

# SPECIES LIST - TREES AND SHRUBS

Scientific Name	Common Name	Code
<i>Aceraceae</i> <i>Acer circinalatum</i>	vine maple	ACCI
<i>Aceraceae</i> <i>Acer glabrum</i>	Douglas (Rocky Mountain) maple	ACGL
<i>Ericaceae</i> <i>Arctostaphylos columbiana</i>	hairy manzanita	ARCO3
<i>Ericaceae</i> <i>Arctostaphylos nevadensis</i>	pinemat manzanita	ARNE
<i>Ericaceae</i> <i>Arctostaphylos palula</i>	greenleaf manzanita	ARPA
<i>Ericaceae</i> <i>Arctostaphylos viscida</i>	whiteleaf manzanita	ARVI
<i>Berberidaceae</i> <i>Berberis nervosa</i>	dwarf Oregongrape	BENE
<i>Berberidaceae</i> <i>Berberis piperiana</i>	Piper's Oregongrape	BEPI
<i>Berberidaceae</i> <i>Berberis repens</i>	creeping Oregongrape	BERE
<i>Fagaceae</i> <i>Castanopsis chrysophylla</i>	golden chinquapin	CACH
<i>Rhamnaceae</i> <i>Ceanothus cuneatus</i>	buckbrush	CECU
<i>Rhamnaceae</i> <i>Ceanothus integerrimus</i>	deerbrush	CEIN
<i>Rhamnaceae</i> <i>Ceanothus prostratus</i>	squaw carpet	CEPR
<i>Rhamnaceae</i> <i>Ceanothus pumilus</i>	dwarf ceanothus	CEPU
<i>Rhamnaceae</i> <i>Ceanothus thyrsiflorus</i>	blue blossom ceanothus	CETH
<i>Rhamnaceae</i> <i>Ceanothus velutinus</i>	snowbrush	CEVE
<i>Ericaceae</i> <i>Chimaphila menziesii</i>	little prince's-pine	CHME
<i>Ericaceae</i> <i>Chimaphila umbellata</i>	common prince's-pine	CHUM
<i>Betulaceae</i> <i>Corylus cornuta californica</i>	California hazel	COCOC
<i>Garryaceae</i> <i>Garrya buxifolia</i>	box-leaved silk-tassel	GABU
<i>Ericaceae</i> <i>Gaultheria ovalifolia</i>	slender salal	GAOV
<i>Ericaceae</i> <i>Gaultheria shallon</i>	salal	GASH
<i>Rosaceae</i> <i>Holodiscus discolor</i>	creambush ocean-spray	HODI
<i>Caprifoliaceae</i> <i>Lonicera hispidula</i>	hairy honeysuckle	LOHI
<i>Celastraceae</i> <i>Pachistima myrsiniles</i>	Oregon boxwood	PAMY
<i>Fagaceae</i> <i>Quercus sadleriana</i>	Sadler oak	QUSA
<i>Fagaceae</i> <i>Quercus vaccinifolia</i>	huckleberry oak	QUVA
<i>Rhamnaceae</i> <i>Rhamnus californica</i>	coffeeberry	RHCA
<i>Rhamnaceae</i> <i>Rhamnus purshiana</i>	cascara	RHPU
<i>Ericaceae</i> <i>Rhododendron macrophyllum</i>	Pacific rhododendron	RHMA
<i>Ericaceae</i> <i>Rhododendron occidentale</i>	western azalea	RHOC
<i>Anacardiaceae</i> <i>Rhus diversiloba</i>	poison oak	RHDI
<i>Rosaceae</i> <i>Rosa gymnocarpa</i>	baldhip rose	ROGY
<i>Rosaceae</i> <i>Rubus lasiococcus</i>	dwarf bramble	RULA
<i>Rosaceae</i> <i>Rubus nivalis</i>	snow bramble	RUNI

<i>Rosaceae</i> <i>Rubus ursinus</i>	Pacific blackberry	RUUR
<i>Caprifoliaceae</i> <i>Symphoricarpos mollis</i>	creeping snowberry	SYMO
<i>Ericaceae</i> <i>Vaccinium membranaceum</i>	thin-leaved huckleberry	VAME
<i>Ericaceae</i> <i>Vaccinium ovalum</i>	evergreen huckleberry	VAOV2
<i>Ericaceae</i> <i>Vaccinium parvifolium</i>	red huckleberry	VAPA
<i>Ericaceae</i> <i>Vaccinium scoparium</i>	grouseberry	VASC
<i>Hydrangeaceae</i> <i>Whipplea modesta</i>	whipplevine	WHMO

PERSISTENT	Leaves which may be deciduous, but stay on the plant for a long time.
PETIOLE	The stem of a leaf.
PINNAE	Plural of pinna, which is a primary division of a pinnately compound leaf.
PINNATE	In a compound leaf, having leaflets arranged in a feather-like manner, on two sides of a common petiole. Ferns and oregongrape have this type of arrangement.
PUBESCENT	Hairy or fuzzy.
RETROSE	Pointed downward, toward the point of origin; seemingly backwards.
REVOLUTE	Rolled under toward the underside like some leaf margins.
RHIZOME	A horizontal underground stem which looks like a root, and sprouts roots and shoots along its length.
SEPAL	The part of a flower surrounding the petal.
SERRATE	Toothed; like a saw blade; as in a leaf margin.
SESSILE	Attached directly to another part; often used when describing leaves when they are connected to a stem without a petiole.
SHEATH	In grasses, the part of the leaf which wraps around the stem.
SORI	Clusters of sporangium which contain spores; ferns have them. Plural of SORUS.
SPIKE	A group of flowers attached to a stem without petioles, thus appearing closely clustered. This term is sometimes used in grasses.
SPIKELET	The ultimate flower-cluster in grasses, having two glumes and one or more florets.
STERILE	Not fertile, as are some flowers, fruits and stamens.
STOLON	An above ground stem which grows laterally, and sprouts roots and shoots at the nodes. Sometimes called runners.
TEPAL	When a flower has sepals which look exactly like its petals, all of them are called tepals. This is common in the lily family.

TOMENTOSE	Having long, tangled, wooly hairs.
TRAILING	Prostrate, not rooting.
TUFTED	Growing in clumps or tufts, not continuously covering the ground; like some grasses.
VISCID	Sticky, gummy.
WHORL	A node on a plant with three or more similar structures, such as leaves, radiating outwardly from it, as in horsetails, <i>Galium</i> spp., and some lilies.
XEROPHYTE	A plant which has adapted to dry conditions.

# SPECIES LIST - HERBS

Scientific Name	Common Name	Code
<i>Compositae</i> <i>Achillea millefolium</i>	common yarrow	ACMI
<i>Berberidaceae</i> <i>Achlys triphylla</i>	vanilla leaf	ACTR
<i>Ranunculaceae</i> <i>Actaea rubra</i>	baneberry	ACRU
<i>Compositae</i> <i>Adenocaulon bicolor</i>	trail-plant, pathfinder	ADBI
<i>Ranunculaceae</i> <i>Anemone deltoidea</i>	threeleaf anemone	ANDE
<i>Apocynaceae</i> <i>Apocynum androsaemifolium</i>	spreading dogbane	APAN
<i>Compositae</i> <i>Arnica cordifolia</i>	heart-leaf arnica	ARCO
<i>Compositae</i> <i>Arnica latifolia</i>	mountain arnica	ARLA
<i>Polypodiaceae</i> <i>Aspidotis densa</i>	rock fern	ASDE
<i>Liliaceae</i> <i>Clintonia uniflora</i>	queen's cup	CLUN
<i>Boraginaceae</i> <i>Cynoglossum grande</i>	Pacific hound's-tongue	CYGR
<i>Liliaceae</i> <i>Disporum hookeri oreganum</i>	Oregon fairybell	DIHO
<i>Equisetaceae</i> <i>Equisetum arvense</i>	common horsetail	EQAR
<i>Polygonaceae</i> <i>Eriogonum umbellatum</i>	sulphur flower	ERUM
<i>Rosaceae</i> <i>Fragaria vesca bracteata</i>	woods strawberry	FRVE
<i>Rubiaceae</i> <i>Galium ambiguum</i>	obscure bedstraw	GAAM
<i>Rubiaceae</i> <i>Galium aparine</i>	catchweed bedstraw	GAAP
<i>Rubiaceae</i> <i>Galium oreganum</i>	Oregon bedstraw	GAOR
<i>Orchidaceae</i> <i>Goodyera oblongifolia</i>	rattlesnake plantain	GOOB
<i>Compositae</i> <i>Hieracium albiflorum</i>	white-flowered hawkweed	HAL
<i>Caprifoliaceae</i> <i>Linnaea borealis longiflora</i>	western twinflower	LIBOL
<i>Compositae</i> <i>Madia madioides</i>	woodland tarweed	MAMA
<i>Saxifragaceae</i> <i>Mitella trilida</i>	three-tooth mitrewort	MITR2
<i>Labiatae</i> <i>Monardella odoratissima</i>	mountain balm	MOOD
<i>Umbelliferae</i> <i>Osmorhiza purpurea</i>	purple sweet root	OSPU
<i>Oxalidaceae</i> <i>Oxalis oregana</i>	Oregon oxalis	OXOR
<i>Polemoniaceae</i> <i>Polemonium pulcherrimum</i>	skunk-leaved polemonium	POPU
<i>Polypodiaceae</i> <i>Polystichum munitum</i>	western sword-fern	POMU
<i>Polypodiaceae</i> <i>Pteridium aquilinum</i>	bracken fern	PTAQ
<i>Ericaceae</i> <i>Pyrola asarifolia</i>	alpine pyrola	PYAS
<i>Ericaceae</i> <i>Pyrola dentata</i>	toothleaf pyrola	PYDE
<i>Ericaceae</i> <i>Pyrola picta</i>	whitevein pyrola	PYPI
<i>Ericaceae</i> <i>Pyrola secunda</i>	one-sided pyrola	PYSE
<i>Liliaceae</i> <i>Smilacina racemosa</i>	western false Solomon's-seal	SMRA
<i>Liliaceae</i> <i>Smilacina stellata</i>	starry false Solomon's-seal	SMST

<i>Saxifragaceae</i> <i>Tiarella trifoliata</i>	coolwort foamflower	TITRU
<i>Primulaceae</i> <i>Trientalis latifolia</i>	western starflower	TRLA2
<i>Liliaceae</i> <i>Trillium ovatum</i>	white trillium	TROV
<i>Valerianaceae</i> <i>Valeriana sitchensis</i>	Sitka valerian	VASI
<i>Berberidaceae</i> <i>Vancouveria hexandra</i>	white inside-out-flower	VAHE
<i>Violaceae</i> <i>Viola glabella</i>	stream violet	VIGL
<i>Violaceae</i> <i>Viola orbiculata</i>	round-leaved violet	VIOR2
<i>Liliaceae</i> <i>Xerophyllum tenax</i>	common beargrass	XETE

## SPECIES LIST – GRASSES AND SEDGE

Scientific Name	Common Name	Code
<i>Carex pensylvanica</i>	long-stolon sedge	CAPE5
<i>Cynosurus echinatus</i>	hedgehog dogtail	CYEC
<i>Festuca idahoensis</i>	Idaho fescue	FEID
<i>Melica subulata</i>	Melic's oniongrass	MESU

## SPECIES DESCRIPTIONS

**Range:** Geographical areas in which the described plant is found.

**Habitat:** Includes the types of areas where plant grows, such as wet areas, disturbed sites, under forest canopy, etc.

**Indicator value:** Tells what the presence of the plant indicates on a site. Most often, this is not obvious, such as high water table, shallow soils, ultrabasic parent materials.

**Similar species:** Other plants which can easily be mistaken for the described species of plant.

**Fire sensitivity:** If known, tells how resistant the plant is and how it regenerates after fire disturbance.

**Cultural significance:** Most often tells traditional Indian uses; sometimes other historical uses are included.

**Remarks:** Other miscellaneous information is included, such as palatability to stock and wildlife. Often there is information about landscaping, toxicity, and other "fabulous facts."

**Photograph of plant**

**Description:** Tells if plant is evergreen or deciduous, growth habit, whether it is shrubby, tree-like, low-growing; size of plant.

**Leaves:** Describes leaves, shape, orientation, compound/simple, opposite/alternate, number of spines if present.

**Flowers:** Arrangement, shape, size of flowers, as well as size of clusters.

**Fruit:** Size, shape, color and type of fruits.

**Drawing of plant**

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## Alaska Oniongrass

### *Melica subulata*

Grass Family (Gramineae)

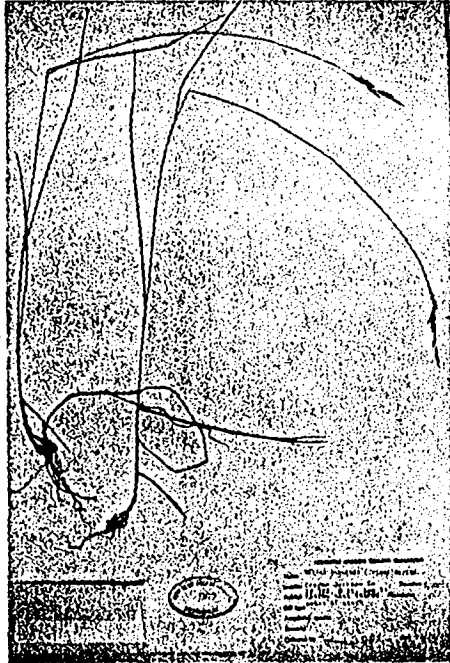
MESU

**Range:** Southern Alaska to California; east to Idaho, Montana and Wyoming.

**Habitat:** From sea level to mid-elevations; open areas to timbered slopes, dry or moist.

**Indicator Value:** Unknown.

**Fire sensitivity:** Unknown.



## Alaska Oniongrass

### *Melica subulata*

MESU

**Description:** Perennial grass 2-4.1 in. (0.6-1.25 m) tall, with a mostly bulbous base, attached to stout rhizomes.

**Leaves:** Thin, 0.1-0.2 in. (2-5 mm) wide, sometimes wider; sheaths closed to the top.

**Flowers:** Narrow panicle, with ascending, sometimes appressed branches, 4-8 in. (10-20 cm) long. Narrow spikelets, 0.5-1.75 in. (1.5-2 cm) long. May-July.



## Idaho Fescue

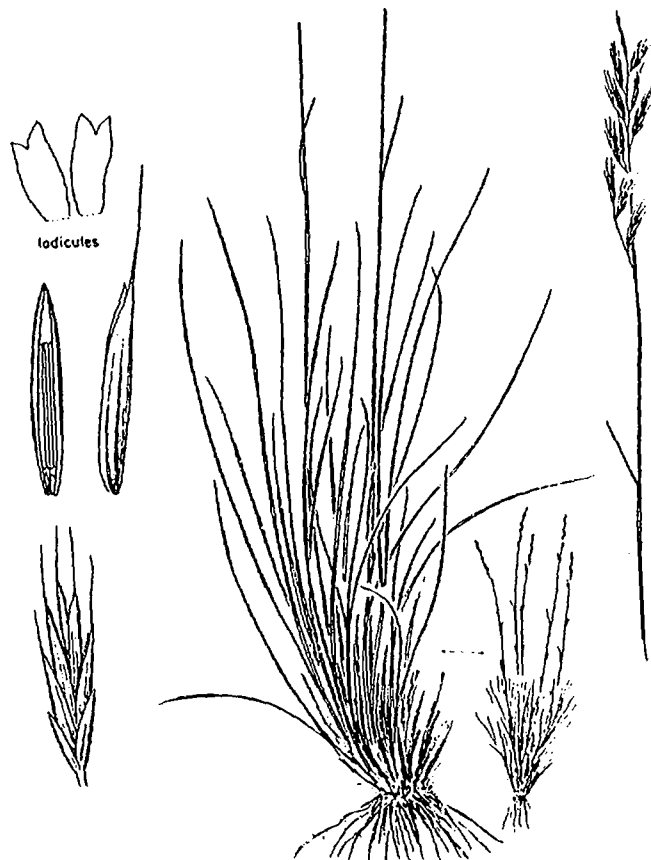
### *Festuca idahoensis*

FEID

**Description:** Perennial grass, growing in dense tufts up to 3.3 ft. (1 m) tall with mostly smooth, erect stems; sheaths mostly without hairs; auricles lacking; ligules less than 0.2 in. (0.6 mm) long, higher on the sides.

**Leaves:** Narrow, with abundant basal leaves; slightly rough and rolled in.

**Flowers:** Narrow panicle with branches ascending to erect, 2.8-5.9 in. (7-15 cm) long, awns about 0.1 in. (3 mm) long and rather stout. Flowering is variable between seasons. May not flower in shady areas. May-July.



## Idaho Fescue

FEID

### *Festuca idahoensis*

Grass Family (Gramineae)

**Range:** British Columbia to Alberta, southward in Cascades to California.

**Habitat:** Variable.

**Similar species:** *F. rubra* and *F. ovina* both look very similar.

**Indicator Value:** Unknown.

**Fire sensitivity:** Regenerates by seed germination and by resprouting from the roots.

**Remarks:** Palatability is fair to good for wildlife, sometimes fair for livestock; burning seems to enhance palatability.

## Hedgehog Dogtail

*Cynosurus echinatus*  
Grass Family (Gramineae)

CYEC

Range: From southwest British Columbia to central California.

Habitat: Often in disturbed areas, open ground, roadsides.

Indicator Value: Dry sites with shallow soils.

Similar species: None.

Fire sensitivity: Unknown.

Remarks: This grass was introduced from Europe. It often remains erect and visible throughout the winter, when all other grasses are decumbent.



## Hedgehog Dogtail

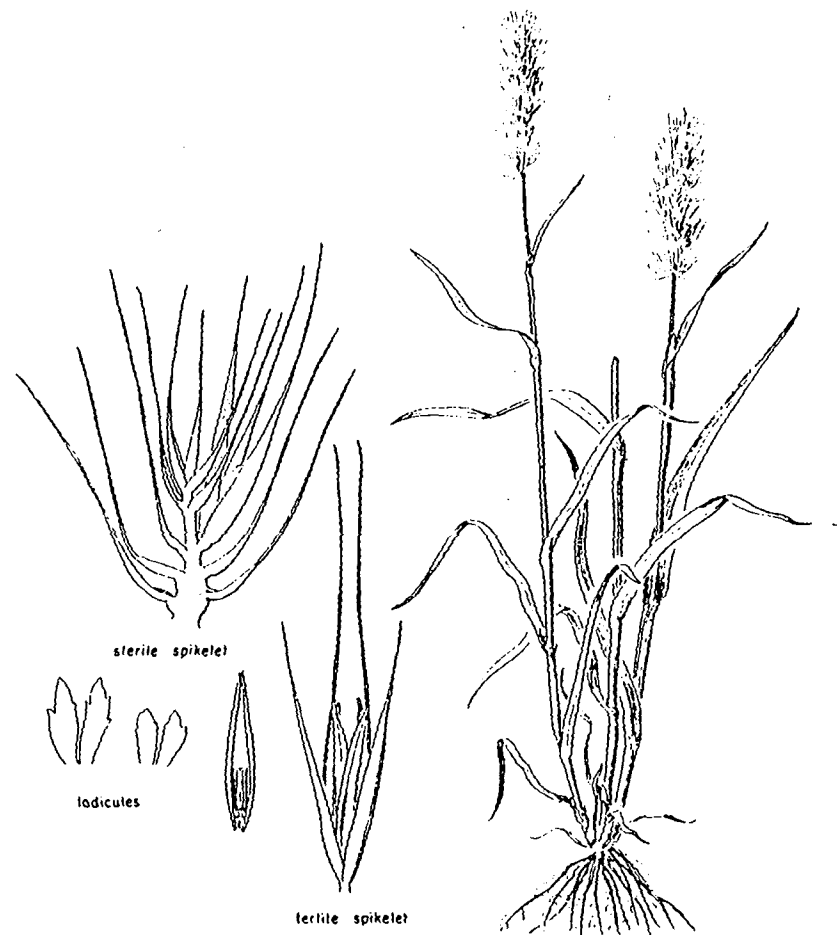
*Cynosurus echinatus*

CYEC

Description: Annual grass, 8-20 in. (20-50 cm) tall, flower-cluster over 0.4 in. (1 cm) wide; 0.4-1.5 in. (1-4 cm) long; dense and one-sided.

Leaves: Blades short, narrow and flat; ligules 0.1 in. (2-5 mm), irregularly toothed.

Flowers: Panicle 0.3-1.5 in. (1-4 cm) long, bristly; awn 0.4-0.3 in. (5-10 mm) long. May-July.





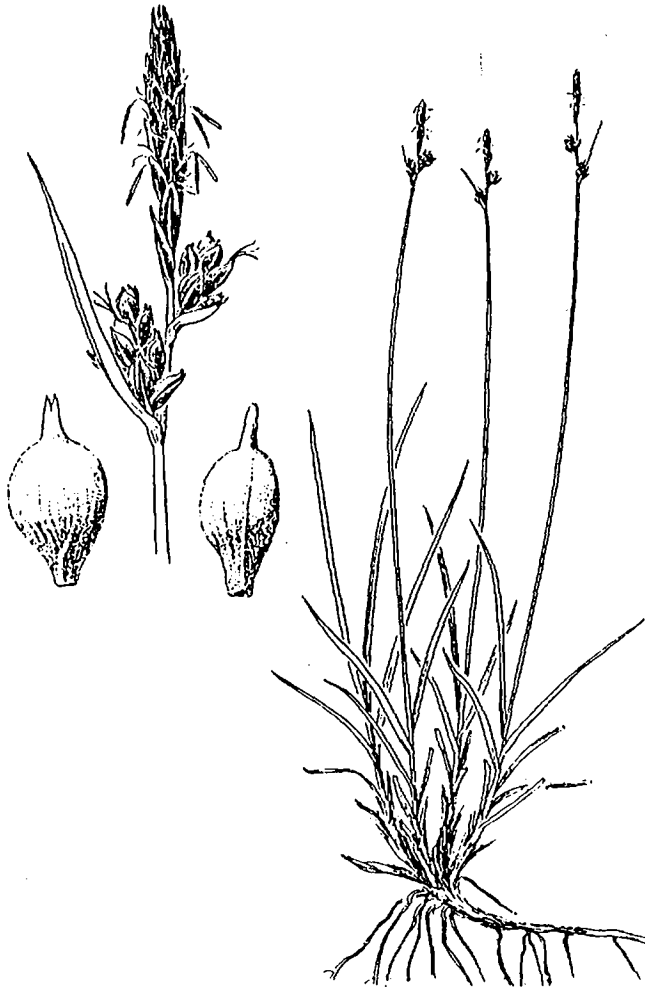
## Long Stolon Sedge

*Carex pensylvanica*

CAPE5

**Description:** Tufted perennial up to 1.6 ft. (50 cm) tall arising from sturdy, reddish-brown basal clusters and creeping rootstocks. Often appears to be growing in a line when viewed from above.

**Leaves:** Flat, somewhat soft, often lax.



## Long Stolon Sedge

*Carex pensylvanica*

CAPE5

Sedge Family (Cyperaceae)

**Range:** Common west of Cascades and in eastern U.S.

**Habitat:** Dry, disturbed areas.

**Indicator Value:** Generally mid to high elevation forests dominated by ponderosa pine, Douglas-fir, mountain hemlock and lodgepole pine. Increases with disturbance; pocket gophers eat rhizomes. Prefers well-drained, warm environments.

**Similar species:** Many *Carex* species look similar. Long stolon sedge has a reddish base.

**Fire sensitivity:** Resistant to fire, regenerates rapidly.

**Remarks:** Often occurs in areas with regeneration problems. Early flowering.

# GRASSES AND SEDGE TABLE

	<i>Bromus</i>	<i>Festuca</i>	<i>Melica</i>	<i>Carex</i>	<i>Cynosurus</i>
SHEATH	closed	open	closed	closed/basal	open
BLADE	broad/narrow	broad	broad/narrow	thin	mostly flat
SEEDS	2+	2+	1+	several, often 3-angled	2
SPIKE/ PANICLE	branched panicle	branched panicle	branched panicle	spike	spike-like panicle
AWN	yes	yes/no	no	no	yes
LIGULE	thin, membranous	membranous, w/ long sides	jagged, toothed	none	membranous, prominent
CULMS	hollow	hollow	hollow	3-angled	hollow
SIZE	low/tall	low/tall	tall	low/tall	low
HABIT	usually bunchgrass	usually bunchgrass	bulbous/ rhizomatous	tufted	tufted
ANNUAL/ PERENNIAL	annual/ perennial	annual/ perennial	perennial	perennial	annual

## Beargrass

***Xerophyllum tenax***  
Lily Family (Liliaceae)

XETE

**Range:** Common in southern Cascades, British Columbia to California, east to the northern Rocky Mountains.

**Habitat:** Forest areas and clearings in a variety of habitats.

**Indicator Value:** Cold, dry to moist sites. Early to late successional.

**Similar species:** Not easily confused with anything when flowers are evident. When young, however, it can look like sedge (*Carex*).

**Fire sensitivity:** Responds quickly after fire by resprouting; moderate response from budding corms; resistant to light burns.

**Cultural significance:** Leaves were used by Indians to weave baskets and mats.

**Remarks:** Each individual plant dies after flowering. It does not flower every year.



## Beargrass

***Xerophyllum tenax***

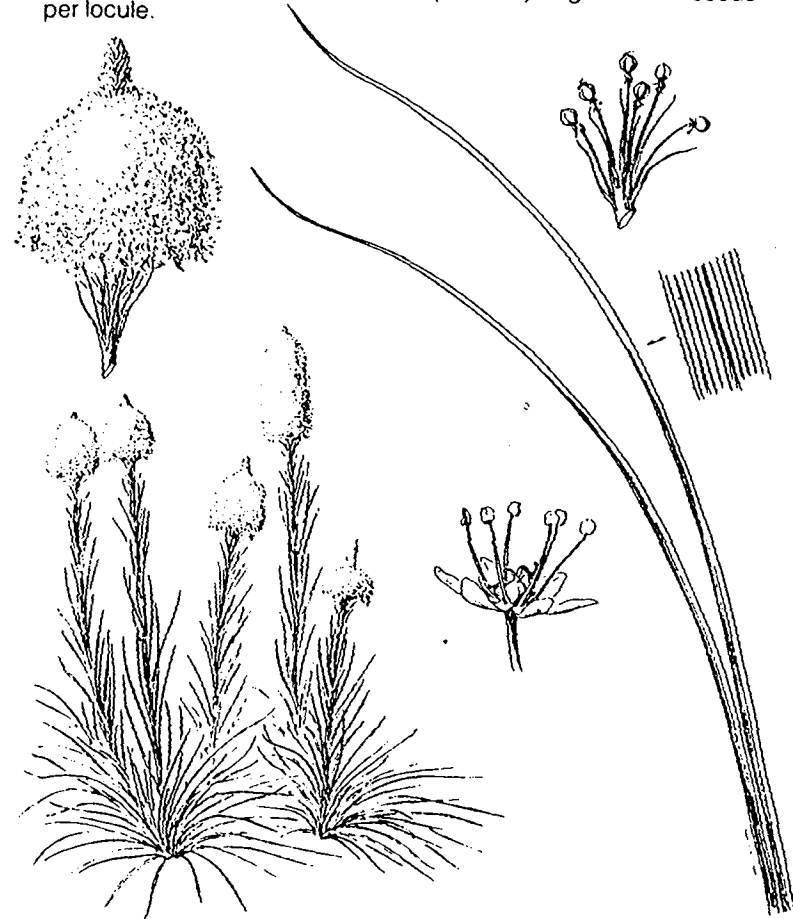
XETE

**Description:** Perennial herbs of dense clumps of tough, fibrous grasslike leaves growing from a thick rhizome.

**Leaves:** Basal leaves in thick clumps, 6-32 in. (15-80 cm) long, less than 0.25 in. (5-6 mm) wide.

**Flowers:** Borne on thick, leafy stems up to 5 ft. (1.5 m) tall, the raceme elongates as the creamy white flowers open up. Each flower has six tepals, 2-4 in. (5-10 mm) long on thin stems, 1-2 in. (2.5-5 cm) long. May-August.

**Fruit:** A 3-lobed capsule, 2.0-2.75 in. (5-7 mm) long with 2 to 6 seeds per locule.



## Round-Leaved Violet

*Viola orbiculata*

Violet Family (Violaceae)

VIOR2

**Range:** Widespread in our area as far east as Montana.

**Habitat:** Moist forest areas.

**Indicator Value:** Mesic sites, mid to late successional.

**Similar species:** This is the only violet with such a rounded leaf.

**Fire sensitivity:** Unknown.

**Cultural significance:** This plant has various medicinal uses.



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**Fire sensitivity:** Unknown.

**Cultural significance:** This plant has various medicinal uses.



## Stream Violet

### *Viola glabella*

Violet Family (Violaceae)

VIGL

**Range:** Northeast Asia to Alaska, both sides of the Cascades through Oregon, into California in the coast range; east to Montana.

**Habitat:** Moist sites in forests or forest margins. Wide elevation range.

**Indicator Value:** Early successional.

**Similar species:** Other *Viola* species can look similar, but this is the only one with a combination of heart-shaped leaves and yellow flowers with thin purple lines.

