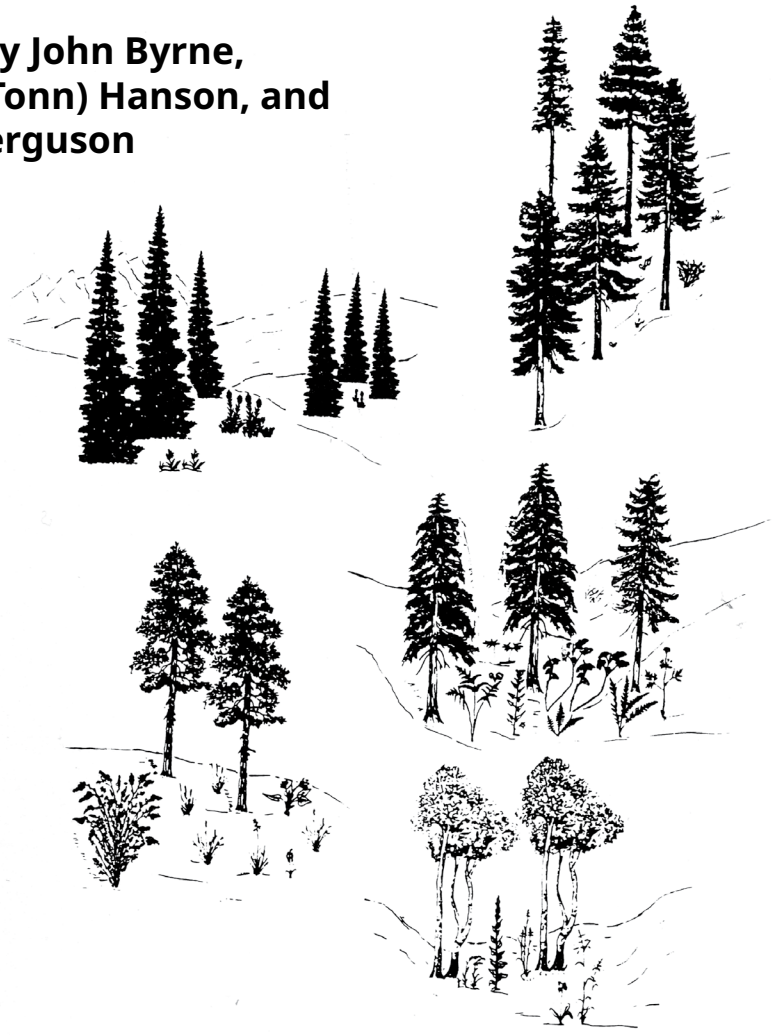
Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Rocky Mountain Research Station RMRS-GTR-414 April 2025

Field Guide to Forest Plants of Northern Idaho

Patricia A. Patterson, Kenneth E. Neiman, and Jonalea (Tonn) Hanson

Revised by John Byrne, Jonalea (Tonn) Hanson, and Dennis Ferguson



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Abstract

This field guide—designed for use by people with minimal botanical training—is an identification aid for nearly 200 plant species having ecological indicator value in northern Idaho forest habitat types. It contains line drawings, simplified taxonomic descriptions, characteristics, tables, conspectuses, and keys. It emphasizes characteristics useful for field identification of many common and special interest plants. This is not a comprehensive taxonomy of northern Idaho flora.

Keywords: forest plants, indicator species, habitat types, northern Idaho, plant guide, field guide

Authors

Patricia A. Patterson, Forester, was assigned the major responsibility of developing the original field guide while assisting the northern Idaho habitat type refinement project. She holds B.S. degrees in both forest management and wood utilization from the University of Idaho.

Kenneth E. Neiman, Plant Ecologist, was a co-leader of the northern Idaho habitat type refinement project and directed the original effort to create a regional field guide for plant species of ecological importance. He holds a B.S. degree in range management and an M.S. degree in forest and range ecology, both from Washington State University, and a Ph.D. degree in forest ecology from the University of Idaho. He was a Zone Ecologist for the northern Idaho national forests when this guide was originally compiled. After leaving the Forest Service, he did private consulting for 17 years.

Jonalea (Tonn) Hanson, Forester, Rocky Mountain Research Station, originally developed a similar guide for use by research field crews. She was directly involved in developing, writing, and reviewing all material in the original field guide. She earned both a B.S. degree and an M.F. degree in forestry from the University of Idaho. She joined the Intermountain Station (now Rocky Mountain Research Station) at Moscow in 1978.

Acknowledgements

1985

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Many people have volunteered their time and effort in reviewing and contributing to this publication.

We wish to thank the following individuals whose aid, suggestions, and support have greatly increased the quality of this guide: Peter F. Stickney (Intermountain Station), Anita Cholewa (Washington State University), Daniel J. Holden (Nez Perce National Forest), Fredric D. Johnson (University of Idaho), Charles A. Wellner (USDA Forest Service, retired), and Richard T. Bingham (USDA Forest Service, retired).

Reviews and suggestions were supplied by persons too numerous to list here with the exception of Cynthia Lacky and Kathleen Roche (Idaho Panhandle National Forests).

Many long hours of volunteer labor along with constructive suggestions were supplied by Donald Patterson (Clearwater National Forest) during the initial development and creation of this field guide.

Illustrations originally published in Hitchcock et al. (1955–1969) were used with permission from the University of Washington Press. Additional illustrations have been added through the volunteer efforts of Anita Cholewa, Lisa Marie Skovlin (Sawtooth National Forest), and Kathleen Dawes (Moscow, ID).

2025

Due to numerous requests for copies of this popular publication, a new printing was needed. It was decided that the scientific names should be updated to align with Hitchcock and Cronquist (2018). However, because the original scientific names and 4–5 letter codes are tied to both the regional habitat typing system (Cooper et al. 1991) and the Forest Service's vegetation data base (FS-VEG), the original plant names and their codes were retained in this 2025 version. But for those species whose scientific names have changed, the new name is listed in square brackets below the old name in the middle of the page. In addition, plant family names were updated to the current family name. Plant authorities were updated. A few incidental text changes were also made. The 2025 revisions were undertaken by John Byrne, RMRS Forester at the Moscow Forestry Sciences Laboratory, Moscow, Idaho; Jonalea (Tonn) Hanson, retired RMRS Forester and one of the original authors; and Dennis Ferguson, retired RMRS Research Forester. Many thanks to Alana Boies, Frances Smith, and Patricia Cohn for their work on the revision.

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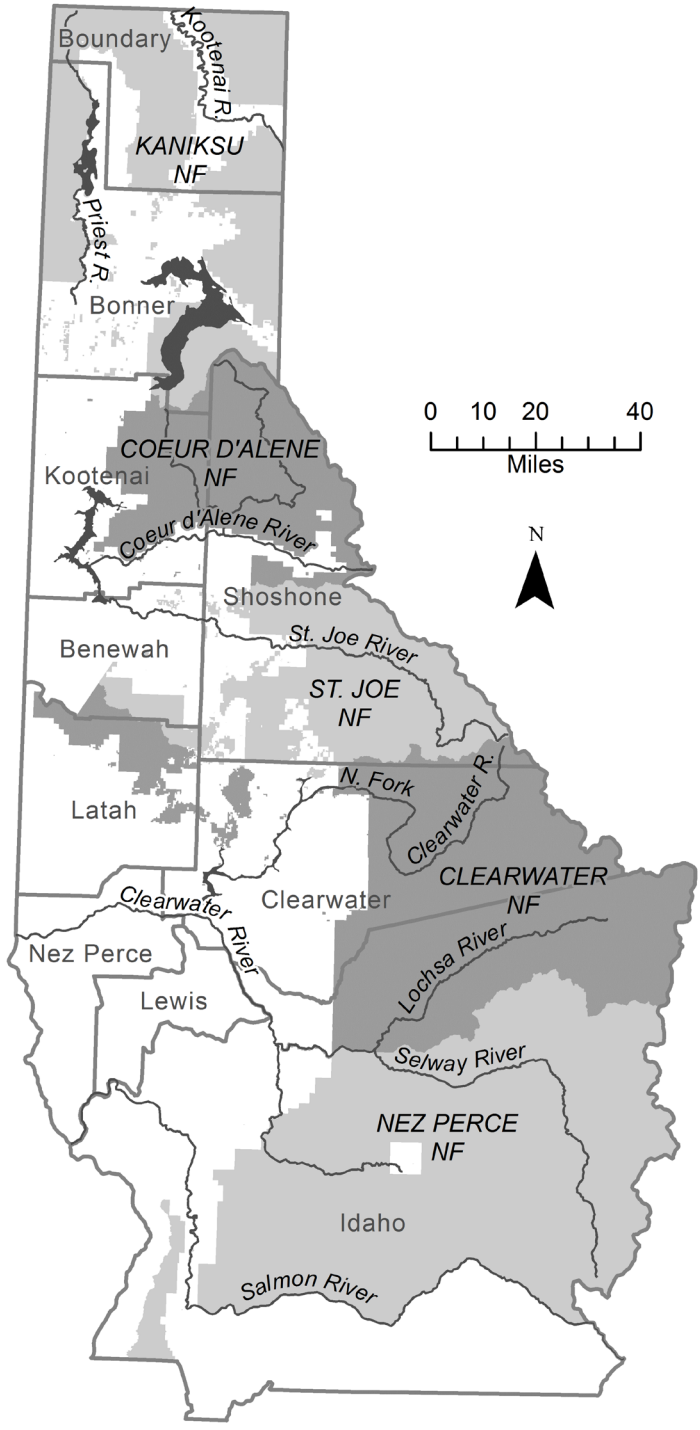


Figure 1—Map of northern Idaho covered by this field guide; showing major rivers and lakes, National Forests in 1985, and counties.

Introduction

This field guide has been developed specifically to complement *Forest Habitat Types of Northern Idaho* (Cooper et al. 1991). The geographic area covered is Idaho's forested lands from the Salmon River drainage north to the Canadian border (see Fig. 1). This guide is not meant to be a comprehensive taxonomy to northern Idaho flora, but rather an identification aid for species having forested habitat type indicator value within this geographic area.

Criteria for species selection were: common overall occurrence in mature to old-growth forested stands, special environmental or habitat type indicator value, and special interest within northern Idaho. Additional species have been included that are morphologically similar to and often confused with selected indicator species. Species descriptions are based on *Flora of the Pacific Northwest* (Hitchcock and Cronquist 1973) and *Vascular Plants of the Pacific Northwest, Parts 1–5* (Hitchcock et al. 1955–1969). From the above sources, we constructed characteristics tables, dichotomous keys, and conspectuses as a simplified means to initially determine genus or species. Within the characteristics tables, pseudo-keys using one or more easily determined characteristics, such as leaf arrangement, are used to group species. Final identification must correlate the specimens' characteristics with the species description. The species descriptions and keys were developed for people with a minimum of botanical training. We emphasized characteristics that are useful for field identification of the species within the context of a northern Idaho location. In other geographic areas having a different floristic composition or environment, these distinctive field characteristics may not be usable for identification of a species. Citations for a number of authoritative floras for northern Idaho are included in the references.

As updating, correcting, and improving are unending tasks for botanical field guides, the authors would appreciate receiving comments, suggestions, or criticisms at:

USDA Forest Service
Rocky Mountain Research Station
Forestry Sciences Laboratory
1221 S. Main Street
Moscow, ID 83843

Species Description Format (A)[1]

FAMILY Tribe (B)
Genus specific epithet Authorship (C)
Standard vegetation code (D)

common name or names

Form: Lifeform or habit with general description of height and roots.

National or Idaho Champion: Record tree measurements and general location (E).

Stems: General characteristics (F) and measurements (G).

Bark: General characteristics (F) and measurements (G).

Buds: General characteristics (F) and measurements (G).

Bundle Scars: General characteristics (F) and measurements (G).

Leaves: General characteristics (F) and measurements (G).

Flowers: General characteristics (F) and measurements (G).

Sporangium: General characteristics (F) and measurements (G) used to describe the reproductive structures in *Ferns and Friends.*

Inflorescence: General characteristics (F) and measurements (G) used to describe graminoids.

Cones: General characteristics (F) and measurements (G).

Fruit: General characteristics (F) and measurements (G).

Enemies: List of common injurious diseases and insects in order of decreasing damage potential. A generalized detrimental or advantageous response to fire (H).

Similar Species: List of easily confused genus and species.

Habitat: General site characteristics (J).

Notes: Special interest items (K).

Constancy Table: A table of constancy by habitat type for each species is included along the inner margin (L).

[1] Letter codes explained in more detail on the following pages.

(A) The species description layout was patterned after a similar description layout in Randall and Keniston (1968). The text and terminology style were patterned after the above cited plant taxonomies. Line drawings used throughout the guide are from Hitchcock et al. (1955–1969), Hayes and Garrison (1960), and Anon. (1981). Additional drawings were provided by people listed in the acknowledgments. Scale perspective is provided by a 6-foot tall person standing next to a typical plant.

(B) The family is from Cronquist (1981). GRAMINEAE tribes are from Hitchcock (1971).

(C) The authority used for species authorship was Hitchcock and Cronquist (1973, 2018).

(D) Standardized vegetation codes are from Garrison et al. (1976). These codes facilitate species field data entry and data exchange between agencies. This system uses the first two letters of the genus and specific epithet to create a 4-letter code, such as **Asca** for *Asarum caudatum*. In cases of duplication a suffix number is added, e.g., **Asca3**. A variety is designated by the addition of the first letter of the varietal name; for example, *Prosartes hookeri* Torr. var. *hookeri* becomes **Prhoh**. Genera are designated by a code of the first five letters or less being all capitalized, such as **SPIRA, ACER, POA**. Common names follow Hitchcock and Cronquist (1973, 2018), Garrison et al. (1976), or the most descriptive local usage.

(E) All wild and cultivated trees in Idaho are eligible to be measured for determination of the largest tree of each species or variety. The scoring for record trees is based on the formula: circumference (inches) + height (feet) + one-fourth the average crown diameter (feet). For a complete list of current record trees and forms explaining the process for nominating new record trees, see the following website: http://sitecore.uidaho.edu/extension/forestry/big-trees or contact:

Director
Idaho Big Tree Program
College of Natural Resources
University of Idaho
875 Perimeter Drive, MS1140
Moscow, ID 83844-1140

(F) General characteristics were condensed from several taxonomic treatments (Davis 1952; Hayes 1960; Hitchcock 1971; Hitchcock et al. 1955–1969; Hitchcock and Cronquist 1973; Lee and Pfister 1978). Hitchcock and Cronquist (1973, 2018) was used as the authority. General field identification characteristics have been supplied by many individuals (see the acknowledgments). A glossary of taxonomic terms is included at the end of the guide.

(G) The measurements are general ranges, not absolutes. The conversions from metric to English have been rounded for ease of use. Very small measurements (less than 1 inch) are given in metric only.

(H) More complete lists of species and related data can be found in: Diseases: Bega (1978); Fowells (1965); Hepting (1971); Partridge et al. (1978); and Partridge and Miller (1974). Insects: Fowells (1965); Furniss and Carolin (1977); and Partridge et al. (1978). Fire: DeByle (1981); and Volland and Dell (1981).

(I) SIMILAR SPECIES lists other genera and/or species that can be easily confused with the one being described. Useful differentiating characteristics are included. Similar species described in this guide are referenced by page number; species not included have their common names in parentheses.

(J) Site characteristics are given for a species when it generally occurs in a specific type of habitat in northern Idaho. The characteristics have been extracted from the previously mentioned references or from the authors' and contributors' experience within northern Idaho.

(K) NOTES contain items of common interest, species variation, or special botanical interest. References are made to species on the Idaho State Watch List, which, due to their rarity or limited distribution, are being monitored. You can learn more about watch lists, as well as threatened and endangered species, by visiting the Idaho Conservation Data Center's web site at https://idfg.idaho.gov/content/page/idaho-natural-heritage-program-technical-reports.

(L) The habitat type constancy table shows the percentage of stands within a habitat type in which one can expect to find the species described. The list of habitat types and constancy values comes from Cooper et al. (1991). Habitat types and phases with incidental occurrence in northern Idaho have not been included. The habitat types and phases are ordered from top to bottom along a generalized environmental gradient of hot-dry to cold-wet. The constancy values are given for midseral to climax stand conditions. Most species have different occurrences and constancy in highly disturbed habitats.

In the 1985 guide, constancy values were inadvertantly omitted for the Pico/Vasc habitat type and the Pico/Xete and Pico/Vaca community types. These values are included in the 2025 guide.

Entry	Constancy
	Not found
+	Trace
1	10%
2	20%
3	30%
4	40%
...	...
10	100%

Trees

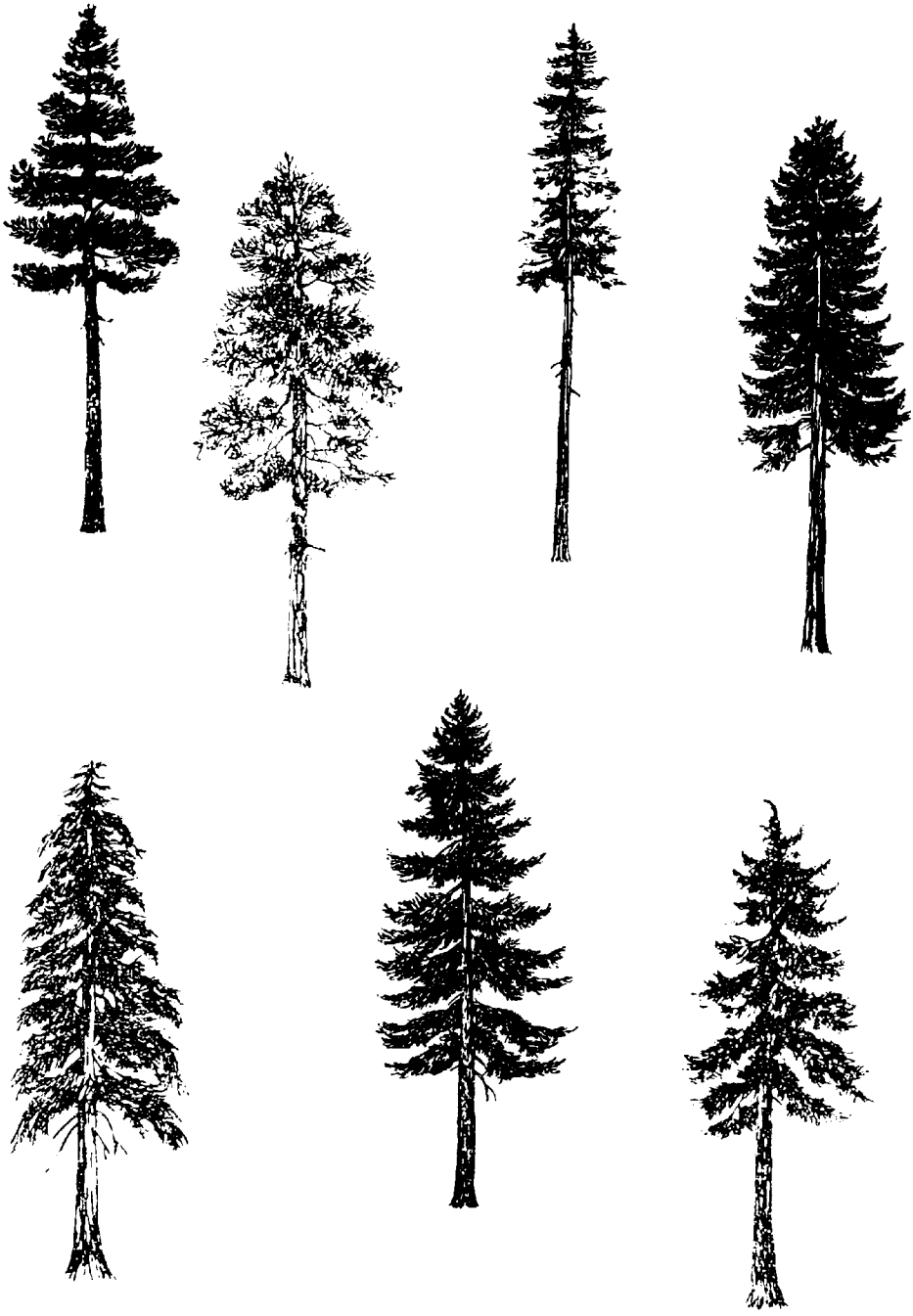


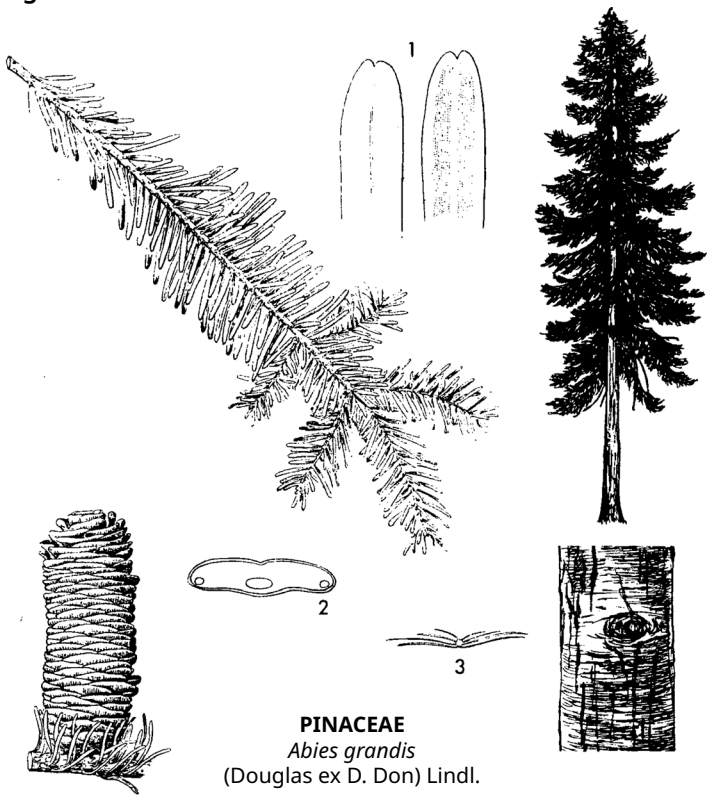
Table 1—Key to native trees and tall shrubs.

	Scientific name	Page
1. LEAVES LINEAR OR SCALE-LIKE; EVERGREEN OR DECIDUOUS		
2. Leaves flat, scale-like, overlapping	*Thuja plicata*	25
2. Leaves linear or needle-like		
3. Deciduous, cluster of 15-40 leaves borne on short spur	*Larix* spp.	14, 15
3. Leaves evergreen		
4. Leaves in bundles	*Pinus* spp.	
5. Leaves usually in bundles of 5	*Pinus albicaulis*	17
	Pinus monticola	19
5. Leaves usually in bundles of 2 or 3		
6. Leaves usually in bundles of 2	*Pinus contorta*	18
6. Leaves usually in bundles of 3	*Pinus ponderosa*	20
4. Leaves scattered singly on stems		
7. Leaves without a petiole		
8. Leaves 4-sided; sharp tip; borne on short peg (which remains on twig after needles fall)	*Picea engelmannii*	16
8. Leaves flat with rounded or notched tip	*Abies* spp.	8,9
7. Leaves with petiole		
9. Leaves with sharp-apex, 2-ranked, fleshy fruit	*Taxus brevifolia*	24
9. Leaves blunt or with slight pointed tip; fruit: cone		
10. Buds: Large (6 mm) pointed, red-brown	*Pseudotsuga menziesii*	23
10. Buds: Small (3 mm) rounded light colored	*Tsuga* spp.	26, 27

Table 1 continued.

	Scientific name	Page
1. LEAVES BROAD, THIN, FLAT; DECIDUOUS		
11. Leaves opposite		
12. Leaves compound	*Sambucus* spp.	71
12. Leaves simple		
13. Palmately lobed, maple-like	*Acer glabrum*	32
13. Leaves entire, not lobed	*Cornus* spp.	43
11. Leaves alternate		
14. Leaves compound	*Sorbus* spp.	74
14. Leaves simple		
15. Older twigs armed with stout woody thorns	*Crataegus douglasii*	44
15. Older twigs unarmed		
16. Buds naked, without scales	*Rhamnus* spp.	58
16. Buds with scales		
17. Flowers with catkins		
18. Female catkins persistent and cone-like	*Alnus* spp.	33
18. Female catkins deciduous, not cone-like		
19. Leaves relatively long and narrow; single bud scale; fruit: hairy capsule	*Salix* spp.	70
19. Leaves about equal in length and width; multiple bud scales; fruit: winged nutlet	*Betula* spp.	11
17. Flowers not in catkins		
20. Leaves elliptic, finely serrate with glands on leaf	*Prunus* spp.	56, 57
20. Leaves oblong, coarsely toothed, without glands on leaf	*Amelanchier alnifolia*	36

Abgr



PINACEAE
Abies grandis
(Douglas ex D. Don) Lindl.

grand fir, white fir

FORM: A large conifer up to 80 m (260 ft) tall, neatly whorled with primary branches distinctly opposite.

IDAHO CHAMPION: 1990. 70 in d.b.h.; 220 in circum + 181 ft tall + 11 ft crown = 412 pts.; North Fork Clearwater River, Clearwater Co., Clearwater National Forest

BARK: Smooth and grayish with resin blisters when young, aging to ashy brown with thick deep furrows; inner bark is purple-red.

BUDS: Resinous, blunt to rounded, yellow-brown, 6 mm.

LEAVES: Flat needles, 2–3 cm (1 in) long, **apex rounded and notched** (1), dark green, grooved above with two white stomatal bands underneath with **very small resin ducts located near leaf margin** (2), distinctly **2-ranked** (3).

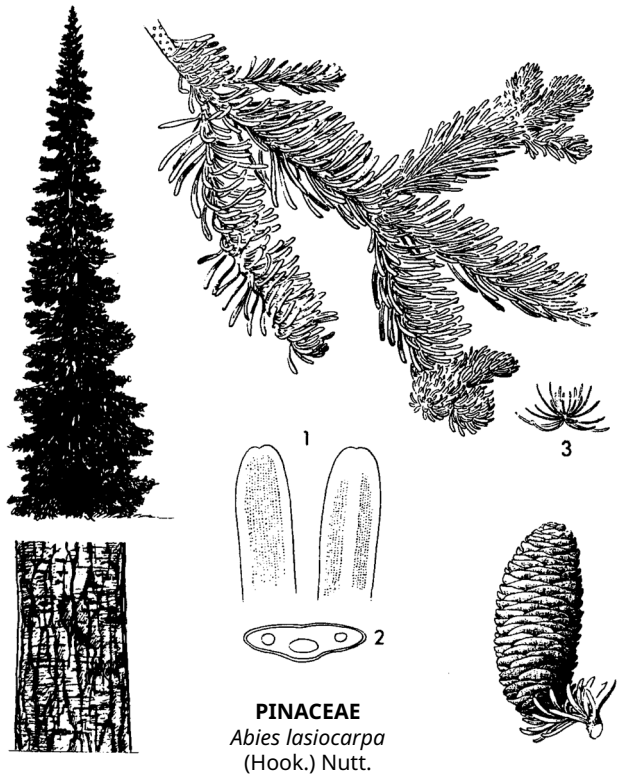
CONES: Cylindrical, 6–11 cm (2–4 in); borne upright, high in crown and disintegrating on tree; ripens Aug.; seed shed early Sept.

ENEMIES: Diseases: *Echinodontium tinctorium*, *Armillaria* species, *Phellinus* (*Poria*) *weirii*, and broom rust; Insects: spruce budworm and tussock moth; Fire: susceptible.

SIMILAR SPECIES: *Abies lasiocarpa*, p. 9.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
2	Phma	Phma h.t.	
1	Smst		
10	Phma	Phma h.t.	Abgr
10	Cooc		
10	Libo	Libo h.t.	
10	Xete		
10	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
9	Setr h.t.		
10	Phma	Clun h.t.	
10	Clun		
10	Tabr		
10	Mefe		
10	Xete		
10	Vagl	Xete h.t.	
10	Cooc		
9	Clun	Clun h.t.	Thpl
10	Tabr		
9	Mefe		
9	Xete		
10	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
9	Gydr h.t.		
8	Adpe h.t.		
9	Adpe	Atfi h.t.	
6	Atfi		
3	Opho h.t.		
7	Clun	Clun h.t.	Tshe
7	Arnu		
6	Mefe		
7	Xete		
9	Asca	Asca h.t.	
9	Arnu		
7	Mefe		
5	Gydr h.t.		
3	Mefe	Clun h.t.	Tsme
1	Xete		
1	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
7	Clun	Clun h.t.	Abla
4	Mefe		
5	Xete		
3	Cooc	Mefe h.t.	
2	Xete		
4	Vasc		
	Luhi		
2	Mefe	Stam h.t.	
4	Lica		
	Caca	Caca h.t.	
7	Vaca		
4	Legl		
7	Cooc	Xete h.t.	
2	Vagl		
2	Vasc		
	Luhi		
1	Vasc h.t.		Pico
5	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	4
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	2
		Xete	4
	Asca h.t.	Asca	1
		Tabr	1
		Mefe	2
	Setr h.t.		3
	Clun h.t.	Phma	+
		Clun	1
		Tabr	3
		Mefe	4
		Xete	3
	Xete h.t.	Vagl	6
		Cooc	5
Thpl	Clun h.t.	Clun	1
		Tabr	1
		Mefe	5
		Xete	3
	Asca h.t.	Asca	1
		Tabr	
		Mefe	6
	Gydr h.t.		
	Adpe h.t.		1
	Atfi h.t.	Adpe	
		Atfi	2
	Opho h.t.		1
Tshe	Clun h.t.	Clun	2
		Arnu	
		Mefe	4
		Xete	5
	Asca h.t.	Asca	1
		Arnu	
		Mefe	10
	Gydr h.t.		2
Tsme	Clun h.t.	Mefe	10
		Xete	7
	Mefe h.t.	Xete	10
		Luhi	10
	Stam h.t.	Mefe	10
		Luhi	10
	Xete h.t.	Vagl	10
		Luhi	10
Abla	Clun h.t.	Clun	10
		Mefe	10
		Xete	9
	Mefe h.t.	Cooc	10
		Xete	10
		Vasc	10
		Luhi	10
	Stam h.t.	Mefe	10
		Lica	10
	Caca h.t.	Caca	10
		Vaca	10
		Legl	10
	Xete h.t.	Cooc	10
		Vagl	10
		Vasc	10
		Luhi	10
Pico	Vasc h.t.		7
	Xete c.t.		10
	Vaca c.t.		10



PINACEAE
Abies lasiocarpa
(Hook.) Nutt.

subalpine fir, alpine fir

FORM: Tree, up to 40 m (137 ft) tall; **spirelike crown** often extending to the ground; bole extremely tapered; primary branches distinctly opposite.

IDAHO CHAMPION: 1981. 50 in d.b.h.; 157 in circum + 137 ft tall + 5 ft crown = 299 pts.; Upper Yoosa Creek, Idaho Co., Clearwater National Forest.

BARK: Thin, grey, smooth with resin blisters; shallowly fissured.

BUDS: Rounded, light brown, 6 mm long

LEAVES: Thick needles, 2–4 cm (1–2 in) long, apex rounded (1), blue-green **with stomatal bands on both surfaces with large resin ducts located midway between leaf margins** (2), leaves brushed to upperside (3).

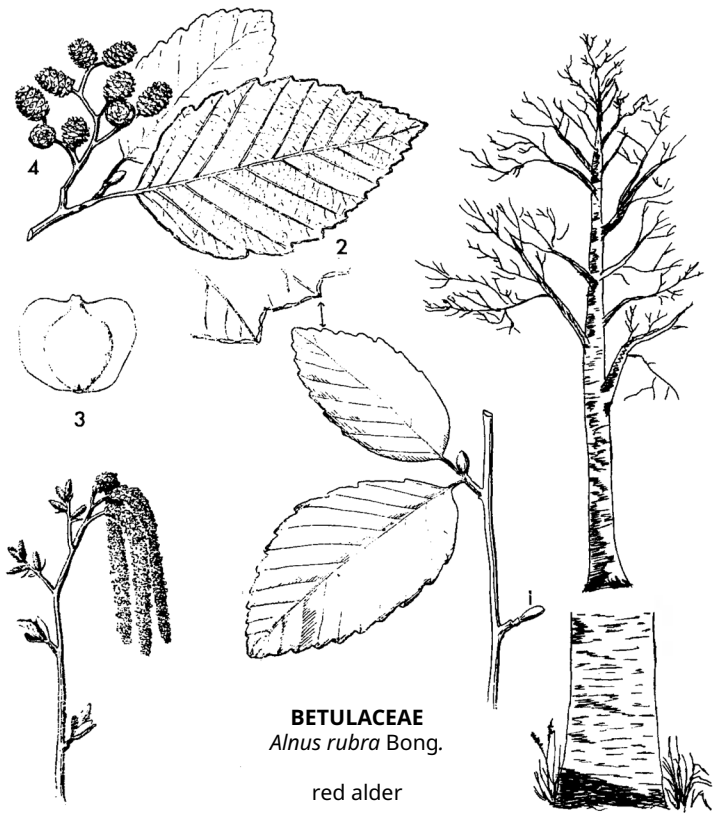
CONES: Purplish-grey, cylindrical, 6–10 cm (2–4 in) long; borne upright, high in the crown and disintegrating on tree; ripens mid-Aug.; seed sheds mid-Sept.

ENEMIES: Diseases: *Echinodontium tinctorium, Fomes pini, Armillaria* species, *Polyporus tomentosus*, and broom rust; Insects: spruce budworm, and tussock moth; Fire: susceptible.

SIMILAR SPECIES: *Abies grandis*, p. 8 and *Picea engelmannii*, p. 16.

.

Alru



FORM: Rapidly growing trees; up to 25 m (80 ft) tall.

IDAHO CHAMPION: 2016. 32 in d.b.h.; 99 in circum + 71 ft tall + 14 ft crown = 184 pts.; Bonner Co., Sandpoint Ranger District, Kaniksu National Forest.

STEMS: Pith and cambium turns **rusty colored** when freshly cut.

BARK: Thin, smooth and unplated, grey, often appearing white mottled due to crustose lichens.

BUDS: Lanceolate, **stalked** (1), blunt to sharply pointed; glabrous; grey to reddish color.

LEAVES: Alternate, deciduous, broadly elliptic, apex acute, 5–15 cm (2–6 in) long, shiny dark green above, lighter below with rusty pubescence along veins on the underside, **margins inrolled** (2), doubly serrate-dentate.

FLOWERS: Catkins flower before the leaves enlarge; March–April.

FRUIT: Winged, tiny nutlet (3), in semi-woody cone (4), 1–2 cm long.

SIMILAR SPECIES: Alnus Conspectus, p. 33.

NOTES: A coastal disjunct in northern Idaho found around Coeur d'Alene and Pend Oreille Lakes, and in the Clearwater River Canyon; *Alnus* species, roots have nitrogen fixing nodules.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
+	Adpe h.t.		
1	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
3	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

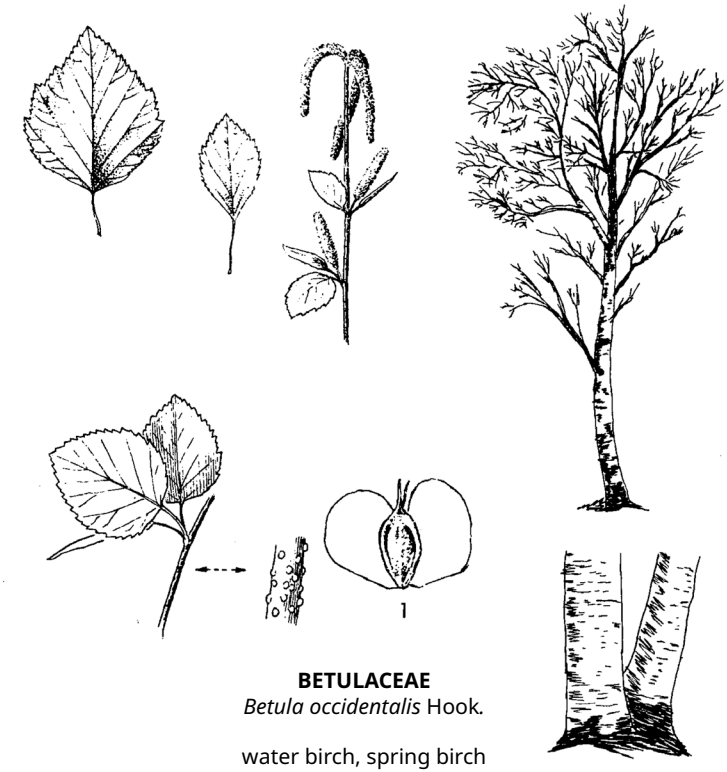
Table 2—Key to *Betula* species.

1. Female catkin cone-like, persistent; pith triangular; twigs slightly angled..... *Alnus* Conspectus page 33

1. Female catkins tassel-like, not persistent; pith compressed; twigs round, resin-dotted..... *Betula* Conspectus Below

Betula Species Conspectus

Species	Page	Form	Bark	Leaf Shape	Leaf Size	New Twigs	Habitat
Betula glandulosa bog birch **Begl**	39	shrub	not exfoliating dark brown	crenate rounded ovate	3 cm (1 in)	resin dotted grey sticky	riparian or bogs
Betula occidentalis water birch **Beoc**	12	tree	not exfoliating reddish brown	serrate broadly ovate sticky	5-8 cm (2-3 in)	resin dotted green sticky	riparian
Betula papyrifera paper birch **Bepa**	13	tree	exfoliating white-brown	double serrate round ovate	5-10 cm (2-4 in)	smooth not aromatic glandular	upland



BETULACEAE
Betula occidentalis Hook.

water birch, spring birch

FORM: Small trees or loosely branched shrub, up to 15 m (13–26 ft) tall; frequently found in crowded, dense thickets.

IDAHO CHAMPION: var. *occidentalis*, 1973. 29 in d.b.h.; 91.1 in circum + 50 ft tall + 7 ft crown = 148 pts.; Rock Creek, Cassia Co., Sawtooth National Forest.

BARK: Smooth, shiny, reddish-brown, marked by pale horizontal lenticels; **bark does not exfoliate**.

BUDS: Brown, resinous, pointed, about 6 mm long.

LEAVES: Alternate, deciduous, broadly ovate to diamond shaped, 3–5 cm (1–2 in), serrate to dentate, green above, pale yellow-green and minutely glandular below, **initially sticky**; changes to dull yellow in autumn.

FLOWERS: Cylindrical catkin 2 cm (1 in) long, flowering with or before leaves in the spring; Feb.–June; **breaking up at maturity**.

FRUIT: A winged samara tipped with persistent styles (1).

