaver	93	1
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	79	29
<i>Claytonia sibirica</i>	Siberian miner's lettuce	64	23
<i>Carex deweyana</i>	Dewey's sedge	50	1
<i>Dicentra formosa</i>	Bleeding heart	43	7
<i>Tellima grandiflora</i>	Fringecup	36	20
<i>Polystichum munitum</i>	Sword fern	36	2

Elevations: less than 600 feet.

Community: Common snowberry/nettle-(Big leaf maple-black cottonwood)/Indian plum phase is a forested floodplain community of the Willamette Valley. The overstory is big leaf maple and/or black cottonwood. Common snowberry dominates the shrub layer, with Indian plum as an important associated species. The lush understory is typically composed of Pacific waterleaf, cleaver, nettle, Siberian miner's lettuce, and Dewey's sedge.

Geomorphic environment: Environmental data for this type are minimal. Sites were classes as floodplain forests (86%) or sloughs (14%). Five of the samples were from the mainstem Willamette River; five were from the mainstem Clackmas River; three were from the Luckiamute River; one from Ankeny Slough (USFWS). Five plots are from Clackamas County, four plots from Marion County, three plots from Polk County, and two plots from Lane County. The plots ranged from 1 to 18 feet above summer flow (average 8 feet), and from 0 to 200 feet from the main channel (average 72 feet).

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	7%
Wetland indicators among dominant species	30% (range 17-67%)

Non-natives: No exotic species were recorded in the sample.



Big leaf maple flowers in April, on the floodplain of the Willamette River.

Fraxinus latifolia/Acer circinatum/Hydrophyllum tenuipes-Urtica dioica
Symphoricarpos albus/Urtica dioica
Oregon ash/vine maple/Pacific waterleaf-nettle
FRLA/ACCI/HYTE-URDI

N=8 (Willamette Valley 8)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Fraxinus latifolia</i>	Oregon ash	75	69
<i>Acer macrophyllum</i>	Big leaf maple	25	63
<i>Alnus</i>	Alder	25	45
Shrubs			
<i>Acer circinatum</i>	Vine maple	100	59
<i>Corylus cornuta</i>	California hazel	25	9
<i>Oemlaria cerasiformis</i>	Indian plum	25	5
Herbs			
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	88	52
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	75	21
<i>Tellima grandiflora</i>	Fringecup	63	2
<i>Carex deweyana</i>	Dewey's sedge	63	1
<i>Dicentra formosa</i>	Pacific bleedingheart	50	5
<i>Claytonia sibirica</i>	Siberian miner's lettuce	50	4
<i>Galium aparine</i>	Cleaver	50	2
<i>Polystichum munitum</i>	Sword fern	38	3

Elevations: less than 600 feet.

Community: Oregon ash/vine maple/Pacific waterleaf/nettle is a forested floodplain community of the Willamette Valley. The overstory is Oregon ash, often with big leaf maple or alder. The alder species present in these plots was red alder (*Alnus rubra*). The shrub layer is dominated by vine maple, with California hazel and Indian plum as the most common associated species. The herb layer generally has abundant Pacific waterleaf, with nettle a co-dominant. Fringecup and Dewey's sedge also occur in over half the plots.

Geomorphic environment: Environmental data for this type are minimal. Sites were classed as floodplain forests (7 plots) or sloughs (1 plot). Five plots are from Clackamas County (four from Milo McIver State Park), and one plot each from Linn, Marion, and Polk Counties. Sites ranged from small creeks (Senecal, Marion County) to the Clackmas River. The plots ranged from 0 to 15 feet above summer flow (average 5 feet), and from 0 to 100 feet from the channel (average 19 feet).

Similar types: This community shares many species with the Common snowberry/nettle-Oregon ash/red elderberry-California hazel phase, but with the vine maple in the place of the common snowberry.

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	13%
Wetland indicators among dominant species	33% (range 17-57%)

Non-natives: No exotic species were recorded in the sample.