**Fire sensitivity:** Unknown.

**Cultural significance:** Flowers can be eaten raw; leaves, cooked and eaten.



## Stream Violet

### *Viola glabella*

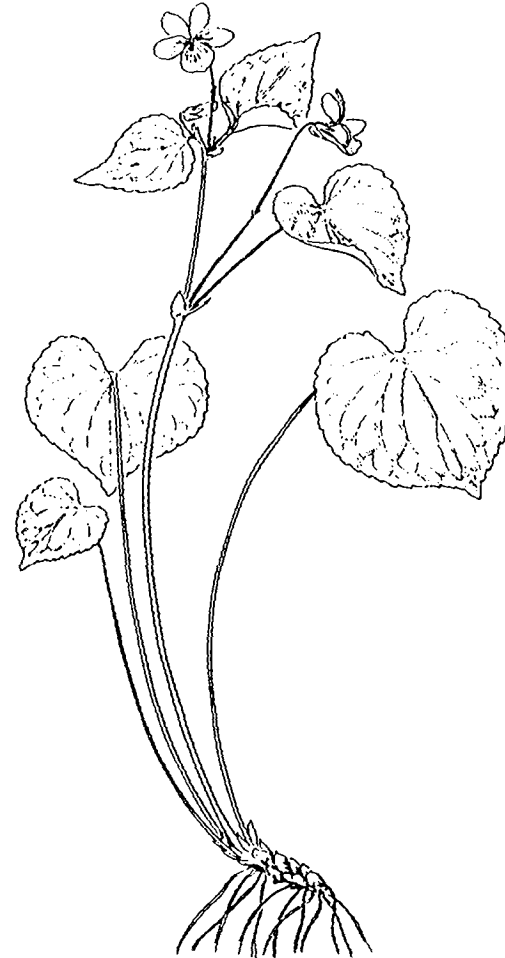
VIGL

**Description:** Perennial herb from spreading rootstocks up to 1 ft. (0.3 m) tall.

**Leaves:** Thin, serrated, heart-shaped, with an abrupt pointed tip 1-3 in. (2.5-7.5 cm) wide. Basal leaves have long petioles.

**Flowers:** Yellow, with purple lines in the throat of the lower three petals, borne mainly on the upper stem. March-July.

**Fruit:** Exploding capsule with brown seeds.



### White Inside-Out-Flower

#### *Vancouveria hexandra*

Barberry Family (Berberidaceae)

VAHE

**Range:** Western Cascades and coast ranges; Puget Sound to northern California.

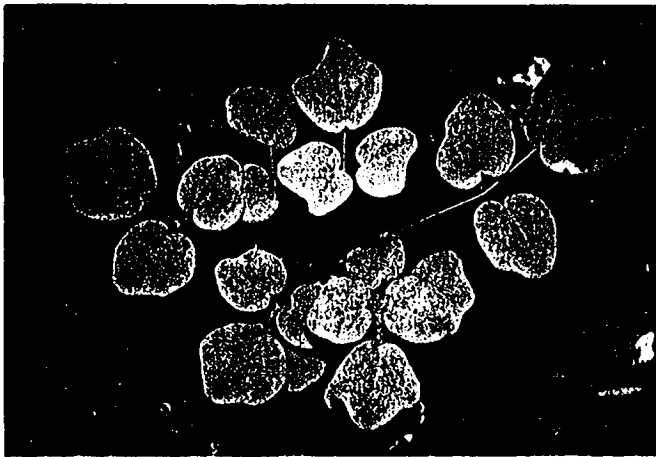
**Habitat:** Lower elevation forests.

**Indicator Value:** Warm, moist sites, lower elevations.

**Similar species:** Yellow inside-out-flower (*V. chrysantha*) has yellow flowers and persistent leaves. It seems to be limited to the Siskiyou Mountains in our area. The leaves of this plant have a distinctive translucent leaf margin. Small-flowered inside-out-flower (*V. planepetala*) has very small, white flowers and persistent leaves.

**Fire sensitivity:** Unknown.

**Remarks:** Attractive as a ground cover.



### White Inside-Out-Flower

#### *Vancouveria hexandra*

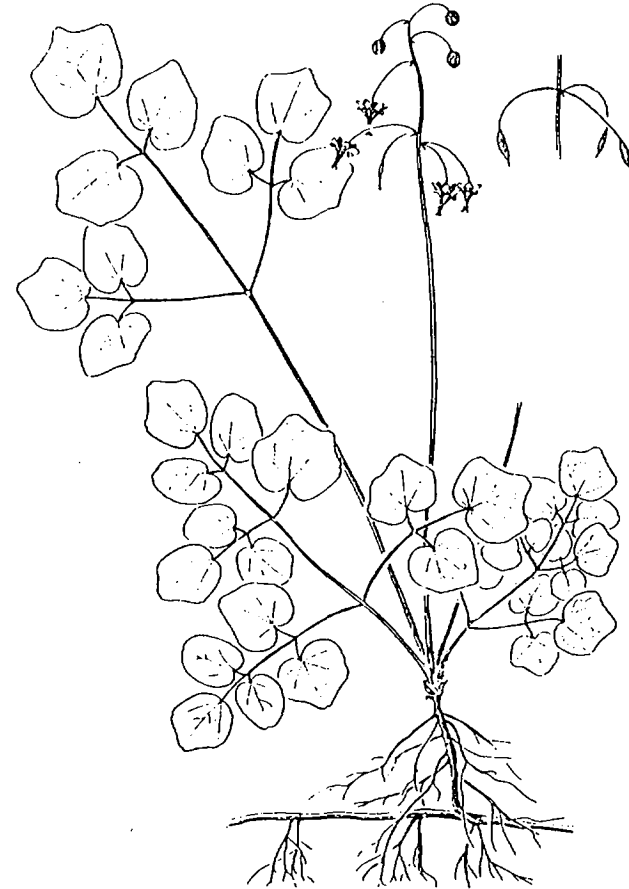
VAHE

**Description:** Perennial, less than 24 in. (0.6 m) tall, spreading by rhizomes.

**Leaves:** Compound leaves on stems arising from base of plant. Leaflets are rounded with three shallow lobes, resembling ducks' feet. Leaf stalks usually brown-hairy near the base.

**Flowers:** Flowers small and white with "petals" turned backward so that the flower appears inside-out; numerous drooping flowers in loose open cluster, often taller than the leaves. May-June.

**Fruit:** Small, dry fruits, which split down one side to disperse seeds.



## Sitka Valerian

### *Valeriana sitchensis*

Valerian Family (Valerianaceae)

VASI

**Range:** Common in the Cascades; Alaska to northern California, western Montana and central Idaho.

**Habitat:** Upper elevation forests.

**Indicator Value:** Cool to cold, moist to wet sites with heavy snowpack and possible moderate to severe regeneration difficulty due to temperature extremes. Mid to late successional.

**Similar species:** May look like other *Valerian* species, but it's the only one in our area that grows in the higher elevations.

**Fire sensitivity:** Unknown.

**Remarks:** One of only two native genera in the Northwest. The other is *Plectritis*.



## Sitka Valerian

### *Valeriana sitchensis*

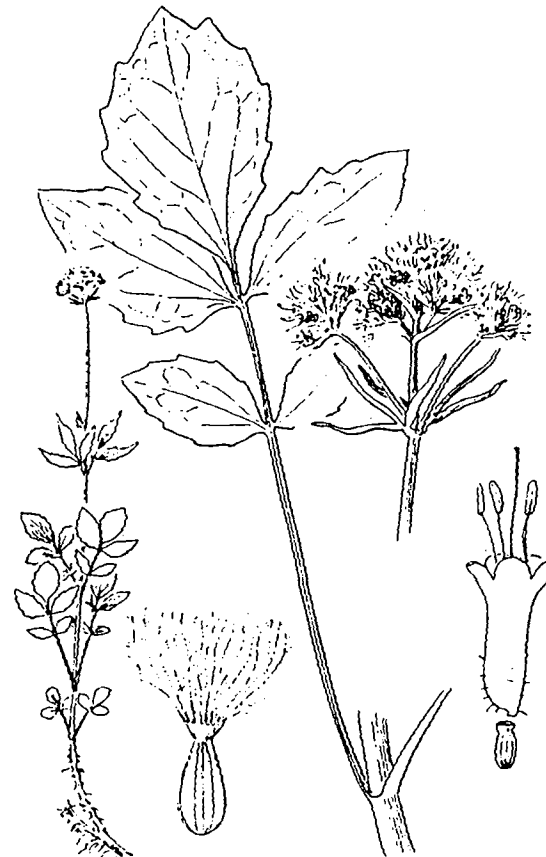
VASI

**Description:** Perennial with fibrous roots and stout rhizomes. Usually less than 4 ft. (1.2 m) tall. The plant, especially the root, has a distinctive odor.

**Leaves:** Opposite, compound, with 3 to 5 pinnate lobes; the terminal leaf is the largest. Margins have sparse, shallow teeth.

**Flowers:** Dense, rounded terminal cluster of small, white to pinkish flowers. Petals form a tube with five lobes and three exerted stamens. June - August.

**Fruit:** Small, hard, ribbed fruits with feathery plumes.



## White Trillium

### *Trillium ovatum*

Lily Family (Liliaceae)

TROV

**Range:** British Columbia to central California, coast to Cascade Mountains, east to Colorado.

**Habitat:** Conifer forests, lowland to mid elevation.

**Indicator Value:** Moist sites. Mid successional.

**Similar species:** Giant trillium (*T. chloropetalum*) has sessile flowers. Oregon trillium (*T. rivale*) has petioled leaves.

**Fire sensitivity:** Unknown.

**Cultural significance:** Has been used to stop bleeding after childbirth or hemorrhages.

**Remarks:** Trillium populations can easily be reduced to low levels if care is not taken in picking the flowers. The only leaves this plant produces are so near the flower that they are usually taken also, thus eliminating the ability of the plant to photosynthesize.



## White Trillium

### *Trillium ovatum*

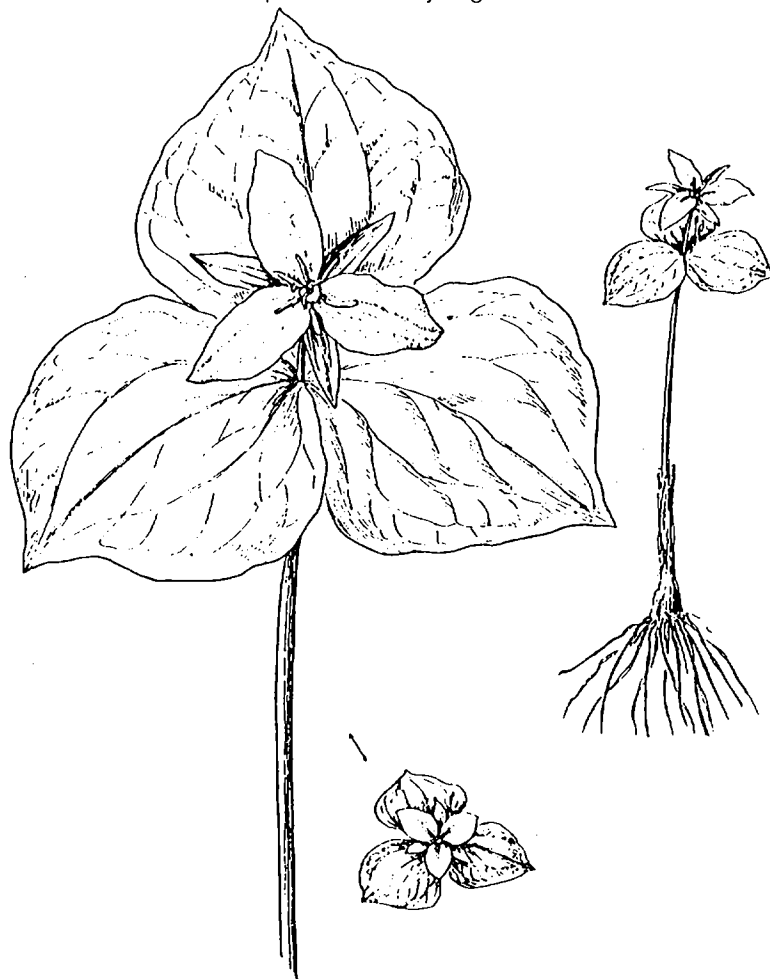
TROV

**Description:** Perennial lily, 4 - 12 in. (10 - 30 cm) tall, with a whorl of three large leaves near top of stem.

**Leaves:** Three in a whorl, 2 - 6 in. (5 - 15 cm) long, ovate with acute tip, and prominently veined.

**Flowers:** Solitary, white, aging to pink, with three petals and three sepals on a short stalk above the leaves. March - June.

**Fruit:** Three-lobed capsule with many large seeds.





## Western Starflower

### *Trientalis latifolia*

TRLA2

Primrose Family (Primulaceae)

**Range:** British Columbia to California, east to northern Idaho.

**Habitat:** Moderately dry to moist sites and disturbed sites.

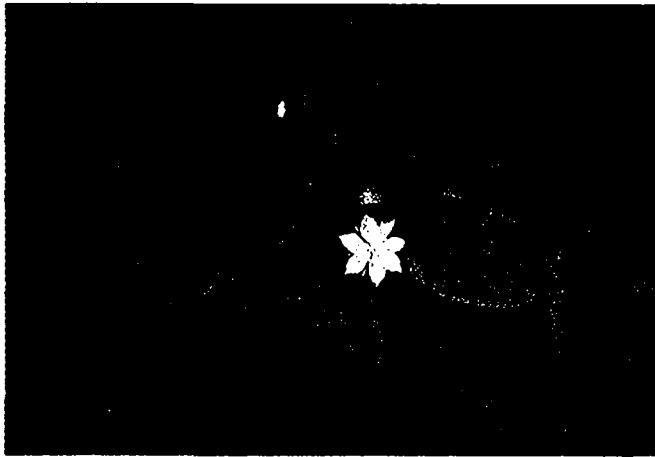
**Indicator Value:** Mid successional.

**Similar species:** None.

**Fire sensitivity:** Comes in well after fire.

**Cultural significance:** Tubers are edible. Another common name is Indian potato, suggesting an edible tuber. Juice, squeezed in water, was used as an eyewash by some Indians.

**Remarks:** Easily naturalized for wild flower gardens, especially in shady areas.



## Western Starflower

### *Trientalis latifolia*

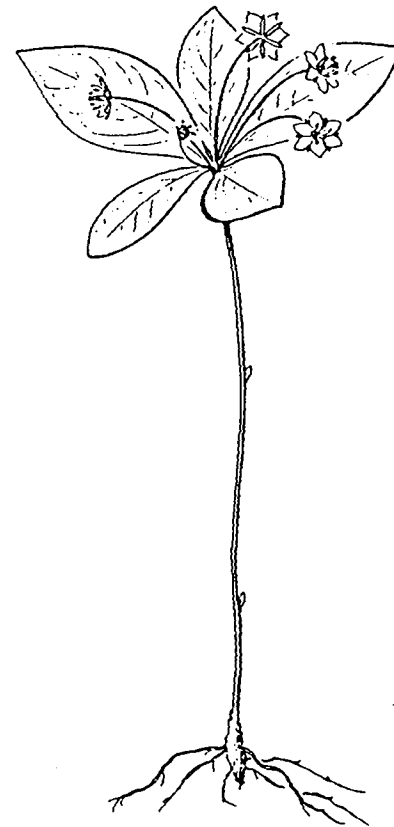
TRLA2

**Description:** Perennial, rhizomatous herb to 6.5 in. (17 cm) tall, with leaves in a single whorl. Arises from an erect tuber up to 1 in. (2.5 cm) long.

**Leaves:** 4 to 8 leaves, 1-4 in. (2.5-10 cm) long, entire, occurring in a single, terminal whorl.

**Flowers:** White to pink, up to 2 in. (5 cm) in diameter, with 6 to 7 petals borne on slender pedicels. April-July.

**Fruit:** Valved capsules with numerous seeds.



## Coolwort Foamflower

*Tiarella trifoliata unifoliata*  
Saxifrage Family (Saxifragaceae)

TITRU

**Range:** Widespread from Alaska to California and east to western Montana.

**Habitat:** Cool, moist areas on the forest floor.

**Indicator Value:** Cool, moist, deep, fertile soils. Late successional.

**Similar species:** The capsules of coolwort foamflower (*Tiarella* species) are distinctly and distinctively unequal. When the plant is not in bloom, the leaves can be easily confused with mitrewort (*Mitella* species) but leaves are more cordate, lobed rather than toothed, and the flowering stalk is a narrow spike rather than an open panicle.

*Tiarella trifoliata* var. *trifoliata* is very much the same plant except that each leaf is divided into 3 leaflets. Also confused with alum-root (*Heuchera* species). Leaves are glabrous and rounder; stamens 5.

**Fire sensitivity:** Unknown.

**Cultural significance:** Leaves were chewed as cough medicine by some Indian people.



## Coolwort Foamflower

*Tiarella trifoliata unifoliata*

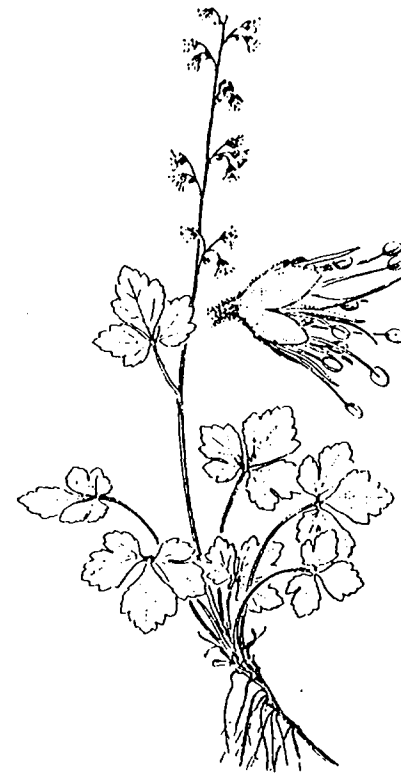
TITRU

**Description:** Perennial, low-growing herb spreading by slender rhizomes. Stem and leaves are somewhat hairy. Flowering stems are 8-10 in. (20-51 cm) tall.

**Leaves:** Alternate, mostly basal, maple-like with 3 to 5 lobes, 0.5-2.75 in. (1.5-7 cm) long and up to 3.5 in. (9 cm) wide. The basal leaves are usually glandular-hairy, as are the flowering stems.

**Flowers:** Tiny but conspicuous, white, nodding flowers, with 10 stamens which hang below the petals upon a narrow panicle. May - August.

**Fruit:** Unequally 2-valved capsules that extend beyond the calyxes, containing a few shiny black seeds. The capsule resembles a sugar scoop, which is one of this plant's common names.



## Starry False Solomon's Seal

***Smilacina stellata***  
Lily Family (Liliaceae)

SMST

**Range:** Widely distributed in North America; Alaska to California, east to Atlantic coast.

**Habitat:** Cool, shaded forest floor.

**Indicator Value:** Generally cool sites, Mid to late successional.

**Similar species:** Resembles western false Solomon's seal (*Smilacina racemosa*), but is noticeably smaller with fewer, starry-looking flowers on the terminal raceme. Also Hooker's fairybells (*Disporum hookeri*) or Smith's fairybells (*D. smithii*), but it is not branched like these.

**Fire sensitivity:** Moderate to susceptible, resprouts from rhizomes.

**Cultural significance:** Rhizomes were cooked and eaten by Indian people. Tea from roots helped colds and increased appetites. Boiled leaf tea was used to prevent conception by drinking ½ cup daily for 2 weeks. Raw berries have a laxative effect.



## Starry False Solomon's Seal

***Smilacina stellata***

SMST

**Description:** Perennial, low-growing, rarely over 2 ft. (0.6 m) tall. Unbranched stems can form dense patches from thick rhizomes.

**Leaves:** Alternate, narrow, elliptic leaves with prominent parallel veins, which clasp directly upon the stem.

**Flowers:** White, star-like, on a terminal raceme with a zig-zag stem. May-June.

**Fruit:** Small greenish berries with purplish stripes, becoming reddish-brown to blackish at maturity.



## Western False Solomon's Seal

*Smilacina racemosa*  
Lily Family (Liliaceae)

SMRA

**Range:** Widespread in North America with a sporadic distribution.

**Habitat:** Shady woods.

**Indicator Value:** Moist to somewhat dry forest, lowland to mid elevation. One variety grows on dry sites.

**Similar species:** Western false Solomon's seal is unmistakable when in flower. When not flowering, it can resemble Hooker's fairybells (*Disporum hookeri*) which has similar looking leaves, but a branched habit with browner, shorter stems. Also starry Solomon's seal (*Smilacina stellata*) which is smaller with fewer flowers and is less clustered on the end.

**Fire sensitivity:** Has moderate to susceptible resistance and resprouts from rhizomes.

**Cultural significance:** Indians cooked roots in pits. Berries were eaten in small amounts to prevent scurvy and in larger amounts as a laxative. Dried, powdered roots stop bleeding.

**Remarks:** Nonpalatable to big game and livestock. Grouse eat berries.



## Western False Solomon's Seal

*Smilacina racemosa*

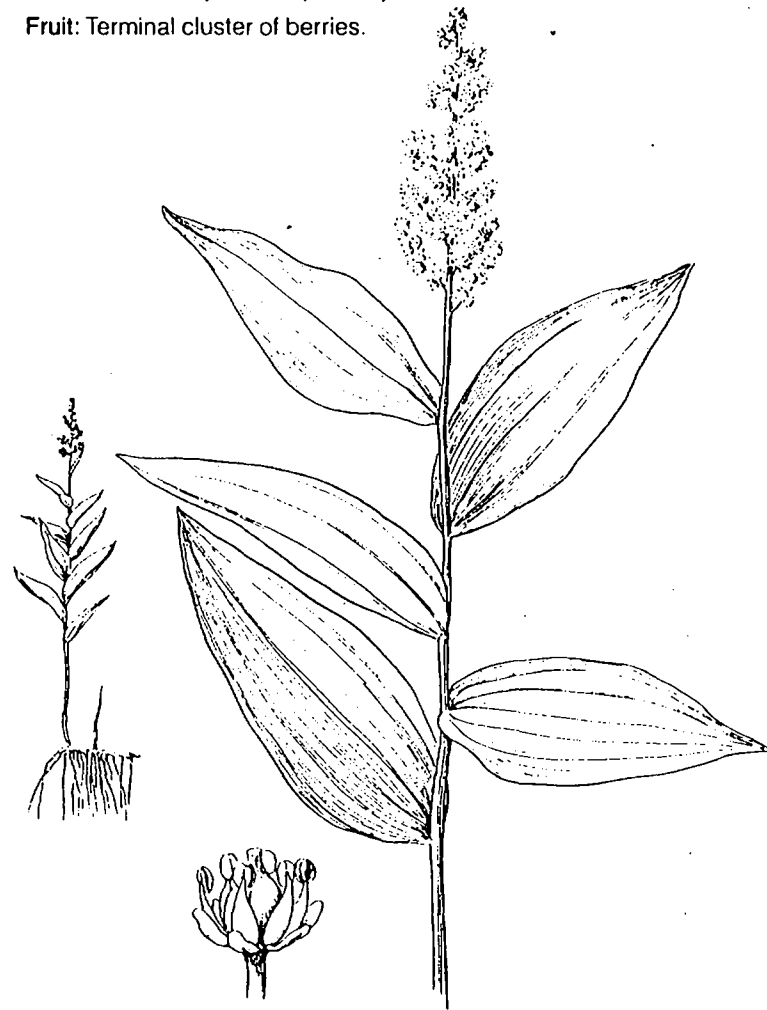
SMRA

**Description:** Perennial, rhizomatous, 12-38 in. (0.3-0.9 m) tall, with an unbranched stem.

**Leaves:** Alternate, ovate to elliptic, lacking a petiole, prominent parallel veins converge at acute leaf tip.

**Flowers:** Showy, terminal branching cluster of small, white to cream flowers, on a leafy stem. April-July.

**Fruit:** Terminal cluster of berries.



## One-sided Pyrola

### *Pyrola secunda*

Heath Family (Ericaceae)

PYSE

**Range:** Widespread through North America.

**Habitat:** Most common in mid to upper elevation, cool or moist forests, preferring a thick duff layer.

**Indicator Value:** Cool, moist conifer forests, lowland to montane; late successional.

**Similar species:** Resembles other *Pyrola* species, but the flowers all hanging to one side make it recognizable.

**Fire sensitivity:** Very susceptible to low intensity fires. Regenerates slowly from seed germination; has very shallow roots.

**Remarks:** Unpalatable. Mostly found without flowers.



## One-sided Pyrola

### *Pyrola secunda*

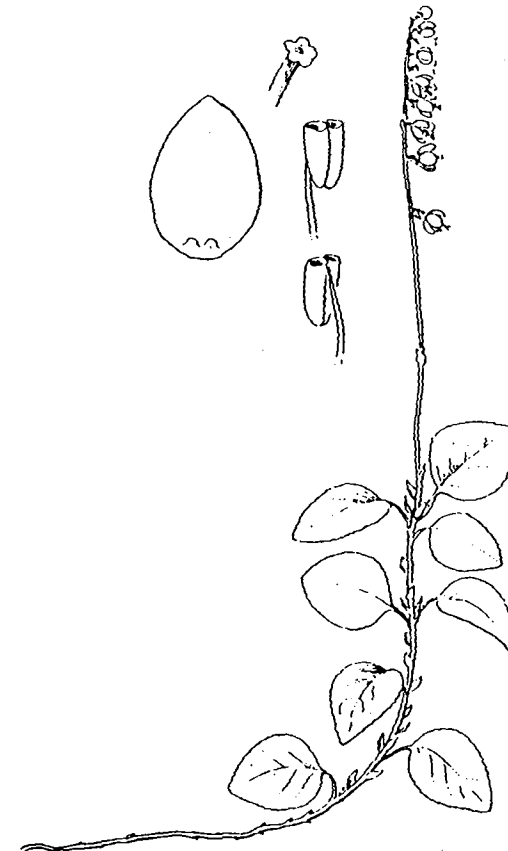
PYSE

**Description:** Perennial, small herb, usually less than 6 in. (15.5 cm) tall, arising from slender rhizomes rooted in duff.

**Leaves:** Alternate, ovate, shiny, fine-toothed margins, evergreen, placed on lower half of flowering stem.

**Flowers:** Small, pale green, borne on one side of single flowering stalk. June - August.

**Fruit:** Capsule.



## Whitevein Pyrola

### *Pyrola picta*

Heath Family (Ericaceae)

PYPI

**Range:** British Columbia to southern California, east to Rocky Mountains from Montana to Colorado.

**Habitat:** Dry, shady forests.

**Indicator Value:** Not much.

**Similar species:** At first glance, may resemble rattlesnake plantain (*Goodyera oblongifolia*), because of the similarity in size, habitat, and mottling of leaves. However, whitevein pyrola (*P. picta*) has more rounded leaves with a thin petiole. The flowers of pyrola are round; not orchid-shaped, as in rattlesnake plantain.

**Fire sensitivity:** Unknown.



## Whitevein Pyrola

### *Pyrola picta*

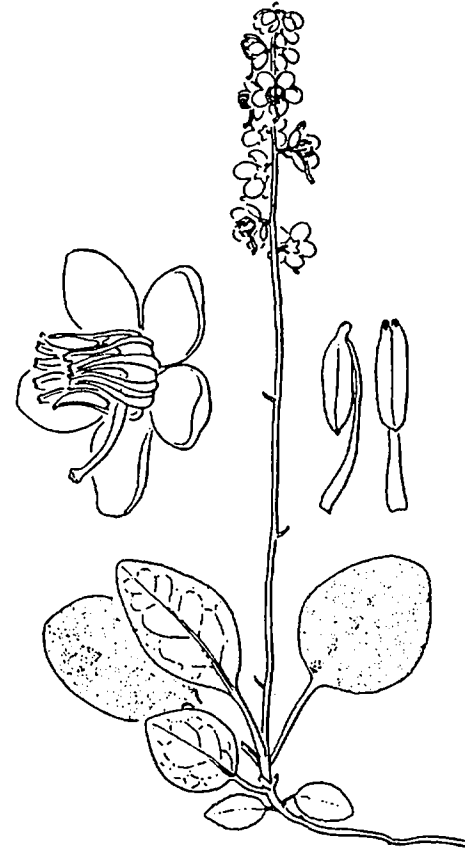
PYPI

**Description:** Perennial, low herb with basal leaves and single flowering stalk, 4-8 in. (10-20 cm) tall, stems reddish-brown.

**Leaves:** Basal, leathery, dark green with whitish mottling on the veins of the upper surface, purplish beneath; ovate to elliptic, 0.75-2.75 in. (2-7 cm) long; smooth to finely toothed margins.

**Flowers:** 10 to 25 orchid-shaped flowers on each stem, 0.3 in. (1 cm) wide with reddish sepals, yellowish or greenish-white to purplish petals, about 0.25 in. (6-8 mm) long.

**Fruit:** A 5-lobed capsule.



## Toothleaf Pyrola

### *Pyrola dentata*

Heath Family (Ericaceae)

PYDE

**Range:** British Columbia to California, east to Montana, Idaho and Wyoming.

**Habitat:** Coniferous forests.

**Indicator Value:** Dry sites with shallow soils.

**Similar species:** Resembles whitevein pyrola (*P. picta*), which has mottled leaves. Teeth are small, but evident in toothleaf pyrola.

**Fire sensitivity:** Unknown.

**Remarks:** These plants are at least partly saprophytic.



## Toothleaf Pyrola

### *Pyrola dentata*

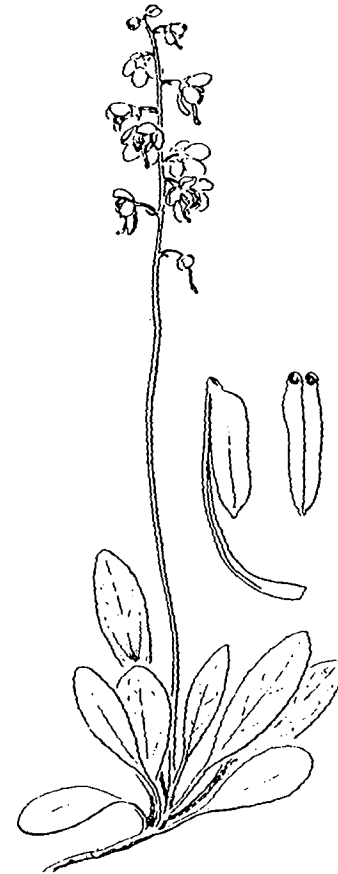
PYDE

**Description:** Perennial, low herb from slender rhizomes having a basal rosette of leaves and one to several flowering stalks; 4-10 in. (10-25 cm) tall.