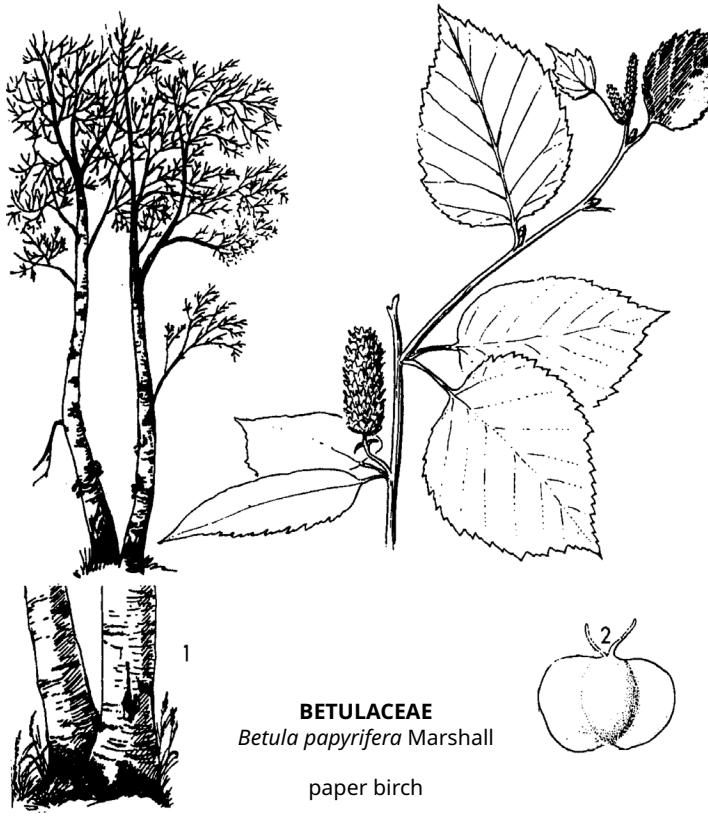
SIMILAR SPECIES: *Betula papyrifera*, p.13.

HABITAT: Along streams or on open hillsides.

NOTES: Most common birch in Idaho. *B. occidentalis* and *B. papyrifera* freely hybridize in northern Idaho.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
+	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
1	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		1
	Atfi h.t.	Adpe	1
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	1
		Arnu	2
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Arnu	4
		Mefe	
	Gydr h.t.		1
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



BETULACEAE
Betula papyrifera Marshall

paper birch

FORM: Tree, 15–20 m (50–66 ft) tall; old trees have open crowns and short, pendulous branches.

IDAHO CHAMPION: var. *commutata*: 1991. 52 in d.b.h.; 163 in circum + 75 ft tall + 15 crown = 253 pts.; Sandpoint, Bonner Co.

BARK: Young trees bronze to light reddish brown, **aging cream-white to coppery**, with horizontal raised lenticles (1); **peeling in thin, papery strips**, thus its common name.

BUDS: Resinous, orange-brown; pointed ovate, 3-5 mm long.

LEAVES: Alternate, deciduous, ovate, 6–10 cm (2–4 in) long, yellow-green and smooth above, pale below, usually doubly serrate.

FLOWERS: Cylindrical catkin 2–4 cm (1–2 in) long; flowering with or before leaves, **breaking up at maturity**; April–June.

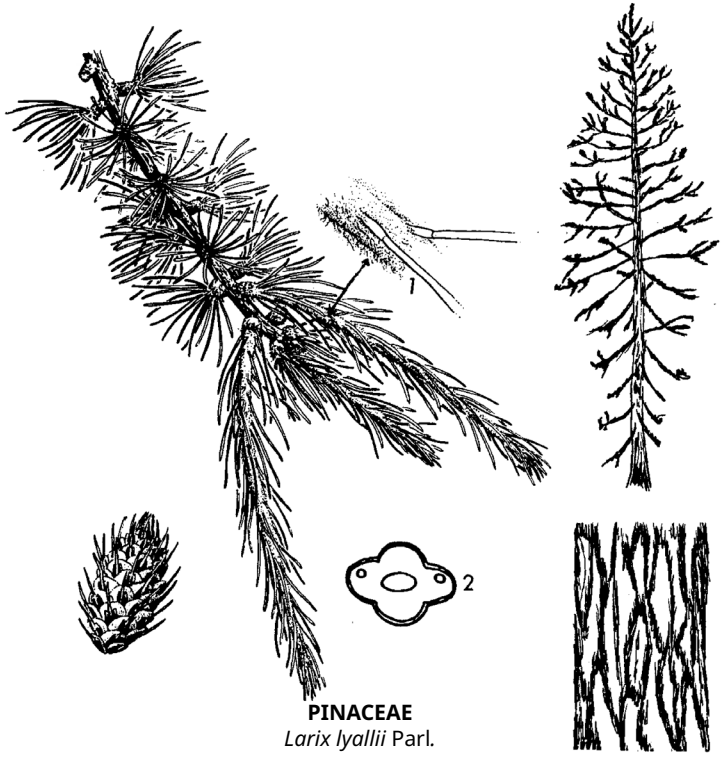
FRUIT: A winged samara tipped with persistent styles (2).

SIMILAR SPECIES: *Betula occidentalis*, p. 12.

HABITAT: Moist, open to dense montane woods.

NOTES: *B. papyrifera* and *B. occidentalis* freely hybridize in northern Idaho.

Laly



PINACEAE
Larix lyallii Parl.

subalpine larch, alpine larch, Lyall larch

FORM: Timberline tree, up to 15 m (50 ft) tall; long, spreading limbs with broad crown, often stunted or gnarled.

IDAHO CHAMPION: 1970. 50 in d.b.h.; 157 in circum + 95 ft tall + 9.5 ft crown = 261 pts.; Bonners Ferry RD, Kaniksu National Forest.

STEMS: Young twigs **covered with dense, white or yellowish woolly hairs** (1).

BARK: Thin, ashy grey, becoming brown, initially smooth; becoming separated into scaly, deep furrrows.

LEAVES: Deciduous, 30–40 rigid needles borne on short spur, light blueish-green, 2–4 cm (1–2 in) long, **4-angled with visible resin ducts in cross-section** (2); turning color earlier than *Larix occidentalis*.

CONES: Reddish-yellow to purplish-green 3–5 cm (1–2 in) long; bracts much larger than cones scales; ripens Aug–Sept.; seed shed in Sept.

ENEMIES: Diseases: *Fomes pini* and *Phaeolus (Polyporus) schweinitzii*.

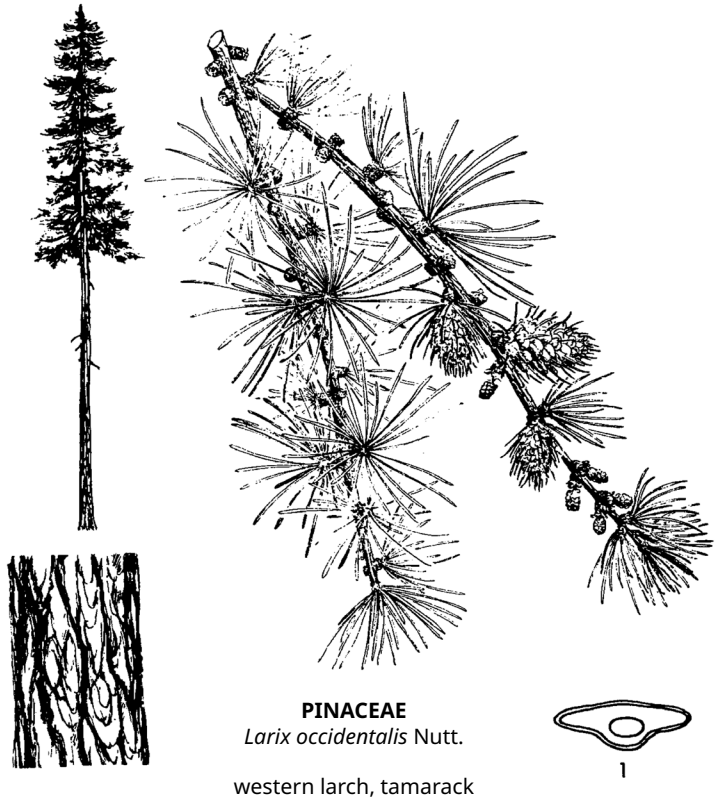
SIMILAR SPECIES: *Larix occidentalis*, p. 15.

HABITAT: Timberline above 2,000 m (6,550 ft) elevation in the spruce-fir zone.

NOTES: Rare tree, seldom encountered near roads; it is accessible on the old Nez Perce Trail, FS Rd #468.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
+	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	4
	Phma h.t.	Phma	1
		Smst	2
Abgr	Phma h.t.	Phma	2
		Cooc	
	Libo h.t.	Libo	3
		Xete	6
	Asca h.t.	Asca	4
		Tabr	3
		Mefe	2
	Setr h.t.		3
	Clun h.t.	Phma	3
		Clun	4
		Tabr	3
		Mefe	4
		Xete	4
	Xete h.t.	Vagl	4
		Cooc	4
Thpl	Clun h.t.	Clun	4
		Tabr	
		Mefe	6
		Xete	6
	Asca h.t.	Asca	3
		Tabr	4
		Mefe	9
	Gydr h.t.		2
	Adpe h.t.		2
	Atfi h.t.	Adpe	
		Atfi	1
	Opho h.t.		1
Tshe	Clun h.t.	Clun	6
		Arnu	6
		Mefe	4
		Xete	7
	Asca h.t.	Asca	5
		Arnu	4
		Mefe	7
	Gydr h.t.		3
Tsme	Clun h.t.	Mefe	6
		Xete	7
	Mefe h.t.	Xete	1
		Luhi	2
	Stam h.t.	Mefe	5
		Luhi	
	Xete h.t.	Vagl	5
		Luhi	1
Abla	Clun h.t.	Clun	7
		Mefe	1
		Xete	5
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	2
	Xete h.t.	Cooc	2
		Vagl	2
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



PINACEAE
Larix occidentalis Nutt.

western larch, tamarack

1

FORM: Tree, up to 60 m (200 ft) tall; short open crown with long, clear bole, often with swollen butt.

IDAHO CHAMPION: 1977. 76.2 in d.b.h.; 239.3 in circum + 142 ft tall + 5.5 ft crown = 387 pts.; Latah Co.

STEMS: Young twigs **without dense woolly hair**.

BARK: Initially thin and scaly becoming very thick and deeply furrowed into large plates; flaking into cinnamon-red scales, resembling *Pinus ponderosa*.

LEAVES: Deciduous, 15–30 needles borne on short spur, pale green, **broadly triangular with no resin ducts visible** (1), 2–4 cm (1–2 in) long; becoming yellow and falling in late fall after *Larix lyallii*.

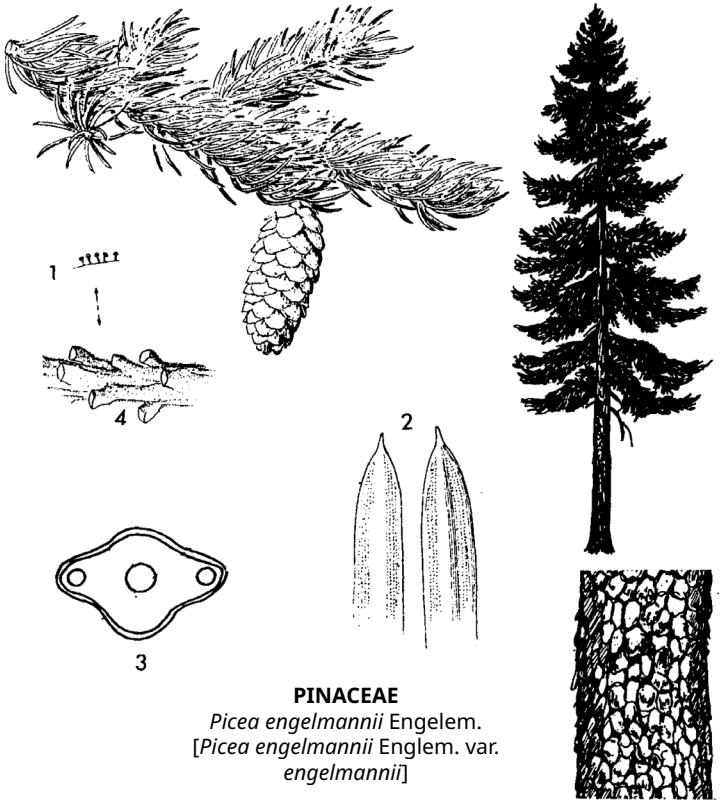
CONES: Oblong, 2–3 cm (< 2 in) long; thin, red-brown scales; borne upright on spur shoot, may remain on tree for several years; ripens Aug.–Sept.; seed shed Sept.–Oct.

ENEMIES: Diseases: *Fomes officinalis, Fomes pini, Phaeolus (Polyporus) schweinitzii, Armillaria* species, *Phellinus (Poria) weirii* and *Hypodermella laricis*; Insects: larch casebearer, Fire: very resistant.

SIMILAR SPECIES: *Larix lyallii*, p. 14.

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Pien



PINACEAE
Picea engelmannii Engelem.
[*Picea engelmannii* Englem. var. *engelmannii*]

Engelmann spruce

FORM: Tree, up to 55 m (180 ft) tall; crown spirelike; branches extending to the ground.

NATIONAL CHAMPION: 2005. 93 in d.b.h.; 292 in circum + 181 ft tall + 13 ft crown = 486 pts.; Big Spruce Creek, Boise Co., Lowman Ranger District, Boise National Forest.

STEMS: Young twigs finely pubescent (1).

BARK: Thin, brownish-red, scaly.

LEAVES: Short, rigid needles, 2–4 cm (1–2 in) long, blue-green, **pointed** (2), **4-angled in cross-section** (3); borne singly on a peg, that remains on twig when needle is shed (4).

CONES: Oblong, 2–4 cm (1–2 in) long, light chestnut-brown, scales paper-thin; cones droop from branches, falling during autumn or winter; ripens Aug.–Sept., seed shed Sept.–Oct.

ENEMIES: Diseases: *Armillaria* species, *Fomes annosus, Phaeolus (Polyporus) schweinitzii, Fomes pini*, broom rust, and dwarf mistletoe; Insects: western budworm, and tip weevil; Fire—very susceptible.

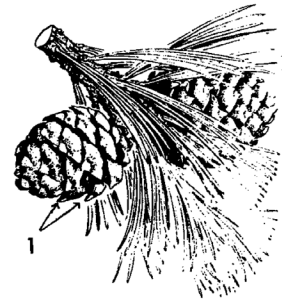
SIMILAR SPECIES: *Abies lasiocarpa*, p. 9.

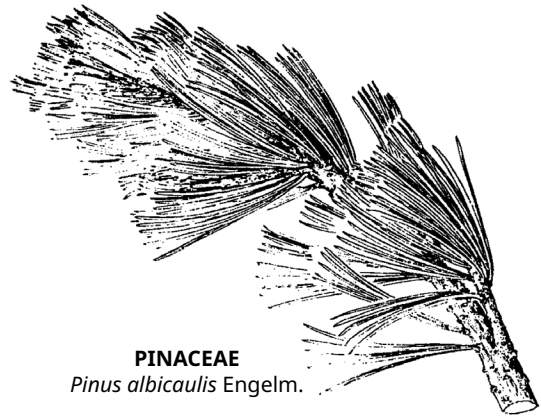
HABITAT: Montane; favors cold humid sites, and wet frost pockets of all elevations.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
5	Libo	Libo h.t.	
6	Xete		
2	Asca	Asca h.t.	
8	Tabr		
8	Mefe		
8	Setr h.t.		
	Phma	Clun h.t.	
2	Clun		
5	Tabr		
8	Mefe		
6	Xete		
4	Vagl	Xete h.t.	
3	Cooc		
2	Clun	Clun h.t.	Thpl
9	Tabr		
9	Mefe		
8	Xete		
4	Asca	Asca h.t.	
5	Tabr		
9	Mefe		
7	Gydr h.t.		
+	Adpe h.t.		
2	Adpe	Atfi h.t.	
6	Atfi		
2	Opho h.t.		
3	Clun	Clun h.t.	Tshe
3	Arnu		
6	Mefe		
3	Xete		
2	Asca	Asca h.t.	
	Arnu		
10	Mefe		
3	Gydr h.t.		
10	Mefe	Clun h.t.	Tsme
9	Xete		
7	Xete	Mefe h.t.	
6	Luhi		
10	Mefe	Stam h.t.	
2	Luhi		
7	Vagl	Xete h.t.	
5	Luhi		
10	Clun	Clun h.t.	Abla
10	Mefe		
8	Xete		
10	Cooc	Mefe h.t.	
10	Xete		
9	Vasc		
9	Luhi		
9	Mefe	Stam h.t.	
10	Lica		
10	Caca	Caca h.t.	
10	Vaca		
10	Legl		
9	Cooc	Xete h.t.	
6	Vagl		
7	Vasc		
7	Luhi		
3	Vasc h.t.		Pico
10	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	+
		Xete	
	Mefe h.t.	Xete	1
		Luhi	3
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	4
		Luhi	6
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	5
		Luhi	6
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	2
		Vaca	
		Legl	2
	Xete h.t.	Cooc	1
		Vagl	3
		Vasc	3
		Luhi	10
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		









PINACEAE
Pinus albicaulis Engelm.

whitebark pine

FORM: Subalpine tree, 5–15 m (15–50 ft) tall, with broadly branched crown; stunted or decumbent on exposed sites.

NATIONAL CHAMPION: 2007. 85 in d.b.h., 268 in circum + 65 ft tall + 7 ft crown = 340 pts.; Imogene Lake, Custer Co., Sawtooth National Recreation Area.

BARK: Thin, white-grey, scaly; inner bark red-brown.

LEAVES: Needles in bundles of 5, dark green, 3–8 cm (1–3 in) long; clustered at branch ends.

CONES: Ovoid, deep red to purple-brown, 5–10 cm (2–4 in) long, thick scales with stout, **pointed umbos** (1) (protuberances); cones **disintegrate on ground**, rarely found whole.

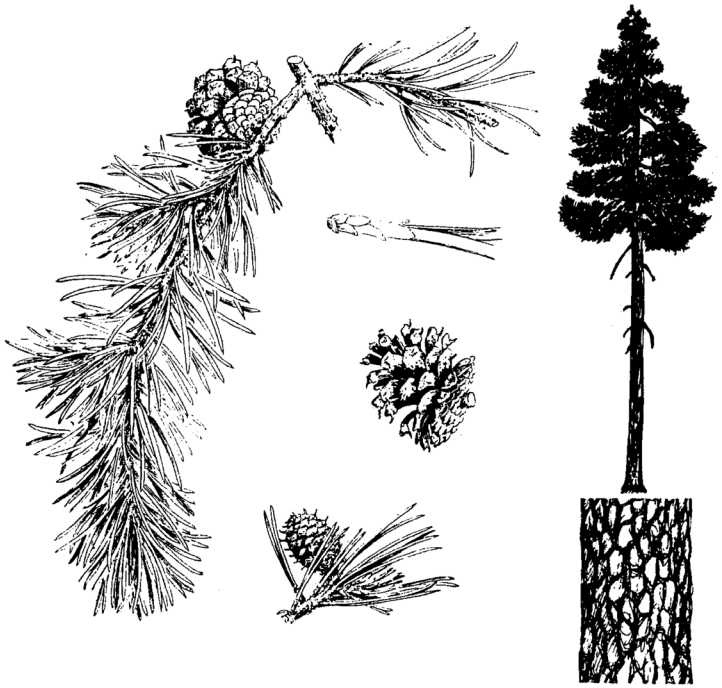
ENEMIES: Diseases: white pine blister rust, *Armillaria* species, *Poria subacida, Fomes annosus, Fomes pini, Phaeolus (Polyporus) schweinitzii* and dwarf mistletoe; Insects: mountain pine beetle; Fire: very susceptible.

SIMILAR SPECIES: *Pinus monticola*, p. 19, long, light cones; *P. contorta*, p. 18; or *P. flexillis* (limber pine), not found in Idaho north of Riggins.

HABITAT: Subalpine slopes and ridges.

NOTE: Whitebark pine has been designated a threatened species under the Endangered Species Act (USDOI Fish and Wildlife Service 2022).

Picol



PINACEAE
Pinus contorta var. *latifolia* Engelm.

Rocky Mountain lodgepole pine, jack pine

FORM: Tree, up to 30 m (100 ft) tall with short crown.

NATIONAL CHAMPION: 2008. 42 in d.b.h.; 133 in circum + 156 ft tall + 9 ft crown = 298 pts.; Box Creek, Idaho Dept. of Lands, Valley Co.

BARK: Lowland form has thick, black, rectangular plated bark; subalpine form is thin, reddish to grey with loose scales.

LEAVES: Needles in bundles of 2, 3–8 cm (1–3 in) long; stiff, often twisted; yellowish green.

CONES: Subsessile, 3–5 cm (1–2 in) long, **sharp-spined tip on scale**; persistence and cone serotiny is regionally variable; cones mature Aug.–Sept.; seed shed Sept.–Oct.

ENEMIES: Diseases: Stalactiform rust, *Phaeolus (Polyporus) schweinitzii, Polyporus tomentosus, P. anceps, Fomes pini, Armillaria* species, *Verticicladiella* species (blackstain), Atropellis canker, dwarf mistletoe, and western gall rust; Insects: mountain pine beetle, and tip borers; Fire: susceptible.

SIMILAR SPECIES: Persistent cones are not a characteristic of any other pine in this area, but may be confused with 5-needle pines: *Pinus albicaulis*, p. 17; or *Pinus monticola*, p. 19.

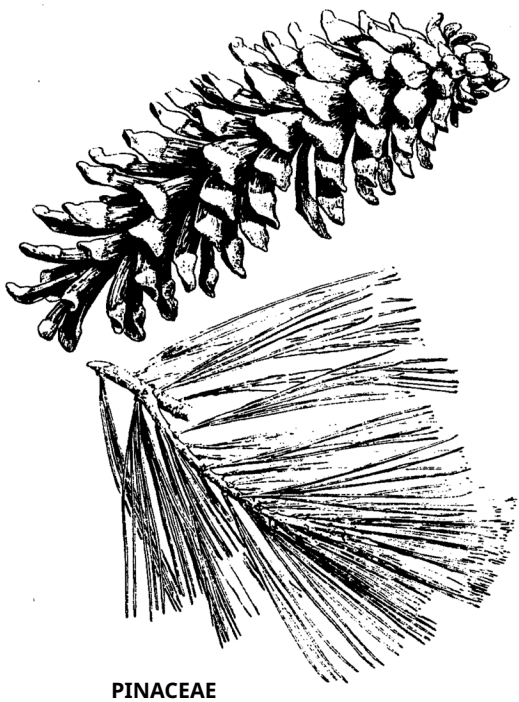
HABITAT: Potential early seral occupant on all habitat types except *Pinus ponderosa* series.

	Syal h.t.		Pipo
	Phma h.t.		
4	Caru	Caru h.t.	Psme
7	Aruv		
1	Phma	Phma h.t.	
	Smst		
3	Phma	Phma h.t.	Abgr
1	Cooc		
5	Libo	Libo h.t.	
9	Xete		
1	Asca	Asca h.t.	
	Tabr		
2	Mefe		
	Setr h.t.		
3	Phma	Clun h.t.	
3	Clun		
1	Tabr		
5	Mefe		
6	Xete		
9	Vagl	Xete h.t.	
6	Cooc		
2	Clun	Clun h.t.	Thpl
1	Tabr		
4	Mefe		
3	Xete		
+	Asca	Asca h.t.	
1	Tabr		
3	Mefe		
1	Gydr h.t.		
+	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
2	Clun	Clun h.t.	Tshe
3	Arnu		
4	Mefe		
5	Xete		
2	Asca	Asca h.t.	
1	Arnu		
	Mefe		
	Gydr h.t.		
4	Mefe	Clun h.t.	Tsme
7	Xete		
5	Xete	Mefe h.t.	
5	Luhi		
	Mefe	Stam h.t.	
	Luhi		
7	Vagl	Xete h.t.	
3	Luhi		
7	Clun	Clun h.t.	Abla
4	Mefe		
3	Xete		
7	Cooc	Mefe h.t.	
3	Xete		
9	Vasc		
2	Luhi		
2	Mefe	Stam h.t.	
4	Lica		
7	Caca	Caca h.t.	
10	Vaca		
9	Legl		
9	Cooc	Xete h.t.	
7	Vagl		
9	Vasc		
7	Luhi		
10	Vasc h.t.		Pico
10	Xete c.t.		
10	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	3
		Cooc	
	Libo h.t.	Libo	1
		Xete	1
	Asca h.t.	Asca	2
		Tabr	
		Mefe	1
	Setr h.t.		
	Clun h.t.	Phma	4
		Clun	3
		Tabr	
		Mefe	1
		Xete	2
	Xete h.t.	Vagl	1
		Cooc	
Thpl	Clun h.t.	Clun	4
		Tabr	2
		Mefe	5
		Xete	4
	Asca h.t.	Asca	3
		Tabr	5
		Mefe	6
	Gydr h.t.		4
	Adpe h.t.		3
	Atfi h.t.	Adpe	2
		Atfi	3
	Opho h.t.		4
Tshe	Clun h.t.	Clun	6
		Arnu	8
		Mefe	8
		Xete	8
	Asca h.t.	Asca	6
		Arnu	7
		Mefe	7
	Gydr h.t.		7
Tsme	Clun h.t.	Mefe	6
		Xete	6
	Mefe h.t.	Xete	3
		Luhi	2
	Stam h.t.	Mefe	5
		Luhi	
	Xete h.t.	Vagl	5
		Luhi	1
Abla	Clun h.t.	Clun	
		Mefe	2
		Xete	3
	Mefe h.t.	Cooc	1
		Xete	2
		Vasc	
		Luhi	1
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	1
		Vagl	2
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		







PINACEAE

Pinus monticola Douglas ex D. Don

western white pine

FORM: Tree, up to 70 m (230 ft) tall; symmetrical crown with slender, drooping branches; well-marked nodal branching.

IDAHO CHAMPION: 1992. 79 in d.b.h.; 247 in circum + 229 ft tall + 6 ft crown = 482 pts.; Floodwood Creek, Idaho Dept. of Lands, Clearwater Co.

BARK: Very thin at first, grey and smooth, with resin blisters on young trees (similar to *Abies grandis* and *Pseudotsuga menziesii*), becoming finely checked into small, dark grey squares.

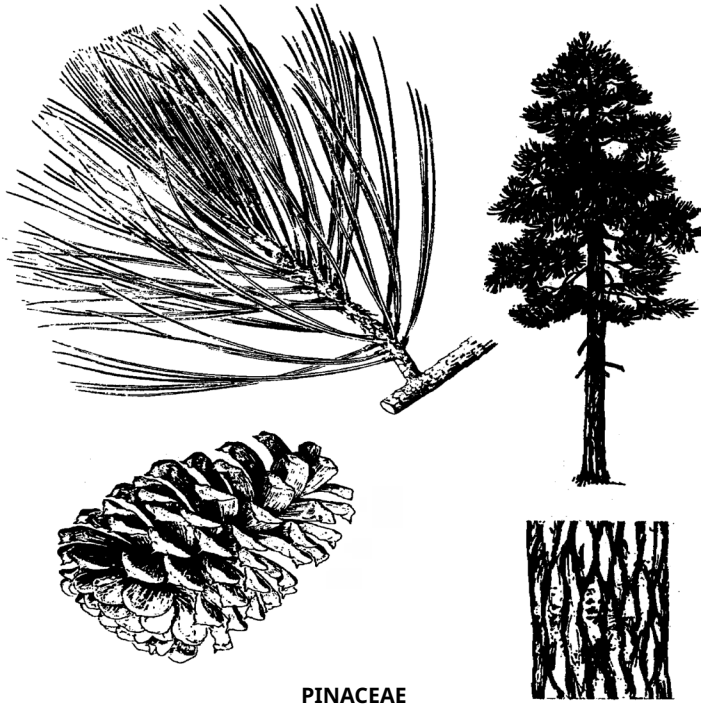
LEAVES: Needles in bundles of 5, 5–10 cm (2–4 in) long, blue-green, slender and flexible, tip blunt.

CONES: Narrow and curved, 12–38 cm (5–15 in) long, **thin unarmed scales**; mature mid-Aug. of second year; seed shed Aug.–Sept.

ENEMIES: Diseases: white pine blister rust, *Armillaria* species, *Poria subacida, Fomes pini, Phaeolus (Polyporus) schweinitzii, Phellinus* (*Poria*) *weirii, Fomes annosus, Polyporus anceps, Verticicladiella* species (blackstain), dwarf mistletoe, and Atropellis canker; Insects: mountain pine beetle; Fire: very susceptible.

SIMILAR SPECIES: *Pinus albicaulis*, p. 17, short and heavy cones.

Pipo



PINACEAE

Pinus ponderosa P. Lawson & C. Lawson

ponderosa pine, yellow pine, bull pine, blackjack pine

FORM: Tree, 43 m (140 ft) tall; with symmetrical bole.

IDAHO CHAMPION: 2010. 74 in d.b.h.; 233 in circum + 179 ft tall + 13 ft crown = 425 pts.; Idaho Dept. of Lands, Clearwater Co.

BARK: Brownish-black on vigorous young trees, turning to an **orange or cinnamon color** as diameter growth slows; always scaly with deep furrows on mature tree.

LEAVES: Flexible, yellowish-green, **needles in bundles of 3 sometimes 2**, 12–20 cm (5–8 in) long.

CONES: Ovate, 8–15 cm (3–6 in) long, cone scales have prickly tip; clustered at branch ends; may persist 2–7 years; ripens Aug.–Sept.; seed shed Sept.–Jan.

ENEMIES: Diseases: *Armillaria* species, *Phaeolus (Polyporus) schweinitzii*, *Polyporus anceps, Verticicladiella* species (blackstain), *Fomes pini*, Atropellis canker, dwarf mistletoe, Elytroderma needlecast and western gall rust; Insects: western and mountain pine beetle; Fire: mature trees very resistant.

10	Syal h.t.		Pipo
10	Phma h.t.		
	Caru	Caru h.t.	Psme
4	Aruv		
8	Phma	Phma h.t.	
9	Smst		
7	Phma	Phma h.t.	Abgr
3	Cooc		
6	Libo	Libo h.t.	
4	Xete		
2	Asca	Asca h.t.	
	Tabr		
2	Mefe		
	Setr h.t.		
7	Phma	Clun h.t.	
4	Clun		
	Tabr		
1	Mefe		
3	Xete		
4	Vagl	Xete h.t.	
3	Cooc		
2	Clun	Clun h.t.	Thpl
	Tabr		
2	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
+	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
	Opho h.t.		
1	Clun	Clun h.t.	Tshe
+	Arnu		
	Mefe		
1	Xete		
1	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	1
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	
		Xete	1
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		









SALICACEAE
Populus tremuloides Michx.

quaking aspen, trembling aspen

FORM: Small tree, up to 25 m (82 ft) tall, forming dense colonies, rarely singular.

IDAHO CHAMPION: 2009. 36 in d.b.h., 114 in circum + 87 ft tall + 13 ft crown = 214 pts.; Blaine Co.

BARK: Smooth, greenish-white to cream colored becoming blackish and rough with injury and old age.

BUDS: Resinous, sharp tipped, reddish-brown, 1 cm long (1).

LEAVES: Alternate, deciduous, broadly ovate almost round, 2–9 cm (1–4 in) long, finely toothed, apex acute, shiny yellow-green, pale below; **becoming bright yellow in autumn**; the slender, **laterally flattened petiole** (2) **allows leaf to flutter in slightest breeze.**

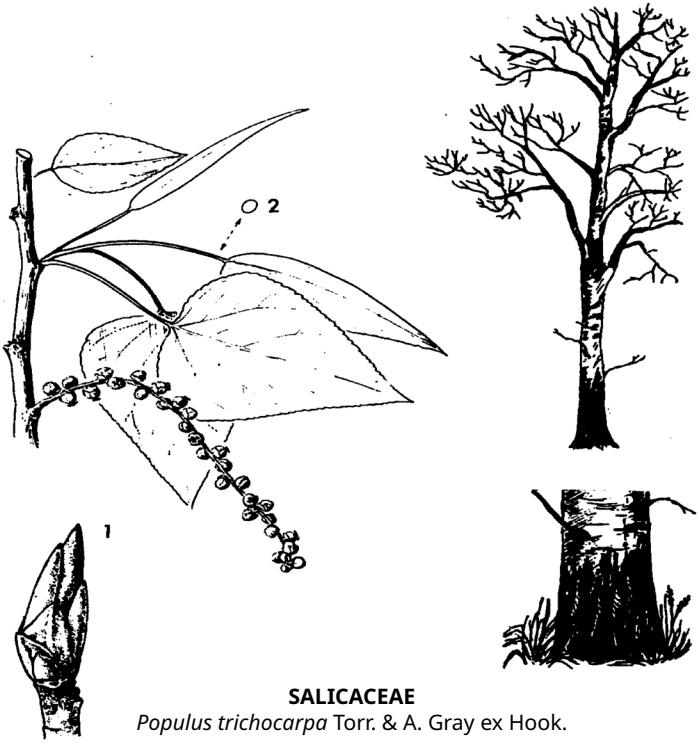
FLOWERS: Catkins drooping; appearing before the leaves; April–May.

ENEMIES: Diseases: *Fomes igniarius*, Hypoxylon canker, *F. applanatus* and *Armillaria* species; Fire: very susceptible.

HABITAT: Streams, moist benches and mountain slopes.

NOTE: Timber and pulp species in other regions.

Potr2



SALICACEAE

Populus trichocarpa Torr. & A. Gray ex Hook.

black cottonwood

FORM: Large tree, 10–30 m (30–100 ft) tall, with broad, open crown.

IDAHO CHAMPION: 1991. 96 in d.b.h.; 302 in circum + 113 ft tall + 20 ft crown = 435 pts.; Bonner Co.

BARK: Smooth, yellowish-tan to grey on young bark, aging grey with **rough and narrow flattened ridges**.

BUDS: Orange-brown 2 cm (< 1 in) long; tip sharp (1), resinous with **fragrant odor when crushed**.

LEAVES: Alternate, deciduous, ovate, 5–15 cm (2–6 in) long, apex acute, margins finely toothed, dark green above, **silver-white beneath, round petioles** (2), strongly resinous, especially when young.

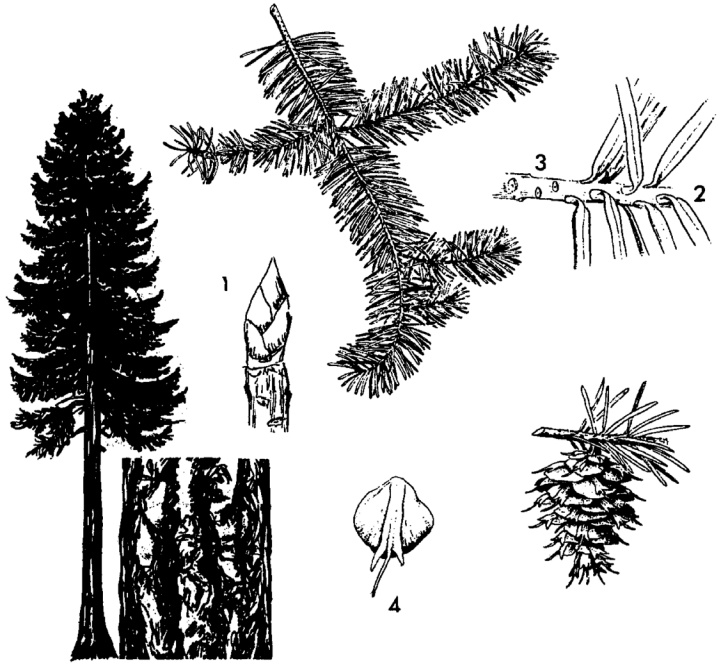
FLOWERS: Catkins drooping, appearing before the leaves; April–June.

HABITAT: Mostly along streams and lake shores.

NOTE: Largest hardwood native to Idaho.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
1	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		
Psme	Caru h.t.	Caru	10
		Aruv	9
	Phma h.t.	Phma	10
		Smst	10
Abgr	Phma h.t.	Phma	10
		Cooc	10
	Libo h.t.	Libo	8
		Xete	9
	Asca h.t.	Asca	9
		Tabr	4
		Mefe	5
	Setr h.t.		2
	Clun h.t.	Phma	10
		Clun	9
		Tabr	7
		Mefe	6
		Xete	9
	Xete h.t.	Vagl	9
		Cooc	10
Thpl	Clun h.t.	Clun	7
		Tabr	6
		Mefe	7
		Xete	8
	Asca h.t.	Asca	6
		Tabr	2
		Mefe	9
	Gydr h.t.		2
	Adpe h.t.		3
	Atfi h.t.	Adpe	1
		Atfi	1
	Opho h.t.		
Tshe	Clun h.t.	Clun	5
		Arnu	5
		Mefe	8
		Xete	5
	Asca h.t.	Asca	5
		Arnu	4
		Mefe	3
	Gydr h.t.		2
Tsme	Clun h.t.	Mefe	6
		Xete	7
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	2
		Luhi	
	Xete h.t.	Vagl	5
		Luhi	
Abla	Clun h.t.	Clun	7
		Mefe	4
		Xete	8
	Mefe h.t.	Cooc	6
		Xete	2
		Vasc	3
		Luhi	
	Stam h.t.	Mefe	2
		Lica	2
	Caca h.t.	Caca	3
		Vaca	
		Legl	
	Xete h.t.	Cooc	7
		Vagl	7
		Vasc	3
		Luhi	
Pico	Vasc h.t.		1
	Xete c.t.		5
	Vaca c.t.		3



PINACEAE
Pseudotsuga menziesii var. *glauca* (Mayr.) Franco

Rocky Mountain Douglas-fir, red fir

FORM: Tree up to 45 m (150 ft) tall; compact, pyramidal crown with **irregular branching habit**; branches upward spreading to drooping, with stiffly erect leader.

IDAHO CHAMPION: 1998. 70 in d.b.h.; 221 in circum + 209 ft tall + 7 ft crown = 437 pts.; Potlatch Corp., Clearwater Co.

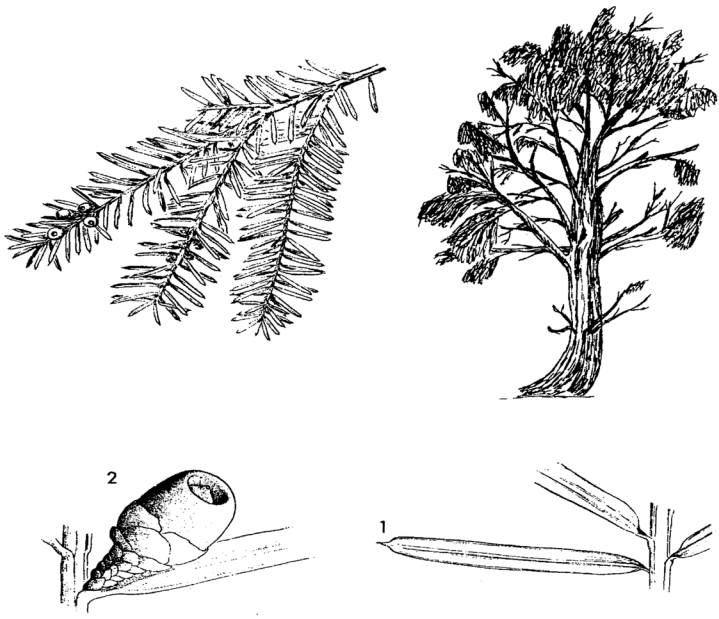
BARK: Rough, very thick, reddish-brown, separated by irregular deep furrows, bark's internal layers consist of **light colored corky material mixed within reddish-brown material**.

BUDS: Shiny, **reddish-brown, sharp-pointed** 6 mm long (1).