Hardwood/Salmonberry/Pacific waterleaf
Hardwood/*Rubus spectabilis*/Hydrophyllum tenuipes
Hardwood/RUSP/HYTE

N=5 (Willamette Valley 5)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Alnus</i>	Alder	40	80
<i>Populus trichocarpa</i>	Black cottonwood	40	55
<i>Fraxinus latifolia</i>	Oregon ash	20	100
<i>Acer macrophyllum</i>	Big leaf maple	20	90
Shrubs			
<i>Rubus spectabilis</i>	Salmonberry	100	50
<i>Corylus cornuta</i>	California hazel	60	10
<i>Sambucus racemosa</i>	Red elderberry	40	8
Herbs			
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	100	38
<i>Carex deweyana</i>	Dewey's sedge	80	3
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	60	28
<i>Galium aparine</i>	Cleaver	60	25
<i>Claytonia sibirica</i>	Siberian miner's lettuce	60	11
<i>Dicentra formosa</i>	Bleeding heart	40	9
<i>Athyrium filix-femina</i>	Lady fern	40	2
<i>Polystichum munitum</i>	Sword fern	40	1
<i>Stachys cooleyae</i>	Cooley's betony	40	1

Community: Hardwood/salmonberry/Pacific waterleaf is a Willamette Valley forested floodplain community. It can occur under a range of overstory tree species, including alder, black cottonwood, Oregon ash, and big leaf maple. Salmonberry is the dominant shrub, though California hazel and red elderberry commonly occur. The herb layer is dominated by Pacific waterleaf and nettle, almost always with Dewey sedge present. Cleaver and Siberian miner's lettuce are also common and abundant. Red alder was confirmed at the Clackamas County sites.

Geomorphic environment: Soil, substrate and geomorphic surface data are unavailable. Plots were 2 to 12 feet above river level (average 7 feet), and from 1 foot to 200 feet from the main creek channel. Plots were located in Benton (Camp Adair) and Clackamas (Milo McIver State Park, Molalla River State Park) counties.

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	17%
Wetland indicators among dominant species	42% (range 20-60%)

Non-natives: No exotic species were included in the sample.

**(*Populus trichocarpa*-*Fraxinus latifolia*)/*Rubus spectabilis*-*Symphoricarpos albus*
 (Black cottonwood-Oregon ash)/salmonberry-snowberry
 (POBAT-FRLA)/RUSP-SYAL**

n=7 (WV 7)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Populus trichocarpa</i>	Black cottonwood	86	65
<i>Fraxinus latifolia</i>	Oregon ash	43	73
<i>Acer macrophyllum</i>	Big leaf maple	14	10
Shrubs			
<i>Rubus spectabilis</i>	Salmonberry	100	76
<i>Symphoricarpos albus</i>	Common snowberry	86	10
<i>Sambucus racemosa</i>	Red elderberry	86	5
<i>Rubus ursinus</i>	Trailing blackberry	43	6
<i>Cornus sericea</i>	Red-osier dogwood	43	5
Herbs			
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Nettle	71	21
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	71	1
<i>Impatiens capensis</i>	Jewelweed	57	Tr

Community: (Black cottonwood-Oregon ash)/salmonberry-snowberry is a shrubby Willamette Valley forested floodplain community. Tree canopy is fairly dense black cottonwood and/or Oregon ash. The thick shrub layer is dominated by salmonberry with snowberry and red elderberry. The herb layer is very sparse. The most common and abundant herb is stinging nettle, though Pacific waterleaf and jewelweed are usually present.



Jewelweed blooming in June.

Geomorphic environment: One Molalla River State Park site was visited in 2004. The community there is on the main floodplain of the Willamette River, near the confluence with the Molalla River. The plot is on a gentle, slightly convex surface. Silt deposited on tree boles in the plot showed evidence of flood waters from 8 to 9 feet deep. The soil pit was in a deep silt deposit, probably resulting from the last major flood. John Christy noted that he had noted silt deposited on that floodplain from 1 to 3 feet thick in the spring following the 1996

flood. In a concavity at one end of the surface, the community transitioned into an Oregon ash-black cottonwood dominated slough sedge wetland.

Soil, substrate and geomorphic surface data are unavailable for the other sites. Plots were 9 to 21 feet above river level (average 14 feet), and from 115-500 feet from the channel.

Plots were located in Clackamas (Molalla SP), Marion (Minto, Wilsonville), Polk (Luckiamute) and Yamhill (Grand Island) counties.

Wetland rating:

Community meets wetland test	Yes
Plots meeting wetland criteria	86%
Wetland indicators among dominant species	71% (range 50-80%)

Non-natives: No exotic species were recorded in the sample.