**Leaves:** Basal, tapering to an acute base, oblanceolate to obovate, 0.75-2.3 in. (2-6 cm) long with petioles often as long, smooth, somewhat leathery, entire to unevenly serrate, light green to bluish-green.

**Flowers:** 10 to 20 on a stem, about 0.3 in. (1 cm) wide, cream to greenish-white with a long, curved style. June-August.

**Fruit:** Five-lobed capsules.



## Alpine Pyrola

### *Pyrola asarifolia*

Heath Family (Ericaceae)

PYAS

**Range:** Widespread in northern North America.

**Habitat:** Most common in cool to cold, moist, mid to upper elevation sites.

**Indicator Value:** Late successional.

**Similar species:** Resembles other *Pyrola* species, but generally has larger leaves.

**Fire sensitivity:** Unknown.

**Remarks:** Usually found without flowers in shaded stands, rooted in duff. Unpalatable.



## Alpine Pyrola

### *Pyrola asarifolia*

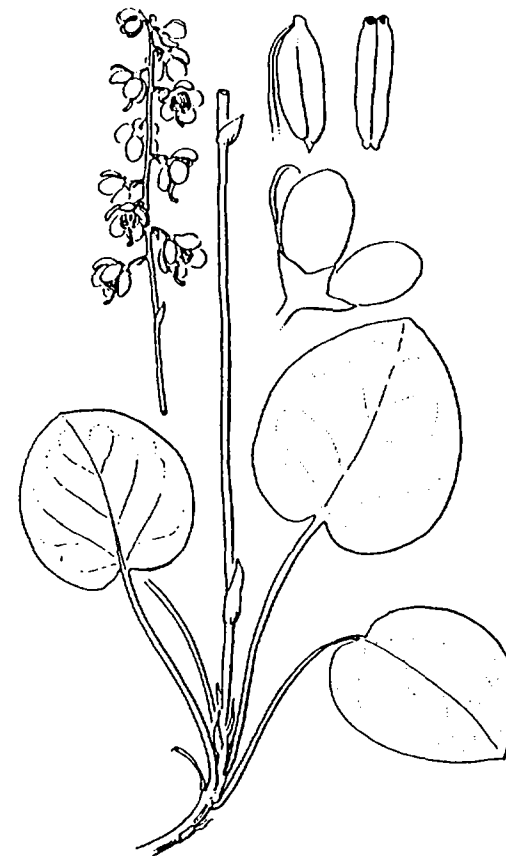
PYAS

**Description:** Perennial, rhizomatous subshrub with flowering stems 6.75-16 in. (17-40 cm) tall.

**Leaves:** Basal, circular to elliptic, leathery, shiny, dark green above and purplish beneath.

**Flowers:** 10 to 25, borne on an elongate, terminal raceme, pinkish to purple in color. The style is curved and bent to one side. June-September.

**Fruit:** Five-celled, dry capsules.





## PYROLA TABLE

	Alpine pyrola <i>P. asarifolia</i>	Leafless pyrola <i>P. aphylla</i>	One-sided pyrola <i>P. secunda</i>
LEAF COLOR	Green; not mottled.	None	Green; not mottled.
LEAF SHAPE	Rotund to elliptic; nearly as broad as long.	None	Elliptic to ovate.
FLOWER	Petals pinkish to rose-purple.	Pink, white, purple or greenish.	Petals white.
SIGNIFICANT CHARACTERISTICS	Leaves leathery; petioles about as long as blades.		Flowers turned to one side.

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	Toothleaf pyrola <i>P. dentata</i>	Whitevein pyrola <i>P. picta</i>
LEAF COLOR	Pale green to bluish-green.	Deep green, mottled with pale streaks.
LEAF SHAPE	Spatulate, not much greater than half as broad.	Ovate, rounded to acute at tip.
FLOWER	Petals white to greenish white.	Petals yellowish or greenish white to purple.
SIGNIFICANT CHARACTERISTICS	Leaves tapered at base; finely toothed.	

## Bracken Fern

*Pteridium aquilinum*

Common Fern Family (Polypodiaceae)

PTAQ

**Range:** From Alaska to Mexico, east to Montana and Colorado.

**Habitat:** Altitudes range from sea level in the Pacific Northwest to 10,000 feet in Colorado. Prefers rich, deep moist soil, but also occurs in fairly dry areas.

**Indicator Value:** Often invades after heavy disturbance.

**Similar species:** This fern is distinguished from others by the brown spores being borne under the unrolled margins of its leaves.

**Fire sensitivity:** Very rapid post-fire regeneration response due to rhizome expansion; very resistant to fires and seemingly not very affected.

**Cultural significance:** Settlers found it to be a pest on newly-cleared land. Sprouts are considered edible when cooked. Indians ate the rhizome and sprouts. California Indians used roots as a diuretic and worm medicine; however, it was used sparingly because of potential harmful effects.

**Remarks:** Poor forage. When eaten in quantity, it is poisonous to horses. It can have a cumulative effect in horses and cattle.



## Bracken Fern

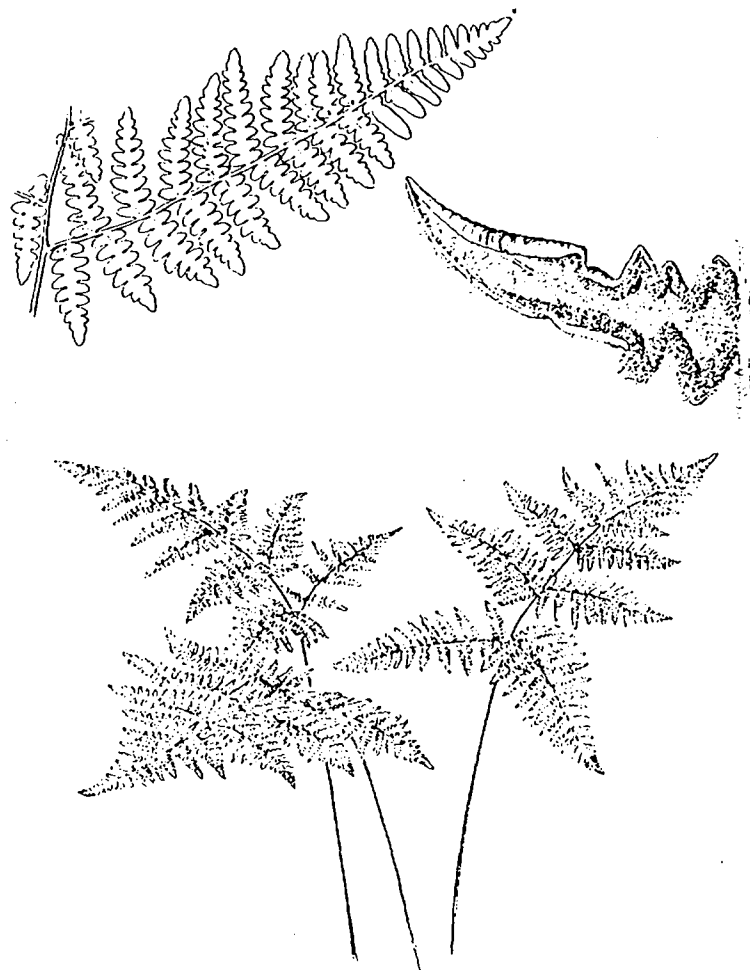
*Pteridium aquilinum*

PTAQ

**Description:** Perennial, erect, medium to large-sized mesophytic fern, 1.0-4.9 ft. (0.3-1.5 m) tall, growing from deep, long rhizomes.

**Leaves:** Deciduous, blade 0.9-3.9 ft. (0.3-1.0 m) long, on petioles 3.9-4.9 ft. (1.0-1.5 m) long. Upper surface is smooth to lightly hairy. Lower surface is quite hairy.

**Sori:** Masses of rust-brown spores are found beneath the rolled-under margins of some leaves.



## Western Sword-Fern

### *Polystichum munitum*

POMU

Common Fern Family (Polypodiaceae)

**Range:** From Alaska to California, east through northern Idaho and northwestern Montana.

**Habitat:** Found most often in moist forest sites.

**Indicator Value:** Generally productive sites; mid to late successional.

**Similar species:** Looks much like *Polystichum imbricans*, which has stiffer leaves; less pointed, overlapping pinnae; and smoother petioles. It is also more tapering at both ends of the fronds. *P. imbricans* grows in drier areas, sometimes in serpentine habitat.

**Cultural significance:** Rhizomes were eaten baked or boiled; young leaves were eaten raw for sore throat and tonsillitis. Leaves were used to line baking or steaming pits; also for mattresses. Spore sacs were scraped off the leaves and applied to burns. Water from boiled roots was used as a cure for dandruff.

**Remarks:** This plant is sometimes commercially collected for use by florists.



var. munitum



var. imbricans

## Western Sword-Fern

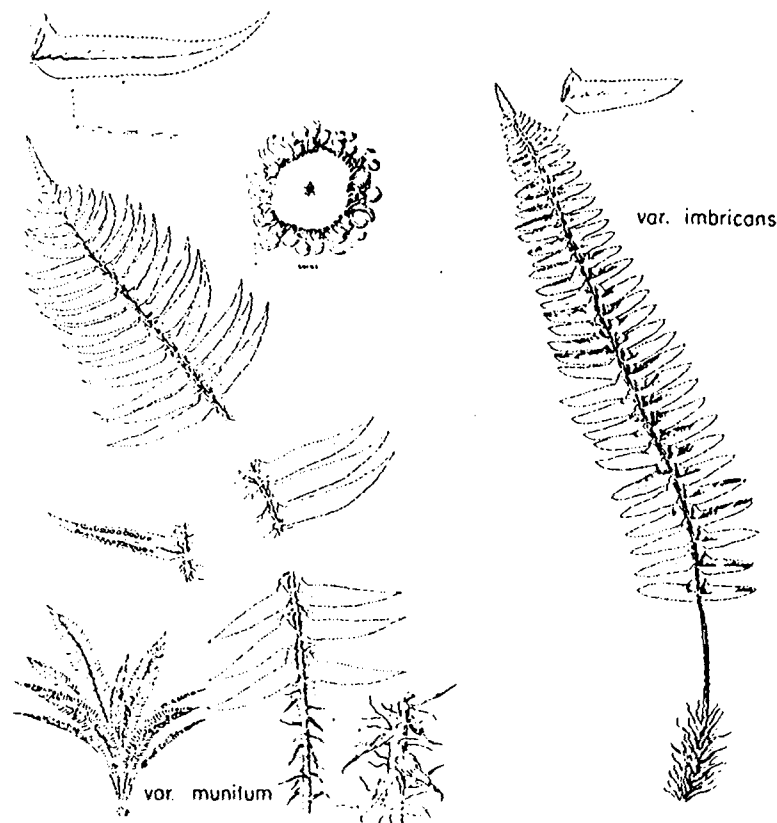
### *Polystichum munitum*

POMU

**Description:** Perennial, large, erect, curving leaves in radiating cluster from a stout scaly rhizome, up to 3.1 feet (0.8 m) with chaffy brown scales on the stem.

**Leaves:** Evergreen, dark green, leathery leaves with a stout, scaly stem, pinnately divided. Each leaflet has a prominent tooth at the base and a fine-toothed margin with an acute tip. Leaves remain evergreen for several years and remain attached to the rhizome after withering.

**Sori:** Clusters of spore sacs are in two rows on underside of leaves located between midvein and margin.



## Skunk-leaved Polemonium

***Polemonium pulcherrimum***  
Phlox Family (Polemoniaceae)

POPU

**Range:** Alaska to California, east to Rockies.

**Habitat:** Mountains, mid to higher elevations, often on rocky sites.

**Indicator Value:** Cool, moist sites at high elevations.

**Similar species:** Not easily confused with other plants, especially at the elevation where it is found.

**Fire sensitivity:** Unknown.



## Skunk-leaved Polemonium

***Polemonium pulcherrimum***

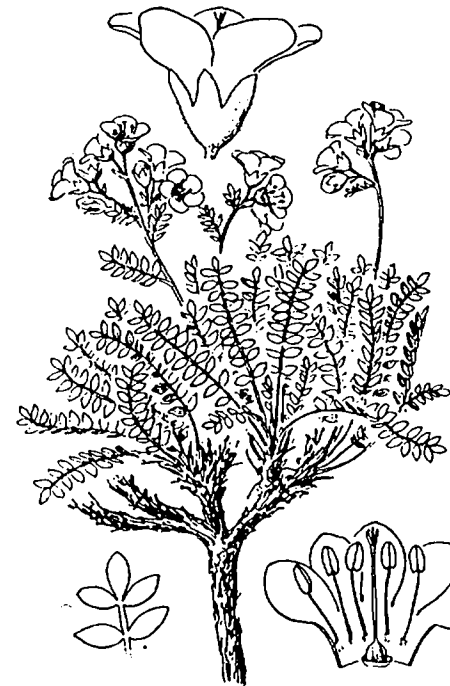
POPU

**Description:** Perennial herb with taproot, usually 5-8 in. (13 to 20 cm) but sometimes up to 13.4 in. (34 cm) tall; stems in clusters, somewhat drooping.

**Leaves:** Pinnately compound, 11 to 25 leaflets, sometimes having an unpleasant odor when crushed.

**Flowers:** Borne in loose clusters above the leaves; blue, bell-shaped, 0.5-0.75 in. (12.5-20 mm) long; may have a yellow center. May-August.

**Fruit:** A capsule.



## Oregon Oxalis

### *Oxalis oregana*

Oxalis Family (Oxalidaceae)

OXOR

**Range:** Coast to Cascades, Olympic Mountains to Monterey County, California.

**Habitat:** Moist forests from lowland to mid elevations, common among the redwoods.

**Indicator Value:** Productive sites with high precipitation and fertile soil.

**Similar species:** Not easily confused with other plants.

**Fire sensitivity:** Unknown.

**Cultural significance:** Leaves can be eaten fresh or cooked; juice from plant applied to sore eyes.



## Oregon Oxalis

### *Oxalis oregana*

Oxalis Family (Oxalidaceae)

OXOR

**Range:** Coast to Cascades, Olympic Mountains to Monterey County, California.

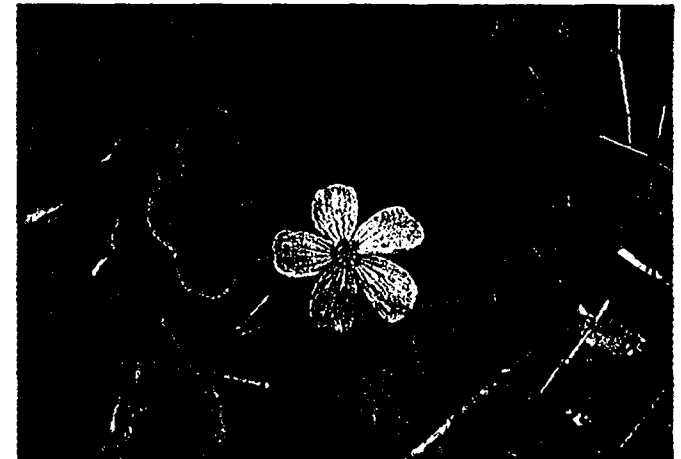
**Habitat:** Moist forests from lowland to mid elevations, common among the redwoods.

**Indicator Value:** Productive sites with high precipitation and fertile soil.

**Similar species:** Not easily confused with other plants.

**Fire sensitivity:** Unknown.

**Cultural significance:** Leaves can be eaten fresh or cooked; juice from plant applied to sore eyes.



## Purple Sweet Root

### *Osmorhiza purpurea*

Parsley Family (Umbelliferae)

OSPU

**Range:** Alaska to northwestern Montana, in Cascades to southern Oregon.

**Habitat:** Moist mountain areas.

**Indicator Value:** Unknown.

**Similar species:** Mountain sweet root (*Osmorhiza chilensis*) is very similar, and much more common. Purple sweet root (*O. purpurea*) is found in meadows and wet habitats at high elevations.

**Fire sensitivity:** Resprouts from roots.

**Remarks:** Fruits of this genus stick to socks and other clothing. Fair palatability to livestock.



## Purple Sweet Root

### *Osmorhiza purpurea*

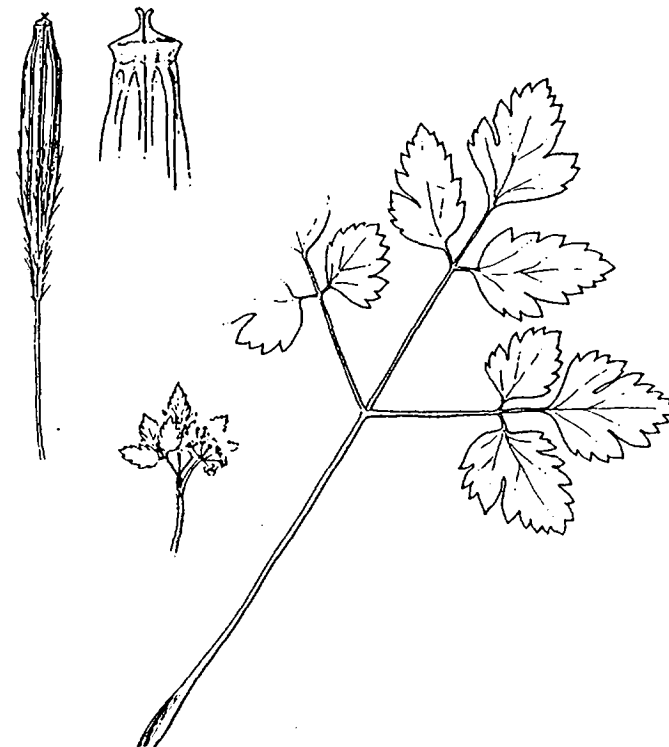
OSPU

**Description:** Perennial, slender herb with compound leaves, 8-24 in. (20-60 cm) tall.

**Leaves:** Divided into 3's, each leaflet being ovate to lanceolate, coarsely serrated, petioles 2.0-4.7 in. (5-12 cm) long.

**Flowers:** Pink or purplish to greenish-white with 2 to 6 rays. June - July.

**Fruit:** Long, black, pointed, 0.25-0.5 in. (8-13 mm) long with bristles along the narrow base.



## Mountain Balm

***Monardella odoratissima***

Mint Family (Labiatae)

MOOD

**Range:** Eastern Cascades in Washington to Idaho, in Oregon, from the coast to southern California, east to Colorado.

**Habitat:** Widely various habitats up to moderate elevations.

**Indicator Value:** Dry, cool sites (high elevation granitics).

**Similar species:** The flower resembles that of blue field gilia (*Gilia capitata*), which is taller, and has divided leaves. The odor of mountain balm (*M. odoratissima*) is distinctive.

**Fire sensitivity:** Unknown.

**Remarks:** This plant is often smelled before it is noticed.



## Mountain Balm

***Monardella odoratissima***

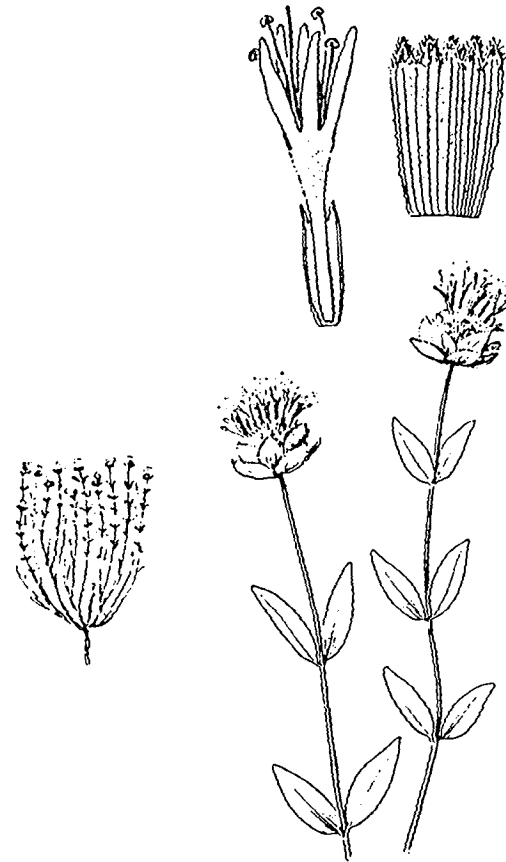
MOOD

**Description:** Perennial, aromatic herb, with opposite leaves and square stems, 4-20 in. (10-50 cm) tall. It branches from a sturdy taproot.

**Leaves:** Opposite, with very short petioles, smooth margins, elliptic to ovate, 0.3-1.3 in. (1-3.5 cm) long and 0.1-0.5 in. (3-12 mm) wide.

**Flowers:** Purple to light pink in color, with many small flowers in a terminal cluster. June-August.

**Fruit:** Small nutlets.



### Three-Tooth Mitrewort

#### *Mitella trifida*

Saxifrage Family (Saxifragaceae)

MITR2

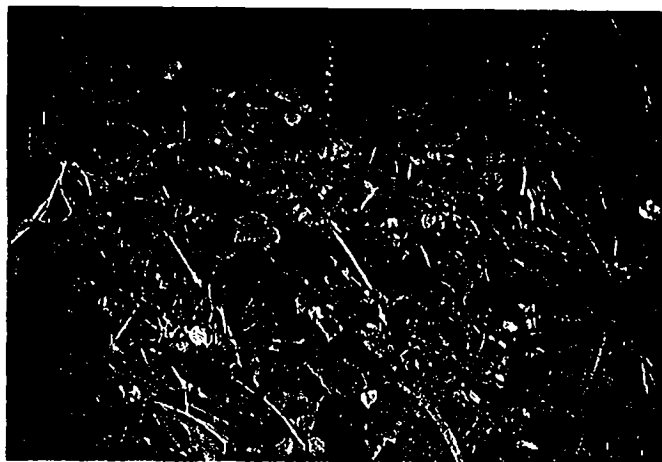
Range: British Columbia to northern California, west to Montana.

Habitat: Deep forest to mountain slopes, 3,000 to 6,000 feet.

Indicator Value: Cool forest settings.

Similar species: Easily confused with alum-root (*Heuchera* spp.) which has glabrous leaves and an open inflorescence. Also coolwort foamflower (*Tiarella* spp.) which has an open inflorescence, 10 stamens, and a closed capsule in fruit.

Fire sensitivity: Unknown.



### Three-Tooth Mitrewort

#### *Mitella trifida*

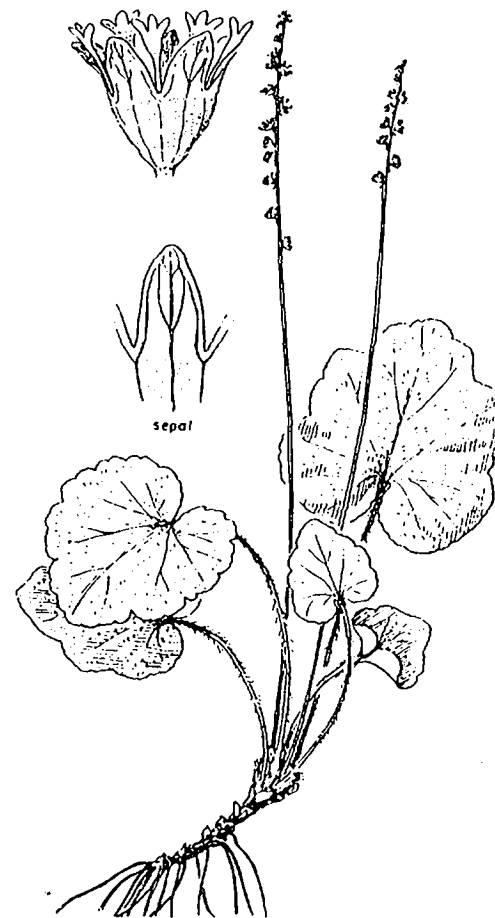
MITR2

Description: Perennial herbs from rhizomes with flowers closely attached to a slender stalk, 5.8 - 13.6 in. (15 - 35 cm) tall.

Leaves: Cordate to cordate-ovate, 0.7 - 2.3 in. (2 - 6 cm) wide, lobed margins; hairy on both surfaces.

Flowers: 10 to 20 small flowers along a tall stem, white to pinkish, with 5 stamens. May - July.

Fruit: A capsule which opens at the top, exposing black, shiny seeds, like little eggs in a nest.





## Woodland Tarweed

***Madia madioides***

Sunflower Family (Compositae)

MAMA

**Range:** Southwestern British Columbia to northwestern California.

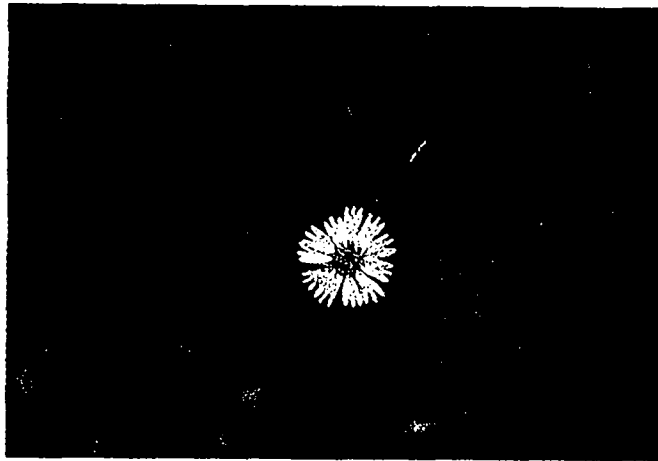
**Habitat:** Open woods, roadsides.

**Indicator Value:** Hot, dry and disturbed sites.

**Similar species:** Can be confused with other *Madia* species when not in flower.

**Fire sensitivity:** Seeds well after fire.

**Remarks:** Leaves a tar-smelling, sticky residue on clothing.



## Woodland Tarweed

***Madia madioides***

MAMA

**Description:** Biennial, strong-scented, glandular herbs, 4-28 in. (10-70 cm) tall.

**Leaves:** Linear-oblong to lance-linear, some with few teeth, lower ones 1.2-4 in. (3-10 cm) long and 0.1-4 in. (4-11 mm) wide, the upper ones smaller.

**Flowers:** Yellow, daisy-shaped flowers on glandular stems, with 8 to 15 three-toothed rays, 0.2-0.5 in. (5-10 mm) long. June-July.

**Fruit:** Crescent-shaped, dry achenes attached upright in a circle and dropping off when ripe.



## Western Twinflower

*Linnaea borealis longiflora*

Honeysuckle Family (Caprifoliaceae)

LIBOL

**Range:** Circumboreal.

**Habitat:** Forested areas, mid to upper elevations.

**Indicator Value:** Moist cool environments. Abundance indicates relatively little soil drought. Mid to late successional.

**Similar species:** Sometimes confused with kinnikinnick (*Arctostaphylos uva-ursi*), which has alternate leaves.

**Fire sensitivity:** Moderate regeneration response after fire by stolon budding; susceptible to fire.

**Cultural significance:** Colds were treated with a decoction of leaves by Indians.

**Remarks:** Grows best in full to partial shade. Easy to propagate; attractive ground cover. Unpalatable to livestock.



## Western Twinflower

*Linnaea borealis longiflora*

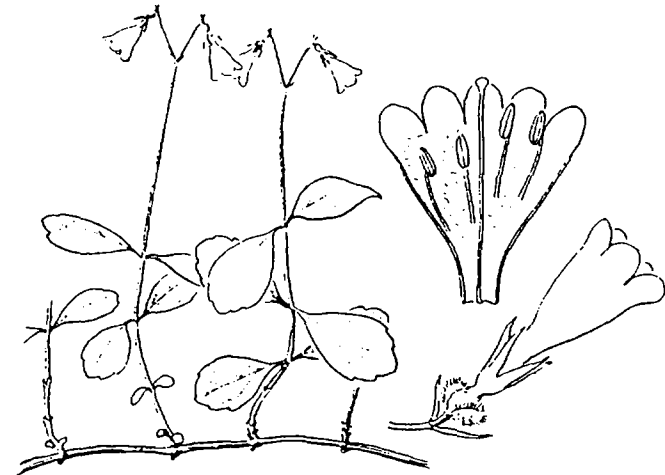
LIBOL

**Description:** Evergreen, low, trailing subshrub, 2-5 in. (5-13 cm) tall. Stems are slender but woody, rooting at the nodes.

**Leaves:** Opposite, roundish, 0.3-1 in. (1-2.5 cm) long, shiny, leathery, and shallow-toothed.

**Flowers:** In pairs, less than 0.3 in. (1 cm) long, pink, bell-shaped flowers at the tops of slender, erect flower stalks. June-September.

**Fruit:** Small, dry seeds.



## White-flowered Hawkweed

*Hieracium albiflorum*  
Sunflower Family (Compositae)

HIAL

**Range:** Widespread throughout the western states.

**Habitat:** Common in forests, especially on higher elevation, drier sites.

**Indicator Value:** Warm sites in open forests or clearings, also found in disturbed sites.

**Similar species:** It is the only white-flowered hawkweed in our area. Others are yellow.

**Fire sensitivity:** Regenerates by seed germination and has moderate resistance.

**Cultural significance:** Indians used the green plants and their coagulated juice as chewing gum.

**Remarks:** Palatable to livestock and large game.



## White-flowered Hawkweed

*Hieracium albiflorum*

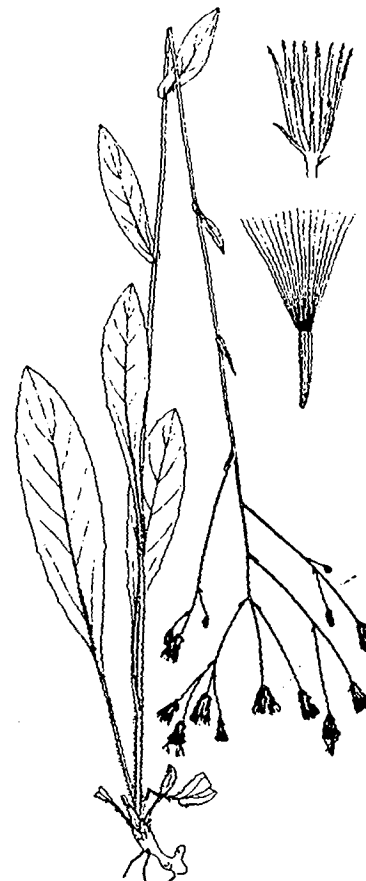
HIAL

**Description:** Perennial with a short rhizome, 1-3 ft. (.3-1 m) tall with hairy basal leaves.

**Leaves:** Alternate, 2-7.5 in. (5-19 cm) long, sparsely to moderately hairy with slightly serrate margins; progressively smaller up the flower stalk.