LEAVES: Linear, flattened, blue-green **petiolate needle** (2), 2–3 cm (1 in) long apex blunt, slightly grooved above with 2 white stomatal bands below, **spirally arranged on twig**, petiole drops with needle, leaving small flat scar on twig (3).

CONES: Pendent, reddish-brown, oblong-cylindric, 4–10 cm (2–4 in) long, with **3-lobed bracts** (4), protruding from thin scale; ripens/sheds, Aug.–Sept. of first year.

ENEMIES: Diseases: *Phaeolus (Polyporus) schweinitzii, Armillaria* species, *Phellinus (Poria) weirii, Fomes annosus*, dwarf mistletoe, Dasyscypha canker, and Rhabdocline needle cast; insects: Douglas-fir beetle, western budworm, and tussock moth; fire: susceptible when young but resistant when old.



TAXACEAE
Taxus brevifolia Nutt.

western yew, Pacific yew

FORM: Large, evergreen shrub to small tree, 5–10 m (16–30 ft) tall with erect or contorted trunk.

IDAHO CHAMPION: 1987. 39 in d.b.h., 122 in circum + 44 ft tall + 6 ft crown = 172 pts.; Lytle Cow Camp, Nez Perce National Forest, Idaho Co.

BARK: Very thin; outer purplish scales covering newly formed **reddish inner bark**.

LEAVES: Single, alternate, persistent, dark green above, lighter below, linear, petiolate with **sharp-pointed apex** (1), spirally arranged, appearing **2-ranked**.

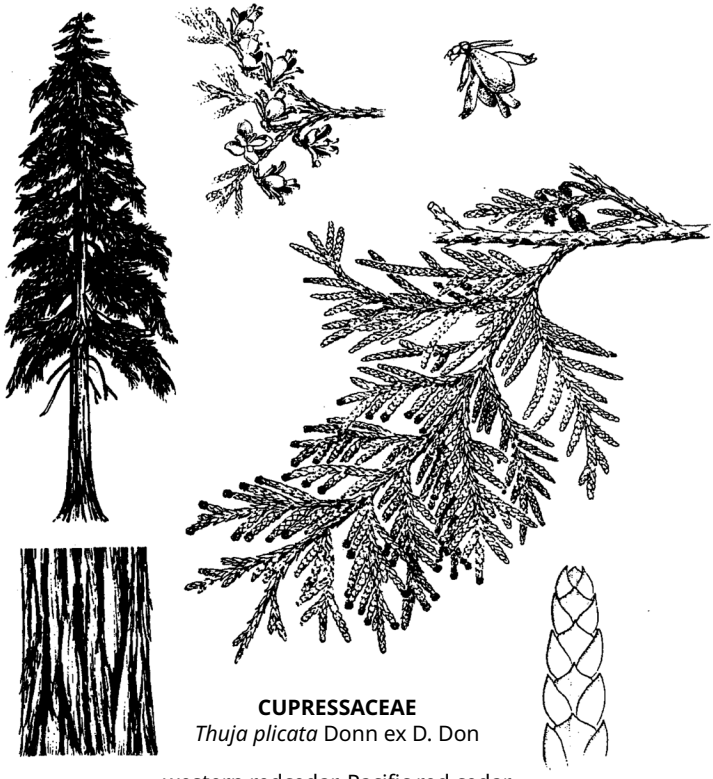
FRUIT: Fleshy, **poisonous**, red, berrylike (aril), solitary in leaf axil (2); ripens Aug.–Oct.; seed dispersal Oct.

SIMILAR SPECIES: *Tsuga heterophylla*, p. 26, rounded apex.

NOTES: Preferred moose winter browse species. Yew wood was famous for making archery bows.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
1	Xete		
1	Asca	Asca h.t.	
10	Tabr		
7	Mefe		
7	Setr h.t.		
	Phma	Clun h.t.	
3	Clun		
10	Tabr		
6	Mefe		
2	Xete		
1	Vagl	Xete h.t.	
1	Cooc		
2	Clun	Clun h.t.	Thpl
10	Tabr		
3	Mefe		
4	Xete		
3	Asca	Asca h.t.	
10	Tabr		
4	Mefe		
5	Gydr h.t.		
5	Adpe h.t.		
4	Adpe	Atfi h.t.	
4	Atfi		
5	Opho h.t.		
2	Clun	Clun h.t.	Tshe
1	Arnu		
1	Mefe		
2	Xete		
2	Asca	Asca h.t.	
3	Arnu		
7	Mefe		
5	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
	Xete		
1	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
1	Vasc		
1	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
2	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	2
		Tabr	+
		Mefe	1
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	1
		Tabr	
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	
		Cooc	1
Thpl	Clun h.t.	Clun	10
		Tabr	10
		Mefe	9
		Xete	10
	Asca h.t.	Asca	10
		Tabr	10
		Mefe	10
	Gydr h.t.		10
	Adpe h.t.		10
	Atfi h.t.	Adpe	10
		Atfi	9
	Opho h.t.		9
Tshe	Clun h.t.	Clun	9
		Arnu	9
		Mefe	8
		Xete	7
	Asca h.t.	Asca	5
		Arnu	10
		Mefe	
	Gydr h.t.		6
Tsme	Clun h.t.	Mefe	2
		Xete	1
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	2
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



CUPRESSACEAE

Thuja plicata Donn ex D. Don

western redcedar, Pacific red cedar

FORM: Large, tapering tree, up to 54 m (177 ft) tall, with a **buttressed, fluted trunk; branches usually drooping**; leader slender and drooping.

IDAHO CHAMPION: 1979. 217 in d.b.h.; 680 in circum + 177 ft tall + 10 ft crown = 867 pts.; Upper Elk Creek, Clearwater National Forest, Clearwater Co.

BARK: Thin, cinnamon-red, aging to grey-brown, **fibrous**, finely ridged and furrowed, **readily separating into long thin strips**.

LEAVES: Dark yellow-green, glossy, **scalelike** (1), in opposite pairs; branchlets forming flat sprays.

CONES: Ovid-cylindrical cones about 1 cm long with thin spine-tipped, paired scales; cones borne erect, pointing backwards on twig; ripens early Aug.; seed shed Sept.–Nov.; often reproduces vegetatively by layering.

ENEMIES: Diseases: *Phellinus (Poria) weirii, Polyporus sericeomollis, Phaeolus (Polyporus) schweinitzii* and *Fomes pini*; Insects: western cedar borer, and cedar bark beetle; Fire: susceptible.



PINACEAE
Tsuga heterophylla (Raf.) Sarg.

western hemlock

FORM: Tree, 30–50 m (100–160 ft) tall; narrow pyramidal crown with **drooping terminal leader**.

IDAHO CHAMPION: 1984. 58 in d.b.h.; 182 in circum + 165 ft tall + 14 ft crown = 361 pts.; Hunt Girl Creek, Kaniksu National Forest, Boundary Co.

BARK: Young trees scaly, russet-brown; old trees hard, dark, russet-brown; furrows separating widely, flat ridges, inner bark dark purple-red.

BUDS: Light brown, rounded, 2 mm long.

LEAVES: Thin, flat, singular, **petiolate**, dark green needles 6–10 mm long, **grooved above**, **marked with white stomata bands** below, apex rounded, **needles of varying lengths** (1), **2–ranked on twig** (2).

CONES: Light brown, 2 cm (< 1 in) long, thin scales narrow with wavy margin; ripens first year, Aug.–Oct.; seed shed Sept.–Jan., after seed releases cones remain on trees until the next summer.

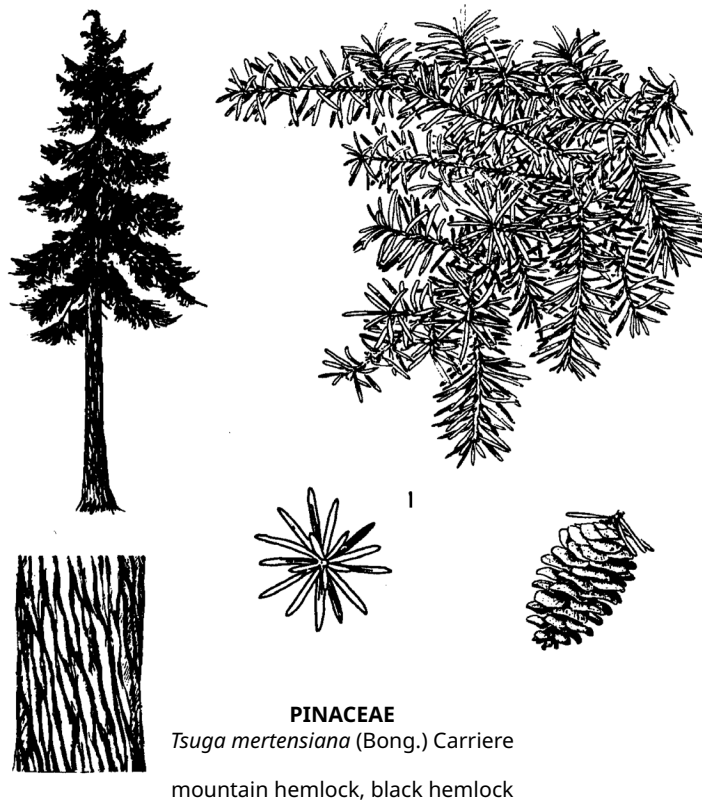
ENEMIES: Diseases: *Echinodontium tinctorium, Fomes annosus, F. pini, Phellinus* (Poria) *weirii*, *Armillaria* species, *Phaeolus* (*Polyporus*) *schweinitzii, Polyporus tomentosus*, and dwarf mistletoe; Fire: moderately susceptible.

SIMILAR SPECIES: *Tsuga mertensiana*, p. 27; and as sapling *Taxus brevifolia*, p. 24.

NOTES: Largest hemlock native to the United States.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
	Mefe		
1	Xete		
	Vagl	Xete h.t.	
	Cooc		
1	Clun	Clun h.t.	Thpl
	Tabr		
1	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
3	Adpe h.t.		
1	Adpe	Atfi h.t.	
2	Atfi		
6	Opho h.t.		
10	Clun	Clun h.t.	Tshe
9	Arnu		
9	Mefe		
10	Xete		
10	Asca	Asca h.t.	
10	Arnu		
10	Mefe		
9	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
	Mefe		
2	Xete		
	Cooc	Mefe h.t.	
2	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	1
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	5
		Xete	2
	Asca h.t.	Asca	1
		Tabr	
		Mefe	1
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	1
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	10
		Xete	10
	Mefe h.t.	Xete	10
		Luhi	10
	Stam h.t.	Mefe	10
		Luhi	10
	Xete h.t.	Vagl	10
		Luhi	10
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	
		Xete	2
		Vasc	1
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	1
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



PINACEAE
Tsuga mertensiana (Bong.) Carriere

mountain hemlock, black hemlock

FORM: Tree, up to 35 m (115 ft) tall; pyramidal crown with slender, drooping branches and slightly **drooping leader**.

IDAHO CHAMPION: 1984. 64 in d.b.h.; 202 in circum + 136 ft tall + 9 ft crown = 347 pts.; Pinchot Marsh, Coeur d'Alene BLM, Shoshone Co.

BARK: Hard, red-brown with deep, narrow furrows separating into narrow, rounded ridges.

BUDS: brown, sharp pointed, 3 mm long.

LEAVES: Singular, **plump**, **petiolate** needles 1–3 cm (1 in) long, deep blueish-green with **stomata on both surfaces**, apex blunt, **needles of even length and extending out on all sides of twig** (1).

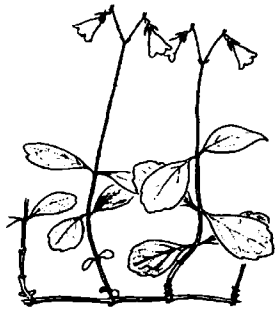
CONES: Mature cones, cylindrical, with thin scales, **3–8 cm (1–3 in) long**; purple, turning brown when mature, remaining on trees several years; ripens and sheds seed from Aug.–Oct.

ENEMIES: Same as *Tsuga heterophylla*, p. 26.

SIMILAR SPECIES: *Tsuga heterophylla*, p. 26.

Shrubs





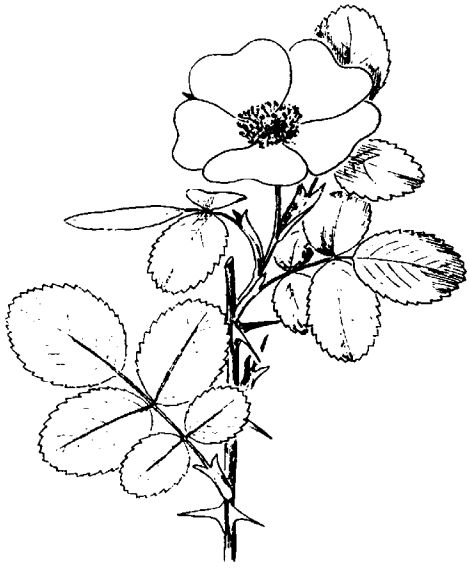




Table 3—Shrub Characteristics

Characteristics / Species	Page	1 Size	LEAF 2 Arrangement	LEAF 3 Persistence	LEAF 4 Leaf Type	FLOWER 5 Inflorescence	FLOWER 6 Color	7 Fruit	Comments
WHORLED Evergreen									
Chimaphila spp.	42	S	W(A)	E	ST	C	P	C	
OPPOSITE Evergreen									
Linnaea borealis	48	S	O	E	ST	T	P	C	mat forming
Pachistima myrsinites	52	L	O	E	ST	C	M	B	
Satureja douglasii	72	S	O	E	ST	S	W	N	odor/square stems
OPPOSITE Deciduous									
Acer glabrum	32	T	O	D	SM	C	GY	Sa	Idaho native maple
Cornus stolonifera	43	T	O	D	SE	C	W	D	red stems
Lonicera spp.	49	M	O	D	SE	T/C	Y/O	B	white pith
Philadelphus lewisii	53	T	O	D	ST	R	W	C	Idaho state flower
Sambucus spp.	71	T	O	D	PT	C/F	W	B	large berry-like clusters
Shepherdia canadensis	73	M	O	D	SE	S-C	Y	B	reddish scales
Symphoricarpos spp.	76	M	O	D	SE	R	W-P	B	dark pith
ALTERNATE Evergreen									
Arctostaphylos uva-ursi	37	S	A	E	SE	C	W-P	B	mat forming
Berberis spp.	38	S-M	A	E	PT	R	Y	B	
Ceanothus velutinus	41	T	A	E	ST	P	W	C	spicy smelling
Gaultheria spp.	45	S	A	E	ST	S	W-P	B	mat forming
Ledum glandulosum	47	M	A	E	SE	C	W-Y	C	yellow glands on leaf bottom
Phyllodoce empetriformis	54	S-L	A	E	SLil	S	P	C	high elevation
Taxus brevifolia	24	T	A	E	SLiE	-	-	B	sharp-tipped leaf

Table 3 continued.

ALTERNATE Deciduous									
Alnus spp.	33	T	A	D	ST	A	GW	W	persistent, semiwoody ament
Amelanchier alnifolia	36	T	A	D	ST	R	W	P	early blooming
Betula glandulosa	39	M-T	A	D	ST	A	GW	Sa	glandular stems
Ceanothus sanguineus	40	T	A	D	ST	P	W	C	red stems
Crataegus douglasii	44	T	A	D	ST	C	W	P	armed
Holodiscus discolor	46	T	A	D	ST	P	C	A	dried flower sprays
Menziesia ferruginea	50	M	A	D	ST	C	P-YW	C	white-tipped leaves
Oplopanax horridum	51	M	A	D	SM	R	GW	B	densely armed
Physocarpus malvaceus	55	M	A	D	SM	C	W	F	shreddy bark
Prunus spp.	57	T	A	D	ST	R/C	W	D	1-3 prominent leaf glands
Rhamnus purshiana	58	T	A	D	ST	C	GY	B	naked buds
Rhododendron albiflorum	59	M	A(W)	D	SE	C	W	C	high elevation
Ribes spp.	60	M	A	D	STL-M	R	G/Y/P	B	glandular fruit
Rosa spp.	63	M	A	D	CT	S/C	P	H	armed
Rubus spp.	67	S-M	A	D(E)	CT/SMT	S/C	W/P	D	
Salix scouleriana	70	T	A	D	SE	A	GW	C	common upland willow
Sorbus spp.	74	T	A	D	CPT	C/F	W	P	
Spiraea betulifolia	75	L	A	D	ST	F	W	F	
Vaccinium spp.	78	L-M	A	D	ST	S/C	P/W/Y	B	

1. SIZE
S–Subshrub=0-20cm (0-8in)
L–Low shrub=20-50cm (8-20in)
M–Medium Shrub= 5-20dm (1.7-7ft)
T–Tall shrub/Small tree= +2m (+7ft)

2. ARRANGEMENT
A–Alternate
O–Opposite
W–Whorled

3. PERSISTENCE
D–Deciduous
E–Evergreen

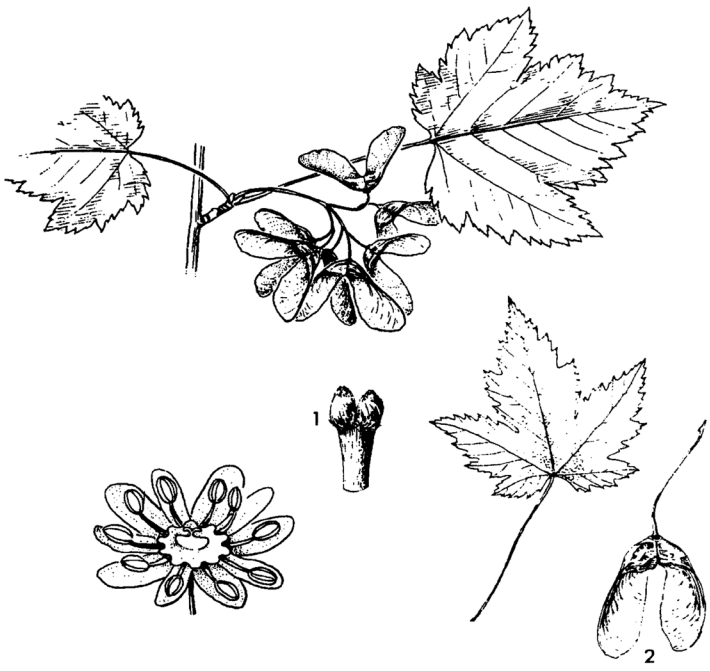
4. LEAF TYPE
C–Compound
E–Entire
I–Inrolled
L–Lobed
Li–Linear
M–Palmate or maple-like
P–Pinnate
S–Simple
T–Toothed or serrate

5. INFLORESCENCE
A–Ament or catkin
C–Cluster or rounded corymb
F–Flat topped cyme or corymb
P–Panicle
R–Raceme
S–Single or solitary
T–Two or paired

6. COLOR
C–Cream
G–Green
GW–Greenish-white
M–Maroon
O–Orange
P–Pink
W–White
Y–Yellow

7. FRUIT
A–Achene
B–Berry or berry-like
C–Capsule
D–Drupe
F–Follicle
H–Hip
N–Nutlet
P–Pome
Sa–Samara

- = “to” / = “or” ( ) = “can also be”



SAPINDACEAE
Acer glabrum Torr.
[*Acer glabrum* Torr. var. *glabrum*]

Rocky Mountain maple, Douglas maple

FORM: Shrub (var. *glabrum*) or small tree (var. *douglasii*), 1–10 m (3–33 ft) tall.

IDAHO CHAMPION: var. *glabrum*: 1985. 5 in d.b.h.; 17 in circum + 25 ft tall + 8 ft crown = 46 pts.; Twin Falls Ranger District, Sawtooth National Forest.

IDAHO CHAMPION: var. *douglasii*: 1989. 17 in d.b.h.; 53 in circum + 80 ft tall + 8 ft crown = 141 pts.; Bonner Co.

STEMS: Smooth, reddish-purple; old bark grey.

BUDS: Opposite, smooth, red, plump ovate, 3 mm long; **bud scales paired** (1).

LEAVES: Opposite, deciduous, simple, 3–5 toothed, palmately lobed, maplelike leaves, dark green often with reddish tints, 2–14 cm (1–6 in) long, trifoliolate leaves may frequently be found; var. *glabrum*: leaves more deeply lobed, mostly < 6 cm (< 2 in) wide; var. *douglasii*: leaves shallowly lobed, > 6 cm (> 2 in) wide.

FLOWERS: Small, greenish-yellow, borne in short terminal or axillary clusters; appearing with the leaves; April–June.

FRUIT: Double samaras (2) 2–3 cm (1 in) long.

NOTES: Only maple native to northern Idaho.

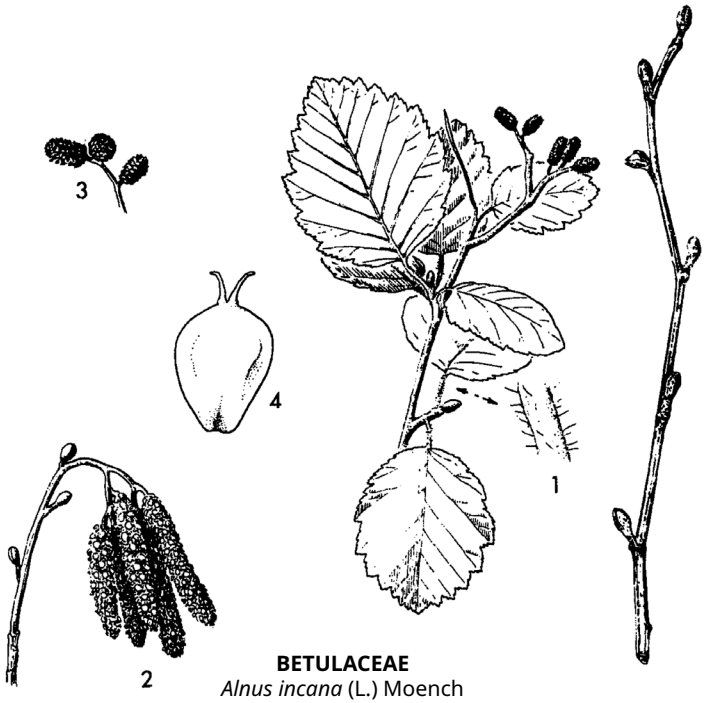
	Syal h.t.		Pipo
1	Phma h.t.		
4	Caru	Caru h.t.	Psme
1	Aruv		
4	Phma	Phma h.t.	
4	Smst		
8	Phma	Phma h.t.	Abgr
10	Cooc		
5	Libo	Libo h.t.	
1	Xete		
9	Asca	Asca h.t.	
9	Tabr		
9	Mefe		
8	Setr h.t.		
9	Phma	Clun h.t.	
6	Clun		
5	Tabr		
2	Mefe		
4	Xete		
1	Vagl	Xete h.t.	
3	Cooc		
6	Clun	Clun h.t.	Thpl
1	Tabr		
3	Mefe		
1	Xete		
8	Asca	Asca h.t.	
6	Tabr		
7	Mefe		
8	Gydr h.t.		
6	Adpe h.t.		
7	Adpe	Atfi h.t.	
5	Atfi		
6	Opho h.t.		
3	Clun	Clun h.t.	Tshe
4	Arnu		
3	Mefe		
4	Xete		
4	Asca	Asca h.t.	
9	Arnu		
3	Mefe		
6	Gydr h.t.		
2	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
2	Mefe		
4	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
3	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
1	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Table 4—Key to *Alnus* species.

1. Female catkins tassel-like, not persistent; pith compressed; twigs round, resin-dotted	*Betula* Conspectus	Page 11
1. Female catkins cone-like, persistent; pith triangular; twigs slightly angled	*Alnus* Conspectus	Below

Alnus Conspectus

Species	Page	Form	Pith	Buds	Leaves	Cones
Alnus incana [*Alnus incana* ssp. *tenuifolia*] thinleaf alder **Alin**	34	tall shrub or small tree	rusty	rounded stalked	broadly elliptic sharp tip large teeth	short, thin stout stalk
Alnus rubra red alder **Alru**	10	tree	orange to bright red	rounded stalked	broadly elliptic INROLLED sharp tip small teeth	medium stout stalk
Alnus sinuata [*Alnus viridis* ssp. *sinuata]* Sitka alder **Alsi**	35	shrub	whitish	sharp not stalked	ovate sharp tip large teeth	long thin stalk
Alnus rhombifolia white alder **Alrh**	N/A	tree	whitish	rounded stalked	elliptic rounded tip small teeth	medium stout stalk



BETULACEAE
Alnus incana (L.) Moench
[*Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung]

thinleaf alder, mountain alder

FORM: Large shrub or small tree, up to 12 m (40 ft) tall with a tendency to form thickets.

IDAHO CHAMPION: 1969. 10 in d.b.h.; 32 in circum + 30 ft tall + 5 ft crown = 67 pts.; Valley Co., Payette National Forest.

STEMS: Usually somewhat 3-sided, sometimes with short rusty hairs (1); **cambium and pith turn a rusty color when freshly cut.**

BARK: Thin, smooth, dirty green-grey; older trees tend to flake near base.

BUDS: Alternate, winter buds **stalked**, bright red, short, with **blunt apex.**

LEAVES: Deciduous, alternate, broadly elliptic, apex acute, margin **double dentate**, 3–7 cm (1–3 in) long; dull green both sides with yellow-green on central vein; not sticky.

FLOWERS: Next season's immature male and female catkins are exposed over winter; catkins developing before the leaves; male catkins clustered, pendulous (2); female catkins are small **semi-woody, persistent, conelike** (3) **clusters of 3-9** on short stout stalks 9–13 mm long; March–May.

FRUIT: A small, wingless nutlet (4).

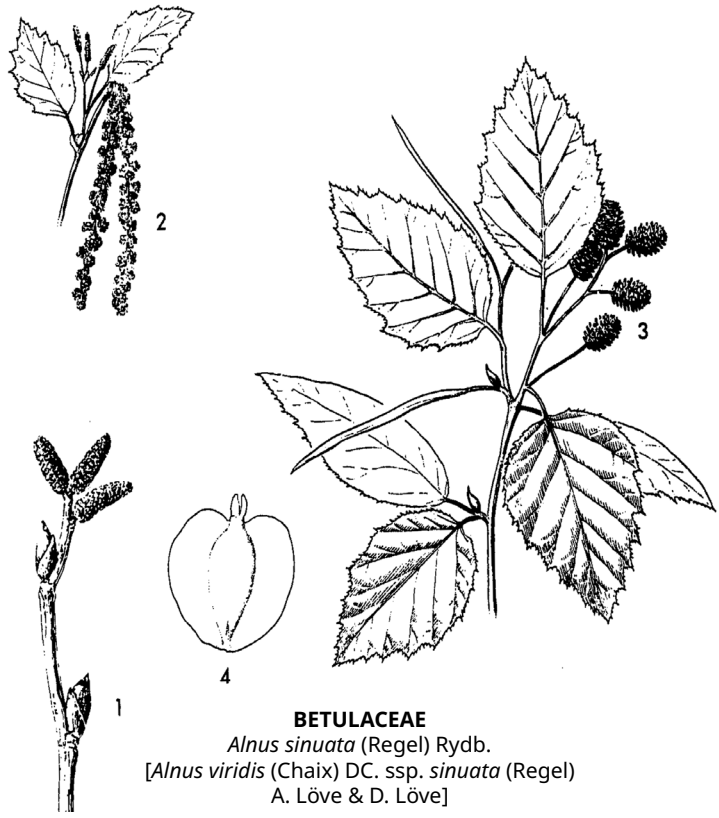
SIMILAR SPECIES: *Alnus* Species Conspectus, p. 33.

HABITAT: Associated with riparian to sub-irrigated sites.

NOTES: Roots have nitrogen-fixing nodules.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
2	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
1	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
4	Mefe	Clun h.t.	Tsme
2	Xete		
1	Xete	Mefe h.t.	
	Luhi		
5	Mefe	Stam h.t.	
2	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	1
	Phma h.t.	Phma	1
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	1
	Asca h.t.	Asca	+
		Tabr	
		Mefe	3
	Setr h.t.		1
	Clun h.t.	Phma	+
		Clun	1
		Tabr	
		Mefe	2
		Xete	2
	Xete h.t.	Vagl	2
		Cooc	1
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	5
		Xete	2
	Asca h.t.	Asca	1
		Tabr	
		Mefe	4
	Gydr h.t.		2
	Adpe h.t.		+
	Atfi h.t.	Adpe	
		Atfi	2
	Opho h.t.		1
Tshe	Clun h.t.	Clun	+
		Arnu	1
		Mefe	6
		Xete	1
	Asca h.t.	Asca	1
		Arnu	4
		Mefe	7
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	5
		Xete	1
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	5
		Luhi	2
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	10
		Mefe	4
		Xete	3
	Mefe h.t.	Cooc	3
		Xete	2
		Vasc	1
		Luhi	1
	Stam h.t.	Mefe	4
		Lica	4
	Caca h.t.	Caca	7
		Vaca	
		Legl	2
	Xete h.t.	Cooc	4
		Vagl	
		Vasc	2
		Luhi	
Pico	Vasc h.t.		3
	Xete c.t.		5
	Vaca c.t.		



BETULACEAE
Alnus sinuata (Regel) Rydb.
[*Alnus viridis* (Chaix) DC. ssp. *sinuata* (Regel) A. Löve & D. Löve]

Sitka alder

FORM: Multiple-stemmed shrub, ascending and bushy, up to 3 m (10 ft) tall, often forming dense thickets.

STEMS: Usually somewhat 3-sided; **cambium and triangular pith remaining light not turning rusty colored when freshly cut.**

BARK: Thin, smooth, reddish-brown aging to greyish-green with warty lenticles.

BUDS: Sessile, alternate, dark purple, lanceolate with pointed apex, 3 mm long (1).

LEAVES: Alternate, deciduous, ovate, 3–10 cm (1–4 in) long, shiny green, margins doubly serrate with fine sharp teeth, apex acute, sticky when young.

FLOWERS: Male catkins (2) up to 10 cm (4 in) long, only male catkins are exposed over winter; a cluster of 3–6 **persistent, semi-woody, conelike female catkins** (3) on thin stalks 15 mm long; female catkins developing **along with leaves**; May–July.

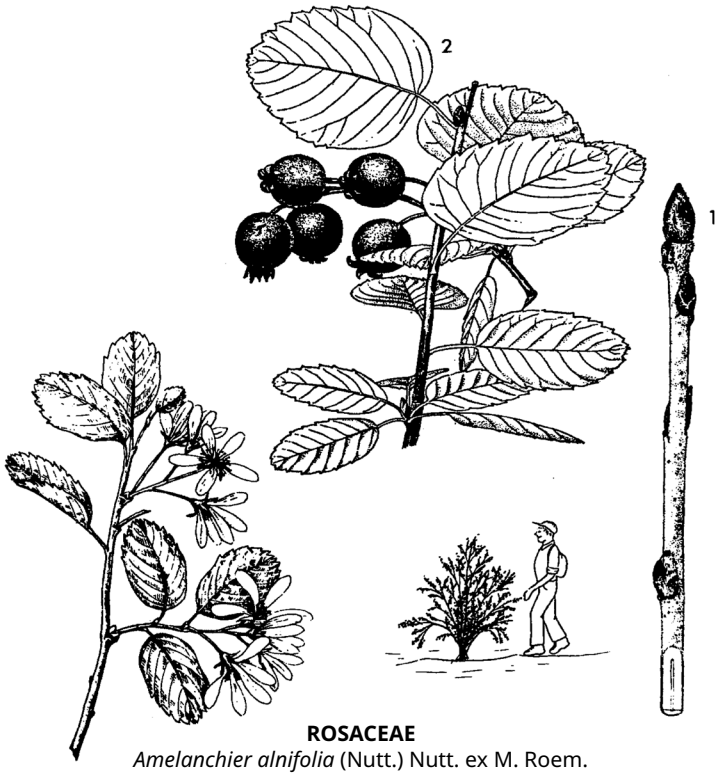
FRUIT: A small winged nutlet (4).

SIMILAR SPECIES: *Alnus* Species Conspectus, p. 33.

HABITAT: Moist montane woods and streambanks.

NOTES: Roots have nitrogen-fixing nodules.

Amal



ROSACEAE

Amelanchier alnifolia (Nutt.) Nutt. ex M. Roem.

serviceberry, Saskatoon serviceberry

FORM: Shrubs or small trees, 2–7 m (6–20 ft) tall, spreading to erect.

IDAHO CHAMPION: 1978. 10 in d.b.h.; 30 in circum + 32 ft + 6 ft crown = 68 pts.; Hells Canyon National Recreation Area, Idaho Co.

BARK: Glabrous, reddish-brown aging to grey.

BUDS: Alternate, reddish-brown, conical 3–6 mm long, scale edges **hairy** (1).

LEAVES: Alternate, deciduous, thin, oblong to oval, **10–12 individual parallel side veins**; generally coarsely toothed above the middle (2), **no glands** on leaf or petiole.

FLOWERS: White, 5–10 mm long; 3–20 in short racemes; April–July.

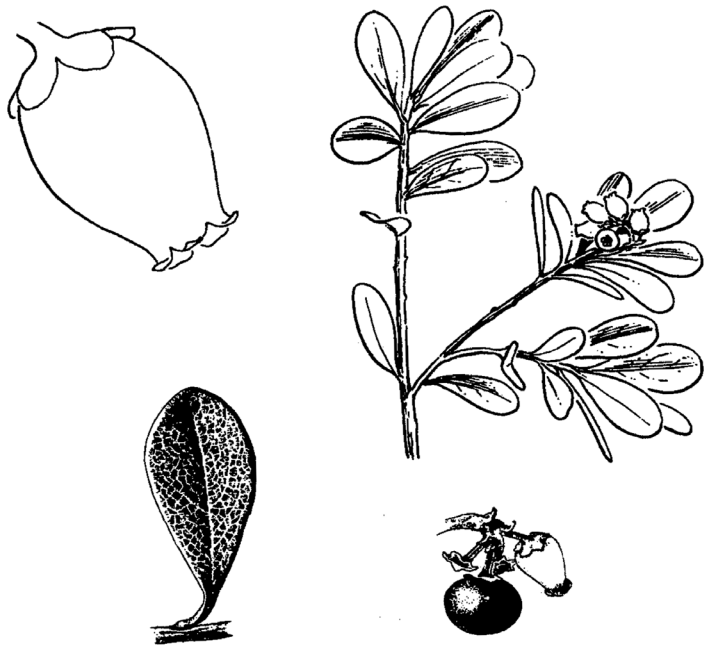
FRUIT: Dark purple pome (apple), 10–14 mm long.

SIMILAR SPECIES: Young or small plant's leaves may be confused with *Spiraea* species, p. 75, compare leaf veins; and *Prunus* species, pp. 56–57, glands on leaves.

NOTES: Earliest blooming white-flowered shrubs; good jelly made from fruit.

9	Syal h.t.		Pipo
10	Phma h.t.		
6	Caru	Caru h.t.	Psme
2	Aruv		
7	Phma	Phma h.t.	
8	Smst		
7	Phma	Phma h.t.	Abgr
9	Cooc		
6	Libo	Libo h.t.	
7	Xete		
6	Asca	Asca h.t.	
4	Tabr		
7	Mefe		
4	Setr h.t.		
9	Phma	Clun h.t.	
9	Clun		
4	Tabr		
5	Mefe		
7	Xete		
5	Vagl	Xete h.t.	
4	Cooc		
5	Clun	Clun h.t.	Thpl
4	Tabr		
3	Mefe		
3	Xete		
6	Asca	Asca h.t.	
6	Tabr		
1	Mefe		
5	Gydr h.t.		
4	Adpe h.t.		
4	Adpe	Atfi h.t.	
2	Atfi		
1	Opho h.t.		
4	Clun	Clun h.t.	Tshe
5	Arnu		
2	Mefe		
3	Xete		
5	Asca	Asca h.t.	
6	Arnu		
	Mefe		
3	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
2	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
7	Clun	Clun h.t.	Abla
3	Mefe		
4	Xete		
1	Cooc	Mefe h.t.	
	Xete		
	Vasc		
1	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
3	Caca	Caca h.t.	
2	Vaca		
	Legl		
1	Cooc	Xete h.t.	
3	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	9
	Phma h.t.	Phma	1
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	3
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	1
		Tabr	
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	2
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	1
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	1
		Luhi	2
Pico	Vasc h.t.		4
	Xete c.t.		
	Vaca c.t.		10



ERICACEAE
Arctostaphylos uva-ursi (L.) Spreng.

bearberry, kinnikinnick, sandberry

FORM: Prostrate, often rooting along the stems, usually not over 20 cm (8 in) tall, sometimes mat forming.

LEAVES: Alternate, evergreen, glabrous, entire, spatulate leaves, 1–3 cm (1 in) long, dark green somewhat shiny above, paler below.

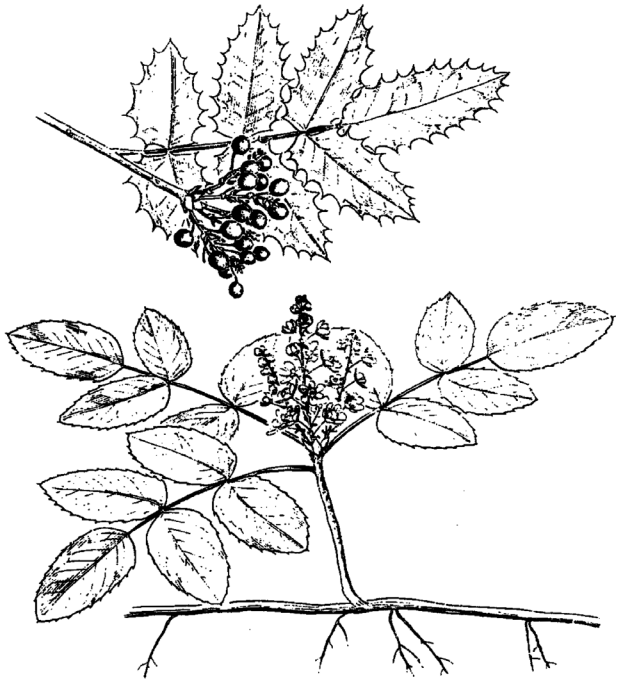
FLOWERS: White to pink, urn-shaped, 5 mm long; borne in terminal clusters; April–June.

FRUIT: Bright red berry 7–10 mm broad, edible with a dry, mealy interior.

SIMILAR SPECIES: *Linnaea borealis*, p. 48; and *Gaultheria* species, p. 45.

NOTES: Alternate host for spruce broom rust. Native Americans used leaves as tobacco and to make a yellow dye. Fruit makes good jelly; and it is a good ground cover plant.

Bere **Beaq**



BERBERIDACEAE

Berberis repens Lindl. — creeping Oregon-grape

Berberis aquifolium Pursh — tall Oregon-grape

FORM: Shrub with **hollylike** leaflets.
- **Bere:** **Prostrate, subshrub** seldom over 25 cm (10 in) tall, often rooting at nodes.
- **Beaq:** Generally an **erect shrub** 5–10 dm (2–3 ft) tall.

LEAVES: Alternate, **evergreen**, odd-pinnately compound, sessile, hollylike leaflets.
- **Bere:** 10–20 cm (4–8 in) long, generally with 5 leaflets, ovate, dull green above and paler beneath, 15–42 **inconspicuous teeth**, rounded tip; turning red in winter.
- **Beaq:** 15–31 cm (6–12 in) long with 5–9 leaflets, broadly lanceolate, shiny green on both sides, pointed tip, 12–29 **prominently spine tipped teeth**; turning red or purplish in winter.