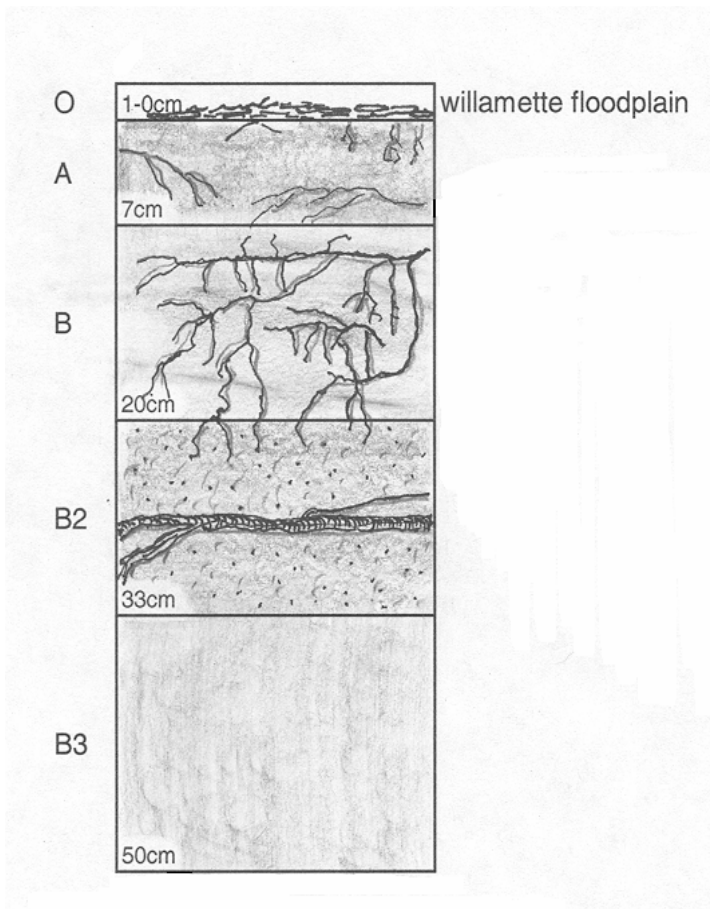


Thick salmonberry and common snowberry dominate the shrub layer beneath an Oregon ash-black cottonwood canopy. (Molalla River State Park)

Soil illustration: Molalla River State Park - (POBAT-FRLA)/RUSP-SYAL

HORIZON	THICKCM	MUNSELL	TEXTURE	CFRAG	CFRAGPCT	VOIDS	ROOTS
O	1						
A	7	Medium brown	SiL	gravel	0	lesser	5
B	13	Lighter brown	SiL	gravel	0	more	12
B2	13	Darker by a shade	SL	gravel	0	most	5
B3	17	Lighter brown	SiL	gravel	0	lesser	0

Total Depth: 50cm. Depth Limit: unknown. Water Table: unknown.



The O horizon is very thin on this profile. Leaves and twigs are silty and matted together, suggesting a routine presence of standing water in the winter. Forbs are scarce – may standing water rot the seeds? Silt lines from the February 1996 floods are up to eight feet high on cottonwood trunks nearby.

The A horizon is moderate crumbly silt loam and just slightly darkened by organic input. It has few roots and is noticeably drier than other horizons.

Organic influence fades at the B horizon at 7cm. There is the slightest amount of clay texture in the soil, causing stronger crumb texture and plasticity than in the A horizon. The highest concentration of roots in the profile – 12% - and potentially greater water availability may be attributed to clay textures in this narrow horizon.

Subsequent alluvial horizons are tough to name since they are likely all from the same flood event. The B2 (or Ab) is poorly structured sandy loam. There is a distinct drop in fine root density from the B horizon that may be a response to water availability. Structural roots are present. The B3 horizon reverts to a fine silt loam with zero sand or clay. It has the texture of loess or packed cornstarch, but lacks structure or cohesiveness.