**Flowers:** White, non-showy flowers in sparse, open clusters. June-August.

**Fruit:** Small, one-seeded fruits with tuft of hairs to aid in wind dispersal.



## Rattlesnake Plantain

*Goodyera oblongifolia*  
Orchid Family (Orchidaceae)

GOOB

**Range:** Alaska south, throughout most of western United States.

**Habitat:** Warm, mesic to cool-wet mixed conifer forest.

**Indicator Value:** Found everywhere except in hot and dry or extremely cold environments. Mid to late successional.

**Similar species:** Leaves at first glance may resemble whiteleaf pyrola (*Pyrola picta*). However, rattlesnake plantain leaves are longer, pointed, and have flat petioles. Pyrola flowers are round, not orchid-like.

**Fire sensitivity:** Mode of recovery is by seed germination and resprouting from rhizomes. It has moderate resistance to a low intensity fire.

**Cultural significance:** Bulbs are edible, but used only as emergency food. Leaves were split flat by Indians and placed in wounds. When babies were born, the leaves were bruised and placed on the navel for fast healing.

**Remarks:** Tends to root in duff. In densely shaded stands, it may be the only herb present.



## Rattlesnake Plantain

*Goodyera oblongifolia*

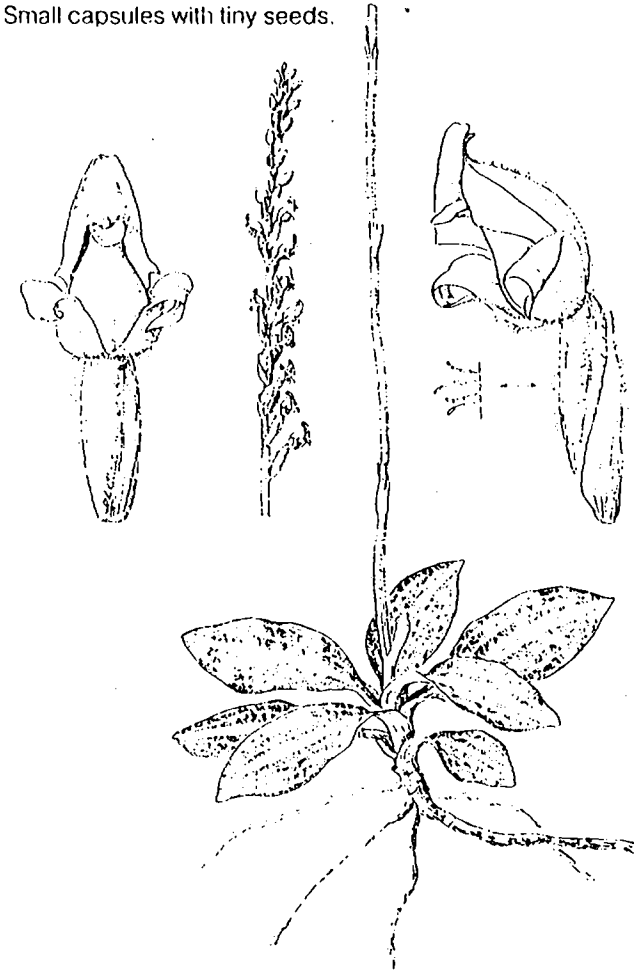
GOOB

**Description:** Perennial, evergreen, low herb from short rootstocks. The flower stocks are 10.2-15 in. (26-40 cm) tall.

**Leaves:** All basal, thick, and dark green, mottled with white, especially on the midrib, 1-3 in. (2.5-7.5 cm) long.

**Flowers:** Greenish-white, inconspicuous, glandular-pubescent, in an elongated spike. July-August.

**Fruit:** Small capsules with tiny seeds.



## Oregon Bedstraw

### *Galium oreganum*

Madder Family (Rubiaceae)

GAOR

Range: Washington and Oregon from the Cascades to the coast.

Habitat: Moist woods, meadows up to 5,000 feet.

Indicator Value: Unknown.

Similar species: Does not resemble other bedstraw species (*Galium*), due to its larger size and more ovate leaves. Also, Oregon bedstraw (*G. oreganum*) has 4 leaves per whorl, compared with catchweed bedstraw (*G. aparine*) which has 6 to 8 leaves per whorl.

Fire sensitivity: Unknown.



## Oregon Bedstraw

### *Galium oreganum*

GAOR

Description: Perennial herb from slender rhizomes, with erect habit and whorled leaves, 20-40 cm tall.

Leaves: Whorled in 4's, elliptic to elliptic-ovate, pointed at the ends, 0.5-1.5 in. (1.5-4 cm) long, 0.1-0.6 in. (0.5-1.5 cm) wide.

Flowers: Branched, terminal cluster of greenish yellow flowers, about 0.1 in. (3.5-4 mm) wide, having 4 petals. June-August.

Fruit: A two-segmented, dry fruit, covered with hooked bristles.



## Catchweed Bedstraw

*Gallium aparine*

Madder Family (Rubiaceae)

GAAP

**Range:** Circumpolar, most of temperate North America.

**Habitat:** Many plant communities.

**Similar species:** Fragrant bedstraw (*G. triflorum*) is similar, but perennial and not as sticky. Catchweed bedstraw is an annual.

**Fire sensitivity:** Moderate post-fire regeneration response by seed germination; moderate resistance.

**Cultural significance:** Tea used as a spring tonic.



## Catchweed Bedstraw

*Gallium aparine*

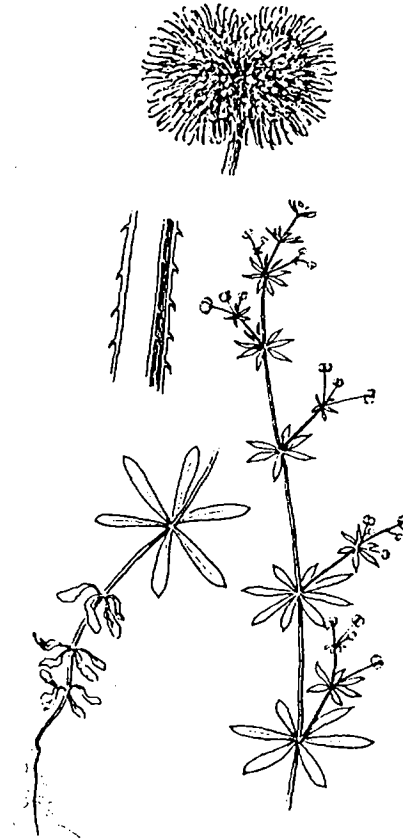
GAAP

**Description:** Annual, 4-40 in. (0.1-1 m) long, with square stem; seems to stick to surrounding vegetation due to presence of tiny hooked hairs.

**Leaves:** Usually 6 to 8 in each whorl, narrow, 0.3-1.5 in. (1-4 cm) long.

**Flowers:** Small, 3 to 5 in each axil, with 4 petals, less than 0.1 in. (1-2 mm) wide. April-June.

**Fruit:** A 2-segmented dry fruit which separates when ripe, up to 0.1 in. (2-4 mm) long, covered with short hooked bristles.



## Obscure Bedstraw

### *Gallium ambiguum*

Bedstraw Family (Rubiaceae)

GAAM

**Range:** Southwest Oregon to northern California.

**Habitat:** Dry, rocky areas and forest openings, particularly on serpentine or other ultrabasic parent rock.

**Similar species:** Not very similar to other *Gallium* species.

**Fire sensitivity:** Unknown.



## Obscure Bedstraw

### *Gallium ambiguum*

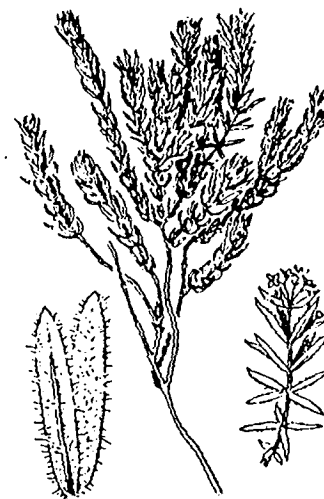
GAAM

**Description:** Perennial, low, grayish herb from branched, creeping rootstocks, having leafy stems, 1.5-4 in. (4-10 cm) long. Firm, not stiff.

**Leaves:** Linear, 2.3-4.7 in. (6-12 mm) long, 0.5-0.7 in. (1.5-2 mm) wide, attached all along the length of the stem.

**Flowers:** Borne singly in upper leaf axils or in terminal clusters, greenish white in color, about 0.1 in. (3 mm) wide. June-July.

**Fruit:** Fleshy, smooth to hairy, blackish when dry.



## GALIUM TABLE

	Catchweed bedstraw <i>G. aparine</i>	Fragrant bedstraw <i>G. triflorum</i>
HABIT	Erect or trailing	Erect or trailing
LEAVES PER WHORL	6 to 8	Mostly 6
SIGNIFICANT CHARACTERISTICS	Clings easily to nearby plants, etc. due to presence of hooked hairs.	Sweet-smelling perennial.
<hr/>		
	Obscure bedstraw <i>G. ambiguum</i>	Oregon bedstraw <i>G. oreganum</i>
HABIT	Low, densely lealy, annual	Erect, perennial; from rhizomes
LEAVES PER WHORL	Mostly 4, sometimes 2 or 5, narrowly linear	4
SIGNIFICANT CHARACTERISTICS	Tufted, woody at the base, often pubescent.	4 - 16 in. (10 - 40 cm) tall. Flowers yellowish-green.



## Woods Strawberry

***Fragaria vesca bracteata***

Rose Family (Rosaceae)

FRVEB

**Range:** Widespread in Cascades, from British Columbia southward, east to Rocky Mountains.

**Habitat:** Meadows and woods, often on roadsides.

**Indicator Value:** Generally warm sites in openings or forests.

**Similar species:** *Fragaria vesca* var. *crinita* has flowering stems shorter than the leaves; the thick leaves have silky pubescence on the lower surface.

**Fire sensitivity:** Unknown.

**Cultural significance:** Berries were eaten fresh or mashed with other berries and dried. Runners were used as string; dried and powdered leaves were applied to open sores as disinfectant.

**Remarks:** Berries are prized by berry pickers.



## Woods Strawberry

***Fragaria vesca bracteata***

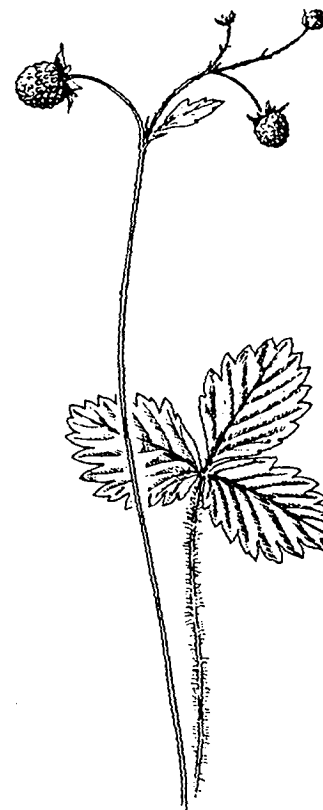
FRVEB

**Description:** Perennial, low herb spreading by trailing stems. The hairy, flowering stem is often taller than the leaves; variable species.

**Leaves:** Thin, yellowish green, palmately divided into three leaflets with round-toothed margins. Blades soft-hairy on both surfaces, upper leaf surface slightly bulged between veins.

**Flowers:** Loose cluster of small, rose-like flowers, with five white petals; many stamens. April-June.

**Fruit:** Small, sweet, red strawberry.



## Sulphurflower

### *Erlogonum umbellatum*

Buckwheat Family (Polygonaceae)

ERUM

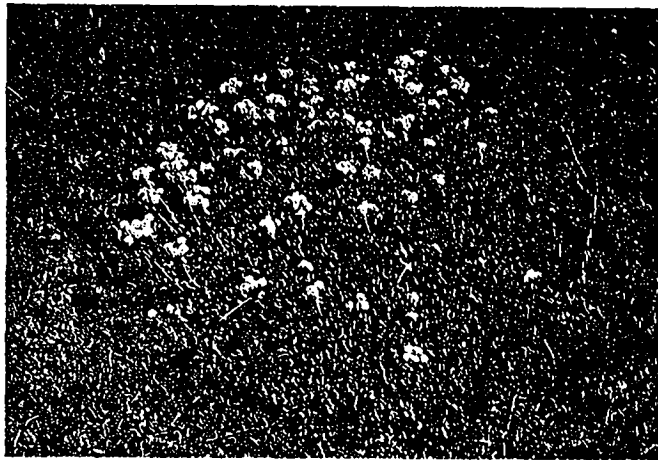
**Range:** Southern British Columbia to northern California, east to Montana, Wyoming and Colorado.

**Habitat:** Mostly dry rocky places in our area. 2,500 to 10,000 feet.

**Indicator Value:** Dry sites or disturbed sites.

**Similar species:** This plant is extremely variable.

**Fire sensitivity:** Resprouts after fire.



## Sulphurflower

### *Erlogonum umbellatum*

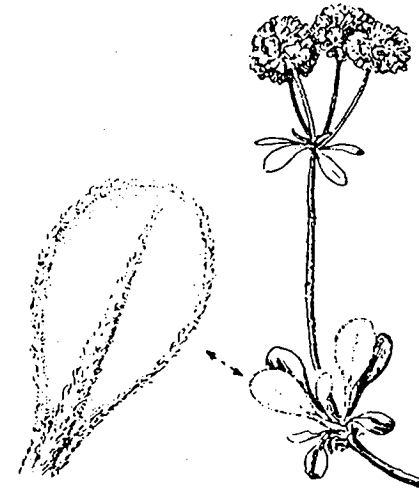
ERUM

**Description:** Perennial herb from a sturdy taproot. It can appear as an erect plant up to 11 in. (30 cm) tall with many basal leaves. Sometimes it forms low mats.

**Leaves:** Simple and highly variable. Can be long and elliptic to quite rounded. The surface is normally hairy.

**Flowers:** Stems rise above tufts of leaves 2-12 in. (5-30 cm) tall in round clusters of yellow to cream flowers, which are sometimes rose-tinged. June - August.

**Fruit:** Three-angled achenes, about 0.3 in. (3.5 mm) long.



## Common Horsetail

### *Equisetum arvense*

Horsetail Family (Equisetaceae)

EQAR

**Range:** Commonly found throughout Pacific Northwest.

**Habitat:** Moist to wet sites.

**Indicator Value:** Early to late successional; indicates plenty of moisture.

**Similar species:** Similar to other horsetails.

**Fire sensitivity:** Unknown.

**Cultural significance:** Coastal Indians ate fertile shoots, raw or cooked. Sterile shoots were used in tea, which is considered good for the heart, liver and kidneys. Some Indians used the ashes to treat skin and mouth sores.

**Remarks:** Used as a scouring rush. Jointed stems explode when put into fire. Plant is very persistent. Geologically ancient genus.

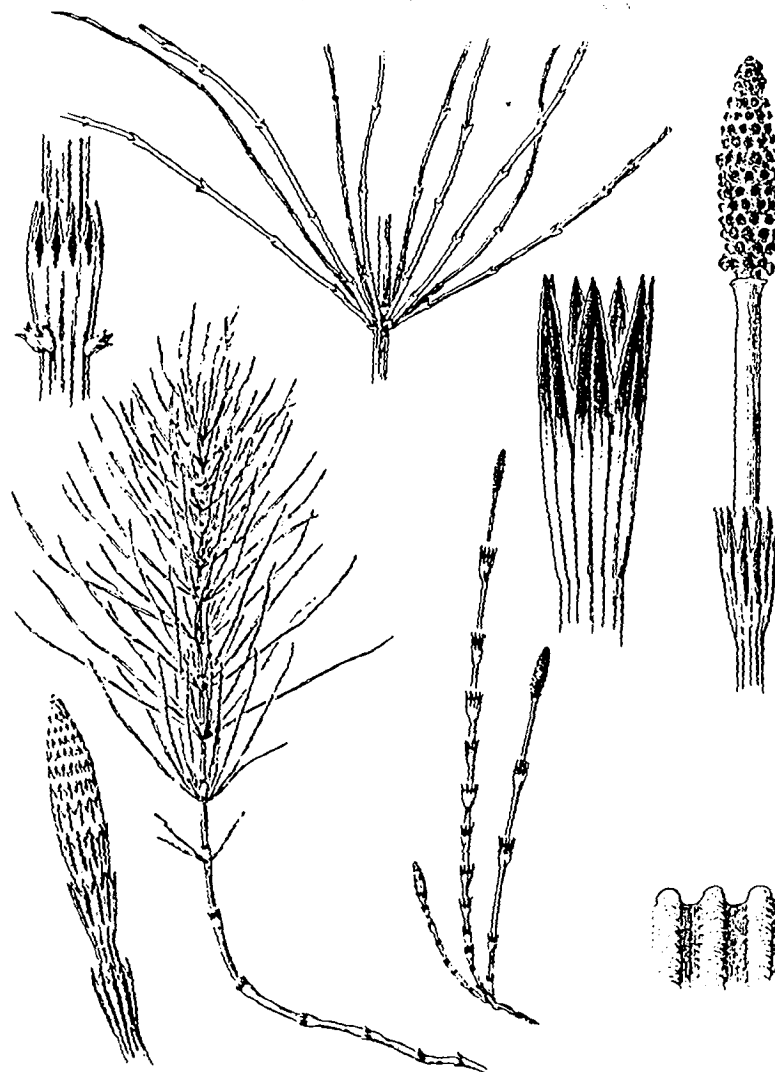


## Common Horsetail

### *Equisetum arvense*

EQAR

**Description:** Perennial rhizomatous plants with both sterile and fertile shoots, having jointed, hollow stems. Terminal cones with spores occur on fertile shoots, up to 1 ft. (30 cm) tall; whorled branches on sterile shoots 6-24 in. (15-60 cm) tall.



## Oregon Fairybell

*Disporum hookeri oreganum*

Lily Family (Liliaceae)

DIHOO

**Range:** Both sides of the Cascades from British Columbia to Oregon, east to Montana.

**Habitat:** Generally moist or shaded areas.

**Indicator Value:** Mid to late successional.

**Similar species:** Closely resembles Smith fairybells (*Disporum smithii*), which is less hairy on the leaves and stem, and tends to be more branched.

**Fire sensitivity:** Unknown.

**Cultural significance:** Some Indian tribes ate the berries, others considered them poisonous.

**Remarks:** Low palatability to animals.



## Oregon Fairybell

*Disporum hookeri oreganum*

DIHOO

**Description:** Perennial, rhizomatous, branched herb up to 3 ft. (0.9 m) tall with brown hairy stems.

**Leaves:** Pointed, 2-7 in. (5-17.5) cm long, prominently veined; the margins have forward-pointing cilia.

**Flowers:** Creamy white, bell-shaped, hanging below the ends of branches in pairs, often concealed by the leaves. April-July.

**Fruit:** Smooth, whitish berries maturing to red; pointed on the ends.



## Pacific Hound's Tongue

*Cynoglossum grande*  
Borage Family (Boraginaceae)

CYGR

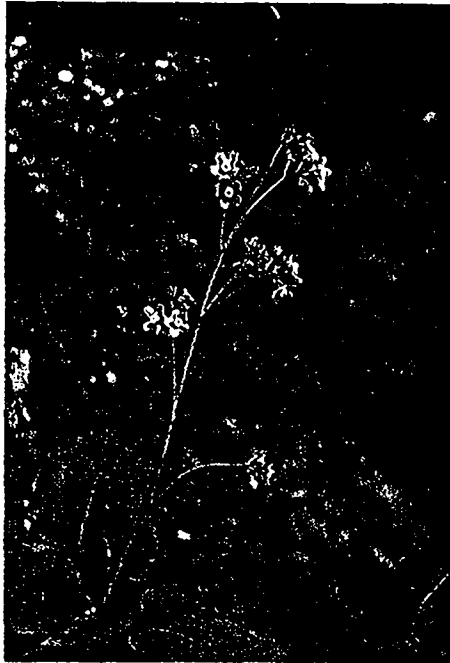
**Range:** Southern British Columbia to central California, mostly west of the Cascades in our area.

**Habitat:** Lower elevations, drier sites.

**Indicator Value:** Dry sites with shallow soils.

**Similar species:** Resembles western hound's tongue (*C. occidentale*) but has long petioles on the leaves and smoother flower stems.

**Fire sensitivity:** Unknown.



## Pacific Hound's Tongue

*Cynoglossum grande*

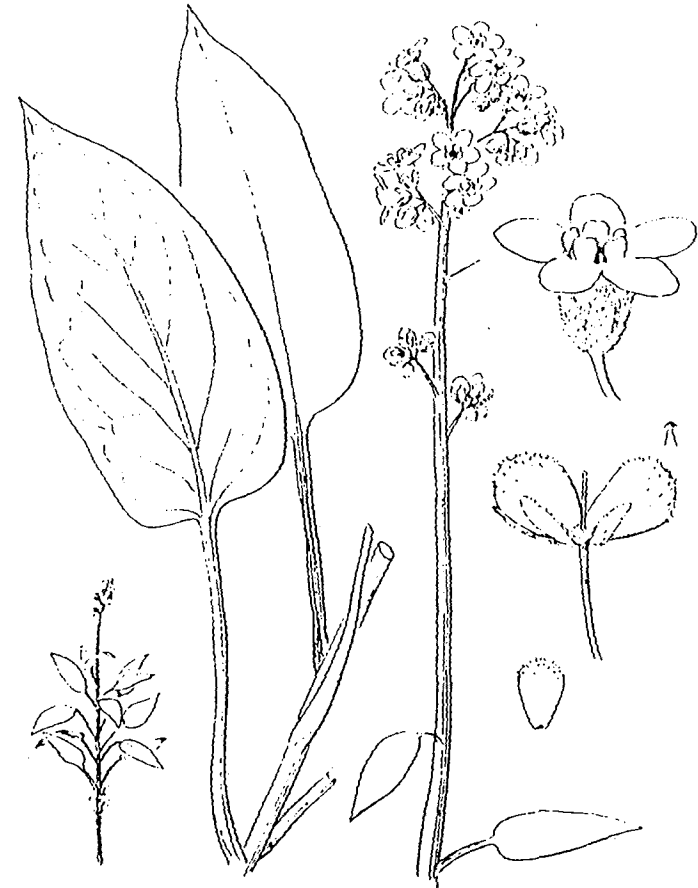
CYGR

**Description:** Perennial herb, 8-32 in. (0.2-0.8 m) tall with large fuzzy leaves.

**Leaves:** Alternate, grouped on the lower half of the stem, simple, hairy, with long petioles. Blade is ovate to elliptic, 3-7 in. (8-18 cm) long, and 1.0-4.3 in. (3-11 cm) wide.

**Flowers:** Clustered at the top of the stem in a gradually elongating, curved cluster as blue flowers open. March-April.

**Fruit:** 1 to 4 nutlets with few small prickles, up to 0.3 in. (1 cm) long.



## Queen's Cup Beadlily

*Clintonia uniflora*  
Lily Family (Liliaceae)

CLUN

**Range:** Alaska to California, east to northern Rocky Mountains.

**Habitat:** Cool, moist coniferous forests.

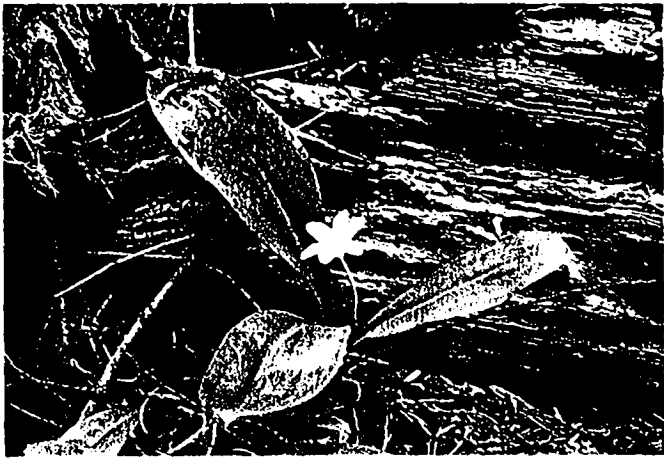
**Indicator Value:** Well-drained soils, generally on sites with frost and deep snowpack. Late successional.

**Similar species:** Can be confused with yellow fawn-lily (*Erythronium grandiflorum*) or various species of bog orchid (*Habenaria*). The single white flower, then deep blue berry, combined with backward-pointing hairs on the leaf base is distinctive of queen's cup beadlily.

**Fire sensitivity:** Susceptible. Regenerates by seed germination.

**Cultural significance:** Juice of this plant can be used for sore eyes; bruised leaves can be applied on wounds to stop bleeding. Some sources say it may be poisonous.

**Remarks:** Easily grown in the garden from rootstock.



## Queen's Cup Beadlily

*Clintonia uniflora*

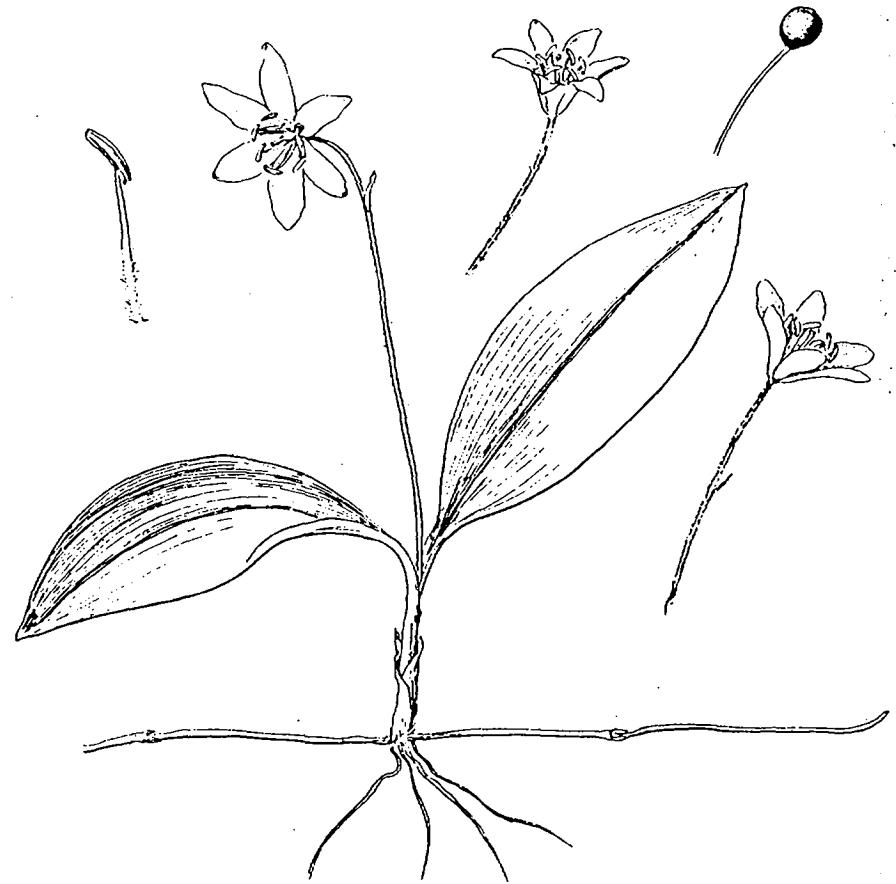
CLUN

**Description:** Perennial herb with creeping rhizomes, about 6 in. (15 cm) tall.

**Leaves:** Basal, elliptic, usually in one pair, with soft hairs on lower surface and margin.

**Flowers:** Single, white, showy, with 6 tepals.

**Fruit:** Deep blue berry containing several seeds.



## Rock Fern

### *Aspidotis densa*

Common Fern Family (Polypodiaceae)

ASDE

**Range:** Southern British Columbia to California, east to central and northern Idaho; Montana.

**Habitat:** Found in cliff crevices, rocky, seasonally moist slopes.

**Indicator Value:** Grows on serpentine in our area.

**Similar species:** Resembles other small ferns, but is distinguishable by the combination of slender brown to black wiry petioles and nearly always serpentine habitat.