FLOWERS: Bright yellow, 6–8 mm long in several racemes, bunched together; March–June.

FRUIT: Glaucous, dark blue.

ENEMIES: Fire: moderately susceptible, regeneration from rhizomes to preburn levels within 5–10 years.

HABITAT: Beaq generally more mesic sites than **Bere**.

NOTES: Edible berry makes a jelly similar in taste to grape. Native Americans ate the berries and used roots for dye and medicinal purposes.

4		Syal h.t.		Pipo
6		Phma h.t.		
8		Caru	Caru h.t.	Psme
4		Aruv		
5	1	Phma	Phma h.t.	
6		Smst		
6		Phma	Phma h.t.	Abgr
3		Cooc		
6		Libo	Libo h.t.	
4		Xete		
2		Asca	Asca h.t.	
		Tabr		
1		Mefe		
		Setr h.t.		
8		Phma	Clun h.t.	
5	+	Clun		
1		Tabr		
2		Mefe		
5		Xete		
6		Vagl	Xete h.t.	
3		Cooc		
		Clun	Clun h.t.	Thpl
		Tabr		
2		Mefe		
		Xete		
1		Asca	Asca h.t.	
		Tabr		
		Mefe		
1		Gydr h.t.		
+		Adpe h.t.		
1		Adpe	Atfi h.t.	
		Atfi		
		Opho h.t.		
2	+	Clun	Clun h.t.	Tshe
4	1	Arnu		
		Mefe		
1		Xete		
3	+	Asca	Asca h.t.	
1		Arnu		
		Mefe		
+		Gydr h.t.		
		Mefe	Clun h.t.	Tsme
		Xete		
		Xete	Mefe h.t.	
		Luhi		
		Mefe	Stam h.t.	
		Luhi		
		Vagl	Xete h.t.	
		Luhi		
		Clun	Clun h.t.	Abla
		Mefe		
1		Xete		
		Cooc	Mefe h.t.	
		Xete		
		Vasc		
		Luhi		
		Mefe	Stam h.t.	
		Lica		
		Caca	Caca h.t.	
		Vaca		
		Legl		
1		Cooc	Xete h.t.	
1		Vagl		
		Vasc		
		Luhi		
		Vasc h.t.		Pico
		Xete c.t.		
		Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	5
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



BETULACEAE
Betula glandulosa Michx.

bog birch, swamp birch, water birch

FORM: An erect, many branched shrub, 1–3 m (3–10 ft) tall.

STEMS: Slender, very sticky and **glandular** (1) with a wintergreen flavor.

BARK: Smooth and thin, dark greyish-brown, **does not exfoliate**.

BUDS: Alternate, dark brown, resinous, several scaled.

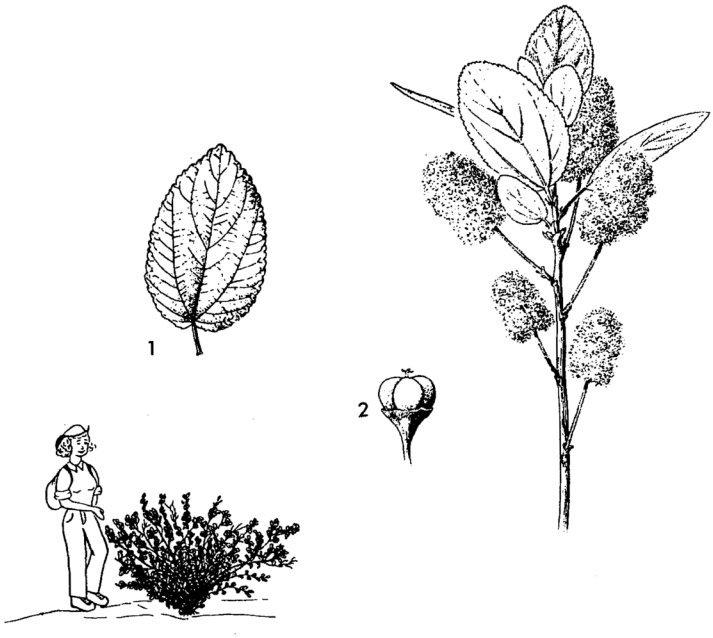
LEAVES: Alternate, deciduous, rounded ovate, 1–2 cm (< 1 in) long, margins crenate, dark green above, lighter and glandular below.

FLOWERS: Cylindrical catkin breaking up at maturity, developing with or before leaves; April–June.

FRUIT: An oval winged samara tipped with persistent styles (2).

SIMILAR SPECIES: *Betula occidentalis*, p. 12.

HABITAT: Wet mountain meadows, bogs, and around springs and seeps.



RHAMNACEAE
Ceanothus sanguineus Pursh

redstem ceanothus

FORM: Erect loosely branched shrubs, 1–3 m (3–10 ft) tall, often forming thickets.

BARK: Glabrous, **reddish purple**; pith solid.

BUDS: Alternate, stalked with bud scales.

LEAVES: Alternate, deciduous, thin, simple ovate, 3–10 cm (1–4 in) long, not shiny, **3 prominent main veins branching from leaf base** (1), finely toothed and gland tipped.

FLOWERS: Small, white, clustered in panicles near twig ends; May–July.

FRUIT: Hard, 3-seeded mechanically explosive capsule 4 mm long, containing heavy seed (2).

ENEMIES: Fire: resistant and beneficial, resprouts from basal stems the following year; a fire dependent species requiring heat scarification of seed for germination.

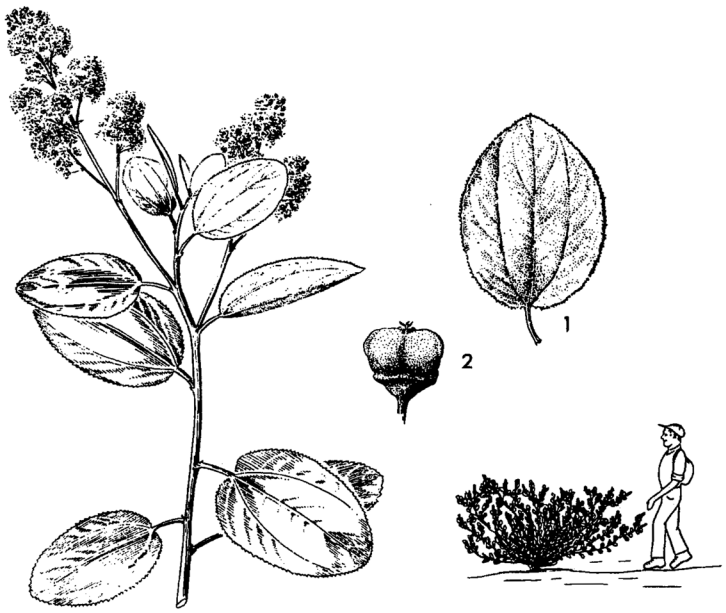
SIMILAR SPECIES: *Ceanothus velutinus*, p. 41.

HABITAT: Semi-shaded, well-drained soils and early seral, open, sunny habitat following fire.

NOTES: Roots have nitrogen-fixing nodules.

	Syal h.t.		Pipo
3	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
2	Phma	Phma h.t.	
+	Smst		
1	Phma	Phma h.t.	Abgr
1	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	2
		Aruv	1
	Phma h.t.	Phma	1
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	
		Tabr	
		Mefe	
		Xete	+
	Xete h.t.	Vagl	
		Cooc	1
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	3
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



RHAMNACEAE
Ceanothus velutinus Dougl. ex Hook.
[*Ceanothus velutinus* Dougl. var. *velutinus*]

shinyleaf ceanothus, snowbush, evergreen ceanothus

FORM: Erect to spreading, heavy-scented shrub, 1–3 m (3–10 ft) tall, often forming thickets.

BARK: Green; pith solid.

BUDS: Alternate, stalked buds without scales.

LEAVES: Alternate, thick, **evergreen**, broadly elliptic, shiny dark green often bronze tinged, gummy upper surface, underside greyish, **3 prominent main veins branching from leaf base** (1), edges often curled downward.

FLOWERS: Small, white, borne in dense pyramid shaped panicles, 5–12 cm (2–5 in) long; June–Aug.

FRUIT: 3-seeded mechanically explosive capsule, containing heavy seed (2).

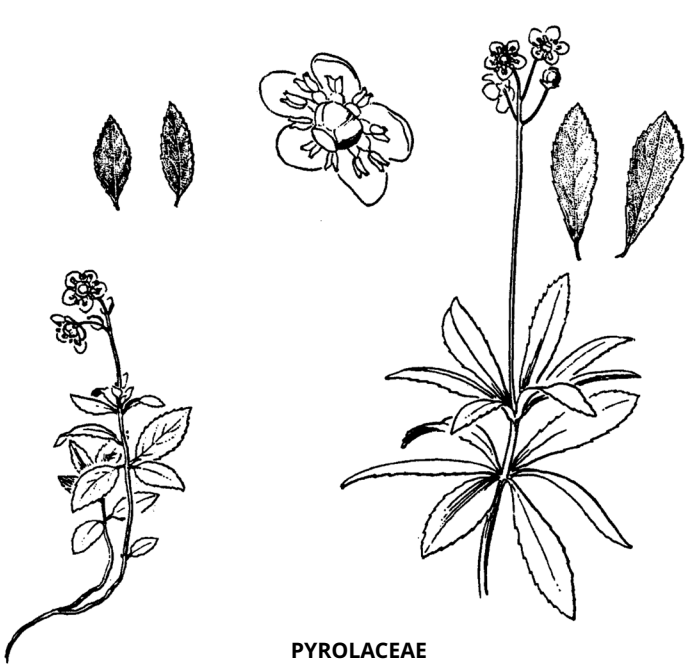
ENEMIES: Fire: resistant and beneficial, resprouts from basal stems the following year; a fire dependent species requiring heat scarification of seed for germination.

SIMILAR SPECIES: *Ceanothus sanguineus*, p. 40.

HABITAT: Open, sunny, early seral habitats following fire; generally absent from late seral and old-growth stages.

NOTES: Roots have nitrogen-fixing nodules. The foliage has a sweet, spicy odor during warm weather or when crushed. Flowers make a soapy lather when mixed with water. Native Americans used leaves for tobacco and tea, and roots for red dye.

Chme **Chum**



PYROLACEAE

Chimaphila menziesii (R. Br.) Spreng.
Menzies' prince's pine
little pipsissewa

Chimaphila umbellata (L). W.P.C. Barton
prince's pine
western pipsissewa

FORM: Subshrub from slender rhizomatous rootstocks.
Chme: 5–15 cm (2–6 in) tall.
Chum: 10–30 cm (4–12 in) tall.

STEMS: Simple or branched, slightly woody, glabrous.
Chme: reddish.
Chum: greenish.

LEAVES: Evergreen, simple, sharply serrate.
Chme: alternate, somewhat whorled, **dull bluish-green, elliptic,** blade 2–6 cm (1–2 in) long.
Chum: whorled, bright green and shiny, oblanceolate, blade 3–7 cm (1–3 in) long.

FLOWERS: Waxy, white to pink, 5-merous, 5–7 mm long; June–Aug.
Chme: 1–3 flowers.
Chum: in groups of 3–15; flower stem with fine hairs.

FRUIT: Globose, 5-celled capsule, 7 mm broad.

ENEMIES: Fire: susceptible, regeneration from rhizomes within > 10 years to preburn levels.

NOTES: Boiled roots and leaves create a refreshing tea; leaves may also be nibbled raw.

		Syal h.t.		Pipo
	1	Phma h.t.		
	2	Caru	Caru h.t.	Psme
1	3	Aruv		
1	1	Phma	Phma h.t.	
1	+	Smst		
2	3	Phma	Phma h.t.	Abgr
6	1	Cooc		
5	8	Libo	Libo h.t.	
3	10	Xete		
3	5	Asca	Asca h.t.	
5	5	Tabr		
2	6	Mefe		
	2	Setr h.t.		
4	3	Phma	Clun h.t.	
5	7	Clun		
2	10	Tabr		
4	9	Mefe		
3	9	Xete		
2	9	Vagl	Xete h.t.	
4	9	Cooc		
4	6	Clun	Clun h.t.	Thpl
5	10	Tabr		
1	7	Mefe		
4	8	Xete		
4	6	Asca	Asca h.t.	
5	6	Tabr		
1	4	Mefe		
1	5	Gydr h.t.		
1	2	Adpe h.t.		
1		Adpe	Atfi h.t.	
1	1	Atfi		
2		Opho h.t.		
1	8	Clun	Clun h.t.	Tshe
1	8	Arnu		
	4	Mefe		
1	7	Xete		
3	7	Asca	Asca h.t.	
4	10	Arnu		
	3	Mefe		
1	4	Gydr h.t.		
2	4	Mefe	Clun h.t.	Tsme
1	7	Xete		
1	3	Xete	Mefe h.t.	
1	1	Luhi		
		Mefe	Stam h.t.	
		Luhi		
	6	Vagl	Xete h.t.	
	1	Luhi		
	7	Clun	Clun h.t.	Abla
3	5	Mefe		
4	6	Xete		
2	9	Cooc	Mefe h.t.	
	2	Xete		
	4	Vasc		
	4	Luhi		
1	2	Mefe	Stam h.t.	
1	1	Lica		
		Caca	Caca h.t.	
	5	Vaca		
	2	Legl		
1	10	Cooc	Xete h.t.	
2	6	Vagl		
	5	Vasc		
	+	Luhi		
	7	Vasc h.t.		Pico
5	10	Xete c.t.		
3	7	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	
		Tabr	1
		Mefe	1
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	1
	Gydr h.t.		1
	Adpe h.t.		1
	Atfi h.t.	Adpe	1
		Atfi	1
	Opho h.t.		2
Tshe	Clun h.t.	Clun	1
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Arnu	1
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



CORNACEAE
Cornus stolonifera var. *stolonifera* Michx.
[*Cornus stolonifera* Michx.]

red-osier dogwood

FORM: Many stemmed shrub, 2–6 m (7–20 ft) tall, usually spreading by layering stolons.

IDAHO CHAMPION: 2000. 4 in d.b.h.; 13 in circum + 26 ft tall + 4 ft crown = 43 pts.; Wet Gulch, Salmon River, Idaho Co.

STEMS: Slender, **bark turns dark red to purplish-red** when growing in the sun; pith round and white.

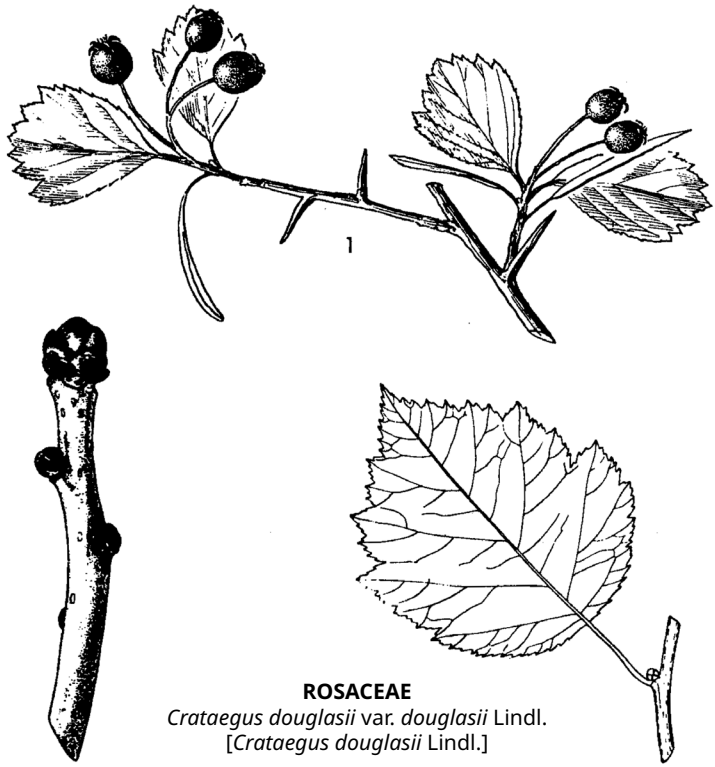
BUDS: Opposite, one pair of bud scales.

LEAVES: Opposite, **deciduous**, simple, entire, ovate 4–12 cm (2–5 in) long, with **unique 5–7 prominent upcurving and parallel veins** (1), that converge at the tip of the leaf; this vein pattern is unique to native Rocky Mountain *Cornus* species.

FLOWERS: Small, white 2–4 mm long, in **flat-topped terminal cymes**, not showy; May–July.

FRUIT: Small, bitter, white, berrylike drupe, 7–9 mm long.

HABITAT: Riparian, and other warm, moist sites.



ROSACEAE
Crataegus douglasii var. *douglasii* Lindl.
[*Crataegus douglasii* Lindl.]

black hawthorn, Douglas's hawthorn

FORM: Large, **armed**, erect shrub or small tree, 1–10 m (3–33 ft) tall.

IDAHO CHAMPION: 2008. 32 in d.b.h.; 101 in circum + 39 ft tall + 11 ft crown = 151 pts.; Clearwater River, Nez Perce Co.

STEMS: Reddish-brown at nodes, aging to dirty grey with zigzagging branches armed with solitary, **stout thorns** (1) 1–2 cm (1 in) at nodes; round, white, continuous pith.

BUDS: Alternate, short, plump, ovate shiny red with several bud scales.

LEAVES: Alternate, deciduous, obovate, 3–6 cm (1–2 in) long, irregular teeth, can be shallowly 5–9 lobed, dark green but turning red when growing in full sun.

FLOWERS: Petals white, nearly orbicular 5–7 mm long, in axillary clusters.

FRUIT: Small, black pome (apple), borne in clusters.

SIMILAR SPECIES: *Crataegus columbiana* [*Crataegus chrysocarpa*] (fireberry hawthorn) red-orange fruit, thorns 2–3 times longer, lower elevation river canyons.

NOTES: Most common of Idaho's hawthorns.

6	Syal h.t.		Pipo
9	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
1	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.			
	Phma h.t.			
Psme	Caru h.t.	Caru		
		Aruv		
	Phma h.t.	Phma		+
		Smst		
Abgr	Phma h.t.	Phma		
		Cooc		
	Libo h.t.	Libo		
		Xete		
	Asca h.t.	Asca		
		Tabr		
		Mefe		
	Setr h.t.			
	Clun h.t.	Phma		
		Clun		
		Tabr		1
		Mefe		1
		Xete		+
	Xete h.t.	Vagl		
		Cooc		
Thpl	Clun h.t.	Clun		+
		Tabr		
		Mefe		2
		Xete		
	Asca h.t.	Asca		+
		Tabr		
		Mefe		
	Gydr h.t.			
	Adpe h.t.			
	Atfi h.t.	Adpe		
		Atfi		
	Opho h.t.			
Tshe	Clun h.t.	Clun		1
		Arnu		1
		Mefe		1
		Xete		1
	Asca h.t.	Asca		
		Arnu		
		Mefe		
	Gydr h.t.			1
Tsme	Clun h.t.	Mefe		
		Xete	1	
	Mefe h.t.	Xete		
		Luhi		
	Stam h.t.	Mefe		
		Luhi		
	Xete h.t.	Vagl		
		Luhi		
Abla	Clun h.t.	Clun		
		Mefe	1	
		Xete		
	Mefe h.t.	Cooc	1	1
		Xete		
		Vasc		
		Luhi		
	Stam h.t.	Mefe	1	
		Lica	4	
	Caca h.t.	Caca		
		Vaca	5	
		Legl	9	
	Xete h.t.	Cooc	1	
		Vagl		
		Vasc	+	+
		Luhi		
Pico	Vasc h.t.			7
	Xete c.t.			
	Vaca c.t.			3

Gahu **Gaov**



ERICACEAE

Gaultheria humifusa (Graham) Rydb.	*Gaultheria ovatifolia* A. Gray
western wintergreen	Oregon wintergreen
alpine wintergreen	slender wintergreen

FORM: Low subshrub; mat forming with stems freely branching.
Gahu: Stems seldom over 10 cm (4 in) long, scarcely 3 cm (1 in) tall.
Gaov: Stems 5–20 cm (2–8 in) long, sometimes ascending to 30 cm (12 in) tall.

STEMS:
Gahu: Glabrous, trailing, crooked.
Gaov: Several thin, reddish, angular branches covered with **long, reddish hairs**.

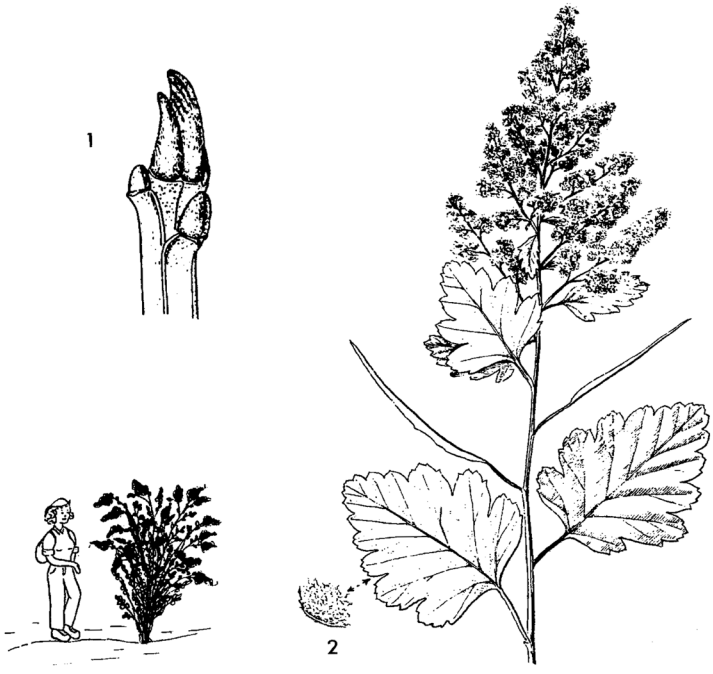
LEAVES: Alternate, evergreen, persistent, shiny leaves.
Gahu: Broadly ovate to round, **1–2 cm long and 5–15 mm broad**, margins finely toothed to entire.
Gaov: Ovate to almost heart-shaped, margins finely but **distinctly toothed, 2–4 cm (1–2 in) long and 1–3 cm (1 in) broad.**

FLOWERS: Corolla white or pinkish, bell-shaped, borne single in leaf axils.
Gahu: calyx glabrous; July–Aug.
Gaov: Calyx covered with long **glandular brown hairs**; June–Aug.

FRUIT: Edible, bright red berry, 6–8 mm broad.

SIMILAR SPECIES: *Arctostaphylos uva-ursi*, p. 37; and *Linnaea borealis*, p. 48.

HABITAT:
Gahu: Moist subalpine to alpine, most common on Nez Perce National Forest.
Gaov: Midelevation forest, drier and warmer than **Gahu**.



ROSACEAE
Holodiscus discolor (Pursh) Maxim
[*Holodiscus discolor* (Pursh) Maxim. var. *discolor*]

ocean-spray

FORM: Erect to many-branched shrub, 1–4 m (3–13 ft) tall.

STEMS: Young stems **slightly ridged**, pith large, white and spongy; older stems have **shreddy bark**.

BUDS: 2–3 purplish-brown bud scales, 6 mm long (1).

LEAVES: Alternate, deciduous, broadly triangular with truncate base, 3–8 cm (1–3 in) long, somewhat pubescent, pale green above, often with whitish hairs below (2), margins coarsely toothed or very shallowly lobed.

FLOWERS: Tiny, cream-colored, borne in dense terminal panicle; **old inflorescences turning brown, persistent over winter**; giving the shrub a shaggy appearance; June–Aug.

FRUIT: Tiny, light brown, one-seeded achene.

ENEMIES: Fire: moderate resistance, regenerating from basal stem sprouts to preburn level within 5–10 years.

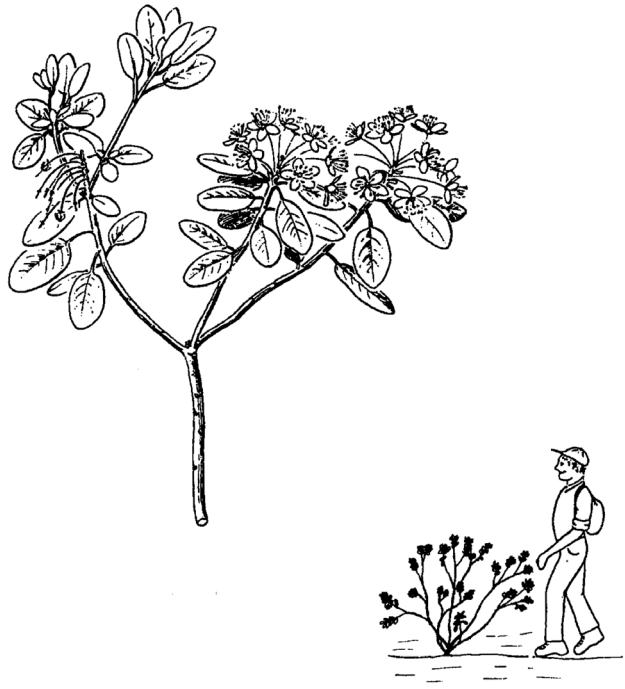
SIMILAR SPECIES: *Physocarpus malvaceus*, p. 55.

HABITAT: Successional species on logged or burned areas, climax on warm, dry sites.

NOTES: Native Americans ate the seeds raw or cooked.

1	Syal h.t.		Pipo
9	Phma h.t.		
	Caru	Caru h.t.	Psme
1	Aruv		
7	Phma	Phma h.t.	
9	Smst		
8	Phma	Phma h.t.	Abgr
9	Cooc		
3	Libo	Libo h.t.	
3	Xete		
5	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
8	Phma	Clun h.t.	
4	Clun		
1	Tabr		
1	Mefe		
1	Xete		
1	Vagl	Xete h.t.	
2	Cooc		
3	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
2	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
2	Adpe h.t.		
2	Adpe	Atfi h.t.	
+	Atfi		
	Opho h.t.		
1	Clun	Clun h.t.	Tshe
4	Arnu		
	Mefe		
2	Xete		
2	Asca	Asca h.t.	
1	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		1
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	1
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	1
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	1
		Luhi	1
	Stam h.t.	Mefe	2
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	
	Mefe h.t.	Cooc	4
		Xete	2
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	3
		Vaca	10
		Legl	10
	Xete h.t.	Cooc	1
		Vagl	
		Vasc	1
		Luhi	1
Pico	Vasc h.t.		1
	Xete c.t.		
	Vaca c.t.		



ERICACEAE
Ledum glandulosum Nutt. var. *glandulosum*
[*Rhododendron groenlandicum* (Oeder) Kron & Judd]

Labrador tea

FORMS: Erect shrub, 5–20 dm (2–7 ft) tall.

STEMS: Young branches finely hairy and dotted with glands, older branches smooth.

LEAVES: Alternate, **evergreen**, entire, ovate to elliptic, 2–6 cm (1–2 in) long, dark green above and light green and dotted with **tiny yellow glands** on lower surface, margins may be inrolled.

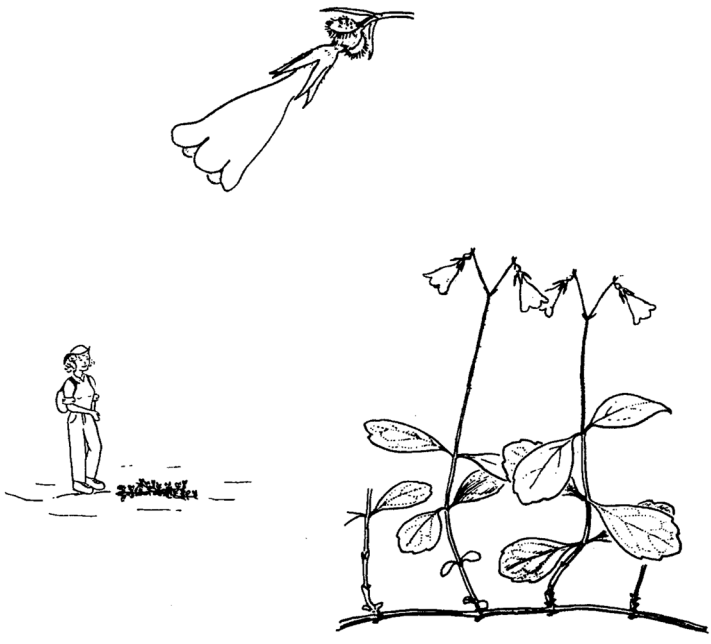
FLOWERS: Small, white or yellowish, in clusters at ends of branches; June–Aug.

FRUIT: Globose capsule, 1–3 mm long.

SIMILAR SPECIES: *Menziesia ferruginea* [*Rhododendron menziesii*], p. 50, sticky, malodorous foliage; and *Rhododendron albiflorum*, p. 59, no odor.

HABITAT: Riparian, bogs, and moist coniferous woods; indicator of wet, usually very acidic and nutrient poor organic soils.

NOTES: Fragrant when crushed.



LINNAEACEAE
Linnaea borealis L.
[*Linnaea borealis* L. ssp. *longiflora*]

twinflower

FORM: Trailing, woody perennial, subshrub with short erect stems, less than 10 cm (4 in) tall.

STEMS: Slender but woody.

LEAVES: Opposite, evergreen, firm, elliptic, 7–25 mm long, with shallow teeth near apex.

FLOWERS: A pair of tiny, pink, nodding, bell-shaped flowers, 2–5 mm long; June–Sept.

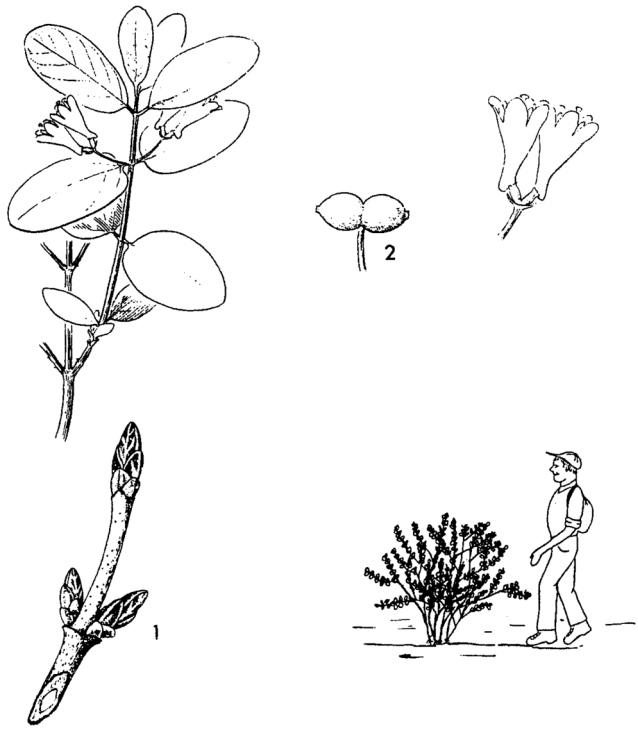
FRUIT: Small, 1-seeded capsule.

SIMILAR SPECIES: *Satureja douglasii* [*Clinopodium douglasii*], p. 72, square stem, fragrant; *Gaultheria* species, p. 45; *Veronica americana* (American brooklime) deciduous, no odor, heart shaped capsule; and possibly *Arctostaphylos uva-ursi*, p. 37.

NOTE: May form **extensive mats on forest floor** following disturbance.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
1	Aruv		
	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
10	Libo	Libo h.t.	
10	Xete		
4	Asca	Asca h.t.	
7	Tabr		
7	Mefe		
2	Setr h.t.		
7	Phma	Clun h.t.	
9	Clun		
10	Tabr		
9	Mefe		
8	Xete		
3	Vagl	Xete h.t.	
5	Cooc		
9	Clun	Clun h.t.	Thpl
9	Tabr		
9	Mefe		
8	Xete		
7	Asca	Asca h.t.	
6	Tabr		
4	Mefe		
8	Gydr h.t.		
8	Adpe h.t.		
8	Adpe	Atfi h.t.	
5	Atfi		
2	Opho h.t.		
8	Clun	Clun h.t.	Tshe
10	Arnu		
4	Mefe		
8	Xete		
8	Asca	Asca h.t.	
9	Arnu		
3	Mefe		
8	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
7	Clun	Clun h.t.	Abla
2	Mefe		
1	Xete		
4	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
4	Lica		
5	Caca	Caca h.t.	
5	Vaca		
2	Legl		
6	Cooc	Xete h.t.	
1	Vagl		
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	4
		Aruv	1
	Phma h.t.	Phma	2
		Smst	1
Abgr	Phma h.t.	Phma	3
		Cooc	4
	Libo h.t.	Libo	6
		Xete	7
	Asca h.t.	Asca	7
		Tabr	6
		Mefe	8
	Setr h.t.		8
	Clun h.t.	Phma	3
		Clun	6
		Tabr	10
		Mefe	6
		Xete	7
	Xete h.t.	Vagl	3
		Cooc	5
Thpl	Clun h.t.	Clun	7
		Tabr	9
		Mefe	8
		Xete	8
	Asca h.t.	Asca	7
		Tabr	9
		Mefe	9
	Gydr h.t.		8
	Adpe h.t.		7
	Atfi h.t.	Adpe	4
		Atfi	4
	Opho h.t.		5
Tshe	Clun h.t.	Clun	9
		Arnu	6
		Mefe	10
		Xete	9
	Asca h.t.	Asca	7
		Arnu	9
		Mefe	10
	Gydr h.t.		8
Tsme	Clun h.t.	Mefe	7
		Xete	9
	Mefe h.t.	Xete	4
		Luhi	2
	Stam h.t.	Mefe	7
		Luhi	5
	Xete h.t.	Vagl	3
		Luhi	3
Abla	Clun h.t.	Clun	7
		Mefe	8
		Xete	9
	Mefe h.t.	Cooc	5
		Xete	2
		Vasc	5
		Luhi	5
	Stam h.t.	Mefe	5
		Lica	5
	Caca h.t.	Caca	5
		Vaca	2
		Legl	4
	Xete h.t.	Cooc	7
		Vagl	5
		Vasc	2
		Luhi	4
Pico	Vasc h.t.		1
	Xete c.t.		
	Vaca c.t.		3



CAPRIFOLIACEAE
Lonicera utahensis S. Watson

Utah honeysuckle

FORM: Widely branching, low to medium shrub, 1–2 m (3–7 ft) tall.

STEMS: Dull grey, fine stringy bark and **solid white pith**.

BUDS: Opposite, several-scaled, light brown (1).

LEAVES: Opposite, **deciduous**, simple, entire, elliptic to ovate, 2–6 cm (1–2 in) long, smooth above and smooth or hairy below.

FLOWERS: Light yellow, trumpet-shaped pair, 1–2 cm (1 in) long, borne in leaf axils; May–July.

FRUIT: Bright red, united twin berries (2), 1 cm thick; edible but insipid.

SIMILAR SPECIES: *Symphoricarpos albus*, p. 76, hollow, dark pith; *Lonicera caerulea* [*Lonicera cauriana*] (sweetberry honeysuckle), riparian; *Lonicera ciliosa* (western trumpet honeysuckle), vine; and *Lonicera involucrata* (bearberry honeysuckle), flowers subtended by two purple bracts.

NOTES: Most widespread upland honeysuckle species in northern Idaho.



ERICACEAE
Menziesia ferruginea Smith
[*Rhododendron menziesii* Craven]

fool's huckleberry, mock azalea

FORM: Straggly, erect shrub 1–2 m (3–7 ft) tall with habit of laying prostrate downhill on steep slopes making it slippery underfoot.

STEMS: Generally branching in units of three; young twigs covered with fine hairs; crushed moist twigs give off a rank skunk-like odor.

BARK: Grey-brown, shreddy bark.

LEAVES: Alternate, **deciduous**, ovate, 4–6 cm (2 in) long, thin, finely serrate margins, hairy on both sides, **small white tip of midvein protruding from leaf tip** (1), sticky glandular, dull light green to **blue-green and aromatic**; **leaves appearing loosely whorled at branch ends**.

FLOWERS: Pinkish to yellowish-white, urn- to bell-shaped, 6–8 mm long, borne in terminal clusters on last year's growth; June–July.

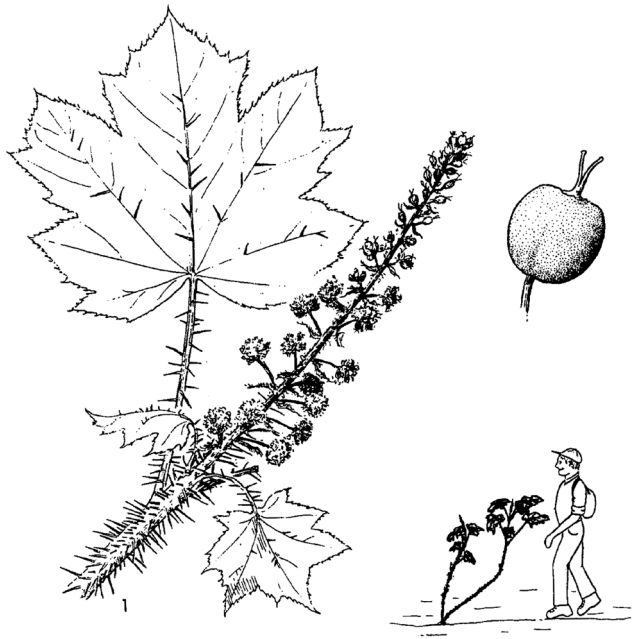
FRUIT: Many-seeded, ovoid, capsule, 5–7 mm long.

SIMILAR SPECIES: *Rhododendron albiflorum*, p. 59, no odor; *Ledum glandulosum* [*Rhododendron columbianum*], p. 47, evergreen with an odor; and *Vaccinium* Species Conspectus, p. 78.

NOTE: Shrub is sticky when touched.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
1	Xete		
1	Asca	Asca h.t.	
6	Tabr		
10	Mefe		
8	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
3	Tabr		
10	Mefe		
3	Xete		
1	Vagl	Xete h.t.	
3	Cooc		
2	Clun	Clun h.t.	Thpl
6	Tabr		
10	Mefe		
7	Xete		
3	Asca	Asca h.t.	
5	Tabr		
10	Mefe		
7	Gydr h.t.		
2	Adpe h.t.		
1	Adpe	Atfi h.t.	
5	Atfi		
2	Opho h.t.		
4	Clun	Clun h.t.	Tshe
3	Arnu		
10	Mefe		
7	Xete		
2	Asca	Asca h.t.	
1	Arnu		
10	Mefe		
6	Gydr h.t.		
10	Mefe	Clun h.t.	Tsme
4	Xete		
10	Xete	Mefe h.t.	
10	Luhi		
10	Mefe	Stam h.t.	
10	Luhi		
4	Vagl	Xete h.t.	
2	Luhi		
7	Clun	Clun h.t.	Abla
10	Mefe		
6	Xete		
10	Cooc	Mefe h.t.	
10	Xete		
10	Vasc		
9	Luhi		
10	Mefe	Stam h.t.	
7	Lica		
5	Caca	Caca h.t.	
	Vaca		
5	Legl		
4	Cooc	Xete h.t.	
1	Vagl		
2	Vasc		
2	Luhi		
	Vasc h.t.		Pico
5	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	10
		Xete	7
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		2
	Atfi h.t.	Adpe	5
		Atfi	1
	Opho h.t.		10
Tshe	Clun h.t.	Clun	+
		Arnu	1
		Mefe	
		Xete	1
	Asca h.t.	Asca	2
		Arnu	6
		Mefe	
	Gydr h.t.		3
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ARALIACEAE
Oplopanax horridum (Smith) Miq.
[*Oplopanax horridus* (Sm.) Miq.]