**(*Fraxinus latifolia*-*Quercus garryana*)/*Symphoricarpos albus*
(Oregon ash-Oregon white oak)/common snowberry
(FRLA-QUGA4)/SYAL**

N=11 (Willamette Valley 11)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Fraxinus latifolia</i>	Oregon ash	82	62
<i>Quercus garryana</i>	Oregon white oak	64	62
Shrubs			
<i>Symphoricarpos albus</i>	Common snowberry	100	70
<i>Rubus ursinus</i>	Trailing blackberry	82	3
<i>Oemleria cerasiformis</i>	Indian plum	36	10
Herbs			
<i>Polystichum munitum</i>	Sword fern	45	6
<i>Galium aparine</i>	Cleaver	45	2
<i>Carex deweyana</i>	Dewey's sedge	36	4
<i>Torilis</i>	<i>Hedgeparsley</i>	36	Tr

Elevations: less than 600 feet.

Community: (*Oregon ash-Oregon white oak*)/common snowberry is a floodplain forest community in the Willamette Valley. It has an ash and/or oak overstory over a thick shrub layer dominated by common snowberry. Trailing blackberry is the most common associated species. Indian plum is often present. The herb layer is relatively sparse. Sword fern and cleavers are the most typical species, though Dewey's sedge and hedgeparsley often occur.

Geomorphic environment:

Environmental data for this type are minimal. Four plots were from Linn County (Butte, Little Muddy, and N. Santiam drainages), three plots from Clackamas County (Camassia Creek, Milo McIver State Park-Clackamas River), three plots from Benton County (William L. Finley National Wildlife Refuge-Muddy Creek), and one from Polk County (Soap Creek). Muddy Creek in the Finley Wildlife Refuge was visited in 2004. The community there is on the floodplains of a tightly meandering low gradient creek that is deeply incised with rectangular cross section. The Muddy Creek floodplain is wide, while terraces are barely in evidence. The creek occupies the floodplains yearly. Silt lines in this community on both sides of the creek are about two feet higher than bankfull.

Soil, substrate and geomorphic surface data are unavailable for the other sites. The plots ranged from 1 to 18 feet above summer flow (average 8 feet), and from 3 to 500 feet from the channel (average 41 feet).

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	18%
Wetland indicators among dominant species	29% (range 14-60%)



Oregon ash-Oregon white oak/common snowberry community on the banks of Muddy Creek, Finley National Wildlife Refuge, Benton County.

Non-natives: Exotic species occurred on 55% of the plots. Three plots had 5 or more exotics.

EXOTIC	COMMON NAME	PLOTS	TYPICAL COVER %
<i>Torilis</i>	<i>Hedgeparsley</i>	4	Tr
<i>Vicia sativa</i>	<i>Garden vetch</i>	2	Tr
<i>Hedera helix</i>	<i>English ivy</i>	1	4
<i>Rosa eglantheria</i>	<i>Sweetbriar rose</i>	1	3
<i>Phalaris arundinacea</i>	<i>Reed canarygrass</i>	1	2
<i>Lactuca serriola</i>	<i>Prickly lettuce</i>	1	Tr
<i>Lapsana communis</i>	<i>Common nipplewort</i>	1	Tr
<i>Lolium arundinaceum</i>	<i>Tall fescue</i>	1	Tr
<i>Solanum dulcamara</i>	<i>Bittersweet</i>	1	Tr
<i>Stellaria media</i>	<i>Chickweed</i>	1	Tr
<i>Bromus inermis</i>	<i>Smooth brome</i>	1	Tr
<i>Bromus rigidus</i>	<i>Ripgut brome</i>	1	Tr
<i>Ranunculus repens</i>	<i>Creeping buttercup</i>	1	Tr
<i>Rumex crispus</i>	<i>Curled dock</i>	1	Tr