**Fire sensitivity:** Unknown.



## Rock Fern

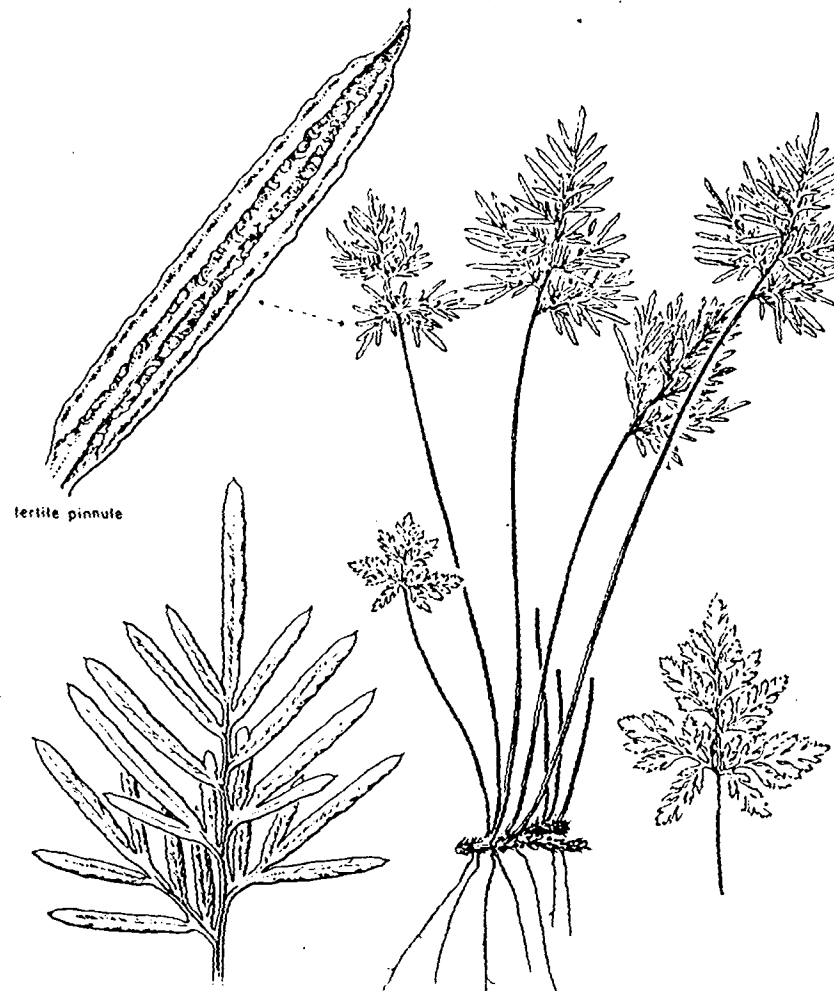
### *Aspidotis densa*

ASDE

**Description:** Perennial, small, mesophytic ferns, with both fertile and sterile leaves from a scaly rhizome.

**Leaves:** Persistent, mostly fertile; glabrous, wiry petioles, 1.6-7.0 in. (4-18 cm) long. Blades shorter, 1.0-2.3 in. (2.5-6 cm). Sterile leaves are smaller; margins reflexed.

**Sori:** Located beneath reflexed margins of fertile leaves.



## Mountain Arnica

### *Arnica latifolia*

Sunflower Family (Compositae)

ARLA

**Range:** From Alaska to California and Colorado. Common in the Cascades.

**Habitat:** Open forests or meadows.

**Indicator Value:** Cooler, more moist sites than heartleaf arnica.

**Similar species:** Easily confused with heartleaf arnica (*A. cordifolia*), which has single flower heads and small cauline leaves without petioles. Leaves of heartleaf arnica are prominently veined.

**Fire sensitivity:** Rapid regeneration after fire from rhizome expansion; resistant to fire.

**Cultural significance:** In traditional lore, roots were mixed with other material and used as a "love medicine" to attract desired person. Also, flower heads can be steeped in water and liquid applied to cuts and wounds.

**Remarks:** Low palatability to animals.



## Mountain Arnica

### *Arnica latifolia*

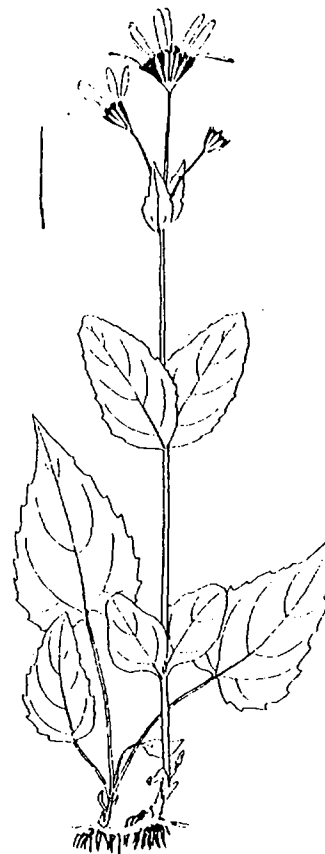
ARLA

**Description:** Perennial herb with fibrous rhizomes, up to 24 in. (0.6 m) tall. Basal leaves have long petioles. Plant usually has gland-tipped hairs, with white hairs on the flowering head. Variable species.

**Leaves:** Opposite, normally glabrous to sometimes hairy; basal leaves on long petioles, 2 to 4 pairs of opposite leaves on stem, 1 - 7 in. (2.5 - 17.7 cm) long, broadly lance-shaped with inconspicuous veins. Margins have coarse teeth.

**Flowers:** Showy, daisy-like flowers; one to three flowering stems per plant arising from upper pair of opposite leaves. June - July.

**Fruit:** Small, hard, one-seeded fruit with tuft of white hairs.





## Heartleaf Arnica

### *Arnica cordifolia*

Sunflower Family (Compositae)

ARCO

**Range:** Mostly in eastern Cascades, Alaska to New Mexico.

**Habitat:** Moderate, mid elevations, in forests or openings.

**Indicator Value:** Cool, dry to moist forest or openings. Mid to late successional.

**Similar species:** Can be confused with mountain arnica (*A. latifolia*), which sometimes has more than one flower per stalk and inconspicuous veins on the leaves.

**Fire sensitivity:** Sprouts from root stock or seeds. Has moderate to rapid regeneration period from rhizome elongation; moderate to susceptible fire resistance, but is resistant to spring burns and light underburns.

**Cultural significance:** Flowers can be steeped in water and applied to cuts and wounds; also good for chapped lips.

**Remarks:** Low palatability to animals.



## Heartleaf Arnica

### *Arnica cordifolia*

ARCO

**Description:** Perennial herb, from long, slender, horizontal rhizomes; 4-24 in. (10-60 cm.) tall. Often found without flowers.

**Leaves:** Opposite, heart-shaped, fuzzy, usually toothed, and 2-5 in. (5-13 cm) long when arising from the base. Upper leaves are much smaller and less heart-shaped. Leaf veins are prominent.

**Flowers:** Yellow, daisy-shaped flowers, usually solitary, with densely hairy floral bracts. April-June.

**Fruit:** Uniformly short-hairy or glandular achenes.



## Spreading Dogbane

*Apocynum androsaemifolium*

Dogbane Family (Apocynaceae)

APAN

Range: Most of western U.S. and Canada.

Habitat: Dry areas of valleys, foothills and mountains.

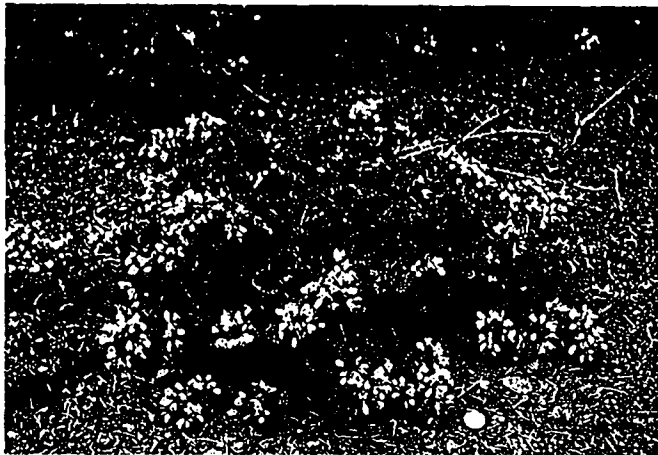
Indicator Value: Dry sites.

Similar species: Not easily confused with other plants.

Fire sensitivity: Unknown.

Cultural significance: Northwest Indians used fibers for rope and twine; tea made from roots was used as a hair rinse to stimulate growth.

Remarks: Sometimes an orchard pest. Nectar is a good source of honey. Unpalatable; toxic to livestock.



## Spreading Dogbane

*Apocynum androsaemifolium*

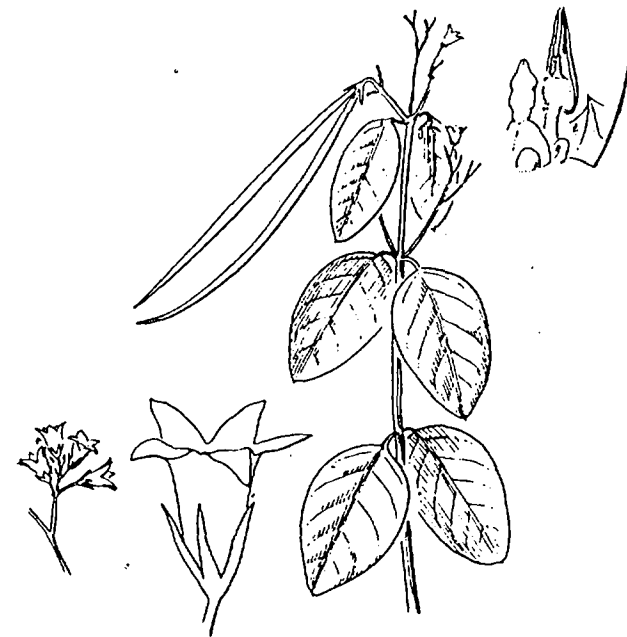
APAN

Description: Perennial herbs from horizontal rootstalks, often with reddish stems and drooping leaves. The stems and leaves contain milky sap.

Leaves: Opposite, borne close to stem, oblong-elliptic to ovate, 1-2.7 in. (2.5-7 cm) long, usually somewhat pointed, with smooth margins.

Flowers: Bell-shaped, pinkish, clustered upon axillary stems above the leaves. June-August.

Fruit: Long, slender follicles, about 5-14 cm long, containing many seeds.



### Threeleaf Anemone

#### *Anemone deltoidea*

Buttercup Family (Ranunculaceae)

ANDE

**Range:** Western Cascades from Washington to northern California.

**Habitat:** Moist, mid to low elevation, forests or openings.

**Indicator Value:** Wet, cool sites.

**Similar species:** Can be confused with Oregon anemone (*A. oregonum*), which has more divided leaves, longer leaf stalks, and smaller, blue to white flowers.

**Fire sensitivity:** Unknown.

**Cultural significance:** Tea was used to treat tuberculosis.

**Remarks:** Some garden species of *Anemone* are toxic due to a high content of protoanemonin, an irritant. It is not yet known whether this is true of Oregon species.



### Threeleaf Anemone

#### *Anemone deltoidea*

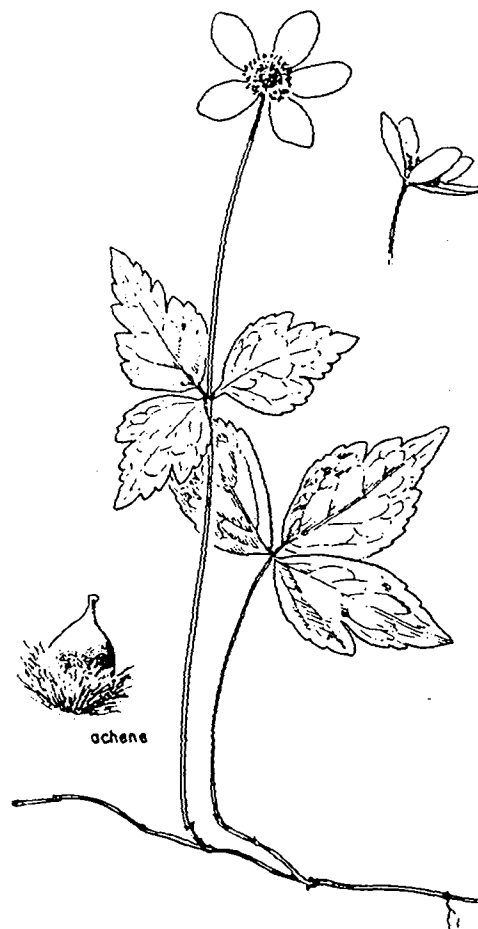
ANDE

**Description:** Perennial, small herb, less than 12 in. (30 cm) tall, spreading by creeping rhizomes. The "petals" are actually sepals.

**Leaves:** Divided into three leaflets with very short petioles. The margins are irregularly lobed.

**Flowers:** White, showy, with 5 "petals" and many stamens. March-June.

**Fruit:** Small, dry, one-seeded, round fruit, hairy on lower half.



## Trail-Plant, Pathfinder

***Adenocaulon bicolor***

Sunflower Family (Compositae)

ADBI

**Range:** British Columbia to California, east to northern Rocky Mountains.

**Habitat:** Mid elevation. Mid to late successional.

**Indicator Value:** Moist sites from sea level to mid elevations.

**Similar species:** Easily discernable from other plants by its leaf shape and color.

**Fire sensitivity:** Unknown.

**Cultural significance:** Leaves were crushed and used on sores.

**Remarks:** The common name of this plant is derived from the tendency of the leaf to show the pale underside when disturbed. The leaf generally points in the direction of disturbance.



## Trail-Plant, Pathfinder

***Adenocaulon bicolor***

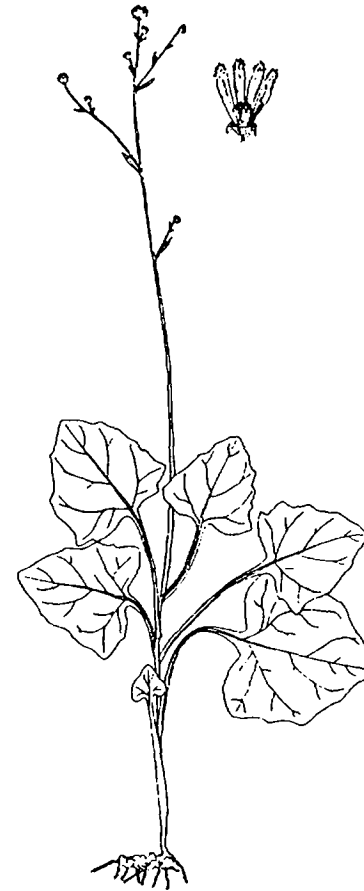
ADBI

**Description:** Perennial, erect herb with slender flowering stem up to 35 in. (0.9 m) tall.

**Leaves:** Alternate, triangular, mostly basal. Underside is hairy and white. Margins may have coarse teeth or shallow lobes.

**Flowers:** Small, inconspicuous, white; widely spaced near top of stem. June - September.

**Fruit:** Small, dry, one-seeded, sticky achenes.



## Baneberry

### *Actaea rubra*

Buttercup Family (Ranunculaceae)

Range: Alaska to California.

Habitat: Moist, shady areas at mid to higher elevations.

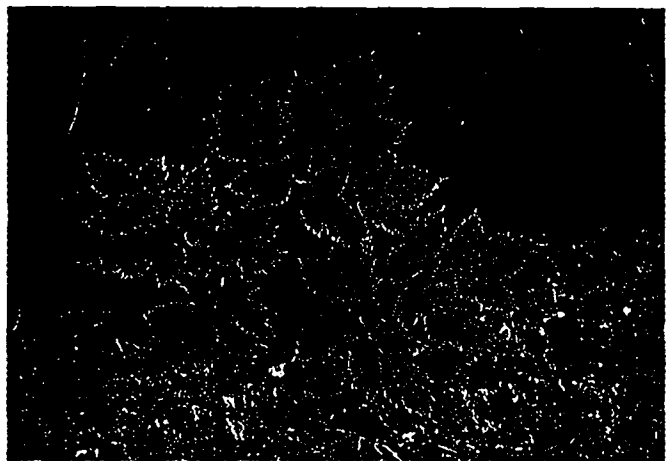
Indicator Value: Cold sites. Mid to late successional.

Similar species: Not easily confused with other plants.

Fire sensitivity: Unknown.

Remarks: Berries beautiful, but poisonous.

ACRU



## Baneberry

### *Actaea rubra*

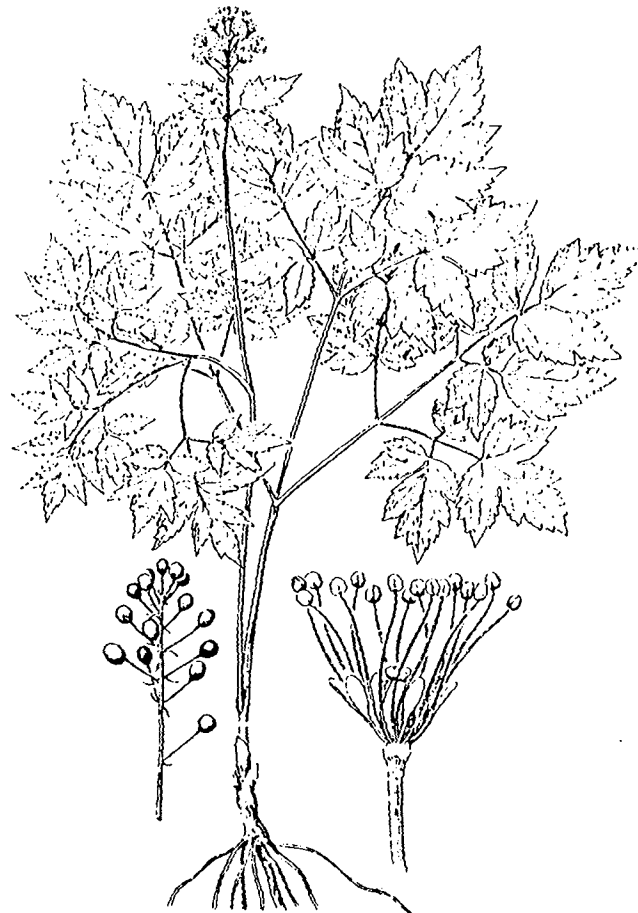
ACRU

Description: Perennial, erect, usually branched herb, 12-40 in. (0.3-1.0 m) tall.

Leaves: Alternate, compound, 2 to 3 times divided, 1-4 in. (2.5-10 cm) long, sharply toothed and lobed.

Flowers: White, in a terminal or axillary cluster, with many prominent stamens. May-July.

Fruit: Bright red, sometimes whitish; round, shiny clusters of berries, most often seen at the top of the plant.



## Vanillaleaf

### *Achlys triphylla*

Barberry Family (Berberidaceae)

ACTR

**Range:** Throughout the Cascades from British Columbia to northern Oregon. Mainly in western Cascades from Columbia River to northern California.

**Habitat:** Moist areas, low to mid elevations.

**Indicator Value:** Moist sites, usually on deep, well-drained soil. Mid to late successional.

**Similar species:** Not easily confused with other plants.

**Fire sensitivity:** Unknown.

**Cultural significance:** Has been used as an insect repellent.

**Remarks:** Crushed leaves smell like vanilla. Highly palatable to elk.



## Vanillaleaf

### *Achlys triphylla*

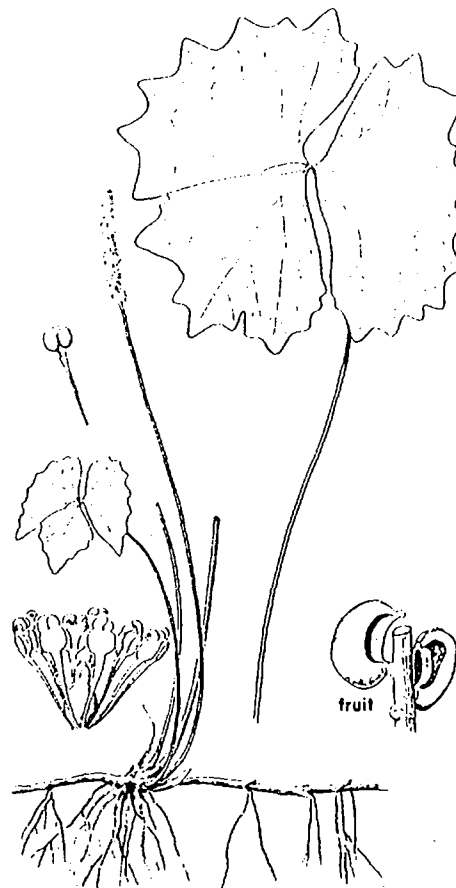
ACTR

**Description:** Perennial herb, up to 14 in. (35 cm) tall, spreading by rhizomes. Leaves smell like vanilla when crushed.

**Leaves:** Terminal on upright stem, divided into three fan-shaped leaflets held parallel to the ground; margins scalloped with rounded lobes.

**Flowers:** Elongate spikes of small, white flowers borne on the top of a leafless stem, often taller than the leaves. Flowers have a cluster of 10 stamens, but there are no petals or sepals. April - July.

**Fruit:** Small, dry, crescent-shaped, one-seeded capsule.



## Common Yarrow

### *Achillea millefolium*

Sunflower Family (Compositae)

ACMI

Range: Common and widespread throughout U.S.

Habitat: Thrives in dry, disturbed areas.

Indicator Value: Often increases with site disturbance or overgrazing. Early successional.

Similar species: Not easily confused with other plants. Aroma of crushed leaves is distinctive.

Fire sensitivity: Germinates from seeds. Has moderate to resistant tolerance to fire.

Cultural significance: Entire plant has been used to make teas as a tonic or to improve digestion. Leaves were used to stop bleeding and to heal sores. Indians placed stems and leaves on hot coals to repel mosquitos, used it in smoking mixtures, or smoked it alone.

Remarks: Unpalatable to animals.



## Common Yarrow

### *Achillea millefolium*

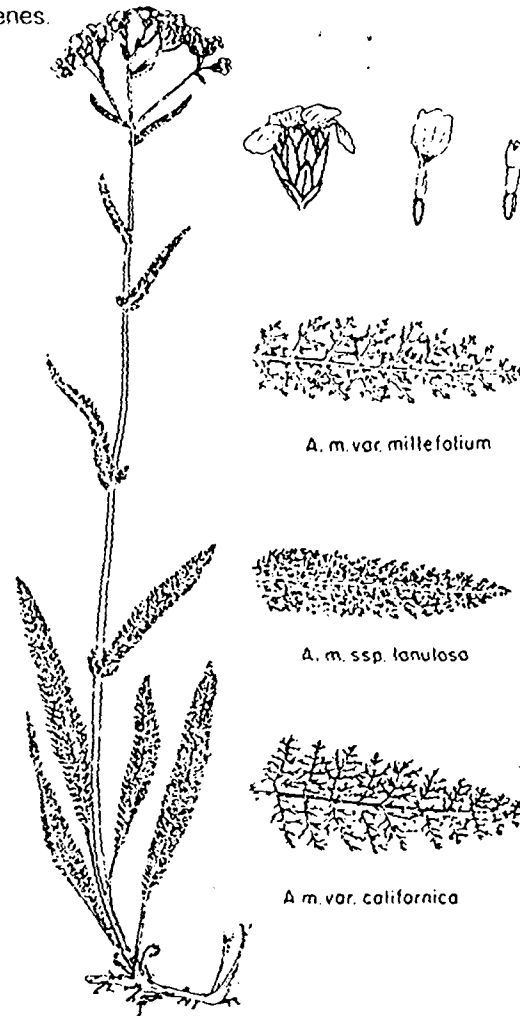
ACMI

Description: Perennial, rhizomatous, aromatic herb, up to 2 ft. (0.6 m.) tall.

Leaves: Alternate, fernlike, pinnately dissected, soft, usually light green. Lower leaves have a petiole, upper leaves arise directly from stem.

Flowers: White, flat-topped terminal clusters. April-October.

Fruit: Small achenes.



## Whipplevine

### *Whipplea modesta*

Hydrangea Family (Hydrangeaceae)

WHMO

**Range:** West side of the Cascades, from the Olympic Peninsula, south to California.

**Habitat:** Often rocky, dry, open to woody areas. Low elevation.

**Indicator Value:** Warm, dry sites at lower elevations, often with rocky, well-drained soils.

**Similar species:** Not easily confused with other trailing shrubs.

**Fire sensitivity:** Top kills easily. It resprouts and seeds in after fire.



## Whipplevine

### *Whipplea modesta*

WHMO

**Description:** Deciduous, low-growing perennial with trailing stems, often forming mats. Erect stems less than 6 in. (15 cm) in height. Plant with coarse hairs; leaves withering but persistent on plant.

**Leaves:** Opposite, with very short petioles, ovate or elliptic; jagged, toothed margins.

**Flowers:** Tiny, white flowers, borne in dense cluster on top of upright leafy stem. April-June.

**Fruit:** Small, round capsule, splitting into several one-seeded segments.





## Grouse Huckleberry

*Vaccinium scoparium*  
Heath Family (Ericaceae)

VASC

**Range:** Uncommon in western Cascades except near the crest; British Columbia to northern California, east through Idaho.

**Habitat:** Cold, high elevation areas.

**Indicator Value:** Cold, well-drained, frost-prone sites of mountain hemlock, Shasta red fir, subalpine fir, and lodgepole pine. Low productivity. Early to late successional.

**Similar species:** Can possibly be confused with a young red huckleberry (*V. parvifolium*), but leaves are small in grouse huckleberry.

**Fire sensitivity:** Sprouts from basal stems and produces viable seed. Resistance is moderate.

**Cultural significance:** Edible berries, eaten fresh or made into wine.

**Remarks:** Not palatable.



## Grouse Huckleberry

*Vaccinium scoparium*

VASC

**Description:** Deciduous, low-growing, broom-like shrub, less than 1 ft. (35 cm) tall; stems angled, green and slender.

**Leaves:** Alternate, ovate, small, less than 0.5 in. (1.3 cm) long; finely toothed.

**Flowers:** Small, pink, urn-shaped; borne singly on short stalks from leaf axils. May-August.

**Fruit:** Bright red to purplish, sweet berries.



## Red Huckleberry

*Vaccinium parvifolium*  
Heath Family (Ericaceae)

VAPA

**Range:** Western Cascades and Coast Ranges, Alaska to south-eastern British Columbia, south to central California.

**Habitat:** Mid to lower elevations, forests or clearings.

**Indicator Value:** Moist to relatively dry sites. Not on cold, frosty sites; early to mid successional.

**Similar species:** This plant has distinctive green, angled stems and erect habit.

**Fire sensitivity:** Sensitive to fire; sprouts.

**Cultural significance:** Edible berries were eaten fresh or dried and used to flavor stews. Bark was boiled for tea to treat colds. Remarks: Good browse for deer and elk, low palatability to livestock.



## Red Huckleberry

*Vaccinium parvifolium*

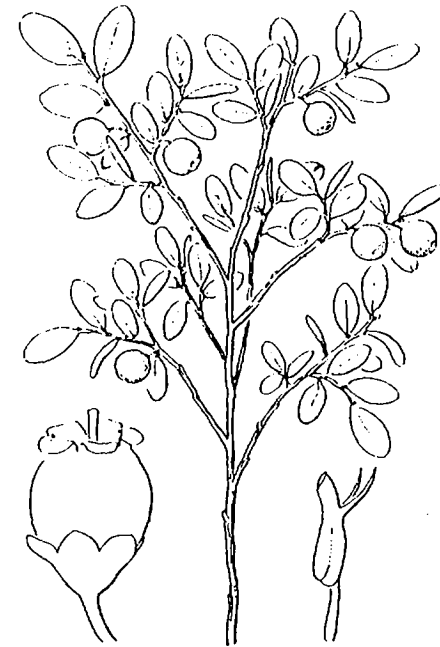
VAPA

**Description:** Deciduous, small to medium-sized shrub, 3-10 ft. (1-3 m) tall. Often found as an epiphyte on stumps or rotting wood; distinctive "broom-like" branching pattern. Branches strongly angled and ridged, remain green for several years.

**Leaves:** Alternate, oval, small, 0.4-1 in. (1.5-2.5 cm); small gland-tipped hairs on lower midvein.

**Flowers:** Small, inconspicuous, pale pink or yellowish, urn-shaped; borne singly on short stalks from leaf axils. April-June.

**Fruit:** Red, shiny berry, edible but a little tart.



## Evergreen Huckleberry

*Vaccinium ovatum*

Heath Family (Ericaceae)

VAOV2

**Range:** On the coast from British Columbia to northern California. Rare in the Cascades.

**Habitat:** Common along coast and lowlands.

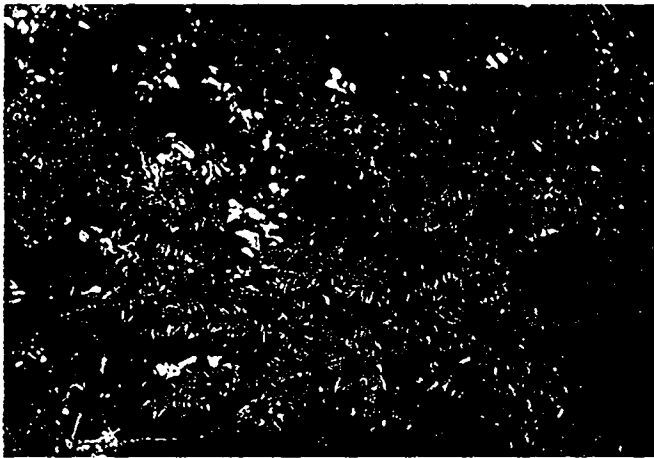
**Indicator Value:** Well-drained loamy to gravelly soils, which may be relatively infertile. Usually on sites with summer moisture stress. Moderate to low productivity.

**Similar species:** This shrub may be confused with Oregon boxwood (*Pachystima myrsinites*) when it is young and small.

**Fire sensitivity:** It is moderately sensitive and sprouts after fire.

**Cultural significance:** Berries eaten fresh or mashed. Shiny foliage often used by florists.

**Remarks:** Berries are smaller and less juicy than those of thin-leaved huckleberry (*V. membranaceum*) but quite tasty.