Devil's club

FORM: Densely spiny shrub, 1–3 m (3–10 ft) tall with thick, pithy stems, **ARMED with numerous yellow spines** (1) 5–10 mm long.

LEAVES: Alternate, deciduous, **palmate** maplelike leaves, 7–9 lobed, margins coarsely serrate, bright green, 10–38 cm (4–15 in) broad with numerous spines on underside veins.

FLOWERS: Small, greenish-white in a terminal raceme up to 25 cm (10 in) long; May–July.

FRUIT: An inedible, **bright red, flattened berry**.

SIMILAR SPECIES: *Rubus parviflorus* [*Rubus nutkanus*], p. 68, unarmed.

HABITAT: Near streams and subirrigated forest sites, north of the Middle Fork Clearwater River drainage.



CELASTRACEAE
Pachistima myrsinites (Pursh) Raf.
[*Paxistima myrsinites* (Pursh) Raf.]

pachistima, myrtle boxwood, mountain lover

FORM: Low shrubs, 20–60 cm (8–24 in) tall.

STEMS: Slender, glabrous, 4-angled, reddish brown.

BUDS: Opposite, appressed, very small with 2 pairs of scales.

LEAVES: Opposite, **evergreen**, glossy, simple, oblanceolate, serrate, 1–3 cm (1 in) long.

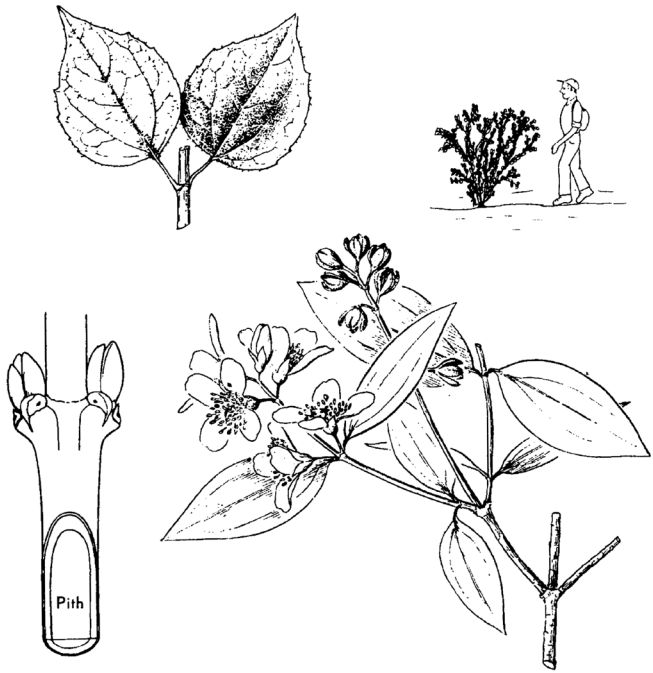
FLOWERS: Maroon colored, 3–4 mm broad, numerous in axillary clusters (1); April–June.

FRUIT: Small whitish fleshy berry-like aril.

NOTES: No longer a habitat type indicator species!!! Makes a nice low hedge for landscaping.

	Syal h.t.		Pipo
	Phma h.t.		
3	Caru	Caru h.t.	Psme
4	Aruv		
1	Phma	Phma h.t.	
1	Smst		
4	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
4	Xete		
4	Asca	Asca h.t.	
2	Tabr		
4	Mefe		
3	Setr h.t.		
4	Phma	Clun h.t.	
2	Clun		
2	Tabr		
4	Mefe		
4	Xete		
2	Vagl	Xete h.t.	
2	Cooc		
4	Clun	Clun h.t.	Thpl
2	Tabr		
5	Mefe		
4	Xete		
3	Asca	Asca h.t.	
7	Tabr		
6	Mefe		
5	Gydr h.t.		
	Adpe h.t.		
1	Adpe	Atfi h.t.	
1	Atfi		
3	Opho h.t.		
7	Clun	Clun h.t.	Tshe
6	Arnu		
6	Mefe		
9	Xete		
7	Asca	Asca h.t.	
7	Arnu		
10	Mefe		
7	Gydr h.t.		
2	Mefe	Clun h.t.	Tsme
5	Xete		
1	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
2	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
1	Mefe		
5	Xete		
1	Cooc	Mefe h.t.	
2	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
2	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		2
	Phma h.t.		1
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	1
		Smst	3
Abgr	Phma h.t.	Phma	2
		Cooc	4
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	2
		Clun	1
		Tabr	1
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	2
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	2
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		1
	Atfi h.t.	Adpe	3
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Arnu	1
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



HYDRANGEACEAE
Philadelphus lewisii Pursh

Lewis mockorange, syringa, mockorange

FORM: Loosely branched, medium to tall shrub, 1–3 m (3–10 ft) tall.

BARK: Brown; older stems show characteristic **cross-checked pattern**, eventually flaking off.

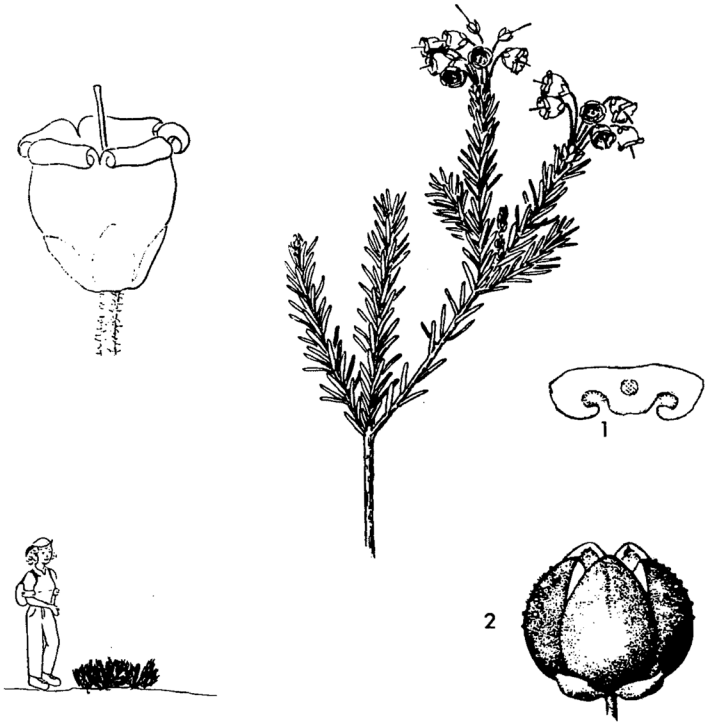
BUDS: Opposite, hidden under leaf scars.

LEAVES: Opposite, deciduous, simple, light green, 3–8 cm (1–3 in) long, may be serrate, **3 major veins** from leaf bases.

FLOWERS: Numerous, very fragrant, white, showy, 4-merous, 2–3 cm (1 in) broad, borne 3–11 in terminal raceme on lateral branches; May–July.

FRUIT: Ovoid-elliptic capsule, 6–10 mm long.

NOTES: Idaho State Flower.



ERICACEAE
Phyllodoce empetriformis (Sm.) D. Don

red mountain-heather, pink mountain-heath

FORM: Matted subshrub, 10–40 cm (4–16 in) tall.

STEMS: Young stems finely puberulent, soon glabrous.

LEAVES: Alternate, **evergreen**, **linear**, **fir-like**, 8–16 mm long, **deeply grooved beneath, inrolled** creating a false margin (1), leaves closely crowded on stems.

FLOWERS: Deep pinkish-rose, bell-shaped about 7 mm long; single in axils, clustered at stem tips; June–Aug.

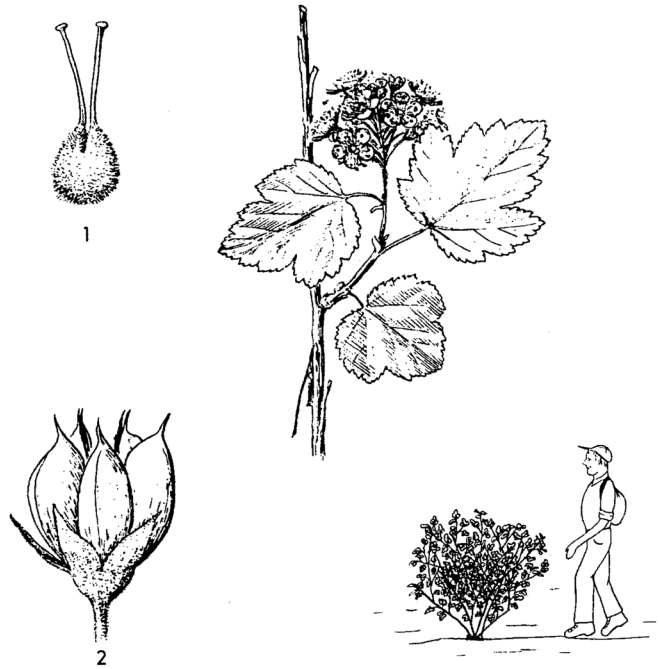
FRUIT: Capsule (2).

SIMILAR SPECIES: *Phyllodoce glanduliflora* (yellow mountain-heath), flower yellowish to white; *P. empetriformis* and *P. glanduliflora* will freely hybridize.

HABITAT: High elevation, normally on north aspect of open ridges.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
	Xete		
2	Xete	Mefe h.t.	
4	Luhi		
	Mefe	Stam h.t.	
2	Luhi		
	Vagl	Xete h.t.	
6	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
1	Vasc		
1	Luhi		
	Mefe	Stam h.t.	
	Lica		
2	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
3	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		10
Psme	Caru h.t.	Caru	2
		Aruv	1
	Phma h.t.	Phma	9
		Smst	10
Abgr	Phma h.t.	Phma	10
		Cooc	9
	Libo h.t.	Libo	2
		Xete	3
	Asca h.t.	Asca	4
		Tabr	
		Mefe	2
	Setr h.t.		
	Clun h.t.	Phma	8
		Clun	3
		Tabr	
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	1
		Cooc	3
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	1
		Arnu	1
		Mefe	1
		Xete	
	Asca h.t.	Asca	2
		Arnu	1
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ROSACEAE
Physocarpus malvaceus (Greene) Kuntze

ninebark, mallow ninebark

FORM: Spreading to erect, medium shrub, 5–20 dm (2–7 ft) tall with angled branches.

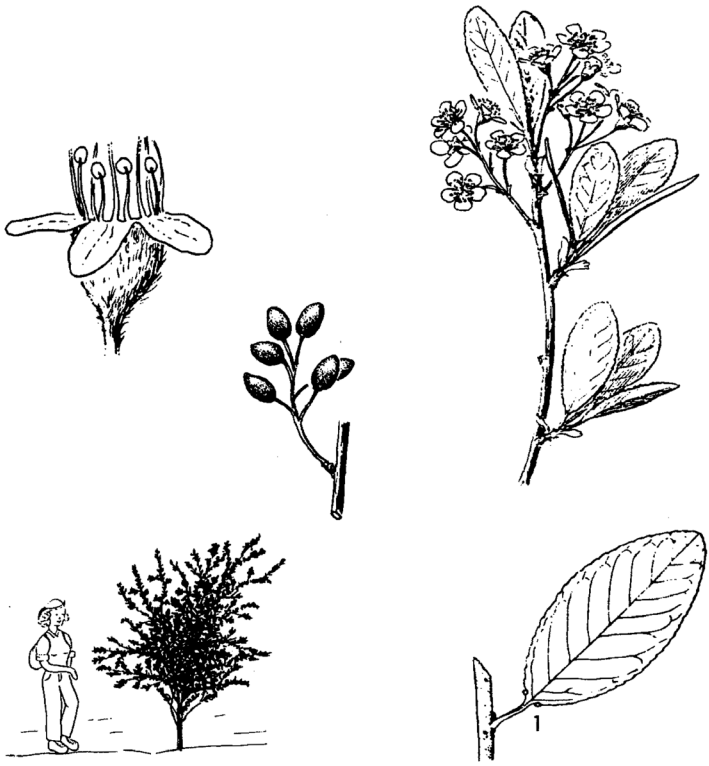
BARK: Loose, shreddy; brown to grey.

LEAVES: Alternate, deciduous with **3 palmate lobes**, maple-like, doubly toothed, 3–6 cm (1–2 in) wide, pubescent dark green above, paler with copious starlike hairs beneath.

FLOWERS: Numerous small, white flowers in terminal cluster; May–July.

FRUIT: Generally a **pair** of brown, many seeded, **hairy follicles** (1).

SIMILAR SPECIES: *Physocarpus capitatus* (Pacific ninebark), larger shrub with **3–5 smooth follicles** (2), a coastal disjunct in Idaho, mostly found on non-glaciated sites from Coeur d'Alene south to the Clearwater River canyon; *Holodiscus discolor*, p. 46; and *Ribes viscosissimum*, p. 62.



ROSACEAE
Prunus emarginata (Douglas) Eaton

bittercherry

FORM: Tall shrub to small tree, 2–15 m (7–50 ft) tall.

IDAHO CHAMPION: 1992. 12 in d.b.h.; 39 in circum. + 57 ft tall + 5 ft crown = 101 pts.; Swiftwater Road, Nez Perce National Forest, Idaho Co.

BARK: Deep reddish-brown or greyish, horizontal lenticels, tending to break and curl cross-wise; crushed twigs have peach-pit odor and bitter taste.

BUDS: Shiny, small, sticky buds, 6 mm long with several bud scales.

LEAVES: Alternate, deciduous, elliptic, light green, margins finely toothed; apex rounded; **1 or 2 glands located on base of leaf blade** (1).

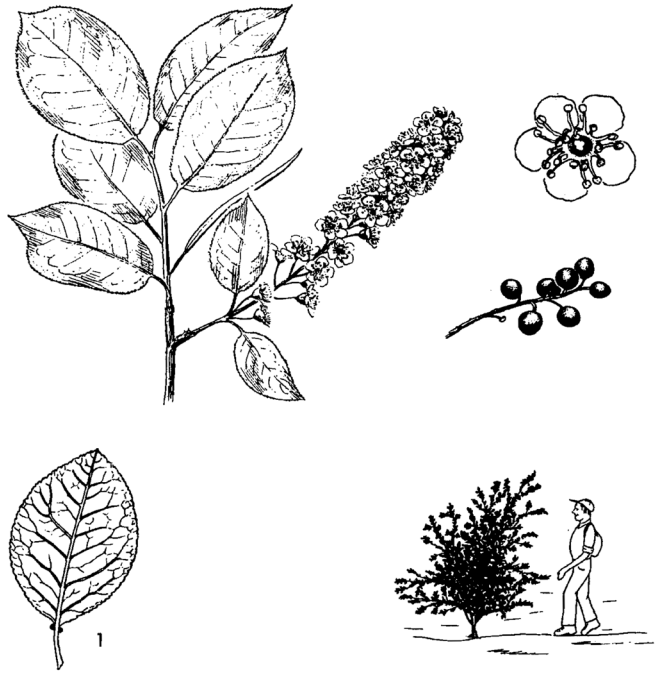
FLOWERS: White, 5–8 in a loose, **short, rounded cluster**; May–June.

FRUIT: Bitter, bright red drupe 5–10 mm, drying dark.

SIMILAR SPECIES: *Prunus virginiana*, p. 57, petiole glands; and *Amelanchier alnifolia*, p. 36.

4	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
	Aruv		
1	Phma	Phma h.t.	
1	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		6
	Phma h.t.		6
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	2
		Smst	1
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		+
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	3
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ROSACEAE
Prunus virginiana L. var. *melanocarpa* (A. Nels.) Sarg.
[*Prunus virginiana* L.]

common chokecherry

FORM: Tall shrub or small tree, 1–4 m (3–13 ft) tall.

IDAHO CHAMPION: var. *melanocarpa*: 1990. 17 in d.b.h.; 54 in circum. + 73 ft tall + 5 ft crown = 132 pts.; Idaho Dept. of Lands, Kootenai Co.

BARK: Smooth, shiny, reddish-brown aging to dull greyish brown, hard to peel; lenticels not evident; has a peach-pit odor when bruised.

BUDS: Ovate, pointed, several scaled.

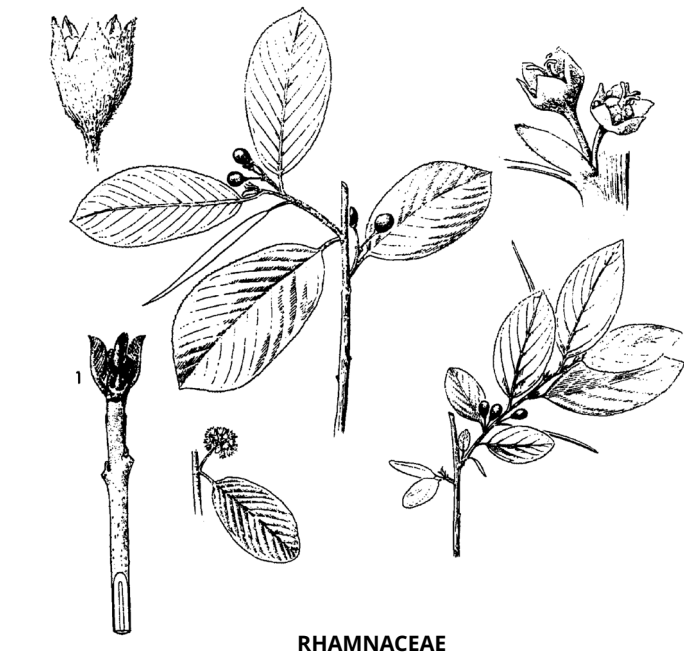
LEAVES: Alternate, deciduous, elliptic to ovate-oblong, apex acute, finely serrate, 4–10 cm (2–4 in) long; **petiole with 2–3 prominent glands** (1).

FLOWERS: Numerous white flowers, 4–8 mm long, in **long terminal racemes.**

FRUIT: Shiny, red to purple or black drupe, 8–11 mm long; edible, sweet but with an astringent after-taste that makes good jelly and syrup.

SIMILAR SPECIES: *Prunus emarginata*, p. 56, glands on blade; and *Amelanchier alnifolia,* p. 36.

NOTES: Most widespread tree or shrub in the U.S.



RHAMNACEAE

Rhamnus purshiana DC. [*Frangula purshiana* (DC.) A. Gray ex J.G. Cooper]

cascara, chittam bark

Rhamnus alnifolia L'Her.

buckthorn

FORM: Erect, tall shrub or small tree to 10 m (33 ft) tall.

IDAHO CHAMPION: Rhpu: 1975. 27 in d.b.h.; 84 in circum. + 33 ft tall + 5 ft crown = 122 pts.; Granite Creek, Hells Canyon National Recreation Center, Idaho Co.

STEMS: New twigs green and hairy; older twigs reddish-brown and hairless.

BUDS: **Naked buds** (without bud scales) (1).

LEAVES: **Alternate** (may appear opposite on new growth), deciduous, sometimes finely serrate, ovate-oblong, 6–13 cm (2–5 in) long.
- **Rhpu: Main lateral veins > 8** per side.
- **Rhal2: Main lateral veins < 8** per side, prominent parallel veins curved slightly toward tip.

FLOWERS: Greenish-yellow petals, 5-merous, 3–4 mm long.
- **Rhpu:** Small axillary clusters of 8–40, in **pedunculate umbels**; April–June.
- **Rhal2:** 2–5 in **sessile umbels**, petals lacking; June–July.

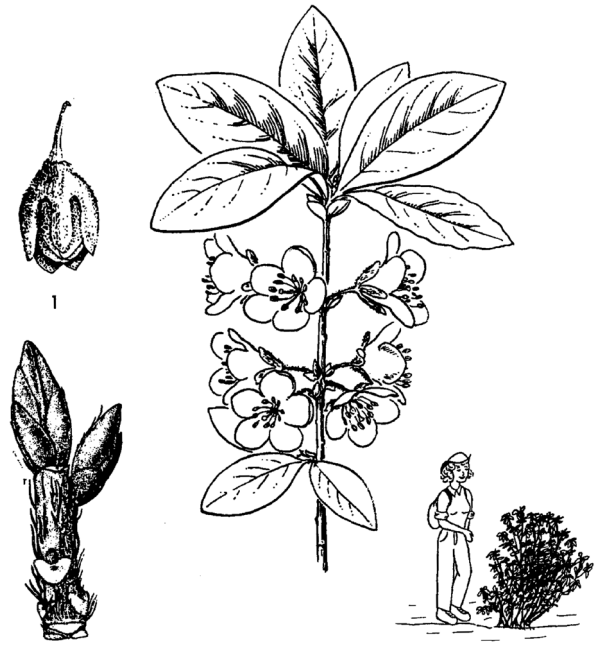
FRUIT: Bluish- to purplish-black berries, 6–9 mm long.

SIMILAR SPECIES: *Alnus* Species Conspectus, p. 33, scaly buds; and *Cornus stolonifera*, p. 43, opposite leaves and twigs.

NOTES: **Rhpu** bark collected for medicinal laxative properties.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
+	Mefe		
	Xete		
	Cooc	Mefe h.t.	
+	Xete		
	Vasc		
+	Luhi		
	Mefe	Stam h.t.	
	Lica		
2	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	+
		Xete	
	Mefe h.t.	Xete	1
		Luhi	2
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	
		Xete	3
		Vasc	1
		Luhi	7
	Stam h.t.	Mefe	4
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ERICACEAE
Rhododendron albiflorum Hook.

white rhododendron, white-flowered azalea

FORM: Erect, nonodorous, medium shrub, 1–2 m (3–7 ft) tall.

STEMS: Erect, slender branched, with peeling bark; young stems covered with long, reddish-brown hairs.

LEAVES: Alternate but appearing whorled, deciduous, entire, elliptic, 4–9 cm (2–4 in) long, thin, yellowish-green covered with fine appressed coppery hairs on upper surface, main vein on underside covered by white hairs.

FLOWERS: White, shallowly bell-like, 10–20 mm broad, in axillary clusters of 1–4 from lateral buds; May–July.

FRUIT: Persistent, short heavy-walled, 5-celled capsule (1) with numerous small seeds.

SIMILAR SPECIES: *Ledum glandulosum* [*Rhododendron groenlandicum*], p. 47, odorous; and *Menziesia ferruginea* [*Rhododendron menzieii*], p. 50, sticky, odorous, blue-green foliage.

HABITAT: High elevation forests north of the Middle Fork Clearwater River.

NOTES: All parts of plant poisonous if eaten.

Table 5—*Ribes* Species Conspectus.

Species	Page	Arming	Bark	Leaves	Flowers	Fruit
Ribes cereum wax currant **Rice**	N/A	unarmed	smooth greyish-brown or reddish-brown	shallow 3-5 lobed waxy upper surface both sides glandular	2-8 tubular flowers greenish to pinkish singular in headlike clusters	smooth red-orange berry 6-8 mm
Ribes hudsonianum stinking currant **Rihu**	N/A	unarmed	smooth yellow glandular	maple-like 3-5 lobed glandular to hairy	saucer-shaped, white many-flowered raceme	smooth black 8-16 berries in clusters
Ribes lacustre prickly currant **Rila**	61	armed prickles and spines	smooth reddish-brown	maple-like 3-5 lobed; serrate glossy upper surface velvety undersurface	saucer-shaped yellow to reddish 7-15 flowers in a raceme	edible stalked glandular deep purple berry
Ribes viscosissimum sticky currant **Rivi**	62	unarmed	shreddy dark reddish-brown	maple-like 3-5 lobed hairy both surfaces coarsely toothed	bell-shaped greenish-white 3-8 flowers in a raceme	bad tasting stiff hairy few bluish-black berries

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	1
		Xete	1
	Asca h.t.	Asca	2
		Tabr	3
		Mefe	6
	Setr h.t.		7
	Clun h.t.	Phma	
		Clun	2
		Tabr	4
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	1
		Cooc	1
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	4
		Xete	2
	Asca h.t.	Asca	1
		Tabr	
		Mefe	6
	Gydr h.t.		5
	Adpe h.t.		+
	Atfi h.t.	Adpe	1
		Atfi	4
	Opho h.t.		2
Tshe	Clun h.t.	Clun	1
		Arnu	
		Mefe	2
		Xete	
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		1
Tsme	Clun h.t.	Mefe	3
		Xete	2
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	2
		Luhi	2
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	3
		Mefe	6
		Xete	3
	Mefe h.t.	Cooc	2
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	8
		Lica	5
	Caca h.t.	Caca	5
		Vaca	1
		Legl	
	Xete h.t.	Cooc	1
		Vagl	
		Vasc	
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



GROSSULARIACEAE
Ribes lacustre (Pers.) Poir.

prickly currant, swamp currant

FORM: Erect to spreading, low to medium shrub, 1–2 m (3–7 ft) tall; **armed with numerous slender, sharp prickles and nodal spines** (1).

LEAVES: Alternate, deciduous, palmate or maplelike with cordate base, 2–5 cm (1–2 in) broad; mostly **5-lobed deeply incised**, 1–2 times coarsely serrate, upper leaf surface glossy green and glabrous, underside rather velvety.

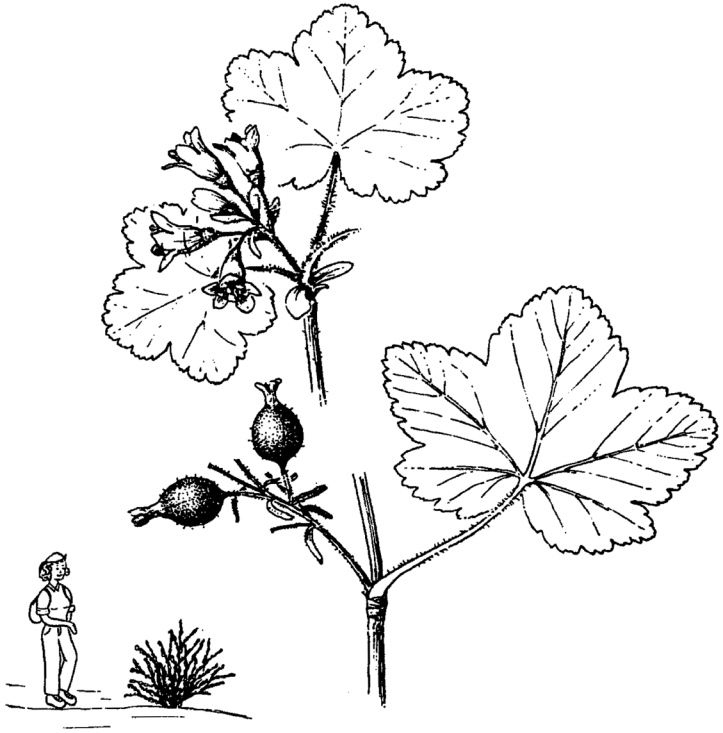
FLOWERS: Yellow-green to reddish, shallow saucer-shaped; 7–15 flowers in an elongate raceme; April–July.

FRUIT: Edible, dark purple berry, 6–8 mm long, with stalked glands (lollypop-like hairs) (2) falls free from its stalk when ripe.

ENEMIES: Fire: moderately resistant, regeneration from seeds and stem sprouts to preburn level within 2–5 years; common pioneer species.

SIMILAR SPECIES: *Ribes* Species Conspectus, p. 60; *Physocarpus malvaceus*, p. 55; and possibly *Rubus* Species Conspectus, p. 67.

NOTES: Principal subalpine *Ribes* species; spineless plants have been identified in western Montana. Alternate life cycle host for *Cronartium ribicola* (white pine blister rust).



GROSSULARIACEAE
Ribes viscosissimum Pursh

sticky currant

FORM: Erect to spreading, straggly, **unarmed** shrub, 1–2 m (3–7 ft) tall, covered with soft, very sticky hairs.

STEMS: Twigs are **hairy and sticky** when young, aging dark reddish brown and shreddy.

LEAVES: Alternate, deciduous, light green, 3–6 cm (1–2 in) broad, **3–5 lobed** and deeply cordate, coarsely toothed blades covered with **soft sticky hairs on both surfaces.**

FLOWERS: Sticky, greenish-white with pink tinge, bell-shaped, 6–7 mm long; 6–12 flowers in racemes; May–June.

FRUIT: A few, deep bluish-black sticky berries, covered by short stiff hairs; not edible.

ENEMIES: Fire: moderately resistant, regeneration from seeds and stem sprouts to preburn levels within 2–5 years; common pioneer species.

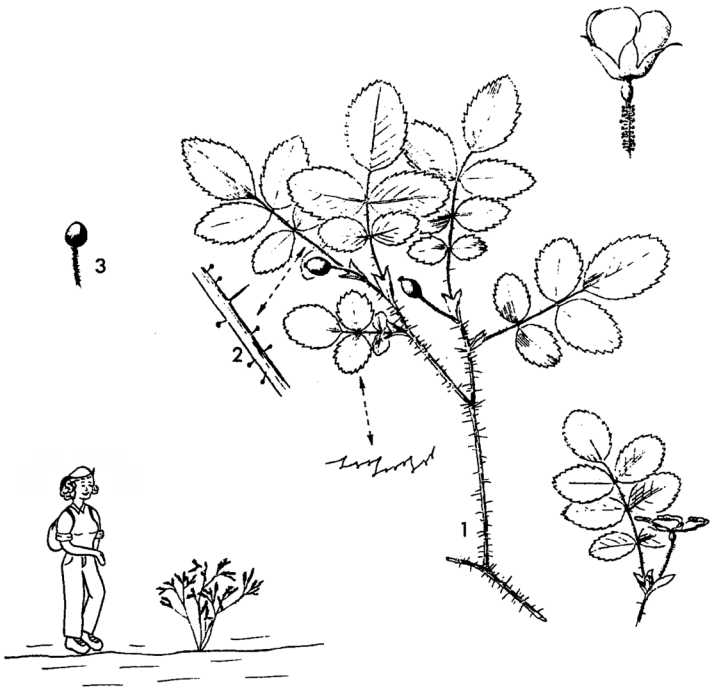
SIMILAR SPECIES: *Ribes* Species Conspectus, p. 60; and *Physocarpus malvaceus*, p. 55.

NOTES: Principal upland forest *Ribes* species. Alternate life-cycle host for *Cronartium ribicola* (white pine blister rust).

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
1	Aruv		
1	Phma	Phma h.t.	
1	Smst		
	Phma	Phma h.t.	Abgr
1	Cooc		
	Libo	Libo h.t.	
1	Xete		
1	Asca	Asca h.t.	
+	Tabr		
	Mefe		
	Setr h.t.		
1	Phma	Clun h.t.	
+	Clun		
	Tabr		
1	Mefe		
1	Xete		
1	Vagl	Xete h.t.	
3	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
1	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
2	Xete		
	Cooc	Mefe h.t.	
2	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
1	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Table 6—*Rosa* Species Conspectus.

Species	Page	Arming	Leaf margins	Flowers	Fruit Illustration	Fruit
Rosa acicularis [*Rosa acicularis* ssp. *sayi*] prickly rose **Roac**	N/A	numerous various-sized bristly prickles	double serrate	large, pink singular or in pairs		persistent calyx purplish, pearshaped 1-2 cm (<1 in.) hip
Rosa gymnocarpa baldhip rose **Rogy**	64	numerous soft, same size slender prickles	double serrate	small, pink singular (occ. 2-4)		deciduous calyx red, pearshaped 1-2 cm (<1 in) hip
Rosa nutkana Nootka rose **Ronu**	65	2 stout prickles on stem below leaves	single or double serrate	large, pink singular (occ. 2-3)		persistent calyx purplish-red, round 1-2 cm (<1 in) hip
Rosa woodsia pearhip rose **Rowo**	66	2 stout prickles on stem below leaves	coarsely serrate	small, pink in clusters		persistent calyx red, round, 6-12 mm hip



ROSACEAE
Rosa gymnocarpa Nutt.

baldhip rose, wild rose

FORM: Finely branched shrub, 3–12 dm (1–4 ft) tall.

STEMS: Densely armed with soft, straight, slender prickles (1) **on older branches, and stalked glands (lollypop-like hairs)** (2) on 1–2-year-old stems.

LEAVES: Alternate, deciduous, odd-pinnately compound with 5–9 leaflets, 1–4 cm (1 in) long, doubly serrate with **gland-tipped teeth**.

FLOWERS: Small, pink, 1–3 cm (1 in) long, mostly borne singly at end of branches; smaller flowers and fruits than other rose species; June–July.

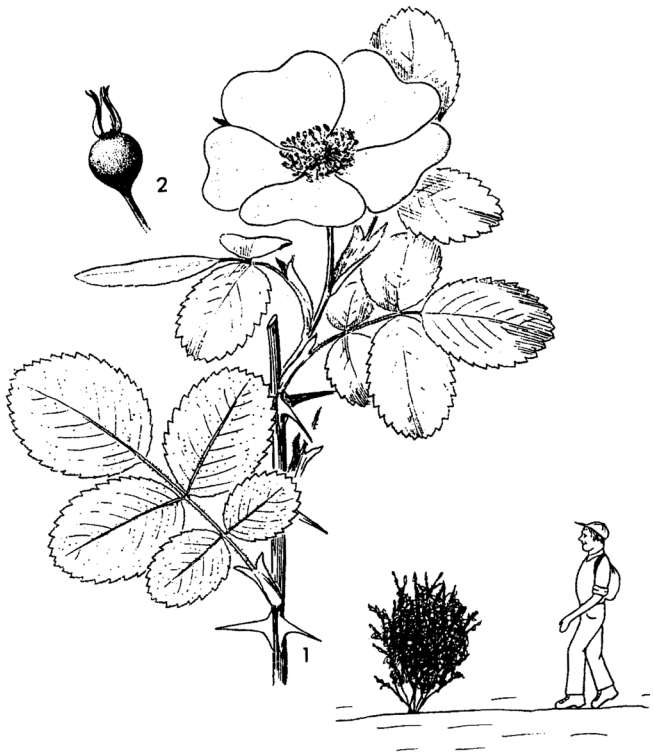
FRUIT: Scarlet, pear-shaped hips, 1 cm diameter; **calyx deciduous from mature hips** (3).

SIMILAR SPECIES: *Rosa* Species Conspectus, p. 63.

NOTES: Rose hips can be used in jellies and teas and provide a good source of vitamin C.

1	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
2	Aruv		
5	Phma	Phma h.t.	
8	Smst		
9	Phma	Phma h.t.	Abgr
9	Cooc		
9	Libo	Libo h.t.	
7	Xete		
9	Asca	Asca h.t.	
6	Tabr		
8	Mefe		
6	Setr h.t.		
10	Phma	Clun h.t.	
10	Clun		
8	Tabr		
8	Mefe		
9	Xete		
7	Vagl	Xete h.t.	
9	Cooc		
9	Clun	Clun h.t.	Thpl
7	Tabr		
6	Mefe		
6	Xete		
8	Asca	Asca h.t.	
5	Tabr		
3	Mefe		
7	Gydr h.t.		
7	Adpe h.t.		
7	Adpe	Atfi h.t.	
4	Atfi		
3	Opho h.t.		
5	Clun	Clun h.t.	Tshe
10	Arnu		
3	Mefe		
6	Xete		
8	Asca	Asca h.t.	
10	Arnu		
	Mefe		
7	Gydr h.t.		
2	Mefe	Clun h.t.	Tsme
2	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
7	Clun	Clun h.t.	Abla
1	Mefe		
5	Xete		
2	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
2	Cooc	Xete h.t.	
1	Vagl		
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	1
	Phma h.t.	Phma	+
		Smst	1
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	1
		Xete	
	Asca h.t.	Asca	+
		Arnu	1
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ROSACEAE
Rosa nutkana C. Presl

Nootka rose

FORM: Erect, low to medium shrub, 1–2 m (3–7 ft) tall.

STEMS: Armed with a pair of straight to slightly curved, flattened, infrastipular prickles (1).

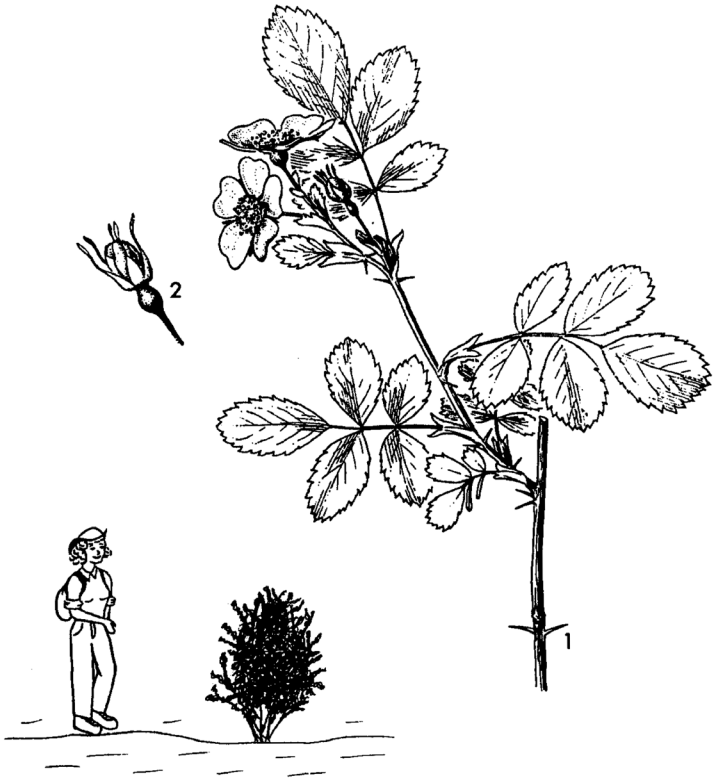
LEAVES: Alternate, deciduous, odd-pinnately compound with 5–7 green leaflets, elliptic 1–7 cm (1–3 in) long; serrate or doubly serrate.

FLOWERS: Large, pink, 4–8 cm (2–3 in) long; **solitary** at ends of branches; May–July.

FRUIT: Thick, purplish-red spherical hips, 1–2 cm (1 in) diameter; **calyx remains on hips** (2).

SIMILAR SPECIES: *Rosa* Species Conspectus, p. 63.

NOTES: Rose hips can be used in jellies and teas and provide a good source of vitamin C.



ROSACEAE
Rosa woodsia Lindl.

pearhip rose

FORM: Erect, medium shrub, 1–2 m (3–7 ft) tall.

STEMS: Stout, strongly armed to unarmed with or without infrastipular prickles (1).

LEAVES: Alternate, deciduous, odd-pinnately compound with 5–9 leaflets, elliptic up to 5 cm (2 in) long, coarsely toothed.

FLOWERS: Small, pink, 3–5 cm (1–2 in) long in **terminal clusters**; May–July.

FRUIT: Red hips, 6–12 mm diameter; **calyx remains on hips** (2).

SIMILAR SPECIES: *Rosa* Species Conspectus, p. 63.