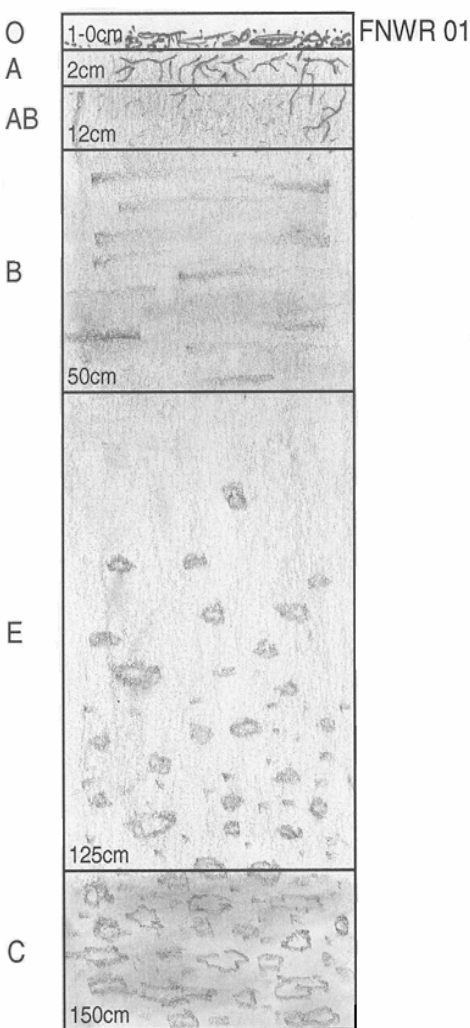


Invasive weed reed canarygrass establishes in the Oregon ash-Oregon white oak/common snowberry along Muddy Creek, William L. Finley National Wildlife Refuge.

Soil illustration 1: William L. Finley National Wildlife Refuge / Muddy Creek (1): (FRLA-QUGA4)/SYAL

HORIZON	THICKCM	MUNSELL	TEXTURE	CFRAG	CFRAGPCT	VOIDS	ROOTS
O	1				0		
A	2	2.5Y3/2	SL		0	10	15
AB	10	2.5Y4/3	SiCL		0	8	5
B	38	2.5Y4/3	SiC		0	8	0
E	30	2.5Y6/2	SiC		0	10	0
C		2.5Y3/2	C		0	3	3

Total Depth: 125cm. Depth Limit: 125+cm.



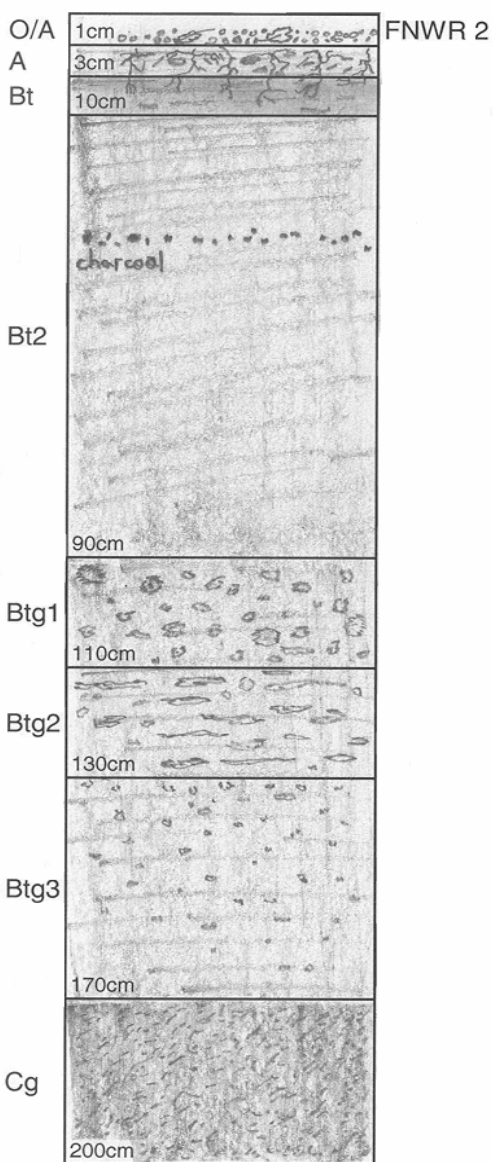
Majority of litter on this bank is from ash and snowberry. Ground vegetation is sparse. The A horizon is 2cm thick sandy loam crust, unusually yellow, and high in ¼ to 1mm thick fine roots. A silty textured transition horizon changes to a clay loam B horizon between 12 and 50cm. The A, AB, and B horizons have weak to moderate crumb structure and low moisture. Moisture and structure increase in the E horizon at 50cm. This horizon has a pale, somewhat chalky appearance common with E horizons. Perhaps longer residence time of soils between flood events on the outside curve allows greater downward leaching than on the east bank.