## Evergreen Huckleberry

*Vaccinium ovatum*

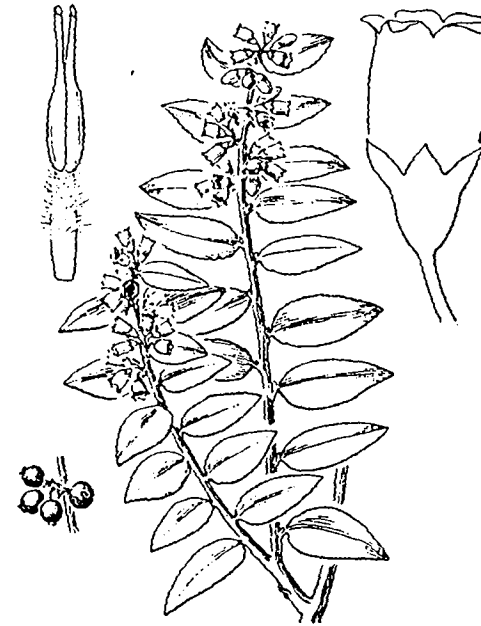
VAOV2

**Description:** Evergreen, medium to tall shrub, 1-4 ft. (0.3-1.3 m) tall, shiny. Leaves neatly alternating in same plane, reddish brown stems.

**Leaves:** Alternate; ovate; dark green, glossy above, and pale below; firm and leathery; toothed margins. Midrib appears as a crease down the center, as if folded. Young leaves are sometimes apricot-colored.

**Flowers:** Small, pink, narrow, bell-shaped flowers in small clusters from leaf axils. April-August.

**Fruit:** Shiny bluish-purple with pale blue bloom, clustered close to branches, sweet but somewhat mealy.



### Thin-leaved Huckleberry

*Vaccinium membranaceum*

Heath Family (Ericaceae)

VAME

**Range:** Common in Cascade Mountains, British Columbia to northern California, east to northern Rocky Mountains.

**Habitat:** Moist, cold environments, higher elevations.

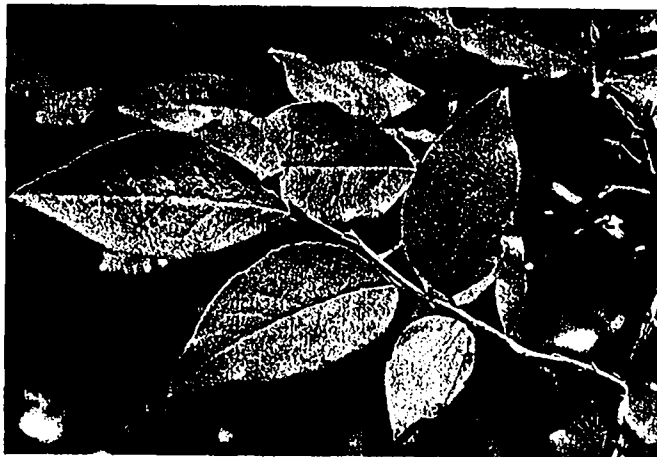
**Indicator Value:** Cool sites, well-drained, acidic soils. Seems to thrive in clearcuts and natural openings. Early to late successional.

**Similar species:** This huckleberry is distinctive in our area by its relatively large, light green, membranous leaves.

**Fire sensitivity:** Sprouts from basal stem and germinated seeds. Regenerates rapidly, and is resistant to fire.

**Cultural significance:** Berries provided important food for Indians. Leaves are also used in smoking mixtures along with other herbs. Tea is used for congestion, coughs and colds.

**Remarks:** Palatable to many wildlife species. Berries make very good pie and jam.



### Thin-leaved Huckleberry

*Vaccinium membranaceum*

VAME

**Description:** Deciduous, small to medium-sized shrub, 2-5 ft. (0.6-1.5 m) tall. Shredding bark is greyish brown; leaves turn red in autumn.

**Leaves:** Alternate, ovate with pointed tip; thin, yellowish green with fine saw-toothed margins; 1-2 in. (2.5-5 cm) long.

**Flowers:** Pale, yellowish pink, urn-shaped, longer than broad; borne single on stalks from leaf axils. April-June.

**Fruit:** Mostly shiny, reddish to purplish black, 0.2-0.5 in. (5-12 cm) in diameter; juicy and sweet.



## VACCINIUM TABLE

	Evergreen huckleberry <i>V. ovatum</i>	Grouse huckleberry <i>V. scoparium</i>	Red huckleberry <i>V. parvifolium</i>	Thin-leaved huckleberry <i>V. membranaceum</i>
LEAVES	Evergreen; thick, leathery, shiny above, paler beneath. 0.8 - 1.4 in. (2 - 3.5 cm) long.	Deciduous; paler beneath. 0.2 - 0.5 in. (0.5 - 1.2 cm) long.	Deciduous; 0.4 - 1.0 in. (1 - 2.5 cm) long.	Deciduous; thin, green above, paler beneath w/ few hairs on veins; sharply serrate. 0.8 - 2 in. (2 - 5 cm) long.
FLOWERS	White-pink	Pink	Greenish/ whitish	Yellowish
BERRY	Black	Red	Bright red	Red-purple
SIGNIFICANT CHARACTERISTIC	Leaves neatly alternating in same plane.	More or less matted.	Branches prominently angled.	Plant mostly over 16 in. (40 cm) tall.

## Creeping Snowberry

*Symphoricarpos mollis*

Honeysuckle Family (Caprifoliaceae)

SYMO

**Range:** Western Cascades, Coast Ranges, and western Sierra Nevada, east to northern Idaho.

**Habitat:** Found in open forests at lower elevations; responds vigorously to disturbance.

**Indicator Value:** Warm, dry slopes; early to late successional.

**Similar species:** Looks like common snowberry (*S. albus*) whose habit is erect rather than trailing. Berries of common snowberry are also somewhat larger.

**Fire sensitivity:** Rapid to moderate post-fire regeneration response from vigorous sprouting stem; resistant to fire.

**Cultural significance:** Indians used berries and roots for medicinal purposes. Leaves contain saponin, which is poisonous.

**Remarks:** There is some disagreement over whether the berries are poisonous. It seems to depend on the individual's sensitivity.



## Creeping Snowberry

*Symphoricarpos mollis*

SYMO

**Description:** Deciduous, trailing shrub usually less than 3 ft. (0.8 m) tall. Young stems are reddish brown, aging to grayish brown with peeling bark and hollow pith.

**Leaves:** Opposite, oval to elliptic, new ones often irregularly lobed; mostly less than 1 in. (2.5 cm) long, with fine hairs.

**Flowers:** Small, pink, bell-shaped; five petals fused to form a short tube; several in terminal cluster. June - July.

**Fruit:** Small, round, white berries in tight clusters.



## Pacific Blackberry

*Rubus ursinus*

RUUR

Rose Family (Rosaceae)

**Range:** From the Cascade mountains to the Coast, British Columbia to northern California, east to Idaho.

**Habitat:** Common in disturbed areas.

**Indicator Value:** Warm sites, open or forested, sea level to mid elevations.

**Similar species:** Not very similar to other trailing blackberry species.

**Fire sensitivity:** Resistant, sprouts; difficult to kill.

**Cultural significance:** Berries used fresh or pounded into pemmican. Leaves used with other herbs for a spring tonic tea to cleanse the blood.



## Pacific Blackberry

*Rubus ursinus*

RUUR

**Description:** Deciduous, low-growing, but extensive trailing vine; armed with sharp, recurved thorns.

**Leaves:** Alternate, three leaflets forming a triangle; margins with shallow lobes and jagged teeth; thorns sparse on midvein.

**Flowers:** White, rose-like flowers with five narrow petals; male and female flowers on separate plants. March - July.

**Fruit:** Dark purple to black aggregate berry, tasty when ripe.



## Snow Bramble

### *Rubus nivalis*

Rose Family (Rosaceae)

RUN1

**Range:** British Columbia through the Olympic and Cascade Mountains to southwestern Oregon, east to Idaho.

**Habitat:** Open to shaded moist mountain areas up to 5,000 feet.

**Indicator Value:** Cool, moist forests.

**Similar species:** Dwarf bramble (*R. lasiococcus*) has less shiny leaves and lacks spines.

**Fire sensitivity:** Unknown.



## Snow Bramble

### *Rubus nivalis*

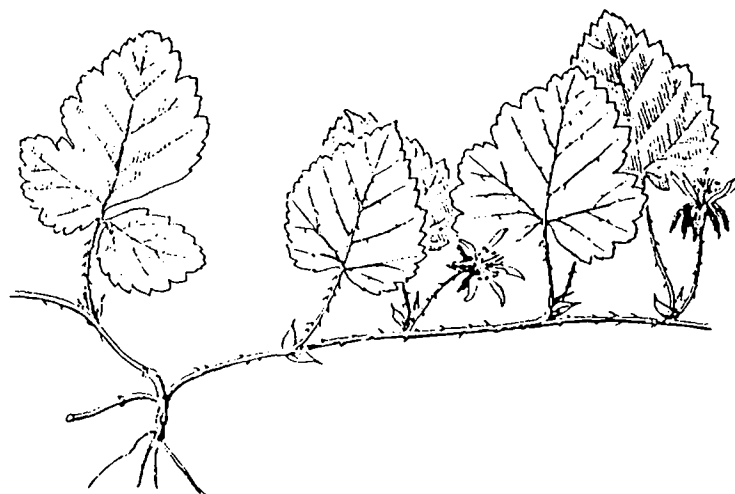
RUN1

**Description:** Evergreen, trailing shrub with sharp, recurved spines along the stem and on the underside of the leaf.

**Leaves:** Deep green, glossy, cordate, with serrated margins and some spines on the underside, 1.2-2.4 in. (3-6 cm) long.

**Flowers:** Borne in the leaf axils; the 5 petals are long and tapered, white to dull purple. June-July.

**Fruit:** Looks like a small, reddish blackberry.





## Dwarf Bramble

### *Rubus lasiococcus*

Rose Family (Rosaceae)

RULA

**Range:** Cascade Mountains from British Columbia to northern California.

**Habitat:** Prefers cool areas, mid to upper elevations.

**Indicator Value:** Cool to cold, moist sites. Common with Pacific silver fir and mountain hemlock where snowpack is persistent; late successional.

**Similar species:** Five-leaved bramble (*R. pedatus*) and snow bramble (*R. nivalis*). Five-leaved bramble has 5 leaves; top surface is wrinkled and dull. Snow bramble has thick, shiny leaf surfaces and recurved thorns underneath leaves and along stems.

**Fire sensitivity:** Unknown.

**Remarks:** Easily grown as a ground cover.



## Dwarf Bramble

### *Rubus lasiococcus*

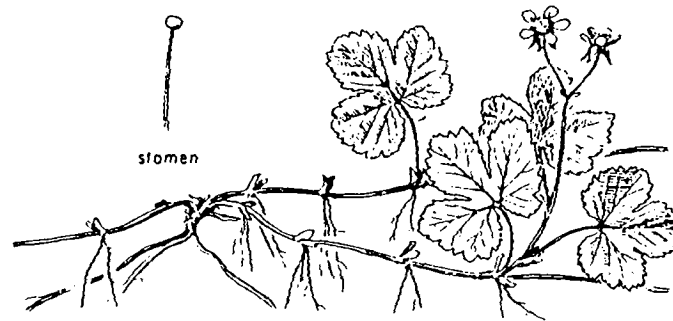
RULA

**Description:** Perennial, low growing, unarmed, subshrub which spreads by freely rooting stems. Erect flowering stems grow to 4 in. (10 cm) tall.

**Leaves:** Basal, on short stems, resembling strawberry leaves; broadly three-lobed, 1-2.5 in. (2.5-6.5 cm) across; margins doubly serrate.

**Flowers:** Small rose-like flowers; five white petals, many stamens; one or two blooms on each flower stem. June-August.

**Fruit:** Small, red, aggregate fruits which fall apart easily. Not abundant.



## RUBUS TABLE

	Black-cap raspberry <i>R. leucodermis</i>	Dwarf bramble <i>R. lasiococcus</i>	Pacific blackberry <i>R. ursinus</i>
HABIT	Erect	Trailing	Trailing
ARMED?	Yes	No	Yes
LEAVES	Pinnate w/3 leaflets; white beneath.	Simple/3-lobed	Compound w/3 leaflets
BARK	Whitish		
EVERGREEN?	No	No	No
FLOWERS	White	White	Pink-purple
BERRIES	Purple/black/ not shiny	Small/red/shiny	Black/shiny

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	Salmonberry <i>R. spectabilis</i>	Snow bramble <i>R. nivalis</i>	Thimbleberry <i>R. parviflorus</i>
HABIT	Erect	Trailing	Erect
ARMED?	Yes	Yes	No
LEAVES	Compound w/3 leaflets	Simple/glossy	Simple/palmately lobed
BARK	Yellowish to shedding		Often shedding
EVERGREEN?	No	Yes	No
FLOWERS	White	Pink-purple	White
BERRIES	Red-salmon-yellow/ shiny	Red/shiny	Scarlet/hemis- pheric/not shiny

## Baldhip Rose

### *Rosa gymnocarpa*

Rose Family (Rosaceae)

ROGY

**Range:** Common in western Cascades, southern British Columbia to northwest Montana, south to Sierra Nevada.

**Habitat:** Moist, cool environments; relatively open forests, sea level to mid-montane. Generally in mixed conifer forests.

**Indicator Value:** Moist to dry. Moderate to easy regeneration. Mid to late successional.

**Similar species:** Baldhip rose (*R. gymnocarpa*), is the only rose which does not retain the flower sepals on the fruits.

**Fire sensitivity:** Moderate post-fire regeneration response from basal stem sprouts; moderate fire resistance.

**Cultural significance:** Rose hips can be eaten fresh or dried; the leaves can be chewed and applied to bee stings to reduce swelling and pain. Petals can be used in salads and leaves in tea; reputed to contain large quantities of vitamin C.



## Baldhip Rose

### *Rosa gymnocarpa*

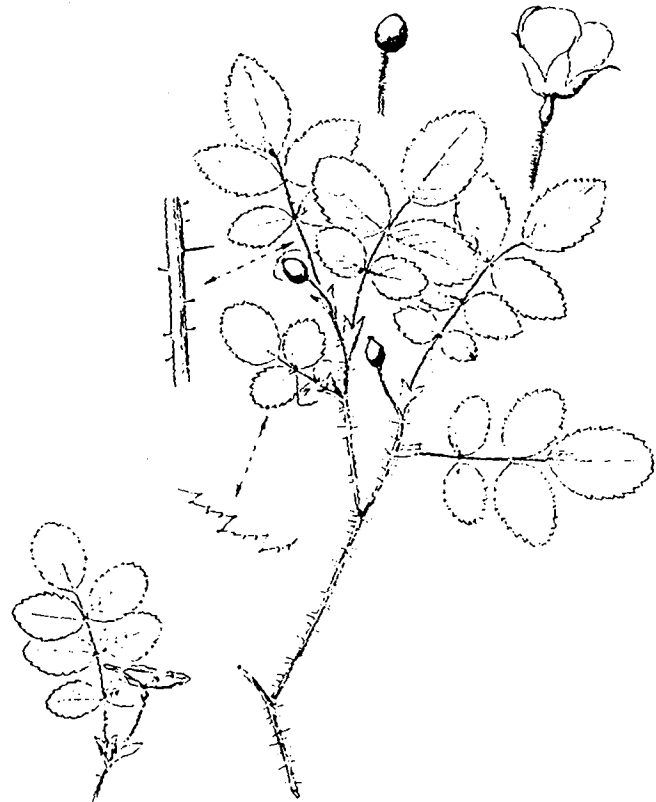
ROGY

**Description:** Deciduous, small to medium, erect shrub up to 5 ft. (1.5 m) tall. Generally covered with single, straight, often dense prickles.

**Leaves:** Alternate, compound with 5 to 9 pinnately arranged leaflets, 0.4-0.8 in. (1-2 cm) long. Margins are doubly serrate.

**Flowers:** Small, fragrant; 5 pink petals, many stamens. June-July.

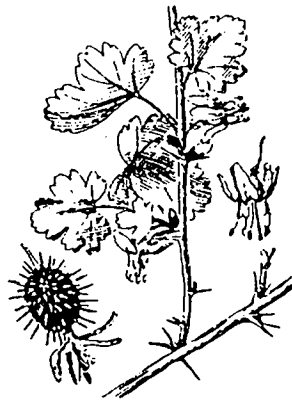
**Fruit:** Small green "hips" becoming orange to red when mature; smooth, elliptic or pear-shaped. The sepals do not remain on the fruit, as in other roses; thus, the species' name "gymnocarpa," meaning naked fruit.



# Applegate Gooseberry

*Ribes marshallii*

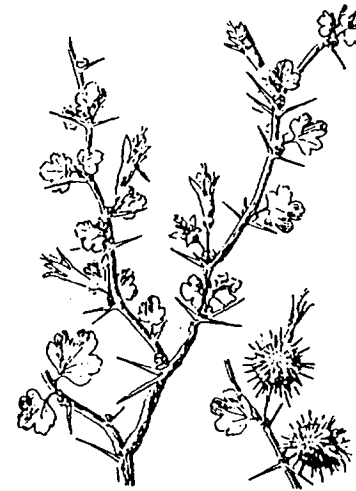
RIMA



# Shinyleaf Gooseberry

*Ribes cereum*

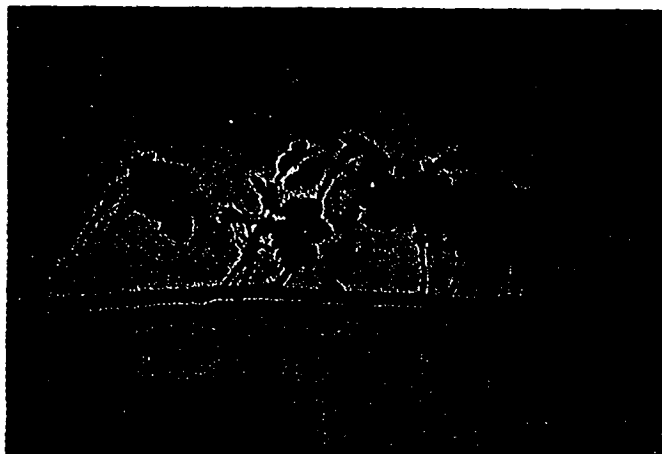
RICR



**Siskiyou Gooseberry**

*Ribes binominatum*

RIBI



**Gummy Gooseberry**

*Ribes lobbii*

RILO



Red Currant

*Ribes sanguineum*

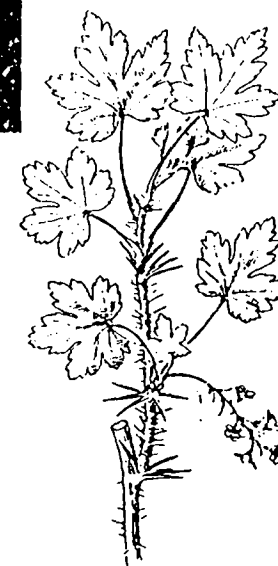
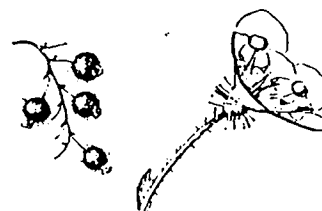
RISA



Swamp Gooseberry

*Ribes lacustre*

RILA



**Sticky Currant**

*Ribes viscosissimum*

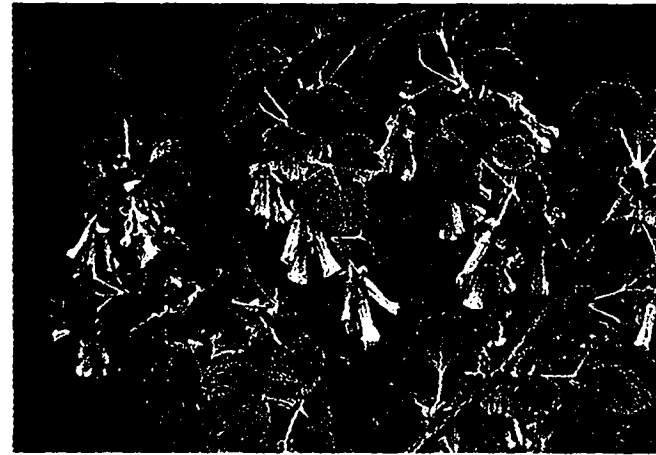
RIVI



**Squaw Currant**

*Ribes cereum*

RICE



# RIBES KEY

1. Plant without stem spines 2
  2. Petioles very glandular; flowers cream/white; leaves sticky and odorous. Sticky currant  
*R. viscosissimum*
  2. Petioles smooth or slightly glandular; flower tubular, pink-red; leaves not sticky. 3
    3. Leaves 0.4-1.2 in. (1-3 cm) wide; Flowers tubular to reflexed, pink, 0.3-0.4 in. (8-10 mm) long. Squaw currant  
*R. cereum*
    3. Leaves 1.2-3.1 in. (3-8 cm) wide; Flowers tubular to spreading, bright pink-red, 0.1 in. (3-4 mm) long. Red currant  
*R. sanguineum*
1. Plant with stem spines at nodes and/or internodes. 4
  4. Plant trailing. 5
    5. Leaves glabrous, wet habitat.
      6. Bristles on internodes. Swamp gooseberry  
*R. lacustre*
      6. Spines only at nodes. 7
        5. Leaves pubescent, habitat otherwise, no bristles on internodes. Siskiyou gooseberry  
*R. binominatum*
    4. Plant erect, or seemingly trailing at higher elevations due to snow; nodal spines in 3's, leaves 3- to 5-lobed. 7
      7. Leaves deeply lobed, berry glandular. Common on disturbed sites. Gummy gooseberry  
*R. lobbii*
    7. Leaves shallowly lobed, berry spiny, nodal spines, 3. 8
      8. Habitat cold sites, elevation above 5,000 feet, flower stems 0.5-0.6 in. (1.2-1.5 cm) long; berry has sharp spines on a smooth surface. Flowers in June-July. Applegate gooseberry  
*R. marshallii*
      8. Habitat otherwise, elevation below 5,000 feet, flower stems 0.3-0.4 in. (7-10 mm) long; berry has sharp spines on a glandular surface. Flowers in April-June. Shinyleaf gooseberry  
*R. cruentum*



## Poison Oak

### *Rhus diversiloba*

Sumac Family (Anacardiaceae)

**Range:** Common in western Cascades and Sierra Nevada, south from Puget Sound to Mexico.

**Habitat:** Occupies open, forested sites.

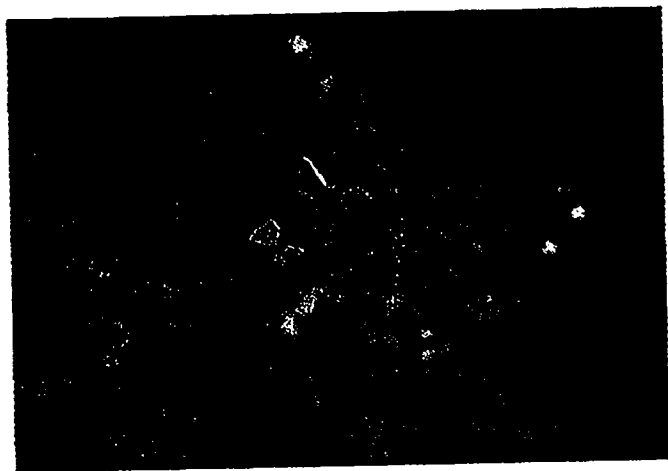
**Indicator Value:** Dry, hot sites with well-drained soils.

**Similar species:** Once learned, this plant is easily recognized.

**Fire sensitivity:** Sprouts easily from wide-spreading root systems.

**Remarks:** Oil (urushiol) causes allergic reaction in many people, resulting in a burning or itching rash.

RHDI



## Poison Oak

### *Rhus diversiloba*

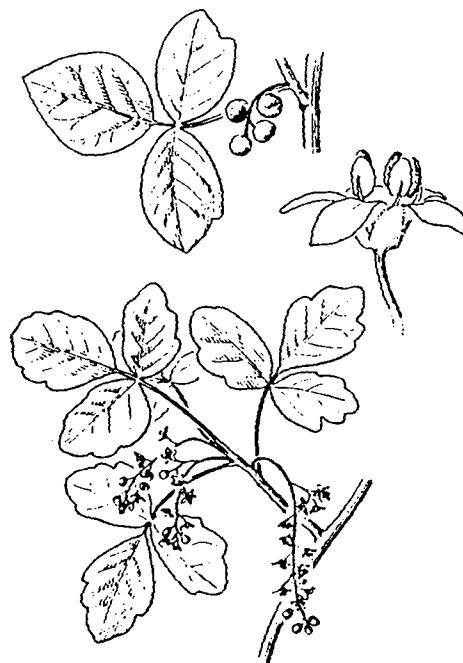
RHDI

**Description:** Deciduous, small to medium-sized shrub or climbing vine up to 10 ft. (3 m) tall; stems often hairy.

**Leaves:** Alternate, with three leaflets, glossy, variable in shape, ovate or rounded; margins wavy to deeply lobed; reddish green in early spring, turning bright red or yellow in fall.

**Flowers:** Small, inconspicuous, yellowish green, borne in hanging clusters from leaf axils; fragrant. April-July.

**Fruit:** Round, white, fleshy fruit with grooves; persists on plant after leaves fall.



## Western Azalea

### *Rhododendron occidentale*

Heath Family (Ericaceae)

RHOC

Range: Southwestern Oregon to southern California.

Habitat: Moist areas and stream sides.

Indicator Value: Wet, ultrabasic sites.

Similar species: Pacific rhododendron (*R. macrophyllum*) has similarly shaped but larger leaves, and the flowers have 10 stamens rather than 5.

Fire sensitivity: Sensitive, easily killed.

Remarks: Widely cultivated for horticultural purposes; poisonous to livestock.



## Western Azalea

### *Rhododendron occidentale*

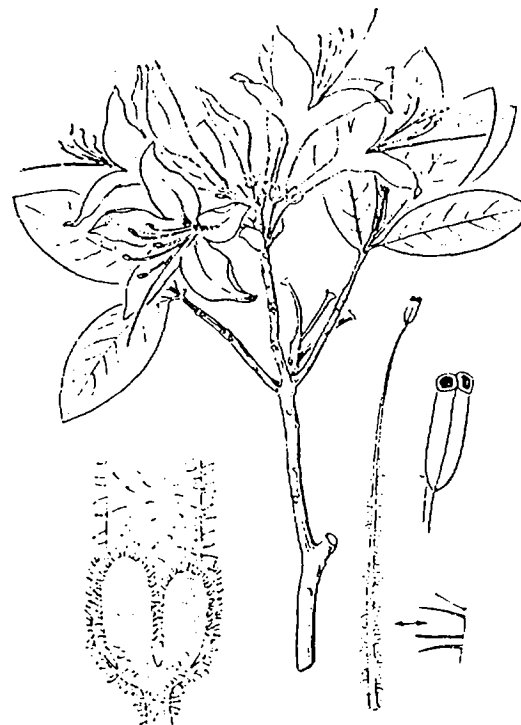
RHOC

Description: Deciduous, spreading shrub, 3.3-16.0 ft. (1-5 m) tall.

Leaves: Elliptic to narrowly obovate, yellowish or light green, 1.2-3.5 in. (3-9 cm) long.

Flowers: 5 to 20 fragrant flowers on terminal clusters, white to deep rose with 5 long, curved stamens. April-August.

Fruit: Oblong, pubescent capsules, 0.4-0.7 in. (1-2 cm) long.



## Pacific Rhododendron

### *Rhododendron macrophyllum*

RHMA

Heath Family (Ericaceae)

**Range:** In the Cascades to Coast Ranges of Oregon, south to northern California, with a sporadic distribution in Washington.

**Habitat:** Coastal to low montane conifer forests.

**Indicator Value:** Shallow, well-drained soil, generally low in nutrients. High summer moisture stress; low productivity sites.

**Similar species:** Not easily confused with other shrubs.

**Fire sensitivity:** Sensitive to fire.

**Cultural significance:** State flower of Washington; cultivated horticulturally for its large colorful blooms. All parts are considered poisonous.

**Remarks:** Can become dense and difficult to walk through.



## Pacific Rhododendron

### *Rhododendron macrophyllum*

RHMA

**Description:** Evergreen, medium to large shrub up to 15 ft. (4.5 m) tall. Leaves appear clustered near branch tips; shallow rooted.

**Leaves:** Alternate, elliptic, pointed, up to 8 in. (20 cm) long; thick and leathery.

**Flowers:** Large, showy, pink flowers in rounded terminal clusters; margins of petals wavy. Stamens have terminal pores.

**Fruit:** Woody capsule with small seeds; old capsules persist on stems.



## Cascara

### *Rhamnus purshiana*

Buckthorn Family (Rhamnaceae)

RHPU

**Range:** British Columbia to California, western Cascades to Idaho and Montana.

**Habitat:** Moist areas below 5,000 feet.

**Indicator Value:** Moist to wet site indicator.

**Similar species:** Young plants resemble coffeeberry (*R. californica*) which has a shorter stature and persistent leaves.