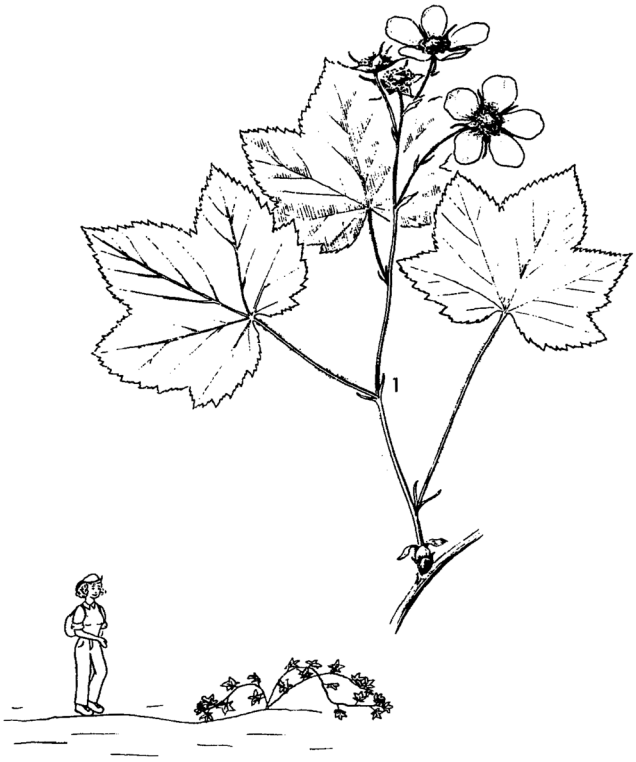
NOTES: Rose hips can be used in jellies and teas and provide a good source of vitamin C.

7	Syal h.t.		Pipo
10	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
1	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
1	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
1	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Table 7—*Rubus* Species Conspectus

Species	Page	Form	Arming	Leaves	Flowers	Fruit	Notes
Rubus idaeus red raspberry **Ruid**	N/A	erect shrub up to 2 m (7 ft) tall	armed prickles on stems	deciduous compound 3-5 leaflets double serrate	white 1-4 per axil	yellow or red raspberry	native red raspberry
Rubus nivalis snow dewberry **Runi**	N/A	prostrate trailing subshrub	armed small-hooked prickles leaves & stems	evergreen simple 3 lobed; ovate dentate-serrate	pink to purple single or paired	red drupelets	coastal disjunct easy to cultivate
Rubus parviflorus [*Rubus nutkanus*] thimbleberry **Rupa**	68	erect shrub up to 2 m (7 ft) tall	unarmed	deciduous simple maple-like double serrate	white 5-23 cm (2-9 in) clusters	red aggregate thimble-like drupelets	widespread
Rubus pedatus strawberry bramble **Rupe**	69	mat-forming herbaceous perennial <10 cm (4 in) tall	unarmed	deciduous compound 3-5 foliolate double serrate	white, singular	3-6 red drupelets	easy to cultivate
Rubus ursinus blackberry **Ruur**	N/A	prostrate trailing shrub	armed slender prickles	deciduous compound 3- leaflets double serrate	large white or pink in flat-top clusters	blackberry	coastal disjunct

Rupa



ROSACEAE
Rubus parviflorus Nutt.
[*Rubus nutkanus* Moc. ex Ser.]

western thimbleberry

FORM: Erect, low to medium, **unarmed shrub**, 5–20 dm (2–7 ft) tall.

STEMS: Young stems glandular, hairy; older stems with grey flaking bark.

BUDS: Large, reddish-brown, ragged appearance (1).

LEAVES: Alternate, deciduous, simple, dark green, doubly serrate, **palmately 5-lobed**, maplelike leaves with long petioles, 6–15 cm (2–6 in) long; soft to touch.

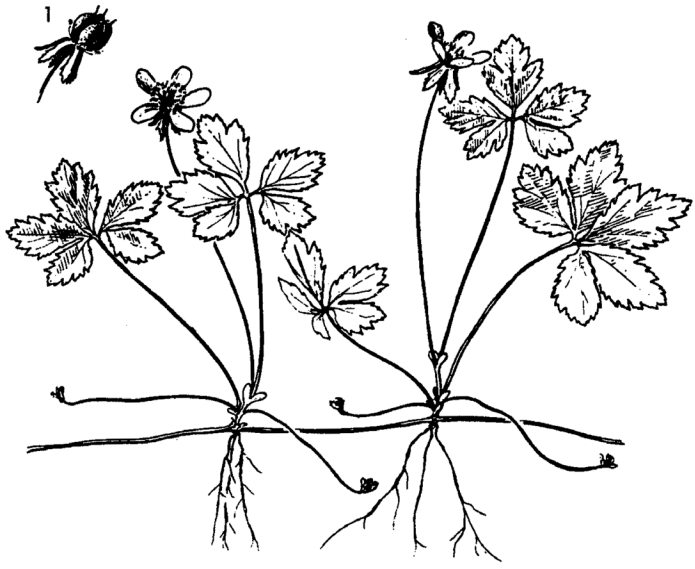
FLOWERS: 2–9 large, white, regular flowers in loose, flat-topped terminal clusters; May–July.

FRUIT: Edible, red, hairy, juicy, thimblelike aggregate of drupelets.

SIMILAR SPECIES: *Oplopanax horridum* [*Oplopanax horridus*], p. 51, armed.

	Syal h.t.		Pipo
1	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
1	Phma	Phma h.t.	
3	Smst		
4	Phma	Phma h.t.	Abgr
6	Cooc		
4	Libo	Libo h.t.	
4	Xete		
7	Asca	Asca h.t.	
3	Tabr		
7	Mefe		
6	Setr h.t.		
7	Phma	Clun h.t.	
6	Clun		
3	Tabr		
3	Mefe		
5	Xete		
2	Vagl	Xete h.t.	
6	Cooc		
5	Clun	Clun h.t.	Thpl
4	Tabr		
7	Mefe		
6	Xete		
6	Asca	Asca h.t.	
4	Tabr		
9	Mefe		
8	Gydr h.t.		
7	Adpe h.t.		
6	Adpe	Atfi h.t.	
6	Atfi		
4	Opho h.t.		
3	Clun	Clun h.t.	Tshe
6	Arnu		
4	Mefe		
4	Xete		
5	Asca	Asca h.t.	
4	Arnu		
7	Mefe		
5	Gydr h.t.		
3	Mefe	Clun h.t.	Tsme
2	Xete		
	Xete	Mefe h.t.	
	Luhi		
2	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
7	Clun	Clun h.t.	Abla
2	Mefe		
6	Xete		
1	Cooc	Mefe h.t.	
	Xete		
1	Vasc		
	Luhi		
4	Mefe	Stam h.t.	
3	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	1
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	1
	Opho h.t.		3
Tshe	Clun h.t.	Clun	2
		Arnu	1
		Mefe	1
		Xete	3
	Asca h.t.	Asca	+
		Arnu	
		Mefe	
	Gydr h.t.		2
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ROSACEAE
Rubus pedatus Sm.

strawberry bramble

FORM: Mat-forming, subshrub, < 10 cm (4 in) tall.

STEMS: Herbaceous, < 2 cm long, strongly stoloniferous; bearing 1–3 leaves and a single flower peduncle.

LEAVES: Deciduous, 3–5 foliolate, with lateral leaflets deeply divided, doubly serrate, 1–3 cm (1 in) long.

FLOWERS: White, 5-merous, solitary on long, erect stalk; May–early July.

FRUIT: Edible, 3–6 red drupelets (1).

NOTES: Occurrence is generally restricted to north of Coeur d'Alene. Easily grown and makes nice ground cover in shady areas.



SALICACEAE
Salix scouleriana Barratt ex Hook.

Scouler willow

FORM: Tall shrub or small tree, 2–10 m (7–33 ft) tall.

IDAHO CHAMPION: 1969. 22 in d.b.h.; 68 in circum. + 45 ft tall + 5 ft crown = 118 pts.; Little Payette Lake, Valley Co.

STEMS: Stout, twigs sparsely to densely grey hairy; older branches, glabrous brownish to blackish; freshly crushed new bark and leaves have a strong, unpleasant odor.

BUDS: Small, **strongly appressed to stem with a single, caplike bud-scale**.

LEAVES: Alternate, deciduous, entire, mostly **oblanceolate** with cuneate base, 3–8 cm (1–3 in) long; rounded or broad tip; hairy when young; mature leaves dark green, glabrous above; undersurface whitened (glaucous) and sparsely reddish hair.

FLOWERS: Catkins, **appearing before the leaves**.

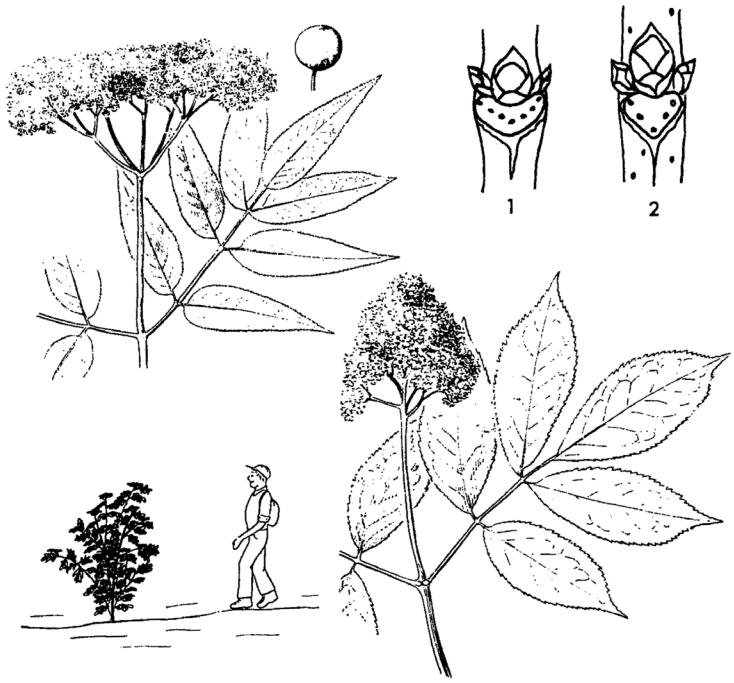
FRUIT: Short, hairy capsule, 5–8 mm long.

NOTES: Common upland willow in northern Idaho.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
1	Phma	Phma h.t.	
1	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
1	Mefe		
1	Xete		
2	Vagl	Xete h.t.	
1	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
2	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
1	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
1	Xete		
1	Xete	Mefe h.t.	
2	Luhi		
	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
1	Vagl		
1	Vasc		
1	Luhi		
4	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.			
	Phma h.t.			
Psme	Caru h.t.	Caru		
		Aruv		
	Phma h.t.	Phma		+
		Smst	1	
Abgr	Phma h.t.	Phma	1	
		Cooc		1
	Libo h.t.	Libo		
		Xete		
	Asca h.t.	Asca	1	+
		Tabr	+	1
		Mefe	1	2
	Setr h.t.		3	2
	Clun h.t.	Phma	+	+
		Clun		
		Tabr		
		Mefe		
		Xete		+
	Xete h.t.	Vagl		1
		Cooc		1
Thpl	Clun h.t.	Clun		+
		Tabr		
		Mefe		1
		Xete		1
	Asca h.t.	Asca	+	1
		Tabr		
		Mefe		3
	Gydr h.t.			2
	Adpe h.t.		+	+
	Atfi h.t.	Adpe		1
		Atfi	+	2
	Opho h.t.		1	
Tshe	Clun h.t.	Clun		
		Arnu		
		Mefe		
		Xete		
	Asca h.t.	Asca		
		Arnu		
		Mefe		
	Gydr h.t.			1
Tsme	Clun h.t.	Mefe		1
		Xete		
	Mefe h.t.	Xete		1
		Luhi	1	2
	Stam h.t.	Mefe		
		Luhi		2
	Xete h.t.	Vagl		
		Luhi		
Abla	Clun h.t.	Clun		
		Mefe		1
		Xete		1
	Mefe h.t.	Cooc		1
		Xete		
		Vasc		
		Luhi		
	Stam h.t.	Mefe	1	1
		Lica		2
	Caca h.t.	Caca	3	
		Vaca		
		Legl		
	Xete h.t.	Cooc		
		Vagl	1	
		Vasc	1	
		Luhi		
Pico	Vasc h.t.		1	
	Xete c.t.			
	Vaca c.t.		3	

Sace **Sara**



ADOXACEAE

Sambucus cerulea Raf. *Sambucus racemosa* L.

blue elderberry elderberry

FORM:
Sace: Large shrub or small tree, 2–4 m (7–13 ft) tall.
Sara: Medium to tall shrub 1–3 m (3–10 ft) tall.

STEMS: Erect, with soft, white to yellowish pith.

BARK: Thin, dark brown tinged with red, irregularly furrowed and ridged.

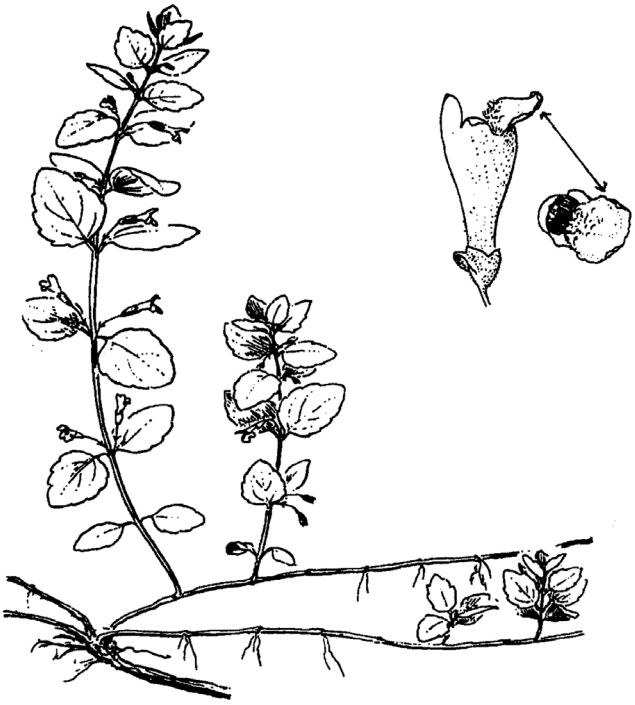
BUDS: Opposite, large, round, usually greenish.

BUNDLE SCARS: Best seen on 1-year-old wood.
Sace: 7 vascular bundle traces on leaf scars (1).
Sara: 5 vascular bundle traces on leaf scars (2).

LEAVES: Opposite, deciduous, glabrous.
Sace: 5–9 odd-pinnate leaflets, 5–15 cm (2–6 in) long, finely serrate.
Sara: 5–7 odd-pinnate leaflets, 5–17 cm (2–7 in) long; sharply serrate; somewhat hairy beneath.

FLOWERS: Numerous, small white or creamy flowers.
Sace: Flat-topped clusters, May–July.
Sara: Rounded or pyramidal clusters; March–July.

FRUIT: Edible, juicy, berrylike with 3–5 small seedlike stones; makes a nice jelly.
Sace: Strongly glaucous, appearing pale blue.
Sara: Purple-black or red, not glaucous.



LAMIACEAE
Satureja douglasii (Benth.) Briq.
[*Clinopodium douglasii* (Benth.) Kuntze]

yerba buena, savory

FORM: Prostrate, perennial subshrub to 1 m (3 ft) long.

STEMS: Square in cross-section, often rooting from nodes.

LEAVES: Opposite, **evergreen**, **aromatic** (minty), green above with a purplish tinge below, subsessile with a few blunt teeth, ovate to subrotund 1–4 cm (< 2 in) broad.

FLOWERS: White or purple-tinged, **bilabiate**, **solitary in axils**, 7–10 mm long.

FRUIT: Nutlet.

SIMILAR SPECIES: *Linnaea borealis*, p. 48, no odor, twin pink flowers; and *Veronica americana* (American brooklime), deciduous, no odor, heart shaped capsule.

NOTES: Yerba buena, meaning good herb, named by a Spanish priest in California; used in tea.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
1	Phma	Phma h.t.	
1	Smst		
2	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
+	Clun		
	Tabr		
1	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
1	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	1
	Phma h.t.	Phma	+
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	1
		Arnu	1
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	1
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ELAEAGNACEAE
Shepherdia canadensis (L.) Nutt.

buffaloberry, soapberry

FORM: Unarmed, spreading, medium shrub, 1–4 m (3–13 ft) tall.

STEMS: Older stems brownish, young stems covered with **reddish-brown scales**; round, reddish-brown, continuous, pith.

BUDS: Opposite, **naked**, stalked, russet colored buds (1).

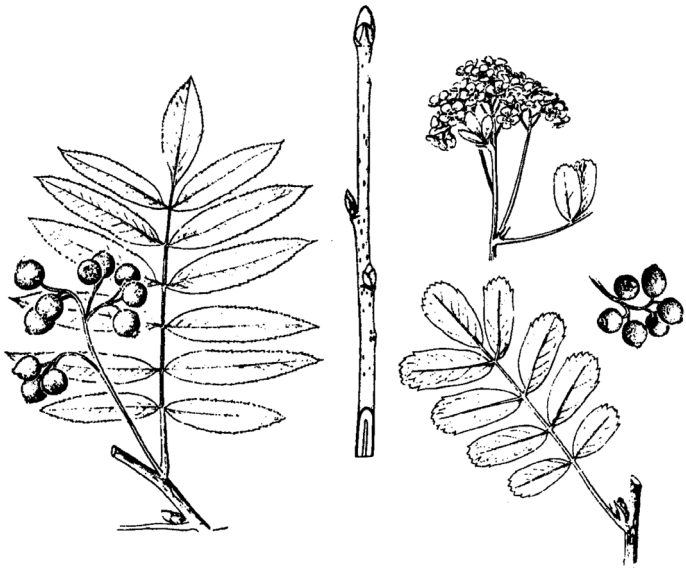
LEAVES: Opposite, **deciduous**, entire, ovate, 2–6 cm (1–2 in) long, dark greenish on upper surface with whitish silvery hair and **rusty-brown scales on lower surface** (2).

FLOWERS: 1-several, small yellowish, 1–2 mm long clustered in leaf axils, appearing with or before the leaves; male and female flowers are borne on separate bushes (dioecious); May–July.

FRUIT: Orange to red, juicy, translucent berry.

NOTES: The Chinook word for soapberry is soopolallie; crushed berries yield a soapy frothy drink and also makes a jelly.

Sosc2 **Sosi**



ROSACEAE

Sorbus scopulina Greene — *Sorbus sitchensis* M. Roem. [*Sorbus sitchensis* M. Roem. var. *sitchensis*]

mountain-ash — Sitka mountain-ash

FORM: Erect, several-stemmed shrub, 1–4 m (3–13 ft) tall.

BARK:
Sosc2: Thin, light grey-red, smooth or slightly roughened by scales, inner bark fragrant.
Sosi: Young growth covered with **rusty-red hairs**, reddish-purple aging to greyish-red.

BUDS: Alternate.
Sosc2: Sticky, **sparsely whitish-hairy**.
Sosi: Covered with **rusty red hairs**.

LEAVES: **Alternate**, **deciduous**.
Sosc2: 9–13 odd-pinnate leaflets, **yellowish-green**, narrowly oblong, 3–7 cm (1–3 in) long, **acuminate at tip**, finely serrate.
Sosi: 7–**11 odd-pinnate leaflets**, 13–25 cm (5–10 in) long leaflets, **bluish-green**, oblong, 2–5 cm (1–2 in) long, **rounded tip**, **coarsely serrate** for not more than three-fourths of their length; often with rusty red hairs on bottom of leaflets.

FLOWERS: White.
Sosc2: 70–200 flowers borne in large, dense **flat-topped clusters**, May–early July.
Sosi: 15–80 borne in large **rounded clusters**; June–July.

FRUIT: Pome, 1 cm.
Sosc2: Orange to scarlet, glossy globe-shaped.
Sosi: Round, crimson with glaucous cast, very bitter.

NOTES: Sosc2 and **Sosi** may hybridize with each other and with escaped *Sorbus aucuparia* (European mountain-ash).

		Syal h.t.		Pipo
		Phma h.t.		
2		Caru	Caru h.t.	Psme
		Aruv		
1		Phma	Phma h.t.	
+	+	Smst		
1		Phma	Phma h.t.	Abgr
1		Cooc		
2		Libo	Libo h.t.	
		Xete		
3	1	Asca	Asca h.t.	
2		Tabr		
5		Mefe		
3		Setr h.t.		
3	1	Phma	Clun h.t.	
3		Clun		
3		Tabr		
5	1	Mefe		
2	1	Xete		
4		Vagl	Xete h.t.	
3	1	Cooc		
1	+	Clun	Clun h.t.	Thpl
2		Tabr		
3		Mefe		
2		Xete		
2		Asca	Asca h.t.	
1		Tabr		
3		Mefe		
2		Gydr h.t.		
2	+	Adpe h.t.		
1		Adpe	Atfi h.t.	
2	1	Atfi		
2		Opho h.t.		
1		Clun	Clun h.t.	Tshe
1	1	Arnu		
7	1	Mefe		
5	1	Xete		
1	+	Asca	Asca h.t.	
1		Arnu		
7		Mefe		
2	+	Gydr h.t.		
6		Mefe	Clun h.t.	Tsme
7		Xete		
3	1	Xete	Mefe h.t.	
2	1	Luhi		
5		Mefe	Stam h.t.	
	2	Luhi		
5	1	Vagl	Xete h.t.	
1		Luhi		
		Clun	Clun h.t.	Abla
4	2	Mefe		
3	3	Xete		
1	1	Cooc	Mefe h.t.	
2	5	Xete		
1		Vasc		
5	2	Luhi		
5	1	Mefe	Stam h.t.	
2		Lica		
3	2	Caca	Caca h.t.	
1		Vaca		
		Legl		
2	1	Cooc	Xete h.t.	
3		Vagl		
1	+	Vasc		
3	1	Luhi		
		Vasc h.t.		Pico
10		Xete c.t.		
3		Vaca c.t.		

Pipo	Syal h.t.		6
	Phma h.t.		10
Psme	Caru h.t.	Caru	10
		Aruv	6
	Phma h.t.	Phma	8
		Smst	9
Abgr	Phma h.t.	Phma	7
		Cooc	7
	Libo h.t.	Libo	5
		Xete	7
	Asca h.t.	Asca	5
		Tabr	2
		Mefe	1
	Setr h.t.		2
	Clun h.t.	Phma	8
		Clun	6
		Tabr	3
		Mefe	2
		Xete	7
	Xete h.t.	Vagl	8
		Cooc	7
Thpl	Clun h.t.	Clun	5
		Tabr	4
		Mefe	3
		Xete	3
	Asca h.t.	Asca	4
		Tabr	
		Mefe	3
	Gydr h.t.		2
	Adpe h.t.		2
	Atfi h.t.	Adpe	
		Atfi	1
	Opho h.t.		
Tshe	Clun h.t.	Clun	3
		Arnu	4
		Mefe	3
		Xete	5
	Asca h.t.	Asca	3
		Arnu	3
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	1
		Xete	2
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	2
		Luhi	
	Xete h.t.	Vagl	3
		Luhi	
Abla	Clun h.t.	Clun	3
		Mefe	1
		Xete	5
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	2
		Vaca	
		Legl	2
	Xete h.t.	Cooc	5
		Vagl	6
		Vasc	4
		Luhi	
Pico	Vasc h.t.		9
	Xete c.t.		5
	Vaca c.t.		10



ROSACEAE
Spiraea betulifolia var. *lucida* (Douglas) Hitchc.
[*Spiraea lucida* Douglas ex Greene]

spiraea, shiny-leaf spiraea

FORM: Strongly rhizomatous, glabrous, medium shrub, 20–60 cm (8–24 in) tall.

STEMS: Erect, slender, light yellow-brown and smooth, not hairy; aging to reddish-brown.

LEAVES: Alternate, deciduous, ovate, 2–7 cm (1–3 in) long, generally coarsely toothed above middle, dark green on upper surface, slightly pale below, **side veins of leaf bend toward apex**.

FLOWERS: Dull white in flat-topped corymbs, 3–8 cm (1–3 in) broad; June–July.

FRUIT: Glabrous follicles, 3 mm long (1).

SIMILAR SPECIES: *Spiraea* species; or young *Amelanchier alnifolia*, p. 36, different leaf serration and venation patterns.

NOTES: Most common *Spiraea* species in northern Idaho.



CAPRIFOLIACEAE
Symphoricarpos albus (L.) S.F. Blake

common snowberry

FORM: Erect, **rhizomatous** shrub, 1–2 m (3–7 ft) tall.

STEMS: Opposite, twigs very slender; older stems have shreddy, greyish bark with **hollow, brownish pith** (1).

LEAVES: Opposite, **deciduous**, elliptic, 2–5 cm (1–2 in) long, entire or with a few teeth; leaves on new shoots may have **variable shapes**, some resemble small oak leaves (2).

FLOWERS: White to pinkish, bell-shaped, 5–7 mm long (3), in few-flowered racemes; May–July.

FRUIT: White, spherical, berrylike, 6–15 mm diameter; **persistent** into fall and winter; considered **poisonous**.

SIMILAR SPECIES: *Lonicera utahensis*, p. 49, white solid pith; and *Symphoricarpos mollis*, p. 77, a trailing, stoloniferous shrub.

9	Syal h.t.		Pipo
10	Phma h.t.		
6	Caru	Caru h.t.	Psme
4	Aruv		
9	Phma	Phma h.t.	
10	Smst		
9	Phma	Phma h.t.	Abgr
9	Cooc		
7	Libo	Libo h.t.	
1	Xete		
8	Asca	Asca h.t.	
5	Tabr		
3	Mefe		
2	Setr h.t.		
10	Phma	Clun h.t.	
8	Clun		
3	Tabr		
2	Mefe		
3	Xete		
1	Vagl	Xete h.t.	
3	Cooc		
6	Clun	Clun h.t.	Thpl
	Tabr		
2	Mefe		
2	Xete		
6	Asca	Asca h.t.	
4	Tabr		
	Mefe		
2	Gydr h.t.		
5	Adpe h.t.		
7	Adpe	Atfi h.t.	
4	Atfi		
2	Opho h.t.		
1	Clun	Clun h.t.	Tshe
3	Arnu		
1	Mefe		
1	Xete		
5	Asca	Asca h.t.	
6	Arnu		
3	Mefe		
1	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
1	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
4	Lica		
3	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	1
		Tabr	1
		Mefe	1
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	1
		Mefe	
	Gydr h.t.		
	Adpe h.t.		3
	Atfi h.t.	Adpe	1
		Atfi	
	Opho h.t.		1
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



CARPIFOLIACEAE
Symphoricarpos mollis Nutt.
[*Symphoricarpos mollis* Nutt. var. *hesperius* (G.N. Jones) Cronquist]

creeping snowberry

FORM: Stoloniferous, trailing shrub, 3–6 dm (1–2 ft) tall.

STEMS: Opposite, often rooting at nodes 1–3 m (3–10 ft) long; twigs very slender; older stems have shreddy, greyish bark with **solid brownish pith** (1), **on 1–2 year stems**.

LEAVES: Opposite, **deciduous**, entire, elliptic, 1–3 cm (1 in) long; leaves on new shoots may have **variable shapes, some resemble small oak leaves** (2).

FLOWERS: Pink to white, bell-shaped, 3–5 mm long; short, few-flowered, terminal racemes; June–July.

FRUIT: White, berrylike, 4–6 mm diameter; considered **poisonous**.

SIMILAR SPECIES: *Symphoricarpos albus*, p. 76, erect shrub; and *Lonicera utahensis*, p. 49, white, solid pith.

HABITAT: Coastal disjunct in northern Idaho; principally on the St. Joe Ranger District, IPNF and Nez Perce-Clearwater National Forests.

Table 8— *Vaccinium* Species Conspectus.

Species	Page	Form	Stems	Leaves	Flowers	Fruit	Notes
V. caespitosum [*V. cespitosum*] dwarf huckleberry **Vaca**	79	low shrub	light green round angled usually white hairy	oblanceolate light green serrate	white-pink narrowly urn-shaped single axil	glaucous-blue berry	similar to **Vasc**
V. globulare blue huckleberry **Vagl**	80	medium shrub	yellow-green slightly angled smooth	oblanceolate rounded tip serrate	pale pink globular urn-shaped	bluish-purple spherical berry	considered same as **Vame**
V. membranaceum big huckleberry **Vame**	80	medium shrub	greenish-yellow slightly angled smooth	ovate pointed tip serrate	pink yellow elongate urn-shaped	purplish-black spherical berry	considered same as **Vagl**
V. myrtillus dwarf bilberry **Vamy**	81	low shrub	greenish strongly angled short hairs	oval sharply serrate veiny on lower surface	pink urn-shaped	dark red to blue-black spherical berry	similar to **Vasc**
V. occidentale [*V. uliginosum*] western huckleberry **Vaoc2**	N/A	low shrub	yellow-green round smooth	ovate sharply toothed veiny on lower surface	pinkish urn-shaped 1-4 per axil	blue to black spherical berry	restricted to subalpine
V. ovalifolium early blueberry **Vaov**	N/A	medium shrub	yellow-green angled smooth	oval or oblong smooth margins waxy bloom prominent veins	single pinkish urn-shaped flowers before leaves appear	bluish-black glaucous spherical berry	rare in northern Idaho
V. oxycoccos wild cranberry **Vaox**	N/A	subshrub	slender glabrous	ovate shiny green greyish below inrolled margins	deep pink reflexed petals	deep red berry	Idaho State Watch List
V. scoparium grouse whortleberry **Vasc**	82	low shrub	bright green slender strongly angled	tiny lanceolate	pinkish urn-shaped	bright red berry	similar to **Vaca**

Pipo	Syal h.t.		1
	Phma h.t.		4
Psme	Caru h.t.	Caru	
		Aruv	2
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	3
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	1
		Tabr	
		Mefe	
		Xete	+
	Xete h.t.	Vagl	1
		Cooc	
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	1
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		1
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	3
		Vaca	10
		Legl	1
	Xete h.t.	Cooc	1
		Vagl	1
		Vasc	1
		Luhi	1
Pico	Vasc h.t.		3
	Xete c.t.		
	Vaca c.t.		10



ERICACEAE
Vaccinium caespitosum Michx.
[*Vaccinium cespitosum* Michx.]

dwarf huckleberry

FORM: Low shrub, 15–30 cm (6–12 in) tall.

STEMS: Round in cross-section, hairy twigs yellowish-green to reddish-brown, **usually zigzagged**.

LEAVES: Alternate, deciduous, oblanceolate, 1–3 cm (1 in) long and half as broad, **light green**, margins serrate.

FLOWERS: Whitish to pink, narrowly urn-shaped, 5–6 mm long; single in axils; May–July.

FRUIT: Sweet, glaucous-blue berry, 5–8 mm broad.

SIMILAR SPECIES: *Vaccinium scoparium*, p. 82; or *Vaccinium* Species Conspectus, p. 78.

Vagl **Vame**



ERICACEAE

Vaccinium globulare Rydb. *Vaccinium membranaceum* Douglas ex Torr.

blue huckleberry, globe huckleberry big huckleberry, thin-leaf huckleberry

UPDATE: Vagl and **Vame** are now considered the same species **(Vame)** by Hitchcock and Cronquist (2018). Split characteristics retained so you may determine which description best applies to your region of study.

FORM: Spreading shrub, 4–10 dm (1–3 ft) tall.

STEMS: Older bark greyish and shreddy; young twigs somewhat angled.
Vagl: Greenish-yellow.
Vame: Yellow-green.

LEAVES: **Alternate**, deciduous, 2–4 cm (1–2 in) long, finely serrate.
Vagl: Ovate with rounded tip (1).
Vame: Ovate with pointed tip (2).

FLOWERS: Single in axils.
Vagl: Pale pinkish-yellow, **globular** (3), broader than long, 6–7 mm long; May–June.
Vame: Yellow-pink **urn-shaped** (4), longer than broad, 6mm long; April–June.

FRUIT: Delicious, edible berry, 6–8 mm broad.
Vagl: **Glaucous bluish-purple**.
Vame: Purple or dark purplish-red.

SIMILAR SPECIES: *Vaccinium* Species Conspectus, p. 78.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
2	Aruv		
1	Phma	Phma h.t.	
	Smst		
4	Phma	Phma h.t.	Abgr
1	Cooc		
5	Libo	Libo h.t.	
9	Xete		
6	Asca	Asca h.t.	
8	Tabr		
10	Mefe		
8	Setr h.t.		
5	Phma	Clun h.t.	
7	Clun		
9	Tabr		
10	Mefe		
10	Xete		
10	Vagl	Xete h.t.	
10	Cooc		
6	Clun	Clun h.t.	Thpl
9	Tabr		
10	Mefe		
10	Xete		
7	Asca	Asca h.t.	
7	Tabr		
10	Mefe		
9	Gydr h.t.		
7	Adpe h.t.		
4	Adpe	Atfi h.t.	
6	Atfi		
5	Opho h.t.		
9	Clun	Clun h.t.	Tshe
8	Arnu		
10	Mefe		
9	Xete		
10	Asca	Asca h.t.	
5	Arnu		
10	Mefe		
9	Gydr h.t.		
10	Mefe	Clun h.t.	Tsme
9	Xete		
8	Xete	Mefe h.t.	
9	Luhi		
10	Mefe	Stam h.t.	
10	Luhi		
10	Vagl	Xete h.t.	
7	Luhi		
10	Clun	Clun h.t.	Abla
10	Mefe		
10	Xete		
10	Cooc	Mefe h.t.	
10	Xete		
10	Vasc		
9	Luhi		
10	Mefe	Stam h.t.	
9	Lica		
7	Caca	Caca h.t.	
2	Vaca		
3	Legl		
9	Cooc	Xete h.t.	
9	Vagl		
6	Vasc		
7	Luhi		
4	Vasc h.t.		Pico
10	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	1
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	1
		Mefe	
		Xete	1
	Asca h.t.	Asca	+
		Arnu	
		Mefe	3
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	+
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	1
	Xete h.t.	Vagl	
		Luhi	1
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	2
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	2
		Vaca	
		Legl	
	Xete h.t.	Cooc	1
		Vagl	
		Vasc	
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ERICACEAE
Vaccinium myrtillus L.

dwarf bilberry

FORM: Low shrub, 20–30 cm (8–12 in) tall.

STEMS: Sharply angled, usually hairy, greenish-brown, **not broomlike**.

LEAVES: Alternate, deciduous, light green, glabrous ovate, 1–3 cm (1 in), sharply toothed.

FLOWERS: Pinkish **urn-shaped**, borne singly in axils of new stems; May–Aug.

FRUIT: Edible, dark red to bluish-black berry with glaucous bloom.

SIMILAR SPECIES: *Vaccinium scoparium*, p. 82; *V. caespitosum*, p. 79; or *Vaccinium* Species Conspectus, p. 78.



ERICACEAE
Vaccinium scoparium Leiberg ex Coville

grouse whortleberry, grouseberry

FORM: Low, perennial shrub 10–25 cm (4–10 in) tall.

STEMS: Numerous bright green, slender, strongly angled, appearing broomlike.

LEAVES: Alternate, deciduous, lanceolate, 8–15 mm long, glabrous, shiny light green above, dull below, finely serrate.

FLOWERS: Pinkish, urn-shaped, 4 mm long; May–Aug.

FRUIT: Bright red, sweet berry, 3–5 mm broad.

SIMILAR SPECIES: *Vaccinium caespitosum*, p. 79; *V. myrtillus*, p. 81; and *Vaccinium* Species Conspectus, p. 78.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
1	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
3	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
3	Mefe		
2	Xete		
5	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
1	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
1	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
+	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
2	Xete		
7	Xete	Mefe h.t.	
8	Luhi		
	Mefe	Stam h.t.	
7	Luhi		
5	Vagl	Xete h.t.	
9	Luhi		
3	Clun	Clun h.t.	Abla
5	Mefe		
1	Xete		
7	Cooc	Mefe h.t.	
5	Xete		
10	Vasc		
7	Luhi		
1	Mefe	Stam h.t.	
4	Lica		
8	Caca	Caca h.t.	
10	Vaca		
10	Legl		
7	Cooc	Xete h.t.	
6	Vagl		
10	Vasc		
8	Luhi		
10	Vasc h.t.		Pico
5	Xete c.t.		
5	Vaca c.t.		

Ferns and Friends

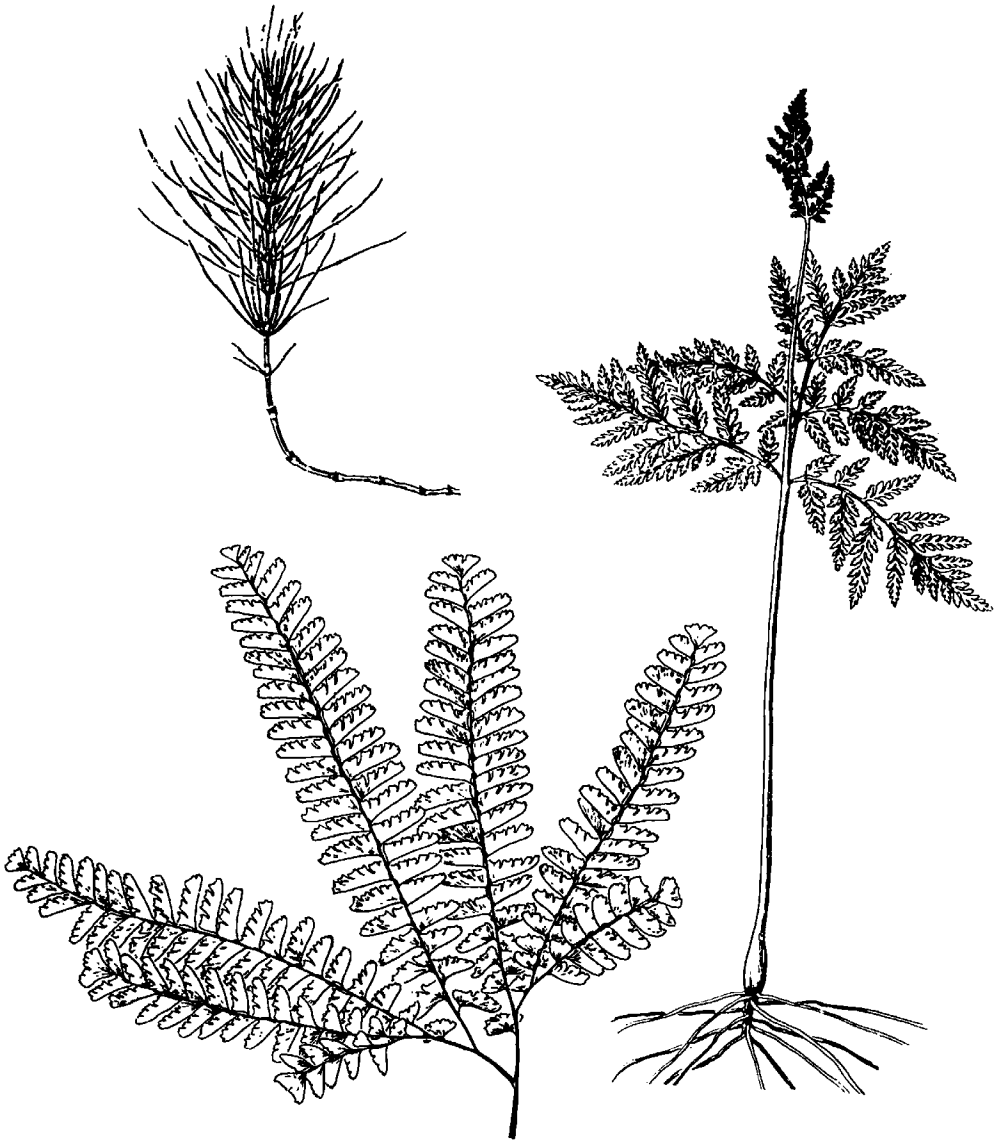
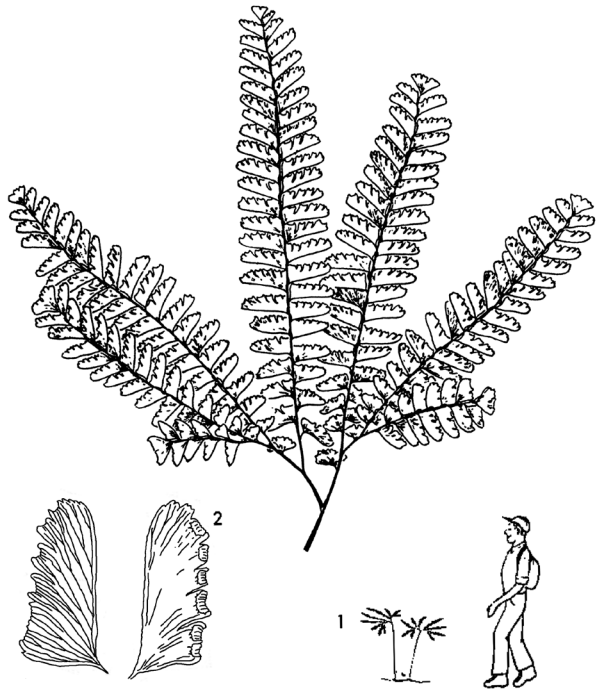


Table 9—Key to ferns and friends.