There is a clear transition to a clay C horizon at 125cm. Mottles are small and close together. Moisture is elevated. The clay is extremely plastic, but well structured and not compacted at the center of the core. Individual peds have nearly rounded, inch-diameter blocky structure. Aeration and bulk density at this depth would probably be a good structural rooting medium, but make it tough to auger.

Soil illustration 2: William L. Finley National Wildlife Refuge / Muddy Creek (2): (FRLA-QUGA4)/SYAL

HORIZON	THICKCM	MUNSELL	TEXTURE	CFRAG	CFRAGPCT	VOIDS	ROOTS
O/A	1		C			60	
A	3	2.5Y4/1	SiC		0	20	10
Bt	7	2.5Y4/1	C		0	20	5
Bt2	80	2.5Y6/2	C		0	10	3
Btg1	20	10YR5/1	LC		0	10	0
Btg2	20	10YR4/1	C		0	3	0
Btg3	40	10YR4/1	SiC		0	3	0
Cg	30+	Gley1 4/N	SCL		0	8	0

Total Depth: 200cm. Depth Limit: 200+cm. Gley: 90cm.



This surface has a distinctively smeared appearance from directional flow over the annual floodplain. The A horizon is a hardened 2cm crust containing 15% embedded OM and seeds. Loose debris and ground vegetation are very sparse. Rounded clay pellets 1-8mm in diameter uniformly cover the surface.

There are very few fine roots. The A and Bt horizons and the crumbled clay on the surface are similar in composition and may have a common origin.

The Bt2 horizon is a textbook Willamette Valley Clay that is so uniformly fine-grained that it feels like loam. It is compacted, but well aerated. There are some coarse roots, and many fine roots, but zero coarse fragments. At 30cm, there is a charcoal layer approximately 1cm thick. At 90cm, the first of three Btg horizons is defined and mottling is distinct. The shape and color of mottling also shift noticeably at the Btg boundaries. At 170cm, a gleyed coarse sandy clay loam takes over. The Cg may have been a surface horizon long ago, and it contains 2-3% greasy black organic residue. The profile is increasingly moist from 90-200cm (the depth of the auger), but no obvious water table was found.

Acer macrophyllum/Symphoricarpos albus
Big leaf maple/common snowberry
ACMA3/SYAL

N=2 (Willamette Valley 2)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
Acer macrophyllum	Big leaf maple	100	55
Populus trichocarpa	Black cottonwood	50	75
Shrubs			
Symphoricarpos albus	Common snowberry	100	88
Rubus ursinus	Trailing blackberry	100	6
Oemleria cerasiformis	Indian plum	50	2
Rubus spectabilis	Salmonberry	50	2
Herbs			
Carex deweyana	Dewey's sedge	100	Tr
Hydrophyllum tenuipes	Pacific waterleaf	100	Tr
Heracleum lanatum	Cow-parsnip	50	3
Galium triflorum	Sweetscented bedstraw	50	1

Sample size is extremely limited for this community.

Elevations: less than 600 feet.

Community: Big leaf maple/common snowberry is a floodplain forest of the Willamette Valley. It occurs with an overstory of big leaf maple and often black cottonwood. Common snowberry dominates the understory. Trailing blackberry is the other typical associated shrub species. The herb layer is very sparse under the dense shrub layer, with Dewey's sedge and Pacific waterleaf present in trace amounts. Cow parsnip and sweetscented bedstraw are also common.

Geomorphic environments: Environmental data for this type are minimal. Both plots are from the main Willamette River, one site from a slough in Linn County, the other from a floodplain forest plot near Wilsonville in Marion County. The plots ranged from 12 to 21 feet above summer flow, and from 30 to 200 feet from the channel.

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	0%
Wetland indicators among dominant species	23% (range 20-25%)

Non-natives: No exotics were recorded in the sample.



This early spring photo is from the Coast Range foothills (McDonald-Dunn Forest, Corvallis). The overstory here is big leaf maple, with more red alder and less black cottonwood than would be expected on the Willamette Valley floor.