**Fire sensitivity:** Unknown.

**Cultural significance:** Indians ate the purple berries.

**Remarks:** Bark collected for use as a laxative, must be aged a year before using.



## Cascara

### *Rhamnus purshiana*

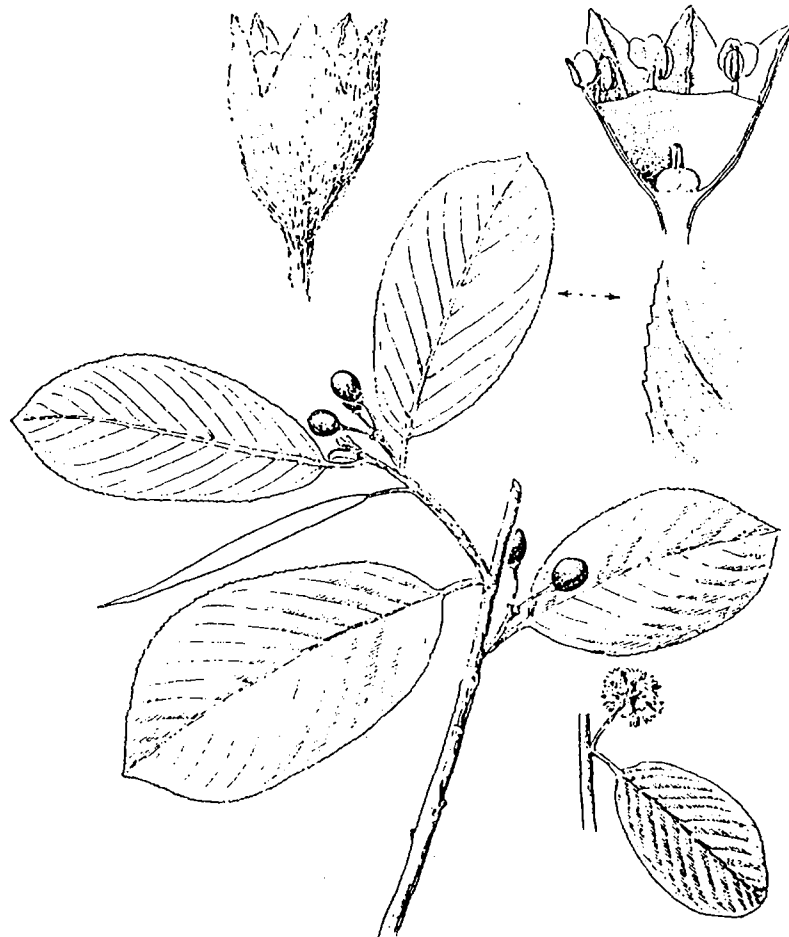
RHPU

**Description:** Deciduous shrub to small tree, with prominently veined leaves, up to 33 ft. (10 m) tall.

**Leaves:** Alternate, simple, ovate to oblong, 2.4 - 5.0 in. (6 - 13 cm) long, with 10 - 12 prominent parallel veins on each side. Margins are very finely serrate.

**Flowers:** Bell-shaped; clustered in leaf axils; very small petals. April - June.

**Fruit:** Purple to black berries, 0.2 - 0.4 (6 - 9 mm) long.



## Huckleberry Oak

*Quercus vaccinifolia*

Beech Family (Fagaceae)

QUVA

Range: From southwestern Oregon to central California.

Habitat: Dry, rocky areas; 3,000 to 10,000 feet in elevation.

Indicator Value: Mostly limited to ultrabasic soils in our area.

Similar species: Can be easily mistaken for canyon live oak (*Q. chrysolepis*) which is quite variable in leaf shape and can also be found on serpentine or other ultrabasic soil. Huckleberry oak always grows on ultrabasic soil in our area. The terminal stems are very flexible, unlike the canyon live oak.

Fire sensitivity: Moderately susceptible to fire; sprouts.



## Huckleberry Oak

*Quercus vaccinifolia*

QUVA

Description: Evergreen, low, spreading shrub up to 4 ft. (1.2 m) tall. Branches are flexible and slender.

Leaves: Oblong-ovate, mostly entire, 0.5-1.2 in. (1.2-3 cm) long, dull green in color; petioles, about 0.1 in. (3-6 mm) long.

Flowers: Male and female flowers are on the same plant. Male flowers are in slender, drooping catkins. Female flowers are surrounded by an involucre that becomes cup-like. May-July.

Fruit: Acorns, with thin-walled, shallow cups, 0.4-0.6 in. (1-1.5 cm) long, and just as wide.



## Coffeeberry

### *Rhamnus californica*

Buckthorn Family (Rhamnaceae)

RHCA

Range: Southwestern Oregon to Southern California.

Habitat: Inhabits sandy and/or rocky places.

Indicator Value: Ultrabasic soils.

Similar species: Cascara (*R. purshiana*) leaves look similar, but the plant is larger in stature and the leaves are deciduous rather than persistent. Cascara also grows along streams.

Fire sensitivity: Unknown.

Cultural significance: The bark of this shrub has laxative properties, similar to cascara.



## Coffeeberry

### *Rhamnus californica*

RHCA

Description: Evergreen shrub; upright and rounded to low and spreading; 3-13 ft. (1-4 m) tall with young twigs often reddish.

Leaves: Persistent, oblong; margins entire to serrate; the upper and lower sides smooth and green; 1.2-3.1 in. (3-8 cm) long.

Flowers: Perfect, in umbels; the flower stems are 0.2-0.7 in. (4-18 mm) long, with 6-50 flowers, about 0.1 in. (2-3 cm) long. May-July.

Fruit: Berries, turning red to black when ripe, 0.4-0.5 in. (10-12 mm) in diameter, usually containing 2 seeds.



## Sadler Oak

*Quercus sadleriana*

Beech Family (Fagaceae)

Range: Southwestern Oregon to Trinity County in California.

Habitat: Dry slopes and ridges, 3,100 to 7,000 feet.

Indicator Value: Dry, rocky, high elevation sites.

Similar species: This shrub could blend in with surrounding *Rhododendron*. Watch for the sharply serrated leaves.

Fire sensitivity: Low susceptibility to fire; sprouts.



QUSA

## Sadler Oak

*Quercus sadleriana*

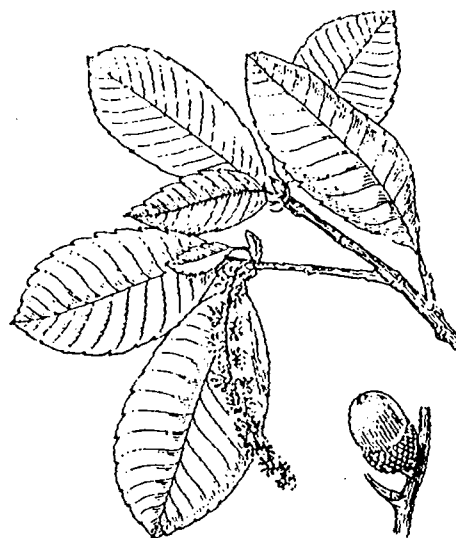
QUSA

Description: Evergreen shrub, 3.3-8.0 ft. (1-2.5 m) tall with large leaves.

Leaves: Alternate, elliptic to oblong-ovate, 2-5 in. (5-12 cm) long, evenly toothed and pinnately veined. Petioles, 0.4-0.8 (1-2 cm) long.

Flowers: Separate male and female flowers occur on the same plant. Male flowers are on slender, drooping or spreading catkins. Female flowers are surrounded by a scaly involucre that becomes cup-like. April-June.

Fruit: Acorns, with thin-walled cups, 0.6-0.8 in. (1.5-2 cm) long.



## Oregon Boxwood

### *Pachystima myrsinites*

Staff-Tree Family (Celastraceae)

PAMY

**Range:** British Columbia to California, east to the Rocky Mountains.

**Habitat:** Forest to open sites; most abundant on basalt or metamorphic parent materials, but not restricted to these soils.

**Indicator Value:** Indicates moist conditions, cool sites, generally well-drained soils. Lowland to montane; early to late successional.

**Similar species:** Kinnikinnik (*Arctostaphylos uva-ursi*) and evergreen huckleberry (*Vaccinium ovatum*). Kinnikinnik has alternate, more rounded leaves, with no serrations, and forms mats. Evergreen huckleberry has alternate, pointed leaves, and grows taller than boxwood.

**Fire sensitivity:** Moderate regeneration post-fire response from stem buds and seed germination. Fire resistance ranges from susceptible to moderate. Seeds can remain viable for decades.

**Cultural significance:** Reputed as a remedy for kidney and rheumatic disorders.

**Remarks:** Cultivated as an ornamental; used in hedges. It is palatable to deer and elk.



## Oregon Boxwood

### *Pachystima myrsinites*

PAMY

**Description:** Evergreen, small shrub up to 3 ft. (0.9 m) tall. Stems are distinctively 4-angled, reddish brown, and opposite.

**Leaves:** Opposite, glossy, leathery, elliptic, up to 1 in. (2.5 cm) long with serrated margins.

**Flowers:** Small, inconspicuous, reddish to purple petals in a flattened disc, located between stem and leaf. April-June.

**Fruit:** Small, dark brown seeds.





## Hairy Honeysuckle

### *Lonicera hispidula*

Honeysuckle Family (Caprifoliaceae)

**Range:** In the western Cascades, from southern British Columbia to southern California.

**Habitat:** Found in thickets and open woods.

**Indicator Value:** Hot, dry, open slopes and forests; often rocky, well-drained soils.

**Similar species:** Orange honeysuckle (*Lonicera ciliosa*) is quite similar, but has little hairs only on the margins of the leaves and an orange flower.

**Fire sensitivity:** Unknown.

LOHI



## Hairy Honeysuckle

### *Lonicera hispidula*

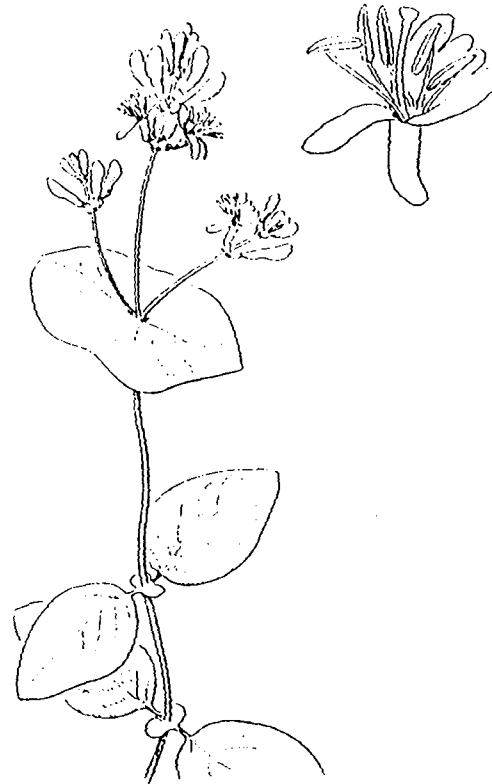
LOHI

**Description:** A deciduous vine or climbing shrub with hollow stems. One distinctive feature of this species is the pair of fused stipules which surround the stem at the lower base of the opposite leaves. Hairiness of this plant is variable. Hairs can be stiff, gland-tipped, or absent.

**Leaves:** Opposite, firm, ovate with rounded tip. Upper pair often fused together around stem. Various hairy.

**Flowers:** Deep pink or yellow and pink, borne in terminal clusters on long stems from upper pair of fused leaves. Tubular shaped, with two lips, base of tube swollen on one side. Stamens are attached near opening of tube. June - August.

**Fruit:** Small red berry with several seeds.



## Creambush Ocean-Spray

*Holodiscus discolor*

Rose Family (Rosaceae)

HODI

**Range:** Widespread, throughout the western Cascades to the coast, from British Columbia, south to California, east to northern Idaho and western Montana.

**Habitat:** Found at the coast to lower mountains, often on rocky soil.

**Indicator Value:** Warm to dry sites; often rocky, shallow soils. Early to mid successional.

**Similar species:** California hazel (*Corylus cornuta* var. *californica*) and western serviceberry (*Amelanchier alnifolia*). California hazel has larger, more oval leaves, catkin-type flowers, fruit is hazelnut. In western serviceberry, the leaves are smaller, thinner, with teeth only on top third to half of margin. Fruit is a blue-black berry.

**Fire sensitivity:** Moderate post-fire regeneration response from basal stem sprouts; moderate degree of fire resistance.

**Cultural significance:** Wood was used for arrows, bows, digging sticks, tongs, spears, drum hoops and paddles. Bark and leaves were used to treat burns and sores. Infusions of seeds were used for prevention of contagious diseases.

**Remarks:** The foliage is browsed by elk and deer. Dry, withered flowers persist well into the following year.



## Creambush Ocean-Spray

*Holodiscus discolor*

HODI

**Description:** Deciduous, medium-sized, generally erect shrub; up to 12 ft. (3.6 m) tall. Bark is deep grayish red. Stems arch upward and outward.

**Leaves:** Alternate, 1-3 in. (2.5- 7.5 cm) long, coarsely serrate to scallop-toothed margins, inconspicuously hairy, the lower surface, felt-like.

**Flowers:** Dense, cream-colored, terminal clusters of numerous tiny flowers which hang down in a curved manner. They will age to brown and remain on the bush throughout the winter. June - August.

**Fruit:** Small, dry, one-seeded "nut."



## Salal

### *Gaultheria shallon*

Heath Family (Ericaceae)

GASH

**Range:** Common on west slope of Cascades to the coast from British Columbia to California.

**Habitat:** Found in coniferous forests, at mid to low elevations.

**Indicator Value:** Generally warm and dry, well-drained sites. Not in areas with deep snow pack. Often in rocky, shallow soil, possibly areas with summer moisture stress. It is tolerant of salt spray, and indicates moderate productivity. It responds to canopy openings with vigorous growth.

**Similar species:** This is an easily recognized shrub.

**Fire sensitivity:** Moderate; resprouts.

**Cultural significance:** Berries were dried and eaten or made into pemmican by Indians. Medicinal uses of tea include treatment of cough, tuberculosis and diarrhea. Leaves were smoked.

**Remarks:** This shrub is sometimes used in landscaping. It is eaten by large game animals in winter. Berries are important food for bear, quail and grouse. It becomes established in old clearcuts and burns.



## Salal

### *Gaultheria shallon*

GASH

**Description:** Evergreen, small to medium-sized shrub, 2-4 ft. (0.6-1.2 m) tall. It can grow to 6.5 ft. (2 m) and become very dense in coastal areas. Stems are sparsely hairy.

**Leaves:** Alternate, dark green, leathery, ovate, with finely toothed margins, prominent veins.

**Flowers:** Small, urn-shaped, growing along stems arising from leaf axils; white to pink. Sticky hairs on flowers and flower stems. May-July.

**Fruit:** Deep purple-blue, fleshy, mealy berries. Animals eat them and disperse the seeds.



## Slender Salal

***Gaultheria ovatifolia***  
Heath Family (Ericaceae)

GAOV

**Range:** Grows throughout the Cascade and Olympic mountains, occasionally to Idaho and Montana.

**Habitat:** Within the forest understory, at mid to high elevations.

**Indicator Value:** Cool, moist areas, mid to upper elevations, often with Pacific silver fir (*Abies amabilis*) and/or mountain hemlock (*Tsuga mertensiana*). Mid to late successional.

**Similar species:** Not easily confused with other shrubs; miniaturized version of salal (*G. shallon*).

**Fire sensitivity:** Unknown.

**Remarks:** Makes a nice ground cover for landscaping in shady areas; unpalatable to game animals.



## Slender Salal

***Gaultheria ovatifolia***

GAOV

**Description:** Evergreen, forms low mats; spreading branches 4-15 in. (10-40 cm) long. Seldom over 2 in. (5 cm) tall. Stems are slender and hairy.

**Leaves:** Alternate, ovate, acute, leathery; 0.6-1.6 in. (1.5-4 cm) long by 0.4-1.2 in. (1-3 cm) wide. Margins are finely serrate.

**Flowers:** Solitary in leaf axils, urn-shaped, pink to white. June-August.

**Fruit:** Bright red berries.



## Box-Leaved Silk-Tassel

### *Garrya buxifolia*

Silk-Tassel Family (Garryaceae)

GABU

**Range:** From southwestern Oregon, south to Mendocino County, California.

**Habitat:** Occurs on rocky slopes 1,500 to 4,600 feet.

**Indicator Value:** Ultrabasic soils.

**Similar species:** Fremont silk-tassel (*G. fremontii*) has glabrous undersides on the leaves. Be careful not to assume this is manzanita (*Arctostaphylos* spp.) at first glance. Remember that the silk-tassels have opposite leaves.

**Fire sensitivity:** Unknown.

**Remarks:** This shrub is fair browse for game.



## Box-Leaved Silk-Tassel

### *Garrya buxifolia*

GABU

**Description:** Low, evergreen shrub, 2.0-6.5 ft. (0.5-2 m) tall. Young twigs are stiffly hairy. This species is dioecious, which means there are separate male and female plants.

**Leaves:** Oblong-elliptic to roundish, 0.4-1.6 in. (1-4 cm) long, glabrous on upper surface, densely pubescent below, with petioles 0.1-0.2 in. (3-6 mm) long.

**Flowers:** Male catkins 2-2.8 in. (5-7 Mm) long, in clusters of 2 to 4; female flowers 1.2-3.5 in. (3-9 cm) long. February-April.

**Fruit:** Blue-black subglabrous berries, 0.1-0.2 in. (4-6 mm).



## California Hazel

*Corylus cornuta* var. *californica*  
Birch Family (Betulaceae)

COCOC

**Range:** From British Columbia to central California; occurs on both sides of the Cascades at lower elevations, east to Idaho.

**Habitat:** This shrub is found in many plant communities.

**Indicator Value:** Occurs at low elevations on warm sites in well-drained soils.

**Similar species:** At times can resemble western serviceberry, (*Amelanchier alnifolia*) and ocean spray (*Holodiscus discolor*). In western serviceberry, leaves are smaller, oval, with teeth only on the top third to half of margin. Berries are blue-black. In ocean spray, leaves are smaller, less oval. Flower clusters persist, even when dry.

**Fire sensitivity:** Sprouts abundantly from root crown after fire.

**Cultural significance:** Nuts can be eaten as is. Indians used them in pemmican. Sprouts were used for making baskets; long twigs were used for making rope.

**Remarks:** Birds and small mammals eat the nuts and also disperse them. Leaves have low palatability.



## California Hazel

*Corylus cornuta* var. *californica*

COCOC

**Description:** Deciduous shrub up to 14 ft. (4.5 m) tall, with smooth bark.

**Leaves:** Alternate, ovate with acute tip, 0.2-2.8 in. (4-7 cm) long; often softly hairy; margins serrate.

**Flowers:** Small, flowers with male and female in separate, long drooping clusters, wind-pollinated. Male flowers appear in winter, January-March.

**Fruit:** Filbert or hazelnut enclosed in fuzzy green sheath, often in pairs.



## Common Prince's-Pine

### *Chimaphila umbellata*

CHUM

Heath Family (Ericaceae)

Range: Alaska to southern California, eastward throughout the U.S.

Habitat: Mid elevations; prefers cool, moist conditions.

Indicator Value: Mid to late successional; dry, cool to warm.

Similar species: Easily confused with little prince's-pine which is smaller with fewer, paler flowers, leaves which are larger toward the base, and reddish stems. Common prince's-pine has green stems.

Fire sensitivity: Slow post-fire regeneration from rhizome buds; sensitive, easily killed.

Cultural significance: Medicinal tea was used by Indians, for healing of internal organs.

Remarks: This plant has been used to make root beer.



## Common Prince's-Pine

### *Chimaphila umbellata*

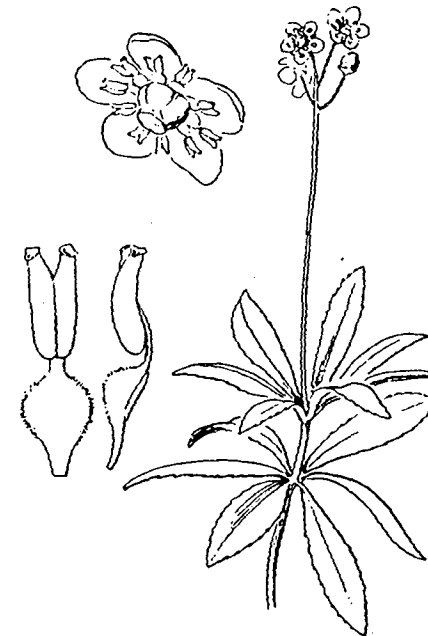
CHUM

Description: Evergreen, small, erect shrub, 2.8-8.6 in. (7-22 cm) tall, with a green stem.

Leaves: Whorled, dark green, leathery, toothed margins.

Flowers: Pink to rose, petals partly joined and spreading in a wheel-like fashion; borne in clusters on short, upright stems. June-August.

Fruit: Small round capsule, persisting through the winter.



### Little Prince's-Pine

***Chimaphila menziesii***  
Heath Family (Ericaceae)

CHME

**Range:** From British Columbia to Southern California, east to Idaho and Montana.

**Habitat:** Prefers coniferous woods.

**Indicator Value:** Low light levels.

**Similar species:** Common prince's-pine (*C. umbellata*) is very similar, but larger, and has a green stem with no petioles. Little prince's-pine has a reddish stem.

**Fire sensitivity:** Unknown.

**Cultural significance:** Tea made from this plant has been used to relieve kidney problems. It is good for all the vital organs.



### Little Prince's-Pine

***Chimaphila menziesii***

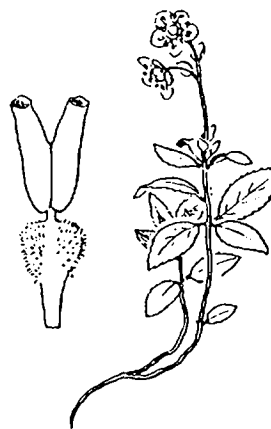
CHME

**Description:** Evergreen, small, erect shrub, 2-6 in. (5-15 cm) tall, with a reddish stem.

**Leaves:** Ovate to elliptic, 0.8-2.4 in. (2-6 cm) long, serrate to entire. Petioles are 0.2-0.3 in. (5-8 mm) long, reddish.

**Flowers:** 1-3 pink to white terminal flowers. Lower part of filaments are swollen and hairy. June-August.

**Fruit:** Capsule, 0.2 in. (5 mm) wide.





## Snowbrush

### *Ceanothus velutinus*

CEVE

Buckthorn Family (Rhamnaceae)

**Range:** From British Columbia to northern California, Siskiyou and Cascades to Colorado and South Dakota.

**Habitat:** Open wooded slopes, montane forest openings, chaparral; thick on burned sites.

**Indicator Value:** Early successional. Indicates recent fire history.

**Similar species:** Looks like redstem ceanothus (*C. sanguineus*), but snowbrush is evergreen with more glossy/sticky leaves.

**Fire sensitivity:** Rapid regeneration response from stem sprouts and heat-scarified seed, which can remain viable for over 200 years; very resistant to fire.

**Cultural significance:** Astringent and tonic can be made from the bark and roots. Flowers can be used as a tea or lathered like soap.

**Remarks:** A nitrogen-fixer, this species makes a significant contribution to nutrient cycling after fires. It normally dies out from shading as tree canopy increases.



## Snowbrush

### *Ceanothus velutinus*

CEVE

**Description:** Evergreen, erect shrub up to 11 ft. (3.5 m) tall. Bark is smooth. Plant is often aromatic, especially in warm weather.

**Leaves:** Alternate, 1-3 in. (2.5-8.0 cm) long. Shiny on top, paler underneath; margins serrated and rounded at the tip; three prominent veins from base of leaf.

**Flowers:** Small, white flowers in large, pyramid-shaped clusters. April-June.

**Fruit:** Small, hard, 3-celled capsules.



## Blue Blossom Ceanothus

### *Ceanothus thyrsiflorus*

Buckthorn Family (Rhamnaceae)

CETH

**Range:** Found in the Coast Range from southern Oregon to Santa Barbara County, California.

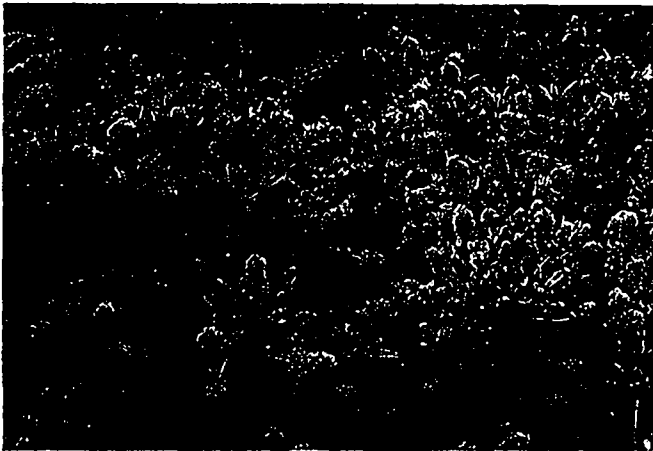
**Habitat:** Most often in wooded slopes below 2,000 feet.

**Indicator Value:** Indicates proximity to coast.

**Similar species:** Not easily confused with other *Ceanothus* species.

**Fire sensitivity:** Similar to deerbrush (*C. integerrimus*).

**Remarks:** Sometimes hybridizes with several other *Ceanothus* species.



## Blue Blossom Ceanothus

### *Ceanothus thyrsiflorus*

CETH

**Description:** Evergreen, large, often tree-like shrub; 3.3-10 ft. (1-6 m) tall; angled branchlets.

**Leaves:** Oblong-ovate to broadly elliptical, rounded to acute, 0.4-2 in. (1-5 cm) long, with 3 prominent veins arising from the base. Upper surface is smooth and dark; lower surface, lighter and slightly hairy. Petioles 0.1 to 0.5 in. (3-12 mm) long.

**Flowers:** Compound clusters, 1.2-3.1 in. (3-8 cm) long, light to deep blue. March-June.

**Fruit:** Slightly lobed, sub-globose fruits, about 0.1 in. (3 mm) wide, which grow darker with maturity.



## Dwarf Ceanothus

### *Ceanothus pumilus*

Buckthorn Family (Rhamnaceae)

CEPU

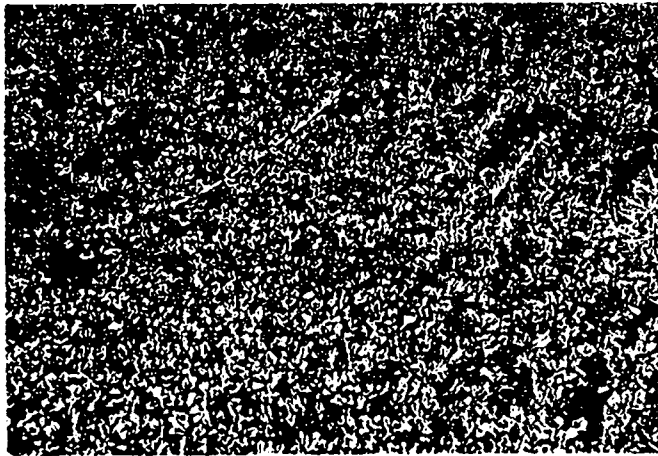
**Range:** Found from southwestern Oregon to Mendocino County, California.

**Habitat:** Dry serpentine slopes and flats, at elevations from 2,000 to 5,700 feet.

**Indicator Value:** In our area, it indicates ultrabasic parent material.

**Similar species:** Looks like squawcarpet (*C. prostratus*), but has smaller leaves.

**Fire sensitivity:** Responds vigorously to fire by sprouting and seed germination.



## Dwarf Ceanothus

### *Ceanothus pumilus*

CEPU

**Description:** Low, mat-forming, creeping shrub.

**Leaves:** Opposite, persistent, wedge-shaped to oblong-lanceolate; 0.2-0.6 in. (1.4-1.5 cm) long on petioles less than 0.1 in. (1-2 mm) long, often with few teeth on the margins.

**Flowers:** Blue to white, borne in few-flowered umbels. April-May.

**Fruit:** Globose capsules, 0.2 in. (4-5 mm) in diameter, containing shiny, flattened seeds.



## Squaw Carpet

### *Ceanothus prostratus*

Buckthorn Family (Rhamnaceae)

CEPR

**Range:** Mostly in the eastern Cascades, extending westward in southern Oregon.

**Habitat:** Inhabits very dry sites, often on southern aspects. Often found in ponderosa pine to mixed conifer stands. It grows well on pumice soil.

**Indicator Value:** Warm, dry sites.

**Similar species:** Dwarf ceanothus is very similar, but the leaves are smaller and it grows in ultrabasic soils, such as serpentine, which occur in the Siskiyou Mountains.

**Fire sensitivity:** Moderate regeneration response from root caudex; susceptible to fire.

**Cultural significance:** Seeds were eaten by Indians; leaves were smoked or made into tea. Tonics and astringents were made from bark and roots.

**Remarks:** It can be used as a ground cover in landscaping; grows slowly.

## Squaw Carpet

### *Ceanothus prostratus*

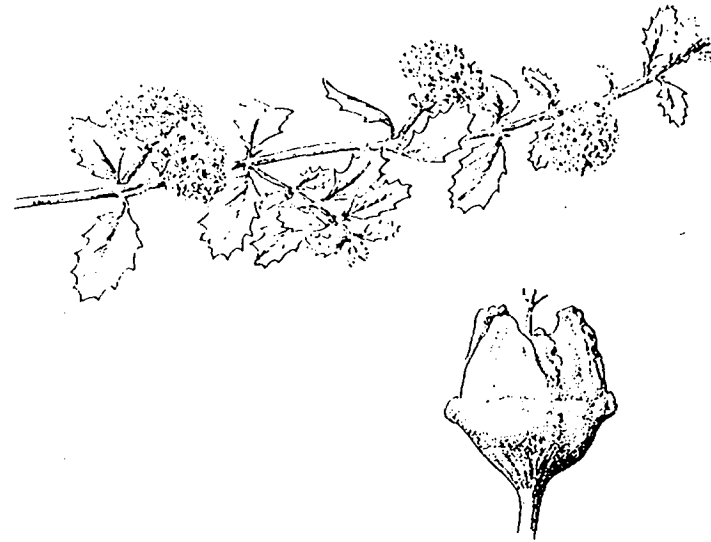
CEPR

**Description:** Evergreen trailing shrub forming dark green mats.

**Leaves:** Opposite, leathery, with toothed margins.

**Flowers:** Showy, blue to white clusters. May-July.

**Fruit:** Capsules, 0.2-0.4 in. (5-9 mm) broad, with 3 lobes.



## Deerbrush

### *Ceanothus integerrimus*

Buckthorn Family (Rhamnaceae)

CEIN

Range: From Washington to Baja California, east to New Mexico.

Habitat: Dry slopes and ridges.

Indicator Value: Moderately dry sites.

Similar species: Deerbrush is the only *Ceanothus* species in our area with deciduous leaves.

Fire sensitivity: This species survives fire by both seed germination and root sprouting, but rarely survives repeated fires.