	Scientific name	Page
1. LEAVES FERN-LIKE, COMPOUND, 2-4 TIMES PINNATE		
2. Sporangium borne in sori on lower surface of leaves		
3. Leaves from clustered basal arrangement		
4. Leaves fanlike on long, blackish, wiry petioles	*Adiantum pedatum*	85
4. Leaves pinnate		
5. Leaves evergreen, sori round	*Polystichum munitum*	94
5. Leaves deciduous, sori not round		
6. Leaves generally less than 25 cm (10 in) long		
7. Sori in cup-shaped indusium	*Cystopteris fragilis*	88
7. Sori covering platelike indusium	*Woodsia oregana*	96
6. Leaves longer than 25 cm (10 in)		
8. Sori crescent-shaped	*Athyrium filix-femina*	86
8. Sori horseshoe-shaped	*Dryopteris spp.*	89, 90
3. Leaves not clustered but arising singly from rhizomes		
9. Rhizome and leaves hairy, lacking scales	*Pteridium aquilinum*	95
9. Rhizome and leaves scaly	*Gymnocarpium dryopteris*	92
2. Sporangium not borne in sori, but on erect fertile stalk above sterile blade	*Botrychium virginianum*	87
1. LEAVES NOT FERN-LIKE, SIMPLE, IN WHORLS OR PSEUDOWHORLS		
11. Aerial, jointed, deciduous stem	*Equisetum arvense*	91
11. Prostrate, leafy, evergreen stem	*Lycopodium annotinum*	93

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	2
		Tabr	1
		Mefe	1
	Gydr h.t.		4
	Adpe h.t.		10
	Atfi h.t.	Adpe	10
		Atfi	3
	Opho h.t.		4
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



PTERIDACEAE
Adiantum pedatum L.
[*Adiantum aleuticum* (Rupr.) C.A. Paris var. *aleuticum*]

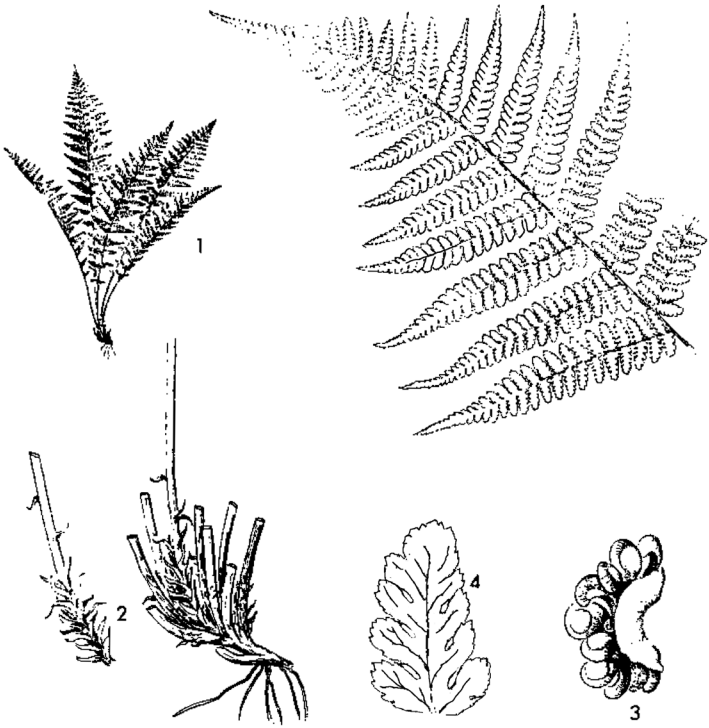
maidenhair fern

FORM: Erect, perennial fern, 10–60 cm (4–24 in) tall, from short, creeping rhizomes.

LEAVES: Few to solitary **deciduous fronds**, the stalk divides into two recurving parts, each part consisting of 5–6 pinnae with 15–35 alternate, bluish-green pinnules (leaflets) in a **fanlike blade arrangement** (1), more or less parallel to ground on a **thin, shiny purple to purplish-black wiry petiole**.

SORI: Born on reflexed margins (2).

NOTES: Major populations located between the St. Joe and Selway River drainages, in warm, high humidity habitats.



ATHYRIACEAE
Athyrium filix-femina (L.) Roth

ladyfern

FORM: Large, erect, spreading perennial fern, 3–20 dm (1–7 ft) long; fronds closely clustered at the end of a **scaly rhizome**.

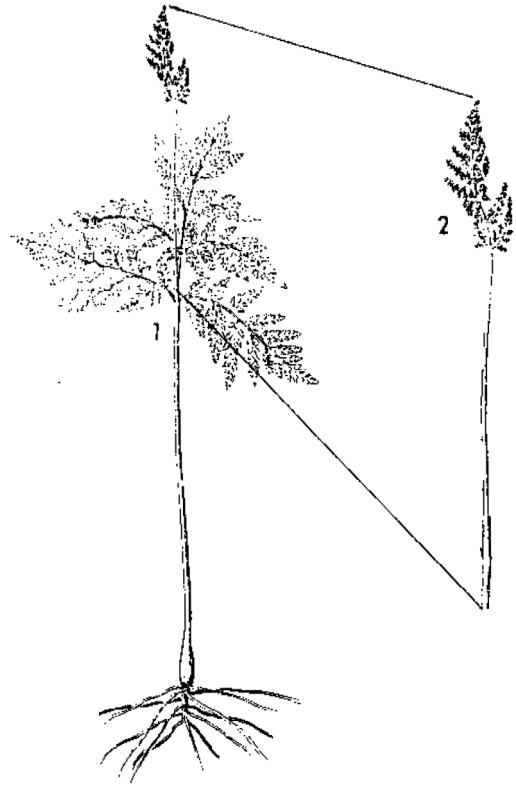
LEAVES: Deciduous, bi to tripinnate blade consisting of 20–35 pairs of offset pinnae, with the upper and lower pinnae progressively reduced, **tapering at both ends** (1); straw-colored **petiole, much shorter than blade**, bearing many **blackish scales toward the base** (2).

SORI: Indusium and sori mostly **crescent-shaped** or broadly hooked (3), borne below on a distinct veinlet which continues towards the margin (4).

SIMILAR SPECIES: *Dryopteris* species, pp. 89–90; and *Cystopteris fragilis*, p. 88.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
2	Asca	Asca h.t.	
3	Tabr		
2	Mefe		
6	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
2	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
2	Tabr		
3	Mefe		
	Xete		
2	Asca	Asca h.t.	
5	Tabr		
6	Mefe		
5	Gydr h.t.		
5	Adpe h.t.		
10	Adpe	Atfi h.t.	
10	Atfi		
9	Opho h.t.		
2	Clun	Clun h.t.	Tshe
2	Arnu		
1	Mefe		
3	Xete		
4	Asca	Asca h.t.	
6	Arnu		
3	Mefe		
6	Gydr h.t.		
2	Mefe	Clun h.t.	Tsme
	Xete		
1	Xete	Mefe h.t.	
	Luhi		
5	Mefe	Stam h.t.	
2	Luhi		
	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
5	Mefe	Stam h.t.	
4	Lica		
3	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	1
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		3
	Atfi h.t.	Adpe	7
		Atfi	1
	Opho h.t.		2
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



OPHIOGLOSSACEAE
Botrychium virginianum (L.) Swartz.
[*Botrypus virginianus* (L.) Michx.]

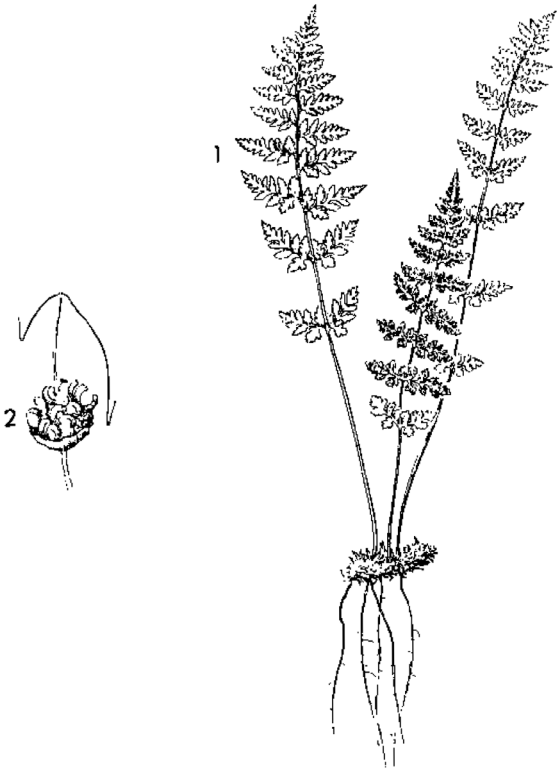
grape fern, moonwort

FORM: Erect, perennial, 15–50 cm (6–20 in) tall, consisting of a **sterile segment** (1) and an **elongated fertile blade** (2) on a common stalk.

LEAVES: Sterile blade deciduous, thin, and membranous, deltoid, **bi to quadpinnately compound**, sharply toothed, generally wider than long, 10–30 cm (4–12 in) wide, **sessile or with a short petiole**, attached well above ground near middle of plant; **fertile stalk** slightly hairy when young soon becoming glabrous, **elongate**, 4–17 cm (2–7 in) long, together with stalk it is much longer than sterile blade.

SORI: None; numerous, short stalked, free sporangia borne on fertile stalk.

HABITAT: Moist woods and thickets, seldom in meadows; up to moderate elevations in mountains; coastal/boreal disjunct in northern Idaho.



CYSTOPTERIDACEAE
Cystopteris fragilis (L.) Bernh.

brittle bladderfern

FORM: Delicate perennial, small to medium fern; fronds in small clusters attached to a scaly rhizome.

LEAVES: Deciduous, glabrous, **bi or tripinnate blade at least twice as long as wide**, 3–25 cm (1–10 in) by 1–10 cm (1–4 in), consisting of 8–18 pairs of offset leaflets, blade gradually tapers to tip (1).

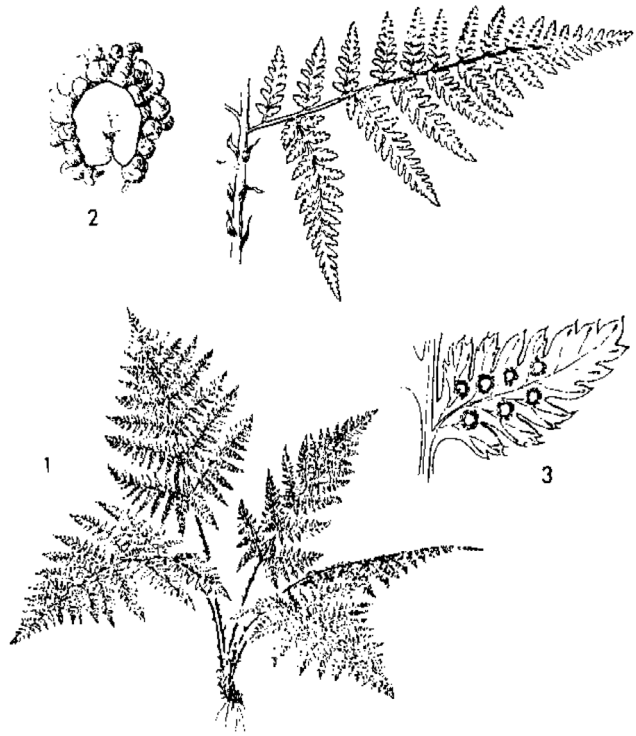
SORI: Small and numerous in **cuplike indusium borne on a veinlet** (2).

SIMILAR SPECIES: *Woodsia oregana*, p. 96; young *Athyrium filix-femina*, p. 86; and possibly near Canada: *Cystopteris montana* (Mtn. bladderfern), blade nearly as wide as long.

HABITAT: Moist to moderately dry, shady woods often in rocky places up to subalpine.

1	Syal h.t.		Pipo
4	Phma h.t.		
	Caru	Caru h.t.	Psme
1	Aruv		
2	Phma	Phma h.t.	
5	Smst		
2	Phma	Phma h.t.	Abgr
3	Cooc		
	Libo	Libo h.t.	
	Xete		
1	Asca	Asca h.t.	
1	Tabr		
	Mefe		
1	Setr h.t.		
+	Phma	Clun h.t.	
+	Clun		
1	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
2	Tabr		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Tabr		
3	Mefe		
2	Gydr h.t.		
1	Adpe h.t.		
	Adpe	Atfi h.t.	
1	Atfi		
2	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Arnu		
	Mefe		
1	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
1	Luhi		
	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
	Mefe		
2	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
2	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	2
		Mefe	2
	Setr h.t.		1
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	1
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	1
	Gydr h.t.		
	Adpe h.t.		2
	Atfi h.t.	Adpe	5
		Atfi	4
	Opho h.t.		6
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	
		Xete	1
	Asca h.t.	Asca	+
		Arnu	1
		Mefe	
	Gydr h.t.		2
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	2
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



DRYOPTERIDACEAE

Dryopteris austriaca (Jacg.) Woynar ex Schinz & Thell.
[*Dryopteris expansa* (C. Presl) Fraser-Jenk. and Jermy]

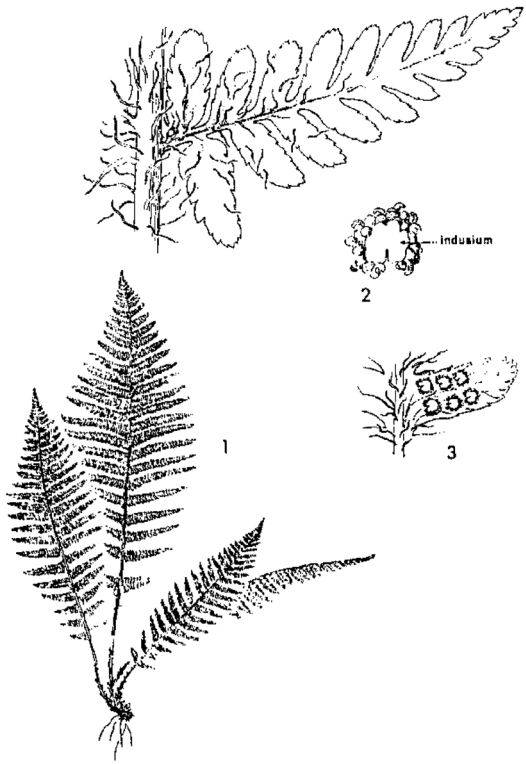
mountain woodfern, spreading woodfern

FORM: Medium to large fern with short ascending rhizome and clustered fronds.

LEAVES: Deciduous, tripinnate blade, **broadly triangular, widest at or near the base** (1), 20–50 cm (8–20 in) long, pinnae numerous, progressively less dissected toward the tip; petiole glabrous except for brown scales on lower part, **length nearly equals the blade**.

SORI: Sorus **horseshoe-shaped** (2), borne on undersurface of leaf, removed from margins (3).

SIMILAR SPECIES: *Athyrium filix-femina*, p. 86; and other *Dryopteris* species, p. 90.



DRYOPTERIDACEAE
Dryopteris filix-mas (L.) Schott

male fern

FORM: Large, erect perennial fern; fronds clustered on short horizontal rhizome.

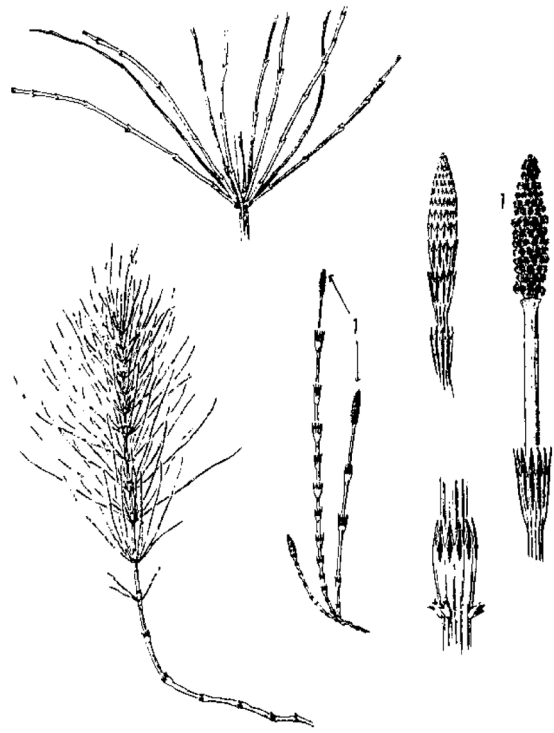
LEAVES: Deciduous, finely serrate, pinnate to bipinnate blade, 2–10 dm (1–3 ft) long, lanceolate to lance-oblong, slightly narrowed toward the base and tapers to a narrow tip (1).

SORI: Sorus **horseshoe-shaped** (2), borne underneath, midway between the margin and the midvein, mostly confined to the upper half of pinnules (3).

SIMILAR SPECIES: *Dryopteris cristata* (shield-fern); *Athyrium filix-femina*, p. 86; or other *Dryopteris* species, p. 89.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
+	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
3	Tabr		
1	Mefe		
1	Setr h.t.		
	Phma	Clun h.t.	
+	Clun		
1	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
2	Gydr h.t.		
2	Adpe h.t.		
5	Adpe	Atfi h.t.	
2	Atfi		
2	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Arnu		
	Mefe		
+	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	1
		Atfi	1
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	2
		Vaca	3
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



EQUISETACEAE
Equisetum arvense L.

field horsetail, common horsetail

FORM: Rhizomatous, colonial perennial with **annual, aerial, jointed stems, producing terminal cones** (1).

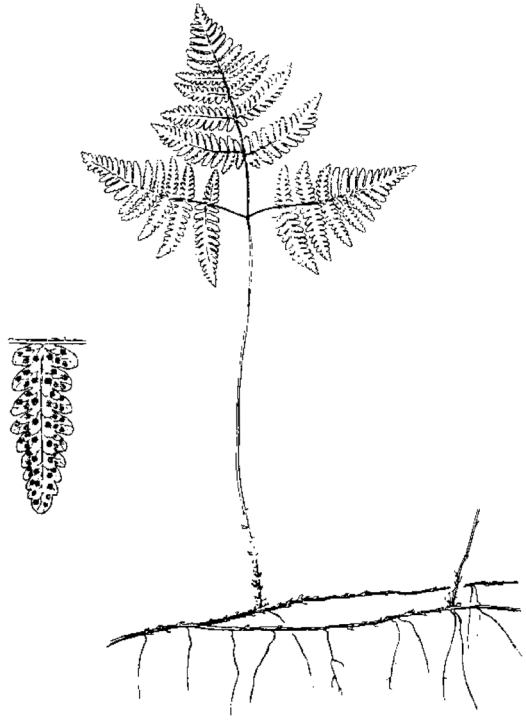
STEMS: Dimorphic; sterile stems: greenish, 15–60 cm (6–24 in) tall, **branches generally whorled**, ascending or spreading; **fertile stems: nonbranching, white to brownish**, 30 cm (12 in) tall, **soon withering**.

CONES: Blunt, 5–40 mm (< 2 in) long, generally produced on fertile stems, but **Eqar** is unusual in that late-season green stems may produce some cones.

SIMILAR SPECIES: *Equisetum hyemale* (common scouring-rush, Dutch rush); *Equisetum telmateia* (giant horsetail); and other *Equisetum* species.

HABITAT: Prefers damp, sandy, semi-shaded areas in fields and glades; often invades railway embankments or roadsides; difficult to exterminate.

NOTES: Cosmopolitan in distribution throughout the Northern Hemisphere; **poisonous if ingested.**



CYSTOPTERIDACEAE
Gymnocarpium dryopteris (L.) Newman

oak-fern

FORM: Delicate, rhizomatous, perennial fern, 10–30 cm (4–12 in) tall.

LEAVES: Deciduous, bi or tripinnate, **appears as 3 leaflets**, broadly triangular, distinctly asymmetrical, parallel to the ground; pinnae opposite with lowest pair the largest, then tapering to tip.

SORI: Small, circular, borne on undersurface of leaf; **indusium lacking**.

SIMILAR SPECIES: *Cystopteris montana* (mtn. bladderfern), cuplike indusium

HABITAT: Moist woods, streambanks, and wet cliffs.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
1	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
1	Tabr		
3	Mefe		
	Xete		
1	Asca	Asca h.t.	
4	Tabr		
4	Mefe		
10	Gydr h.t.		
5	Adpe h.t.		
9	Adpe	Atfi h.t.	
6	Atfi		
10	Opho h.t.		
3	Clun	Clun h.t.	Tshe
4	Arnu		
3	Mefe		
2	Xete		
3	Asca	Asca h.t.	
6	Arnu		
3	Mefe		
10	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
	Xete		
1	Xete	Mefe h.t.	
	Luhi		
5	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
2	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	4
		Mefe	1
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	1
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		1
Tshe	Clun h.t.	Clun	1
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	+
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



LYCOPODIACEAE
Lycopodium annotinum L.
[*Spinulum annotinum* (L.) A. Haines]

stiff club-moss

FORM: Prostrate, perennial, **evergreen clubmoss**.

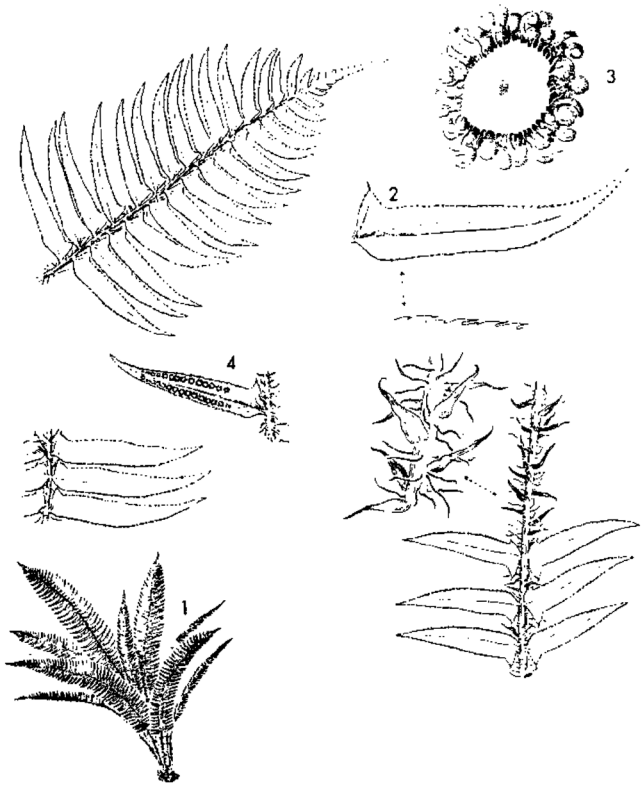
STEMS: Erect, once or twice branched, leafy stems, 5–25 cm (2–10 in) tall; trailing stems, sparsely leaved, elongated up to 1 m (3 ft) long, rooting at intervals.

LEAVES: Ascending to lax, crowded in 8 ranks; **4 leaves in each pseudo-whorl**, lance-shaped, slightly toothed with very sharp pointed tip, 5–11 mm (2-4 in) long.

CONES: Sessile, 1–4 cm (< 2 in) long, **borne singly** at end of some stems.

SORI: None; sporangia reniform, borne on sporophylls, special straw-colored to greenish leaves different from the vegetative leaves, 3–4 mm (1-2 in) long.

SIMILAR SPECIES: *Lycopodium clavatum* (Stag's horn moss) and other *Lycopodium* species.



DRYOPTERIDACEAE
Polystichum munitum (Kaulf.) C. Presl

western swordfern, Christmas fern

FORM: Large, perennial fern with leaves tufted on short, stout rhizomes covered with reddish-brown scales.

LEAVES: Evergreen, coarse and leathery, stiffly erect, linear to lance-shaped, tapering at both ends (1), 2–15 dm (6–60 in) long, mostly 35–70 offset, undivided pinnae on each side, 2–15 cm (1–6 in) long, with a basal lobe projecting upward (2), margins closely serrate with **incurved spinulose teeth**; stout, petiole 5–45 cm (2–13 in) long, chaffy toward base.

SORI: Large, **circular** (3), borne mostly on middle and upper pinnae between rib and margins on undersurface (4) sometimes in several rows; hairy indusium.

SIMILAR SPECIES: *Polystichum lonchitis* (mountain holly fern), a smaller fern.

1	Syal h.t.		Pipo
3	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
2	Smst		
1	Phma	Phma h.t.	Abgr
7	Cooc		
	Libo	Libo h.t.	
	Xete		
3	Asca	Asca h.t.	
3	Tabr		
3	Mefe		
2	Setr h.t.		
3	Phma	Clun h.t.	
4	Clun		
2	Tabr		
4	Mefe		
1	Xete		
	Vagl	Xete h.t.	
1	Cooc		
4	Clun	Clun h.t.	Thpl
2	Tabr		
5	Mefe		
	Xete		
5	Asca	Asca h.t.	
7	Tabr		
4	Mefe		
7	Gydr h.t.		
9	Adpe h.t.		
8	Adpe	Atfi h.t.	
3	Atfi		
4	Opho h.t.		
2	Clun	Clun h.t.	Tshe
1	Arnu		
2	Mefe		
1	Xete		
4	Asca	Asca h.t.	
4	Arnu		
3	Mefe		
2	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
	Luhi		
2	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	1
	Phma h.t.	Phma	1
		Smst	1
Abgr	Phma h.t.	Phma	3
		Cooc	3
	Libo h.t.	Libo	
		Xete	1
	Asca h.t.	Asca	5
		Tabr	3
		Mefe	1
	Setr h.t.		4
	Clun h.t.	Phma	5
		Clun	2
		Tabr	1
		Mefe	
		Xete	4
	Xete h.t.	Vagl	3
		Cooc	3
Thpl	Clun h.t.	Clun	4
		Tabr	1
		Mefe	1
		Xete	2
	Asca h.t.	Asca	4
		Tabr	2
		Mefe	3
	Gydr h.t.		1
	Adpe h.t.		4
	Atfi h.t.	Adpe	4
		Atfi	4
	Opho h.t.		1
Tshe	Clun h.t.	Clun	2
		Arnu	2
		Mefe	3
		Xete	3
	Asca h.t.	Asca	4
		Arnu	1
		Mefe	
	Gydr h.t.		3
Tsme	Clun h.t.	Mefe	2
		Xete	4
	Mefe h.t.	Xete	1
		Luhi	2
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	3
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	2
		Lica	
	Caca h.t.	Caca	2
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



DENNSTAEDTIACEAE
Pteridium aquilinum (L.) Kuhn in von der Decken
[*Pteridium aquilinum* (L.) Kuhn ssp.
pubescens (Underw.) J.A. Thomson, Mickel & Mehltreter]

bracken fern

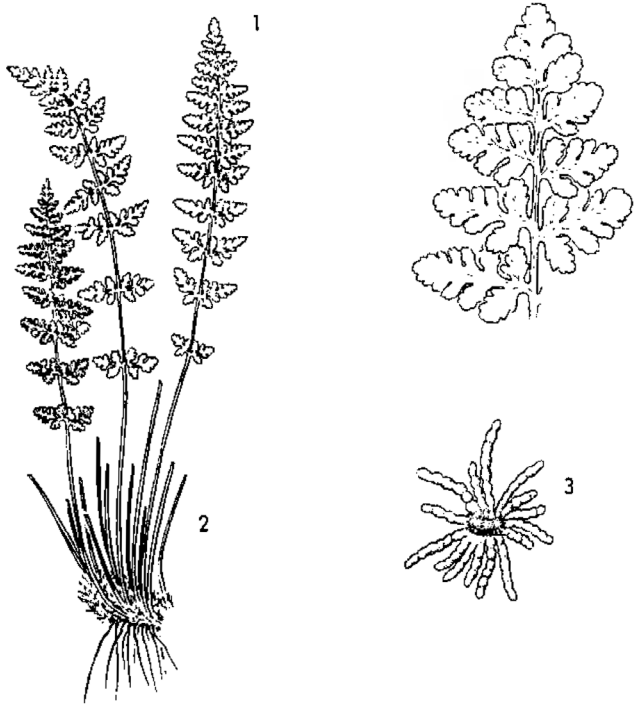
FORM: Medium to large, erect fern, 5–20 dm (2–7 ft) tall; vigorously clonal, from deep, branched rhizomes having **two light-colored external stripes and distinctive vascular bundles** in cross-section.

LEAVES: Deciduous, but with a firm, leatherlike feel, tripinnate blade 3–10 dm (1–3 ft) long with alternate, sessile pinnules, edges rolled under and hairy below, petiole erect, hairy and nonscaly, generally shorter than blade.

SORI: Protected by narrow inrolled indusial leaf margins (1).

ENEMIES: Fire: resistant, regeneration from rhizomes within 1–2 years to preburn levels.

NOTES: Allelopathic to other plant species, and a **very aggressive invader** of disturbed sites. Reported to contain **carcinogenic compounds and is poisonous** to livestock.



WOODSIACEAE
Woodsia oregana D.C. Eaton

woodsia, Oregon woodsia

FORM: Erect, **small to medium tufted fern**, 7–25 cm (3–10 in) tall, from short creeping rhizomes covered with yellowish to dark reddish-brown scales.

LEAVES: Numerous, **deciduous**, bi to tripinnate, lanceolate blades, 4–15 cm (2–6 in) long, with 7–17 pairs of opposite or offset pinnae, the lowest one or two pairs smaller than those above, the upper ones gradually reduced to tip (1); persistent petiole bases (2) remain on rhizome.

SORI: Borne on lower surface of the leaf removed from the margins; **indusium platelike, with radiating, hairlike** often somewhat **beaded segments** (3), partly concealed by the reflexed margins.

SIMILAR SPECIES: *Cystopteris fragilis*, p. 88, without persistent petioles; and *Woodsia scopulina* (Rocky Mtn. woodsia) hairy, glandular leaves.

HABITAT: Talus slopes and cliff crevices and ledges.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
+	Tabr		
1	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
+	Clun		
	Tabr		
1	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
+	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Forbs



Table 10—Forb Characteristics

Characteristics / Species	Page	1 Life Cycle	2 Persistence	3 Size	LEAF 4 Arrangement	LEAF 5 Leaf Type	FLOWER 6 Inflorescence	FLOWER 7 Color	FLOWER Merous	FLOWER 8 Flower Type	FRUIT 7 Color	FRUIT 9 Fruit	Comments
NONGREEN													
Corallorhiza spp.	126	P	D	M-L	A	B	R	R/Y	3	O	R/Y	C	parasitic
Pterospora andromedea	169	P	D	M-XL	A	B	R	Y	5	U	RBr	C	parasitic
GREEN													
WHORLED Evergreen													
Cornus canadensis	128	P	E	S-M	W	SE	C	W	4	R	R	D	
Trientalis latifolia	185	P	E	S-M	W	SE	S	P	6/7	R	-	C	uncommon
WHORLED Deciduous													
Frasera fastigiata	138	P	D	XL	W	SE	P	B	4	R	-	C	
Galium spp.	139	P-A	D	M	W	SE	P	W	4	T	-	C	square stem
Trillium ovatum	186	P	D	S-M	W	SE	S	W	3	R	Y	B	
BASAL Evergreen Compound Leaves													
Coptis occidentalis	125	P	E	S	B	ETr	T	W	5	R	-	F	golden root
BASAL Evergreen Simple Leaves													
Asarum caudatum	116	P	E	S	A(B)	SCo	S	M	3	I	-	C	ginger odor
Goodyera oblongifolia	141	P	E	S	B	SE	Sk	W-G	3	O	G	C	white mottled leaves
Heuchera cylindrica	145	P	E	S-XL	B	SMT	P	W-GY	5	B	-	C	
Pyrola asarifolia	171	P	E	S-L	B	SE	R	P-PrR	5	I	-	C	
Synthyris spp.	180	P	E(D)	S-L	B	SCo	R	BV/BPr	4	Bi	-	C	
Viola orbiculata	193	P	E	S	B	SCo	S	Y	5	V	-	C	
Xerophyllum tenax	194	P	E	L-XL	B	SLiT	R	W	3	R	-	C	

Table 10 continued.

BASAL Deciduous Compound Leaves													
Anemone piperi	107	P	D	M-L	B(W)	CTrT	S	W	5-6	R	-	A	
Fragaria spp.	136	P	D	M	B	CTrT	C	W	5	R	R	B	strawberry
Ligusticum spp.	150	P	E	L-XL	B(A)	P	U	W/P	5	R	-	S	
Lomatium spp.	153	P	D	M-XL	B(A)	CPT	U	Y/W/P	5	R	-	S	
BASAL Deciduous Simple Leaves													
Balsamorhiza sagittata	118	P	D	M-XL	B	SA	H	Y	5	C	-	A	
Calypso bulbosa	120	P	D	S-M	B	SE	S	Pr	3	O	-	C	
Clintonia uniflora	124	P	D	S	B	SE	S	W	3	R	B	B	hairy leaves
Dodecatheon jeffreyi	132	P	D	S-L	B	SE	U	Pr	4-5	R	-	C	unique flowers
Erythronium grandiflorum	135	P	D	S-M	B	SE	R	Y	3	R	G	C	bald leaves
Habenaria spp.	143	P	D	M-L	B	SE	R	W/G/YG	3	O	-	C	
Hieracium spp.	146	P	D	S-XL	B(A)	SE	H	Y/W	5	C	-	A	hairy leaves
Mitella spp.	156	P	D	S-L	B	SCoT	R	G/W	5	R	-	C	
Trautvetteria caroliniensis	184	P	D	L-XL	B(A)	SMTL	C	W/G	4	R	-	A	riparian
OPPOSITE Deciduous Compound Leaves													
Valeriana sitchensis	187	P	D	L-XL	O	CPT	C	W	5	T	-	A	
OPPOSITE Deciduous Simple Leaves													
Apocynum androsaemifolium	101	P	D	M-L	O	SE	Cy	P	5	B	-	F	milky sap
Arenaria macrophylla	113	P	D	S-L	O	SE	Cy	W	5	R	-	C	
Arnica cordifolia	114	P	D	S-L	O	SCoT	H	Y	5	C	-	A	
Arnica latifolia	115	P	D	S-L	O	SE(T)	H	Y	5	C	-	A	
Circaea alpina	123	P	D	S-L	O	ST(E)	R	W	2	R	-	C	
Geranium viscosissimum	140	P	D	L-XL	O	SMT	CyS	Pr	5	R	-	C	sticky plant
Hypericum perforatum	148	P	D	L-XL	O	SE	Cy	Y	5	R	-	C	holey leaves
Listera spp.	152	P	D	S-M	O	SE	R	G	3	O	G	C	
Montia spp.	160	P	D	S	O(B)	SECo	R	W	5	R	Bk	C	
Prunella vulgaris	168	P	D	S-L	O(B)	SE	Sk	Pr	5	Bi	-	A	square stems
Silene menziesii	176	P	D	S-M	O	SE	Cy	W	5	T	-	S	

Table 10 continued.

Characteristics / Species	Page	1 Life Cycle	2 Persistence	3 Size	LEAF 4 Arrangement	LEAF 5 Leaf Type	FLOWER 6 Inflorescence	FLOWER 7 Color	FLOWER Merous	FLOWER 8 Flower Type	FRUIT 7 Color	FRUIT 9 Fruit	Comments
ALTERNATE Evergreen													
Pyrola secunda	172	P	E	S	A	ST	R	W	5	I	-	C	one-sided raceme
Sedum stenopetalum	174	P	E	S-M	A	SLi	Cy	Y	5	R	-	F	succulent
ALTERNATE Deciduous Compound Leaves													
Actaea rubra	104	P	D	M-XL	A	CLT	C	W	5	R	R	B	poisonous berries
Angelica arguta	108	P	D	M-XL	A	CPT	U	W	5	I	-	S	
Aquilegia spp.	111	P	D	M-XL	A(B)	CLTr	S	Y/R	5	I	-	F	unique flowers
Aralia nudicaulis	112	P	D	M-L	A	CPT	I	G	5	R	P	B	north of Coeur d' Alene
Heracleum lanatum	144	P	D	XL	A	CMT	U	W	5	I	-	S	
Lathyrus nevadensis	149	P	D	M-XL	A	CP	R	W	5	P	-	P	unbranched tendrils
Ligusticum spp.	150	P	D	L-XL	A(B)	CP	U	W/P	5	R	-	S	
Osmorhiza chilensis	161	P	D	L-XL	A	CLTrT	U	G-W	5	R	Bk	S	
Polemonium pulcherrimum	165	P	D	L	A(B)	C	C	B	5	B	-	C	skunklike odor
Potentilla spp.	166	P	D	M-XL	A(B)	CPDT	C	Y	5	R	G	A	
Thalictrum occidentale	181	P	D	L-XL	A	CL	P	GW-Pr	4-5	I	GPr	A	dioecious
Thermopsis montana	182	P	D	L-XL	A	CTr	R	Y	5	P	-	F	poisonous fruit
Tiarella trifoliata	183	P	D	M-L	A(B)	CLTrT	P	W	5	B	-	C	
Vicia americana	191	P	D	M-L	A	CE	R	BPr	5	P	-	P	tendrils
ALTERNATE Deciduous Simple Leaves													
Achillea millefolium	102	P	D	S-XL	A(B)	SP	C	W	5	C	-	A	
Aconitum columbianum	103	P	D	L-XL	A	SL	R	PrB	5	I	-	F	unique flowers
Adenocaulon bicolor	105	P	D	M-XL	A	SA	H	W	5	C	-	A	leaves wooly below

Table 10 continued.