**Forested *Symphoricarpos albus*/*Maianthemum stellatum*
Forested common snowberry/starry false Solomon's seal
Forested SYAL/MAST4**

N=4 (Willamette Valley 4)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees-overstory			
<i>Fraxinus latifolia</i>	Oregon ash	50	80
<i>Acer macrophyllum</i>	Big leaf maple	50	29
<i>Pseudotsuga menziesii</i>	Douglas fir	25	90
<i>Populus trichocarpa</i>	Black cottonwood	25	50
<i>Alnus</i>	Alder	25	20
<i>Thuja plicata</i>	Western redcedar	25	15
<i>Taxus brevifolia</i>	Pacific yew	25	5
Shrubs			
<i>Symphoricarpos albus</i>	Common snowberry	100	56
<i>Oemleria cerasiformis</i>	Indian plum	50	18
<i>Acer circinatum</i>	Vine maple	50	12
<i>Corylus cornuta</i>	California hazel	50	4
<i>Rubus ursinus</i>	Trailing blackberry	50	Tr
Herbs			
<i>Maianthemum stellatum</i>	Starry false Solomon's-seal	100	43
<i>Galium aparine</i>	Cleaver	75	Tr
<i>Equisetum hyemale</i>	Scouring-rush	50	10
<i>Vancouveria hexandra</i>	Insideout flower	50	1
<i>Impatiens capensis</i>	Jewelweed	50	1
<i>Thalictrum occidentale</i>	Western meadowrue	50	Tr

Elevations: less than 600 feet.

Community: Forested common snowberry/false Solomon's-seal is a floodplain community of the Willamette Valley. It can occur under dense canopies of Oregon white ash, black cottonwood-big leaf maple, or Douglas fir. A thick shrub layer is dominated by common snowberry. Indian plum and vine maple are often abundant, while California hazel and trailing blackberry are also frequently present. Starry false Solomon's-seal is the dominant herb. Cleaver, scouring rush, inside-out flower, jewelweed and western meadowrue are common associates.

Geomorphic environment: Environmental data for this type are minimal. Two plots were from the Clackamas River (Clackamas County), one from the Middle Fork Willamette River (Lane County), and one from the Willamette River (Marion County). The plots ranged from 2 to 8 feet above summer flow, and from 0 to 30

feet from the channel. Remarks on one plot sheet record that clay covered 90% of the plot.

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	28%
Wetland indicators among dominant species	28% (range 20-40%)

Non-natives: No exotic species were recorded in the sample.



Common snowberry and starry false Solomon's seal beneath an Oregon ash canopy on the floodplain of the Willamette River.



Starry false Solomon's seal, fringe cup, and false Solomon's seal bloom under big leaf maple and Oregon ash. Rich forbs can occur in gentle concave slopes. This site was the first major slope break off the high valley terrace above the Willamette River.

Fraxinus latifolia/Symphoricarpos albus/Camassia quamash
Oregon ash/common snowberry/common camas
FRLA/SYAL/CAQU2

N=3 (Willamette Valley 3)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees			
<i>Fraxinus latifolia</i>	Oregon ash	100	52
<i>Quercus garryana</i>	Oregon white oak	67	80
Shrubs			
<i>Symphoricarpos albus</i>	Common snowberry	100	59
<i>Spiraea douglasii</i>	Douglas spiraea	67	1
<i>Rosa eglanteria</i>	Sweetbriar rose	67	1
Herbs			
<i>Camassia quamash</i>	Common camas	100	32
<i>Ranunculus uncinatus</i>	Little buttercup	67	3
<i>Rumex crispus</i>	Curled dock	67	Tr
<i>Galium aparine</i>	Cleaver	67	Tr

Common camas is an ephemeral species, and similar habitats sampled late in the summer might not show the presence of this species. Such a small sample size does not present strong evidence on typical composition or abundance.

Elevations: less than 600 feet.

Community: Oregon ash/common snowberry/common camas was sampled only at Finley Wildlife Refuge (Muddy Creek) in Benton County. It is a forested floodplain community of the Willamette Valley. The overstory is Oregon ash, usually with Oregon white oak. The shrub layer is dominated by common snowberry, with Douglas spirea (hardhack) and the exotic sweetbriar rose as commonly associated species. Common camas is the herb layer dominant. Little buttercup, the exotic curled dock, and cleavers are often present but at low cover.

Geomorphic environment: Environmental data for this type are minimal. Sites were classed as floodplain forests. All three plots are from Benton County (Muddy Creek). Water table depth was at the surface. The plots ranged from 5 to 8 feet above summer flow (average 6 feet), and from 15 to 50 feet from the main channel (average 30 feet).