Cultural significance: Flowers can be used as a pleasant smelling "soap." Sticks were used by some Indians for use in baskets.

Remarks: This species is widely variable. Hybridization has been seen with whitethorn (*C. cordulatus*). It is a nutritious browse plant for both domestic and game animals, especially palatable to deer. It is also an attractive horticultural shrub, and a nitrogen-fixer for the soil.



## Deerbrush

### *Ceanothus integerrimus*

CEIN

Description: Deciduous, erect to widely spreading shrub 4-16 ft. (1-4 m) tall.

Leaves: Alternate, entire, 0.6-2.4 in. (1.5-6.0 cm) long, oblong to ovate, thin, smooth-margined, with 3 prominent veins coming from the base.

Flowers: White to blue, in dense terminal panicles which measure 1.5-6.0 in. (4-15 cm) long. May-July.

Fruit: Capsules, 0.2-0.3 in. (5-7 mm) long.



## Buckbrush

### *Ceanothus cuneatus*

Buckthorn Family (Rhamnaceae)

CECU

**Range:** From the Willamette Valley, Oregon to Baja California.

**Habitat:** Hot, dry areas; foothills and valley floor alluvium.

**Indicator Value:** Hot, dry, rocky, poor sites.

**Similar species:** Not easily confused with other shrubs in our area.

**Fire sensitivity:** Responds to fire by germinating from abundant, long-lived seeds. Does not sprout after fire.

**Remarks:** Very aromatic when in bloom. Palatability is good for deer, especially in winter. Livestock do not prefer it. Squirrels like the seeds.



## Buckbrush

### *Ceanothus cuneatus*

CECU

**Description:** Evergreen, rigid, freely-branched shrub, up to 13 ft. (4 m) tall. Young branches are minutely pubescent to glabrous, frequently spine-tipped.

**Leaves:** Opposite, oblong-obovate, wedge-shaped, thick and fleshy, 0.2-0.8 in. (5-20 mm) long. Petioles less than 0.1 in. (1-2 mm) long. Sometimes upper surface is mostly gray-green with the lower surface even more gray.

**Flowers:** Clusters of 20 to 60 white flowers, 0.8-1.2 in. (2-3 cm) broad. April-June. Fruit: Capsules, 0.2 in. (5 mm) long.



# CEANOTHUS TABLE

SPECIES	Blue Blossom C. <i>C. thyrsiflorus</i>	Buckbrush <i>C. cuneatus</i>	Deerbrush <i>C. integerrimus</i>	Dwarf C. <i>C. pumilus</i>
HABIT	Tree-like	Erect	Erect	Low
LEAVES	Alternate/ Persistent	Opposite/ Whorled	Alternate/ Deciduous	Opposite/ Whorled
FLOWERS	Blue-Purple	White	White-Blue	Blue
SIGNIFICANT CHARACTERISTICS	Coastal	Small leaves	Found in inland Siskiyou and Cascades	Forms mats on ultramafic soil

SPECIES	Redstem C. <i>C. sanguineus</i>	Snowbrush <i>C. velutinus</i>	Squawcarpet <i>C. prostratus</i>
HABIT	Erect	Shrub	Low
LEAVES	Alternate/ Deciduous	Alternate/ Persistent	Opposite/ Whorled
FLOWERS °	White	White	Blue-White
SIGNIFICANT CHARACTERISTICS	Red stems	Sticky leaves	Forms mats upon the ground

## Golden Chinquapin

*Castanopsis chrysophylla*

CACH

Oak Family (Fagaceae)

**Range:** Inhabits the Coast Ranges and Cascades from the Columbia River to California.

**Habitat:** Most common on rocky, shallow soils, particularly ridges, open sites, or woodland; mid to high elevations.

**Indicator Value:** Tolerant of rocky, well-drained soil, but not tolerant of areas where cold air accumulates; increases rapidly after logging.

**Similar species:** This species has been known to resemble tanoak (*Lithocarpus densiflorus*) but the fruits are very different. Tanoak has acorns, rather than spiny burs. Also, in chinquapin, the fuzzy underside of the leaves is very yellow, or golden.

**Fire sensitivity:** Sprouts from stems and seeds. It has a rapid regeneration period and is resistant, though the top kills easily.

**Cultural significance:** Nuts are edible by humans, but tannins should be leached out by boiling first.



## Golden Chinquapin

*Castanopsis chrysophylla*

CACH

**Description:** Evergreen tree, with a shrub variety. Bark is gray and furrowed, with pale mottling when young. Young twigs are covered with tiny golden scales.

**Leaves:** Alternate, lance-shaped or linear-elliptic, with an acute tip and a short leaf stalk. Shiny, green to yellow-green on top surface; golden and fuzzy on under surface.

**Flowers:** Yellow, showy, erect spikes at the ends of branches. Male flowers are above with female flowers below. April - June.

**Fruit:** One or two nuts inside a spiny bur, which measures 0.6-0.8 in. (1.5-2 cm) broad.





## Creeping Oregongrape

### *Berberis repens*

Barberry Family (Berberidaceae)

BERE

**Range:** From eastern Washington southward, east of the Oregon Cascades; to South Dakota, Texas, New Mexico, Utah and Nevada.

**Habitat:** Wide range; from non-forested areas to ponderosa pine stands to moderate elevation, mixed conifer stands.

**Indicator Value:** Often found in warm, dry, well-drained soils.

**Similar species:** Resembles other oregongrape species, but it grows low and is dull on both leaf surfaces. It also has more margin spines than the others.

**Fire sensitivity:** Moderate regeneration response from rhizome buds, moderate to very susceptible.

**Cultural significance:** The tasty berries can be eaten raw or made into wine. Tea from root bark was used by Indians for stomach problems.

**Remarks:** Berries are good for jam.



## Creeping Oregongrape

### *Berberis repens*

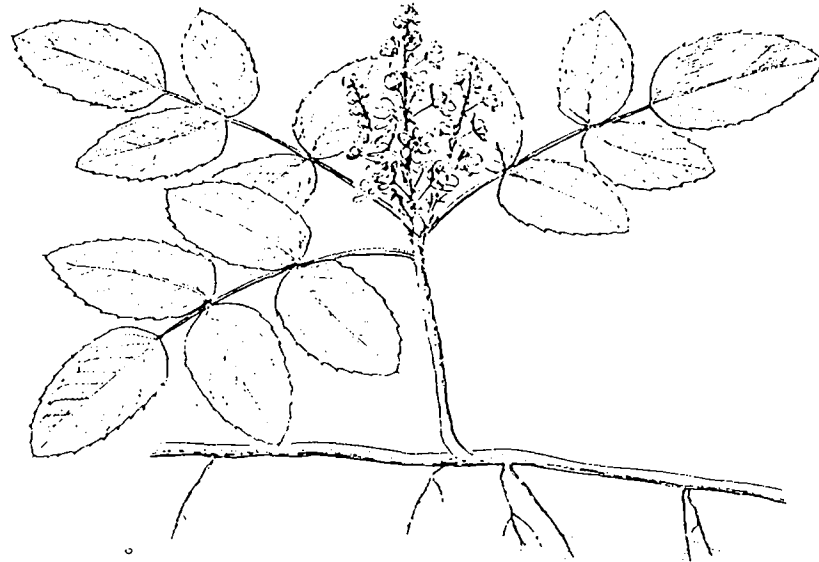
BERE

**Description:** Low, slow-growing perennial shrub up to 17.5 in. (45 cm) tall, with well-developed rhizomes and yellow wood.

**Leaves:** Evergreen, pinnately divided into 5 to 7 leaflets with pinnate venation and 7 to 22 small, inconspicuous teeth on each half of leaflet margin; glossy to dull above, dull beneath.

**Flowers:** Bright yellow, borne in several clusters, 1-3 in. (3-8 cm) long. March-June.

**Fruit:** Deep blue berries with dusty-waxy coating.



## Piper's Oregongrape

### *Berberis piperiana*

Barberry Family (Berberidaceae)

BEPI

**Range:** From southern Oregon and northern California Coast ranges, south to Baja California; also found in the Cascades of our area.

**Habitat:** Found on dry, open or wooded slopes; sometimes on serpentine; in mixed evergreen, Douglas-fir, or pine forests.

**Indicator Value:** Drier, rockier, less productive sites than where dwarf oregongrape occurs.

**Similar species:** Tall oregongrape is similar, but grows taller, up to 10 ft. (3 m). The leaves are glossy above and below, while in Piper's oregongrape, leaves are dull on the underside.

**Fire sensitivity:** Moderately susceptible, resprouts.

**Remarks:** Berries are tart, but make good jam.



## Piper's Oregongrape

### *Berberis piperiana*

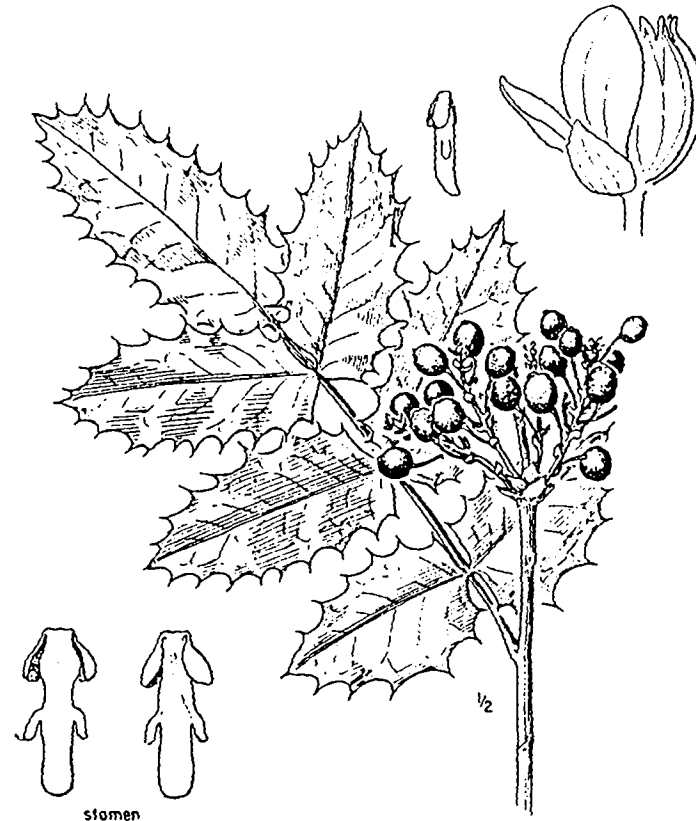
BEPI

**Description:** Evergreen, perennial, erect shrub with spiny leaves. Bright yellow roots and stems, 8-28 in. (20-70 cm) tall.

**Leaves:** Alternate, pinnate; 4-8 in. (10-20 cm) long with 5 to 9 ovate leaflets, glossy green above, dull below. Usually has 7 to 10, with up to 15 teeth on each half of leaflet margin.

**Flowers:** Bright yellow clusters of flowers grow from a terminal fascicle. March-June.

**Fruit:** Blue-black ellipsoid to ovoid berries, about 0.2 in. (6 mm) long, often with a whitish bloom on the surface.



## Dwarf Oregongrape

### *Berberis nervosa*

Barberry Family (Berberidaceae)

BENE

**Range:** In the western Cascades from southern British Columbia to Central California, west to the Coast.

**Habitat:** Forested sites at low to mid elevations.

**Indicator Value:** Deep, fertile soils.

**Similar species:** This shrub can be confused with tall oregongrape or Piper's oregongrape, but it has more leaflets than either of these and the leaf margins are not as wavy.

**Fire sensitivity:** There is a moderate regeneration period from rhizome buds; moderate to susceptible resistance.

**Cultural significance:** Berries are edible and make good jam. Medicinal tea can be made from root bark; dye made from roots. Sometimes it is mixed with prince's-pine in tea and used as a remedy for kidney problems.

**Remarks:** This shrub seems to be unpalatable to game animals. It is a good landscape plant.



## Dwarf Oregongrape

### *Berberis nervosa*

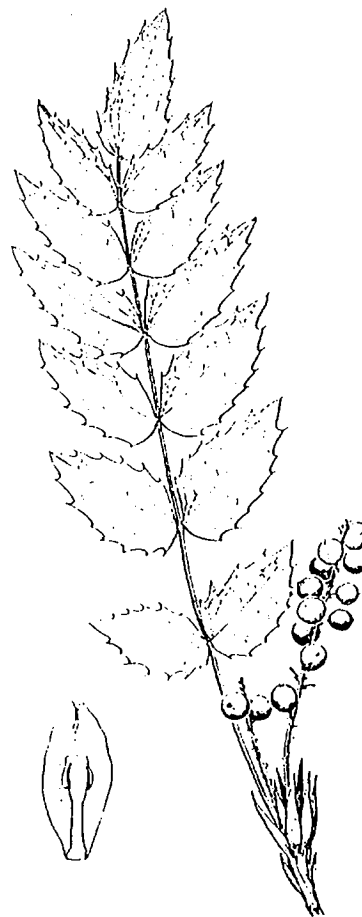
BENE

**Description:** Evergreen, low shrub, growing from rhizomes. Rarely over 30 in. (0.75 m) tall.

**Leaves:** Pinnately compound with an even flat appearance; 9-19 leaflets with 6-12 spines on each half of the leaflet margin. Veins are clearly palmate.

**Flowers:** Long, erect racemes of bright yellow blooms. March-June.

**Fruit:** Dark blue berries with white bloom on the surface.



# BERBERIS TABLE

	Creeping oreongrape <i>B. repens</i>	Dwarf oreongrape <i>B. nervosa</i>	Piper's oreongrape <i>B. piperiana</i>	Pygmy oreongrape <i>B. pumilus</i>	Tall oreongrape <i>B. aquifolium</i>
LEAF SURFACE	both dull	glossy above	glossy above	both dull	both glossy
NO. OF LEAFLETS	mostly 5	7 to 12	5 to 9	5 to 9	5 to 9
SPINES PER MARGIN	8 to 20	6 to 12	6 to 12	3 to 10	10 to 20
HABIT	low	low	tall	low	tall
HABITAT	poorer sites	common, better sites	rocky, dry sites	rocky, basic clays	dry, Cascades

## Whiteleaf Manzanita

*Arctostaphylos viscida*  
Heath Family (Ericaceae)

ARVI

**Range:** From southern Oregon through the coast ranges to Napa, California.

**Habitat:** Dry slopes, 500 to 5,000 feet. Chaparral foothills to pine forests.

**Indicator Value:** Very dry, hot sites.

**Similar species:** Looks somewhat like hairy manzanita but is less hairy and flowers earlier.

**Fire sensitivity:** Prolific sprouting and seed germination after burning.



## Whiteleaf Manzanita

*Arctostaphylos viscida*

ARVI

**Description:** Evergreen, erect shrub; 3.3-13.0 ft. (1-4 m) high, without a basal burl. Bark is smooth, reddish-brown.

**Leaves:** Pale, glaucous, whitish-green, sticky; ovate or elliptic, rounded at the tip; 1-1.5 in. (2.5-4 cm) long.

**Flowers:** Urn-shaped, pink to whitish; 0.2-0.3 in. (6-8 mm) long. February-April.

**Fruit:** Light brown or red berry, smooth or glandular, 0.2-0.3 in. (6-8 mm) in diameter.



## Greenleaf Manzanita

*Arctostaphylos patula*  
Heath Family (Ericaceae)

ARPA

**Range:** From the Columbia River to southern California along the Cascades, east to Colorado.

**Habitat:** Sunny, dry areas, very successful in clearcuts.

**Indicator Value:** Hot, dry sites.

**Similar species:** Whiteleaf manzanita (*A. viscida*) is similar, but has grayer leaves which are rather sticky. The leaves of greenleaf manzanita are not sticky.

**Fire sensitivity:** Moderate post-fire regeneration response from heat-scarified seed or basal burls. Resistant to fire.

**Cultural significance:** Has edible berries.

**Remarks:** This shrub is sometimes used in landscaping. It may develop thick brushfields which are difficult to walk through; can cause regeneration problems.



## Greenleaf Manzanita

*Arctostaphylos patula*

ARPA

**Description:** Evergreen, roundish shrub; erect to spreading; 3.3-6.5 ft. (1-2 m) tall with smooth, bright, reddish-brown bark. Wood is very hard; grows from a basal burl.

**Leaves:** Alternate, leathery, with smooth margins and blunt to rounded tips; glabrous, green, glossy.

**Flowers:** Urn-shaped, pinkish flowers in terminal clusters; 0.2-0.3 in. (5-8 mm) long. May-June.

**Fruit:** Smooth, black berry.



## Pinemat Manzanita

### *Arctostaphylos nevadensis*

Heath Family (Ericaceae)

ARNE

**Range:** Cascade Mountains from Washington to California and Blue Mountains of northeastern Oregon.

**Habitat:** Rocky sites, all types of soils, mid to high elevations.

**Indicator Value:** Poor sites with shallow or rocky soils; cool to cold environments.

**Similar species:** Very similar to kinnikinnik which has rounded leaf tips, pink flowers, bright red berries, and a lower growth form. Pinemat manzanita has leaves with a pointed tip.

**Fire sensitivity:** Moderate regeneration from stem buds and basal sprouts. Has moderate to susceptible resistance.

**Cultural significance:** Used by Indians in herbal teas, and smoking mixtures like tobacco.

**Remarks:** Attractive, hardy ground cover for landscaping.



## Pinemat Manzanita

### *Arctostaphylos nevadensis*

ARNE

**Description:** Evergreen; low spreading shrub forming decumbent, often dense mats; with red-brown, smooth, peeling bark.

**Leaves:** Alternate, thick, leathery, usually over 1 in. (2.5 cm) long with slight to sharp points.

**Flowers:** Small, urn-shaped, white (sometimes pinkish); borne at end of branches. June-July.

**Fruit:** Brown berry is edible by humans, but rather dry. Diameter is about 0.2 in. (6 mm).



## Hairy Manzanita

*Arctostaphylos columbiana*

ARCO3

Heath Family (Ericaceae)

**Range:** From British Columbia south, along the western Cascades to northwest California, mostly along the coast in our area.

**Habitat:** Found on dry, rocky or clayey slopes below 2500 feet.

**Indicator Value:** Indicates recent soil disturbance and dry sites.

**Similar species:** Whiteleaf manzanita (*A. viscida*) and hoary manzanita (*A. canescens*). In whiteleaf manzanita, leaf petioles are 3-4.5 in. (8-12 mm) long, while in hairy manzanita they are 1-2.4 in. (3-6 mm) long. Hairs on the inflorescence of hoary manzanita are of two different lengths, while hairs on the inflorescence of hairy manzanita are all the same length. Hoary manzanita is found on the coast.

**Fire sensitivity:** Sprouts prolifically from the root collar after disturbance, and fire stimulates seeds stored in the soil to germinate.



## Hairy Manzanita

*Arctostaphylos columbiana*

ARCO3

**Description:** Erect, evergreen shrub with many branches, 3-10 ft. (1-3 m) tall. Bark is smooth, red-brown. It has no basal burl. Branchlets are covered with dense ash-grey hairs.

**Leaves:** Pale, gray-green; hairy on both sides; oval to broadly elliptical.

**Flowers:** White, occasionally pink, ovary hairy, often glandular. March-May.

**Fruit:** Strongly compressed globose berry; 0.2-0.4 in. (7-10 mm) across; bright red.





## ARCTOSTAPHYLOS TABLE

### Greenleaf manzanita *patula*

Erect shrub to 6.5 ft. (2 m) tall. Young stems yellow-glandular; bark smooth, bright red-brown. Leaves evergreen, smooth margined, bright green. Flowers pink. Berry brownish.

### Hairy manzanita *columbiana*

Erect shrub, 3.3-9.8 ft. (1-3 m) tall; young stems grayish with long, stiff, white hairs mixed with finer pubescence. Bark, dark red-brown. Leaves pale gray-green, tomentose on both sides, upper side turning glabrous with age. Flower petals white to pink. Berry bright red. Most common west of coastal crest but also occurs inland.

### Pinemat manzanita *nevadensis*

Low, mat-forming shrub. Bark smooth, brown to deep red, exfoliating. Leaves bright green, smooth margined with distinctly pointed tip. Flowers white. Berry brownish-red.

### Whiteleaf manzanita *viscida*

Erect shrub, 6.5-9.8 ft. (2-3 m) tall. Young stems glabrous, pale, glaucous-green. Bark smooth, dark red-brown. Leaves white-glaucous. Flower buds and flowers sticky (viscid); pink to white. Berry light brown or red.

## ARCTOSTAPHYLOS KEY

- |  |   |
|--|---|
| A. Stature decumbent   | Pinemat manzanita<br><i>A. nevadensis</i> |
| B. Stature erect. Leaves bright green  | Greenleaf manzanita<br><i>A. patula</i>   |
| C. Leaves whitish, pubescent or dull   |   |
| D. Young stems grayish with long hairs mixed with finer pubescence; leaves tomentose on both sides | Hairy manzanita<br><i>A. columbiana</i>   |
| D. Young stems glabrous, pale, glaucous-green; leaves white-glaucous.                              | Whiteleaf manzanita<br><i>A. viscida</i>  |

## Douglas Maple

*Acer glabrum* var. *douglasii*

ACGL

Maple Family (Aceraceae)

**Range:** Found in the coast ranges from Alaska to California, east to the Rocky Mountains.

**Habitat:** Can tolerate dry and rocky to moist slopes.

**Indicator Value:** Unfaithfully indicates moist, rocky sites. Early to mid successional.

**Similar species:** Resembles vine maple, which has seven to nine lobes. Remember, "vine has nine."

**Fire sensitivity:** Rapid regeneration from root caudex and basal stem sprouts. Moderately resistant to fire. Usually inhabits an area that does not burn intensely.

**Cultural significance:** Wood smoke was used to cure and flavor meat. Stems were used to make tools.

**Remarks:** Also called Rocky Mountain maple. Moderately palatable to livestock, highly used by deer and elk.



## Douglas Maple

*Acer glabrum* var. *douglasii*

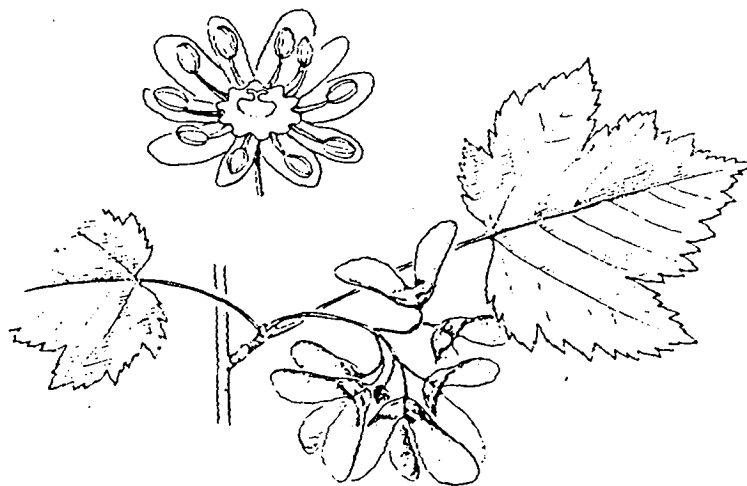
ACGL

**Description:** Tall, deciduous shrub up to 20 ft. (8 m) tall.

**Leaves:** Opposite, palmate, with three to five pointed lobes; serrate margins; petiole longer than leaf blade.

**Flowers:** Small, greenish flowers in hanging clusters from leaf axils; stamens generally borne outside the disc. April-June.

**Fruit:** Double-winged samara, generally recurved and not widely spreading.



## Vine Maple

### *Acer circinatum*

Maple Family (Aceraceae)

ACCI

**Range:** Wide distribution, northern California to Alaska, eastern Cascades to Coast.

**Habitat:** Most often in moist areas, relatively warm sites, with well-drained soils.

**Similar species:** Resembles Douglas maple which has three to five lobes. Hint for identification is "vine has nine," referring to the number of leaf lobes.

**Fire sensitivity:** Unless fire intensity is sufficient to damage the below ground root stock, vine maple will sprout abundantly after burning.

**Cultural significance:** Flexible stems were used by Indians for baskets, cradles, net frames, and fish scoops. Wood was used for flavoring and curing meats.

**Remarks:** Palatability is fair for big game animals, poor for livestock. Bright colored autumn foliage makes this a valuable landscape tree.



## Vine Maple

### *Acer circinatum*

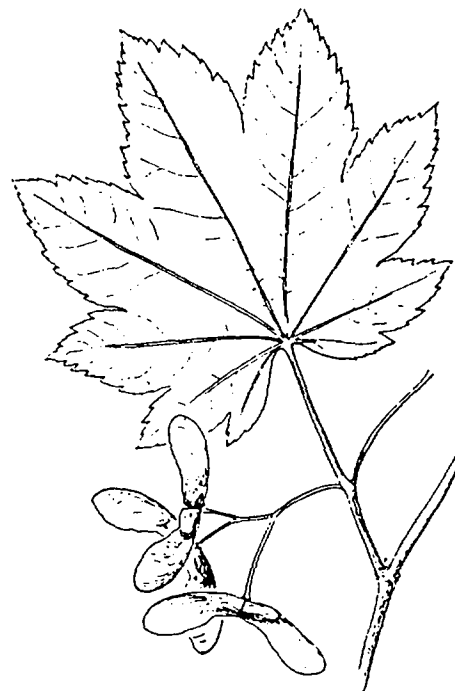
ACCI

**Description:** Tall, deciduous shrub, 1-25 ft. (1-8 m) tall; can grow into dense thickets. Bark is thin, green to grey. New stems are often reddish.

**Leaves:** Opposite, nine-lobed (sometimes 2 nearest petiole are much reduced); serrate margins; petioles usually shorter than leaf blade.

**Flowers:** Small red-sepaled flowers, with stamens borne inside the disc, on short, lateral stems. March - June.

**Fruit:** Double-winged samaras, widely spread to horizontal; sensitive to dessication.



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**Key Species  
for Plant Associations on the  
Rogue River, Siskiyou and  
Umpqua National Forests**

Compiled by:

Anita Seda

In association with:

Thomas Atzet, Area 5 Ecologist

and

David Wheeler, Assistant Area 5 Ecologist

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Line drawings were used with permission from Hitchcock, et al., by permission of the University of Washington Press, Seattle, Washington; also from Abrams by Stanford University Press, Stanford, California.

## GLOSSARY

<b>ACHENE</b>	A dry, one-seeded fruit which doesn't open at maturity. Also spelled akene.	<b>FILAMENT</b>	The stalk of the anther. Together they form the stamen.
<b>ACUTE</b>	Sharp-angled, pointed, often used to describe leaf shapes.	<b>FLORET</b>	One flower in a group of flowers; a term used in grasses and composites.
<b>ANNUAL</b>	A plant which finishes its life cycle, seed to seed, in one growing season.	<b>FOLLICLE</b>	A dry, one-chambered fruit, opening along one side when mature.
<b>ANTHER</b>	Part of the stamen which bears pollen.	<b>GLABROUS</b>	Not hairy, fuzzy or glandular.
<b>APPRESSED</b>	Pressed flat against another plant part.	<b>GLANDULAR</b>	Bearing small organs that secrete various sticky substances.
<b>AWN</b>	A bristle at the tip of a grass flower part.	<b>GLAUOUS</b>	Covered with whitish waxy "bloom" which can be easily rubbed off.
<b>BUNCHGRASS</b>	A grass which grows in clumps rather than a flat mat.	<b>HYDROPHYTE</b>	A plant adapted to growing in water.
<b>CAPSULE</b>	A dry fruit, with more than one seed, which opens at maturity, such as the fruit of a lily or poppy.	<b>IMBRICATE</b>	Overlapping, like shingles or venetian blinds.
<b>CILIA</b>	Fine marginal hairs often found on leaf edges.	<b>INVOLUTE</b>	Rolling inward, toward the upper side, as in leaf margins.
<b>CORDATE</b>	Heart-shaped, with point toward apex, and notch toward the petiole, or point of origin.	<b>LANCEOLATE</b>	Pointed on the end like a lance or spear.
<b>CORM</b>	An underground, thickened stem, oriented vertically, appearing much like a bulb.	<b>LIGULE</b>	In grasses, at the junction of the blade and sheath, an appendage which is sometimes very small or quite evident. It can be long, hairy or membranous.
<b>CULM</b>	The hollow, vertical stem of a grass or grass-like plant.	<b>LOCULE</b>	A chamber within a fruit which contains one or more seeds.
<b>DECIDUOUS</b>	A tree or shrub which goes dormant during winter; drops leaves after the growing season. Not evergreen.	<b>MESOPHYTE</b>	A plant which grows in medium conditions, not too dry, not too wet.
<b>DECUMBENT</b>	Lying on the ground with tips bending upward.	<b>OBCORDATE</b>	Heart-shaped, with point toward point of origin and notch toward the apex.
<b>DRUPE</b>	A type of fruit which has one seed enclosed within a soft endocarp, such as a plum or an olive.	<b>OBOVATE</b>	Egg-shaped in outline, with rounder end toward apex.
<b>DRUPELET</b>	A small drupe, such as those on a blackberry or raspberry fruit.	<b>OVATE</b>	Egg-shaped in outline, with rounder end toward point of origin.
<b>EDIBLE</b>	Can safely be eaten by people.	<b>PALATABLE</b>	Eaten by animals, other than people.
<b>ENTIRE</b>	Undivided, not serrate or lobed etc., as in a leaf margin.	<b>PANICLE</b>	A loosely branched group of flowers.
<b>EVERGREEN</b>	A tree or shrub which stays green throughout the year; not deciduous.	<b>PEDICEL</b>	The stalk of one individual flower within a cluster of flowers.
<b>FERTILE</b>	In flowers, one which bears fruits; in stamens, one which bears pollen.	<b>PERENNIAL</b>	A plant which stays living for over two years, sometimes by means of underground bulbs, rhizomes, woody tissue, etc.