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	0%
Wetland indicators among dominant species	47% (range 40-50%)

Non-natives: Exotics in the sample include sweetbriar rose and curled dock, occurring on 2 of the 3 plots.

**Western redcedar/Starry false Solomon's-seal
THPL/MAST4**

N=5 (WNF 4, Willamette Valley 1)

SPECIES	COMMON NAME	CONSTANCY %	TYPICAL COVER %
Trees-overstory			
<i>Thuja plicata</i>	Western redcedar	100	68
<i>Acer macrophyllum</i>	Big leaf maple	60	41
<i>Taxus brevifolia</i>	Pacific yew	60	29
<i>Pseudotsuga menziesii</i>	Douglas fir	40	19
<i>Alnus</i>	Alder	40	8
Trees-seedlings			
<i>Thuja plicata</i>	Western redcedar	60	3
<i>Acer macrophyllum</i>	Big leaf maple	40	11
<i>Tsuga heterophylla</i>	Western hemlock	40	7
Shrubs			
<i>Oemleria cerasiformis</i>	Indian plum	80	1
<i>Rubus ursinus</i>	Trailing blackberry	80	1
<i>Acer circinatum</i>	Vine maple	60	38
<i>Oplopanax horridum</i>	Devil's club	40	2
Herbs			
<i>Maianthemum stellatum</i>	Starry false Solomon's-seal	100	30
<i>Polystichum munitum</i>	Sword fern	80	8
<i>Galium triflorum</i>	Sweetscented bedstraw	80	1
<i>Anemone deltoidea</i>	Three-leaved anemone	80	1
<i>Trillium ovatum</i>	Western trillium	80	Tr
<i>Athyrium filix-femina</i>	Lady fern	60	4
<i>Vancouveria hexandra</i>	Insideout flower	60	2
<i>Osmorhiza berteroi</i>	Sweet cecily	60	1
<i>Tiarella trifoliata</i>	Foamflower	60	1
<i>Petasites frigidus</i>	Coltsfoot	40	3
<i>Aruncus dioicus</i>	Goat'sbeard	40	2
<i>Prosartes hookeri</i>	Hooker's fairybells	40	1
<i>Adiantum pedatum</i>	Maidenhair fern	40	1
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf	40	1
<i>Bromus vulgaris</i>	Columbia brome	40	Tr

Elevations: less than 600 to 2390 feet.

Community: The Western redcedar/starry false Solomon's-seal community occurs under dense western redcedar canopy, often with big leaf maple and Pacific yew. Douglas-fir and alder may also be present. Vine maple is the most abundant shrub and is present in almost two-thirds of the plots. Indian plum and

trailing blackberry are typically present in trace amounts. The understory of this shady forested type is dominated by starry false Solomon’s seal, with sword fern the second important species.

Valley cross sections showing THPL/MAST4
E Fork S Fork McKenzie #2

Click on a creek name in the table below to see the valley cross sections that show where THPL/MAST4 occurs in relation to other plant associations.

Geomorphic environment: The Willamette Valley site was on the lower Clackamas River. Notes from the Willamette Valley study observed that this type was not found on the Valley floor, but only on the edges of the Valley. Willamette NF samples were from the South Fork McKenzie watershed. Little environmental data for this community are available. This community was found on unconstrained reaches of relatively large 4th to 6th order streams. Geomorphic surfaces are often low terraces or elevated islands. Soils data from one plot indicated a loamy top horizon which had increasing gravel content with depth. No surface coarse fragments were recorded from that site. Trees on that plot included 46 and 66 year old big leaf maples, 77 year old red alder, 132 year old Pacific yew, and 128 and 346 year old western redcedars.

Geomorphic surfaces, height and distance from normal high water line, and age of trees suggest that these communities are infrequently reset, though flooding may allow establishment of species like red alder without removing the existing overstory. Presence of wet-indicator species, such as Devil’s club, lady fern and coltsfoot as well as the western redcedar overstory mark this community as riparian.

Wetland rating:

Community meets wetland test	No
Plots meeting wetland criteria	0%
Wetland indicators among dominant species	29% (range 14-36%)

Non-natives: No exotic species were recorded in the sample.