Anaphalis margaritacea	106	P	D	M-XL	A	SELi	H	W	5	C	-	A	
Antennaria racemosa	109	P	D	S-L	A(B)	SE	H	G	5	C	-	A	
Aster conspicuus	117	P	D	M-XL	A	ST	H	B/V	5	C	-	A	sandpapery leaves
Campanula rotundifolia	121	P	D	S-XL	A(B)	SCoLi	S	B	5	B	-	C	milky sap
Cardamine constancei	122	P	D	M	A	SL	R	P	4	R	-	Si	uncommon
Disporum spp.	130	P	D	S-L	A	SE	S	W	3	B	R/Y	B	branched stems
Epilobium angustifolium	133	P	D	S-XL	A	SLi	R	P-Pr	4	R	G-R	C	common in clearcuts
Erigeron peregrinus	134	P	D	S-XL	A	SE	H	Pr	5	C	-	A	
Mertensia paniculata	155	P	D	M-XL	A	SE	C	B	5	T	-	N	riparian
Pedicularis spp.	162	P	D	S-XL	A	SPT	R	W/Pr/Y	5	Bi	-	C	
Phacelia heterophylla	164	P	D	M-XL	A	SLE	C	W-Pr	5	T	-	C	
Ranunculus uncinatus	173	P(A)	D	M-L	A	SCoL	S	Y	5	R	-	A	
Senecio triangularis	175	P	D	M-XL	A	SAT	H	Y	5	C	-	A	riparian
Smilacina spp.	177	P	D	M-XL	A	SE	P/R	W	3	R	R-G	B	
Streptopus amplexifolius	179	P	D	L-XL	A	SE	S	GW	3	B	O	B	twisted pedicel
Veratrum spp.	188	P	D	XL	A	SE	P	W/G	3	R	-	C	poisonous
Viola spp.	190	P	D	S-M	A(B)	ST	S	V/Y/W	5	V	-	C	

1. LIFE CYCLE
A–Annual
P–Perennial

2. PERSISTENCE
D–Deciduous
E–Evergreen

3. SIZE
S=0-6”
M=6-12”
L=12-24”
XL=24+”

4. ARRANGEMENT
A–Alternate
B–Basal
O–Opposite
W–Whorled

5. LEAF TYPE
A–Arrowhead or Triangular
B–Bracts
C–Compound
Co–Cordate
D–Digitate
E–Entire
L–Lobed
Li–Linear
M–Palmate or Maple-like
P–Pinnate
S–Simple
T–Toothed or Serrate
Tr–Trifoliolate

6. INFLORESCENCE
C–Cluster or Corymb
Cy–Cyme
H–Head
P–Panicle
R–Raceme
S–Single or Solitary
Sk–Spike
U–Umbel

7. COLOR
B–Blue
Bk–Black
Br–Brown
G–Green
GW–Greenish-white
M–Maroon
P–Pink
Pr–Purple
R–Red
V–Violet
W–White
Y–Yellow

8. FLOWER TYPE
B–Bell-shaped
Bi–Bilabiate
C–Composite
I–Irregular
O–Orchid
P–Pea-flower
R–Regular
T–Tubular
U–Urn-shaped

9. FRUIT
A–Achene
B–Berry
C–Capsule
D–Drupe
F–Follicles
N–Nutlet
P–Pod
S–Schizocarp
Si–Silique

- = “to” / = “or” ( ) = “can also be”



ASTERACEAE
Achillea millefolium L.

common yarrow

FORM: Aromatic, rhizomatous, deciduous, perennial forb, 1–10 dm (4–39 in) tall.

LEAVES: Alternate, slender, finely pinnately dissected **fernlike** leaves; basal leaves petiolate, cauline leaves without petioles.

FLOWERS: White (sometimes pink), heads in flat to round-topped clusters; April–Oct.

FRUIT: Compressed achene.

ENEMIES: Fire: moderately resistant, regeneration from seeds to preburn levels within 5–10 years.

HABITAT: Common throughout warm, dry habitats; invades most other disturbed sites.

NOTES: Dried leaves, seeds and flowers used for tea.

7	Syal h.t.		Pipo
7	Phma h.t.		
8	Caru	Caru h.t.	Psme
7	Aruv		
5	Phma	Phma h.t.	
1	Smst		
3	Phma	Phma h.t.	Abgr
	Cooc		
3	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
1	Phma	Clun h.t.	
1	Clun		
	Tabr		
	Mefe		
1	Xete		
	Vagl	Xete h.t.	
1	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
1	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
5	Vaca		
7	Legl		
	Cooc	Xete h.t.	
1	Vagl		
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
10	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	1
		Xete	1
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	2
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	2
	Caca h.t.	Caca	7
		Vaca	2
		Legl	1
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



RANUNCULACEAE
Aconitum columbianum Nutt.

monkshood, Columbian monkshood

FORM: Erect, deciduous, perennial forb, 5–20 dm (2–7 ft) tall; stems occur singly or in small patches.

LEAVES: Mostly cauline, alternate, long-petiolate, deeply 3–5 lobed, 5–20 cm (2–8 in) broad.

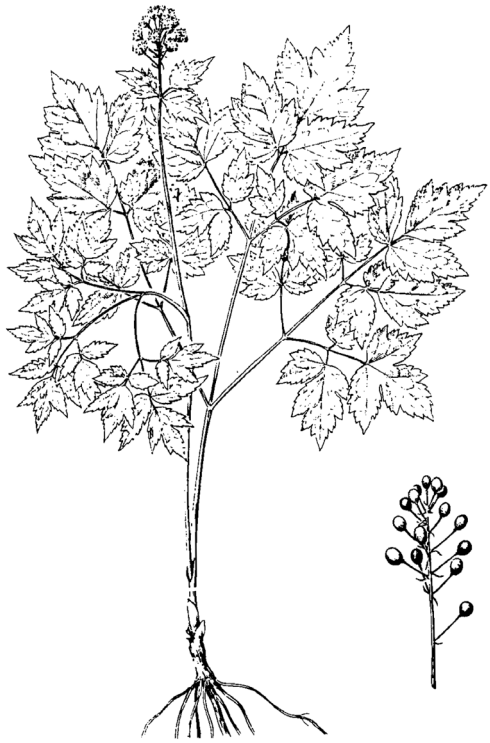
FLOWERS: Irregular, 5-merous, helmetlike (1), purplish-blue flowers to occasionally pale yellow, in a simple to freely branched raceme; June–Aug.

FRUIT: 3–5 glabrous to glandular follicles, 1–2 mm long.

SIMILAR SPECIES: *Trautvetteria caroliniensis*, p. 184, and *Trollius laxus* [*Trollius albiflorus*] (white globeflower).

HABITAT: Moist woods to subalpine meadows, mostly along streams.

NOTES: Seeds and roots are poisonous.



RANUNCULACEAE
Actaea rubra (Aiton) Willd.

baneberry, red baneberry

FORM: Erect, deciduous, perennial forb, 4–10 dm (1–3 ft) tall; stems usually branched.

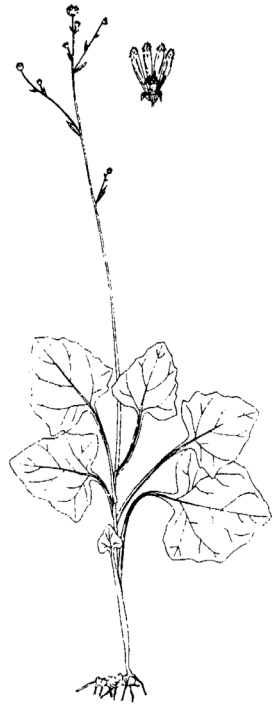
LEAVES: Alternate, **all cauline**, **2–3 times compound**, 3–9 cm (1–4 in) long, sharply toothed and lobed.

FLOWERS: Inconspicuous, regular, 5-merous, white flowers 2–3 mm long, many in axillary and terminal clusters; May–July.

FRUIT: Poisonous, bright red berry (sometimes white), in clusters, 5–11 mm long.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
3	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
1	Clun		
	Tabr		
	Mefe		
1	Xete		
	Vagl	Xete h.t.	
1	Cooc		
1	Clun	Clun h.t.	Thpl
	Tabr		
1	Mefe		
1	Xete		
3	Asca	Asca h.t.	
1	Tabr		
3	Mefe		
3	Gydr h.t.		
4	Adpe h.t.		
5	Adpe	Atfi h.t.	
7	Atfi		
6	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
3	Asca	Asca h.t.	
4	Arnu		
	Mefe		
3	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
2	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
2	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
3	Mefe	Stam h.t.	
5	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	2
		Smst	6
Abgr	Phma h.t.	Phma	7
		Cooc	7
	Libo h.t.	Libo	5
		Xete	1
	Asca h.t.	Asca	8
		Tabr	6
		Mefe	2
	Setr h.t.		6
	Clun h.t.	Phma	7
		Clun	8
		Tabr	4
		Mefe	1
		Xete	3
	Xete h.t.	Vagl	
		Cooc	2
Thpl	Clun h.t.	Clun	6
		Tabr	4
		Mefe	2
		Xete	2
	Asca h.t.	Asca	8
		Tabr	9
		Mefe	4
	Gydr h.t.		6
	Adpe h.t.		10
	Atfi h.t.	Adpe	9
		Atfi	8
	Opho h.t.		8
Tshe	Clun h.t.	Clun	3
		Arnu	5
		Mefe	2
		Xete	3
	Asca h.t.	Asca	9
		Arnu	10
		Mefe	7
	Gydr h.t.		5
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	3
		Mefe	
		Xete	3
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ASTERACEAE
Adenocaulon bicolor Hook.

trail-plant, pathfinder

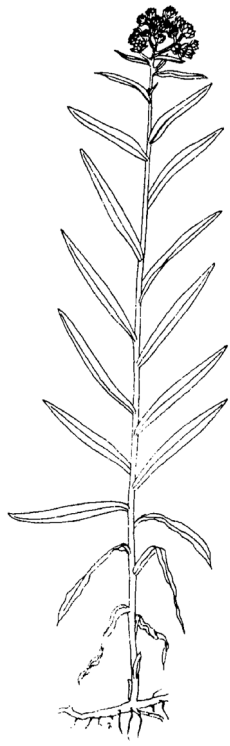
FORM: Slender, erect, deciduous, perennial forb, up to 1 m (3 ft) tall.

LEAVES: Alternate, mostly basal, **triangular to arrowhead-shaped blade**, **glabrous above**, **white-woolly below**, margins shallowly lobed, 3–15 cm (1–6 in) wide with long petioles.

FLOWERS: Small, white flowers in small heads; June–Sept.

FRUIT: Small, sticky achene, **5–8 mm long**.

NOTES: Common names are derived from the path marked by overturned silvery-white leaf undersurfaces.



ASTERACEAE
Anaphalis margaritacea (L.) Benth. & Hook.

pearly-everlasting

FORM: Erect, deciduous, rhizomatous perennial, 20–90 cm (8–35 in) tall.

LEAVES: Alternate, entire, sessile, **white-woolly**, narrowly lanceolate, to 12 cm (5 in) long, margins inrolled, **basal leaves soon deciduous**.

FLOWERS: Many inconspicuous white flowers in numerous, small heads 1 cm wide, with **pearly white, papery involucral bracts**, crowded into short broad inflorescenes; June–Sept.

FRUIT: Achene covered with short, rounded projections.

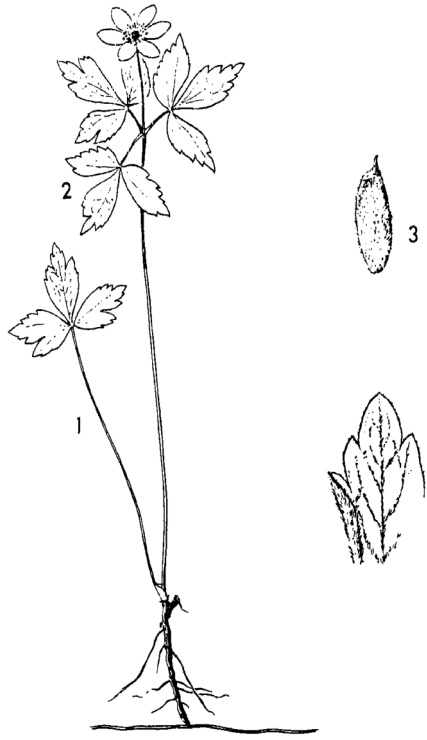
ENEMIES: Fire: resistant, regeneration from seeds to preburn levels within 5–10 years.

HABITAT: Forest openings, roadcuts and disturbed sites.

NOTES: Dried inflorescences collected for use in flower arrangements.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
+	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
1	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
1	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
1	Mefe		
1	Xete		
4	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
2	Caca	Caca h.t.	
2	Vaca		
3	Legl		
	Cooc	Xete h.t.	
1	Vagl		
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		1
Psme	Caru h.t.	Caru	2
		Aruv	1
	Phma h.t.	Phma	3
		Smst	5
Abgr	Phma h.t.	Phma	8
		Cooc	7
	Libo h.t.	Libo	9
		Xete	10
	Asca h.t.	Asca	8
		Tabr	10
		Mefe	9
	Setr h.t.		9
	Clun h.t.	Phma	7
		Clun	8
		Tabr	10
		Mefe	9
		Xete	9
	Xete h.t.	Vagl	7
		Cooc	9
Thpl	Clun h.t.	Clun	7
		Tabr	9
		Mefe	9
		Xete	9
	Asca h.t.	Asca	8
		Tabr	10
		Mefe	10
	Gydr h.t.		8
	Adpe h.t.		8
	Atfi h.t.	Adpe	8
		Atfi	6
	Opho h.t.		5
Tshe	Clun h.t.	Clun	1
		Arnu	
		Mefe	6
		Xete	1
	Asca h.t.	Asca	5
		Arnu	4
		Mefe	
	Gydr h.t.		3
Tsme	Clun h.t.	Mefe	7
		Xete	9
	Mefe h.t.	Xete	1
		Luhi	1
	Stam h.t.	Mefe	5
		Luhi	2
	Xete h.t.	Vagl	1
		Luhi	1
Abla	Clun h.t.	Clun	7
		Mefe	8
		Xete	7
	Mefe h.t.	Cooc	10
		Xete	3
		Vasc	6
		Luhi	
	Stam h.t.	Mefe	4
		Lica	4
	Caca h.t.	Caca	3
		Vaca	5
		Legl	5
	Xete h.t.	Cooc	9
		Vagl	4
		Vasc	6
		Luhi	
Pico	Vasc h.t.		4
	Xete c.t.		5
	Vaca c.t.		10



RANUNCULACEAE
Anemone piperi Britton ex Rydb.

windflower, anemone, Piper's anemone

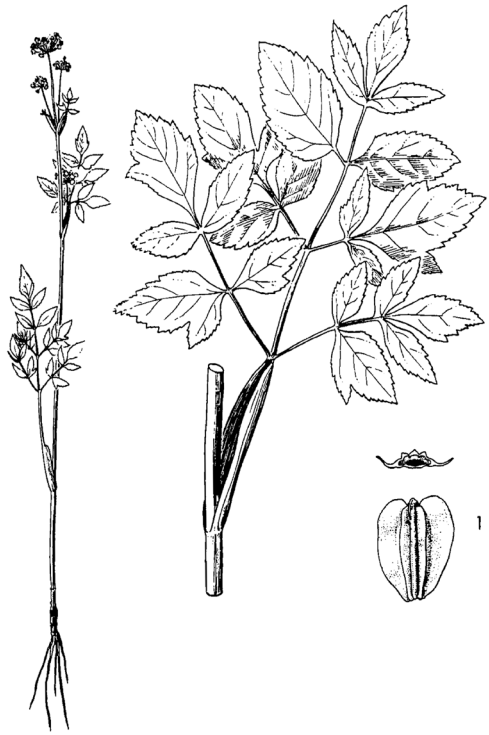
FORM: Erect, deciduous, perennial, 15–35 cm (6–14 in) tall, from dark-brown fork-tipped rhizomes.

LEAVES: Basal, (if present) single (1), biserrate, trifoliolate leaflets up to 7 cm (3 in) long; cauline leaves similar to basal but always in a whorl of 3 short-petiolate dissected leaves (2).

FLOWERS: One, showy, 5-merous, regular, white or pinkish, 12–16 mm wide; late April–early Aug.

FRUIT: Elliptic, hairy achene, 3 mm long (3).

SIMILAR SPECIES: *Osmorhiza chilensis* [*Osmorhiza berteroi*], p. 161; and *Coptis occidentalis*, p. 125.



APIACEAE
Angelica arguta Nutt.

sharptooth angelica, Lyall's angelica

FORM: Robust, deciduous, perennial, 5–20 dm (2–7 ft) tall; stem has an unpleasant odor.

LEAVES: Alternate, large, ternate-pinnate, about twice compound, 4–14 cm (2–6 in) long; leaflets ovate to lanceolate with pointed tip, serrate or doubly serrate.

FLOWERS: Inconspicuous, white, 5-merous, flowers gathered in **2 or more compound umbels**, up to 8 cm (3 in) wide; June–Aug.

FRUIT: Broad, elliptic, glabrous schizocarp with narrowly winged dorsal ribs (1), 4–7 mm long by 4–5 mm wide.

SIMILAR SPECIES: *Angelica* species; or *Osmorhiza occidentalis* (western sweet-cicely) strong licorice smell, and narrow fruit, or *Ligusticum verticillatum*, p. 151.

HABITAT: Streambanks, wet meadows, and marshes.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
2	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
1	Cooc		
1	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
1	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
1	Lica		
3	Caca	Caca h.t.	
2	Vaca		
1	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	6
		Aruv	6
	Phma h.t.	Phma	2
		Smst	2
Abgr	Phma h.t.	Phma	2
		Cooc	1
	Libo h.t.	Libo	4
		Xete	3
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	1
		Tabr	
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	1
		Cooc	3
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	1
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	1
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	1
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	+
		Xete	
	Mefe h.t.	Xete	
		Luhi	1
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	1
		Vasc	+
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		7



ASTERACEAE
Antennaria racemosa Hook.

pussy-toes, racemose pussy-toes, everlasting

FORM: Perennial, deciduous, dioecious forb 1–6 dm (4–24 in) tall, with creeping, leafy stolons, may form mats.

LEAVES: Basal leaves, smooth, green upper surface with white cotton-hairy undersurface, elliptic with short petiole, 2–8 cm (1–3 in) long; cauline leaves alternate, narrower and sessile, reduced upwards.

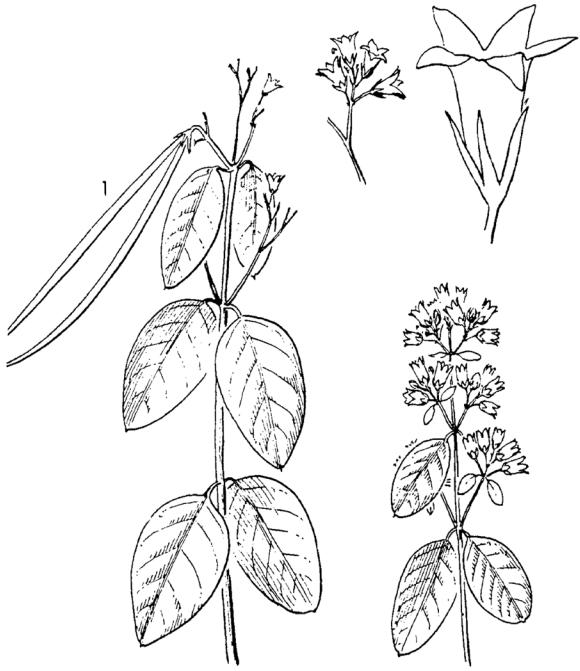
FLOWERS: Inconspicuous, pale greenish to pale brownish heads on slender stalks in an open racemelike inflorescence; May–Aug.

FRUIT: Terete or slightly compressed achenes.

SIMILAR SPECIES: *Antennaria neglecta* (field pussy-toes) head in terminal umbel, leaves smaller, wider beyond midpoint.

NOTES: The sap is sometimes used as chewing gum.

Apan



APOCYNACEAE
Apocynum androsaemifolium L.

spreading dogbane, flytrap dogbane, bitter-root

FORM: Deciduous, perennial, freely branching, rhizomatous forb, 20–50 cm (8–20 in) tall; milky sap throughout plant.

LEAVES: Opposite, simple, entire, spreading or drooping, ovate to oblong-lanceolate, 3–7 cm (1–3 in) long.

FLOWERS: Pink, bell-shaped, 5–7 mm long in terminal and axillary cymes; June–Sept.

FRUIT: Long narrow follicles (1), 5–14 cm (2–6 in) long.

SIMILAR SPECIES: *Symphoricarpos albus*, p. 76.

HABITAT: On well-drained soils, usually hot, dry sites.

NOTES: It is considered a serious orchard weed. **Apan**'s pollen makes a sweet honey. The plant also has many medicinal uses, but is considered **poisonous**.

2	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
4	Aruv		
3	Phma	Phma h.t.	
+	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
1	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
+	Xete		
1	Vagl	Xete h.t.	
	Cooc		
1	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
1	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
1	Opho h.t.		
1	Clun	Clun h.t.	Tshe
1	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
1	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
1	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.			
	Phma h.t.			
Psme	Caru h.t.	Caru		
		Aruv		
	Phma h.t.	Phma		
		Smst		
Abgr	Phma h.t.	Phma		
		Cooc		
	Libo h.t.	Libo		
		Xete		
	Asca h.t.	Asca	1	
		Tabr	+	
		Mefe	1	1
	Setr h.t.		6	
	Clun h.t.	Phma		
		Clun		
		Tabr	1	
		Mefe		
		Xete		
	Xete h.t.	Vagl		
		Cooc		
Thpl	Clun h.t.	Clun		
		Tabr		
		Mefe		
		Xete		
	Asca h.t.	Asca		
		Tabr		
		Mefe		
	Gydr h.t.		1	
	Adpe h.t.			
	Atfi h.t.	Adpe		
		Atfi	+	
	Opho h.t.			
Tshe	Clun h.t.	Clun		
		Arnu		
		Mefe		
		Xete		
	Asca h.t.	Asca		
		Arnu		
		Mefe		
	Gydr h.t.			
Tsme	Clun h.t.	Mefe		
		Xete		
	Mefe h.t.	Xete		
		Luhi	1	
	Stam h.t.	Mefe		
		Luhi		
	Xete h.t.	Vagl		
		Luhi		
Abla	Clun h.t.	Clun		
		Mefe		
		Xete	1	1
	Mefe h.t.	Cooc		
		Xete		
		Vasc		
		Luhi		
	Stam h.t.	Mefe	1	
		Lica		1
	Caca h.t.	Caca		
		Vaca		
		Legl		
	Xete h.t.	Cooc		
		Vagl		
		Vasc		
		Luhi	1	
Pico	Vasc h.t.			
	Xete c.t.			
	Vaca c.t.			



RANUNCULACEAE

Aquilegia formosa Fisch. ex DC. — red columbine, Sitka columbine

Aquilegia flavescens S. Watson — yellow columbine

FORM: Erect, deciduous, perennial forb.
Aqfo: 2–10 dm (8–39 in) tall.
Aqfl: 2–8 dm (8–31 in) tall.

LEAVES: Deciduous, mostly basal, trifoliolate, cuneate, thin, blue-green, 2–3 times lobed, 2–6 cm (1–2 in) long; cauline leaves alternate, progressively reduced up the stem.

FLOWERS: Several, showy, 5-merous, irregular flowers with slender, nearly straight spurs.
Aqfo: Pale to deep red; May–Aug.
Aqfl: Pale yellow; June–Aug.

FRUIT: Erect follicles usually 5 with hairy spreading tips, 2 cm (1 in) long.

SIMILAR SPECIES: *Thalictrum occidentale*, p. 181.

HABITAT: **Aqfo** is generally found at lower elevations than **Aqfl**.

NOTES: **Aqfo** is more common than **Aqfl**. The two species are known to hybridize, which is facilitated by pollinators that move between separated populations.



ARALIACEAE
Aralia nudicaulis L.

wild sarsaparilla

FORM: Perennial, rhizomatous forb reaching 3–5 dm (12–20 in) tall.

STEMS: Short, erect, woody stem, barely reaching the surface of soil.

LEAVES: Deciduous, generally single, basal, 3–5 dm (12–20 in); ternately compound, leaflets finely serrate.

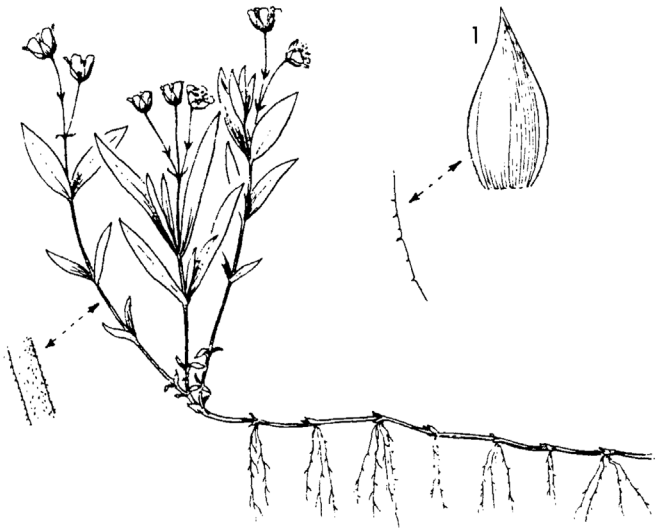
FLOWERS: Inflorescence shorter than leaves, consisting of **3–7 round, ball umbels** with numerous, inconspicuous, 5-merous, greenish-white flowers, 5–6 mm long; May–June.

FRUIT: Dark purple berry, 6–8 mm long.

NOTES: Major populations known from Cocolalla, ID, and northward; boiled rhizomes make a beverage similar to true sarsaparilla, used medicinally as a gentle stimulant.

	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
1	Opho h.t.		
+	Clun	Clun h.t.	Tshe
10	Arnu		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
10	Arnu		
	Mefe		
1	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		4
Psme	Caru h.t.	Caru	2
		Aruv	
	Phma h.t.	Phma	4
		Smst	6
Abgr	Phma h.t.	Phma	4
		Cooc	6
	Libo h.t.	Libo	4
		Xete	4
	Asca h.t.	Asca	6
		Tabr	4
		Mefe	6
	Setr h.t.		8
	Clun h.t.	Phma	5
		Clun	5
		Tabr	3
		Mefe	2
		Xete	4
	Xete h.t.	Vagl	4
		Cooc	5
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	1
		Xete	2
	Asca h.t.	Asca	2
		Tabr	4
		Mefe	
	Gydr h.t.		
	Adpe h.t.		3
	Atfi h.t.	Adpe	1
		Atfi	1
	Opho h.t.		
Tshe	Clun h.t.	Clun	1
		Arnu	
		Mefe	
		Xete	1
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	+
		Xete	1
	Mefe h.t.	Xete	
		Luhi	1
	Stam h.t.	Mefe	2
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	3
		Mefe	2
		Xete	4
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	1
		Luhi	
	Stam h.t.	Mefe	2
		Lica	2
	Caca h.t.	Caca	2
		Vaca	
		Legl	1
	Xete h.t.	Cooc	4
		Vagl	1
		Vasc	+
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		5
	Vaca c.t.		3



CARYOPHYLLACEAE
Arenaria macrophylla Hook.
[*Moehringia macrophylla* (Hook.) Fenzl]

bigleaf sandwort

FORM: Prostrate, deciduous perennial 5–15 cm (2–6 in) long, with extensive slender rhizomes, forming matted patches.

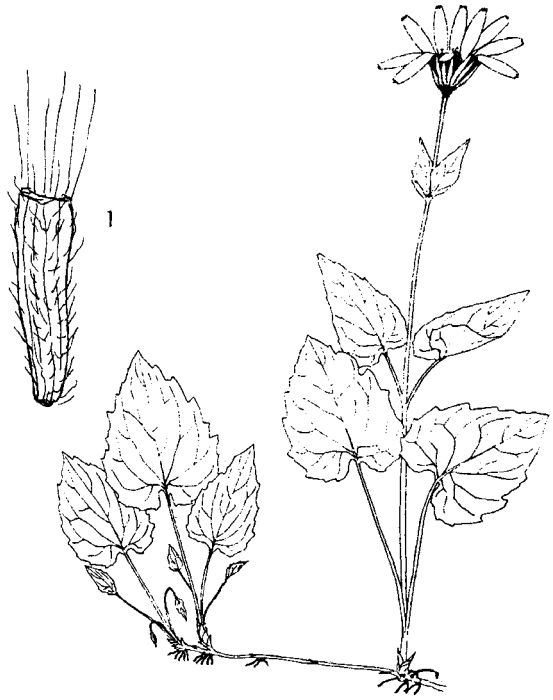
STEMS: Terete or often 4-angled, decumbent to erect, usually branching.

LEAVES: Opposite, **numerous**, simple, entire, pointed linear-elliptic to lanceolate leaves, 2–5 cm (1–2 in) long.

FLOWERS: 2–5, 5-merous flowers, borne singly on long petioles in slender, terminal cymes, petals white, shorter than sepals, **sepals pointed** (1); May–Aug.

FRUIT: Globose-ovoid capsule.

SIMILAR SPECIES: *Silene menziesii*, p. 176, very hairy, dioecious, flowers tubular campanulate; and *Arenaria lateriflora* [*Moehringia lateriflora*] (bluntleaf sandwort), sepals rounded, elliptic-oblong leaves.



ASTERACEAE
Arnica cordifolia Hook.

heart-leaf arnica

FORM: Deciduous, perennial, hairy forb, 1–6 dm (4–24 in) tall, stems solitary to few, loosely clustered together, from a naked rhizome.

LEAVES: Opposite, **bluish-green**, **heart-shaped**, entire to toothed, 4–12 cm (2–5 in) long, soft hairy upper surface, with the **veins appearing embedded**; during flowering, **lowest pair of leaves are well-developed** with largest blade and longest petioles; other leaves smaller, mostly 2–4, lance-shaped, **petiolate**, becoming sessile up the stem.

FLOWERS: Heads generally one per stem, rays yellow, involucre densely hairy; April–June.

FRUIT: Achenes mostly **uniformly short hairy or glandular** (1), most dependable character for distinguishing *A. cordifolia* from *A. latifolia*.

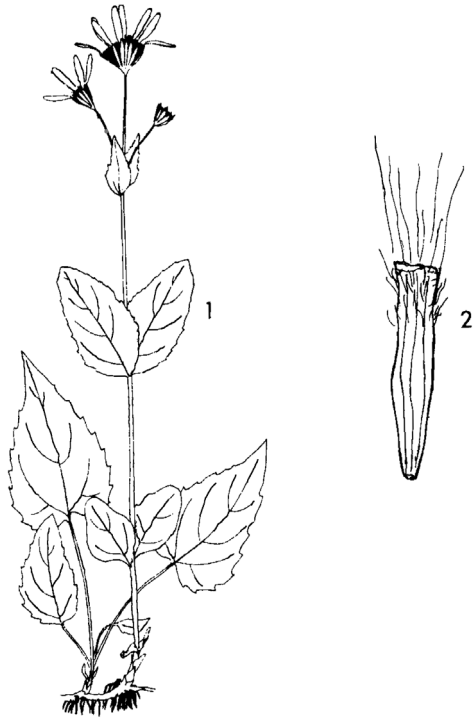
ENEMIES: Fire: moderate to low resistance, regeneration from rhizomes to preburn levels within 3–7 years.

SIMILAR SPECIES: *Arnica latifolia*, p. 115, nonpetiolate cauline leaves; opposite leaf arrangement generally distinguishes *A. cordifolia* and *A. latifolia* from other similar genera.

NOTES: *A. cordifolia* and *A. latifolia* may inhabit the same site and often hybridize; *A. cordifolia* generally flowers before *A. latifolia*.

	Syal h.t.		Pipo
	Phma h.t.		
10	Caru	Caru h.t.	Psme
4	Aruv		
5	Phma	Phma h.t.	
8	Smst		
3	Phma	Phma h.t.	Abgr
1	Cooc		
5	Libo	Libo h.t.	
1	Xete		
1	Asca	Asca h.t.	
+	Tabr		
2	Mefe		
1	Setr h.t.		
3	Phma	Clun h.t.	
5	Clun		
1	Tabr		
1	Mefe		
1	Xete		
1	Vagl	Xete h.t.	
1	Cooc		
2	Clun	Clun h.t.	Thpl
2	Tabr		
2	Mefe		
1	Xete		
1	Asca	Asca h.t.	
2	Tabr		
4	Mefe		
2	Gydr h.t.		
1	Adpe h.t.		
1	Adpe	Atfi h.t.	
1	Atfi		
	Opho h.t.		
+	Clun	Clun h.t.	Tshe
1	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
1	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
	Xete		
2	Cooc	Mefe h.t.	
2	Xete		
1	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
2	Cooc	Xete h.t.	
	Vagl		
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	2
		Aruv	
	Phma h.t.	Phma	+
		Smst	
Abgr	Phma h.t.	Phma	1
		Cooc	3
	Libo h.t.	Libo	
		Xete	3
	Asca h.t.	Asca	2
		Tabr	3
		Mefe	3
	Setr h.t.		
	Clun h.t.	Phma	1
		Clun	1
		Tabr	
		Mefe	3
		Xete	4
	Xete h.t.	Vagl	2
		Cooc	1
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	1
		Arnu	
		Mefe	6
		Xete	3
	Asca h.t.	Asca	2
		Arnu	3
		Mefe	10
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	6
		Xete	5
	Mefe h.t.	Xete	4
		Luhi	4
	Stam h.t.	Mefe	10
		Luhi	7
	Xete h.t.	Vagl	1
		Luhi	4
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	8
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	3
		Vasc	3
		Luhi	4
Pico	Vasc h.t.		
	Xete c.t.		5
	Vaca c.t.		



ASTERACEAE
Arnica latifolia Bong.

mountain arnica, broadleaf arnica

FORM: Deciduous perennial, glabrous to hairy forb, 1–6 dm (4–24 in) tall, stems solitary to several from a fibrous rhizome.

LEAVES: Opposite, yellowish-green, entire to toothed, broadly lance-shaped, rarely heart-shaped, 2–14 cm (1–6 in) long, glandular-hairy above, **veins do not appear embedded** into leaf surface; when flowering, **mid-cauline pair well-developed and sessile** (1); *A. latifolia* appears more leafy than *A. cordifolia*.

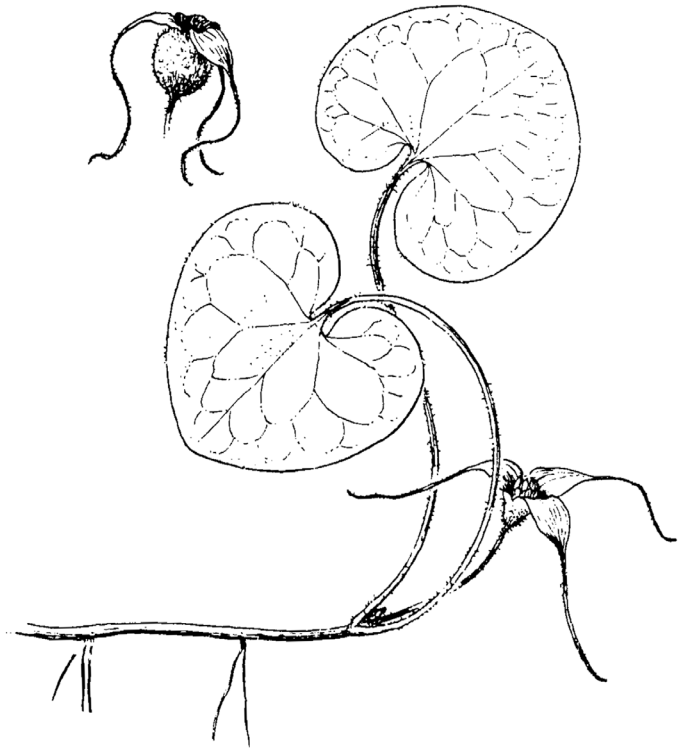
FLOWERS: Heads, **generally several per stem**, rays yellow, involucre with few to no hairs; June–July.

FRUIT: Achenes **glandular or short hairy on upper portion or totally glabrous** (2); most dependable character for distinguishing *A. cordifolia* from *A. latifolia*.

ENEMIES: Fire: moderate resistance, regeneration from rhizomes to preburn levels within 3–7 years.

SIMILAR SPECIES: *Arnica cordifolia*, p. 114, petiolate cauline leaves. Opposite leaf arrangement generally distinguishes *A. cordifolia* and *A. latifolia* from other similar genera.

NOTES: *A. cordifolia* and *A. latifolia* may inhabit the same site and often hybridize; *A. cordifolia* generally flowers before *A. latifolia*.



ARISTOLOCHIACEAE
Asarum caudatum Lindl.

wild ginger

FORM: Perennial, **evergreen**, prostrate forb with greenish, freely rooting stems, sometimes forming large mats.

LEAVES: Alternate, appearing basal, two leaves from each node; leaves dark green, entire, **cordate-reniform**, **heart-shaped**, 4–10 cm (2–4 in) diameter, on long, generally fine hairy petioles; **crushed stems and leaves smell like lemon-ginger**.

FLOWERS: Single, with 3 long, brownish-purple sepals, from a bell-like base, 3–8 cm (1–3 in) long, corolla lacking; April–July.

FRUIT: Fleshy capsule.

SIMILAR SPECIES: *Viola orbiculata*, p. 193; and *Pyrola asarifolia*, p 171.

NOTES: Root stalk can be eaten fresh, or dried and ground as a ginger substitute.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
+	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
10	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
9	Setr h.t.		
1	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
2	Clun	Clun h.t.	Thpl
1	Tabr		
	Mefe		
	Xete		
10	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
8	Gydr h.t.		
9	Adpe h.t.		
10	Adpe	Atfi h.t.	
9	Atfi		
7	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
9	Asca	Asca h.t.	
10	Arnu		
10	Mefe		
5	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
2	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
3	Mefe	Stam h.t.	
3	Lica		
2	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		1
Psme	Caru h.t.	Caru	4
		Aruv	
	Phma h.t.	Phma	4
		Smst	5
Abgr	Phma h.t.	Phma	4
		Cooc	
	Libo h.t.	Libo	1
		Xete	3
	Asca h.t.	Asca	2
		Tabr	1
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	5
		Clun	2
		Tabr	
		Mefe	1
		Xete	2
	Xete h.t.	Vagl	1
		Cooc	1
Thpl	Clun h.t.	Clun	+
		Tabr	1
		Mefe	
		Xete	1
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		+
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	+
		Xete	1
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	2
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	1
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ASTERACEAE
Aster conspicuus Lindl.
[*Eurybia conspicua* (Lindl.) G. L. Nesom]

showy aster

FORM: Stout, deciduous, perennial, 3–10 dm (12–39 in) tall; from creeping rhizomes.

LEAVES: Alternate, sharply toothed, thick and firm with a **sandpaper feel**, **sessile**, **ovate-elliptic**, 6–18 cm (2–7 in) long; leaf shape and texture are unique for northern Idaho *Aster* species (1); lower leaves smaller, obovate and soon deciduous.

FLOWERS: Ray mostly 12–35, blue or violet, 10–15 mm long; heads few to many in an open, **densely glandular inflorescence**, involucral bracts with acuminate, green tip; July–Sept.

FRUIT: Achene.

NOTES: Most common *Aster* species in forested areas; however, it seldom flowers in natural forested stands.



ASTERACEAE
Balsamorhiza sagittata (Pursh) Nutt.

arrowleaf balsamroot

FORM: Deciduous, perennial forb, 20–80 cm (8–32 in) tall, from a long woody taproot.

LEAVES: Large, long petiolate, silvery-green, **arrowhead-shaped leaves covered with whitish feltlike hair**; all leaves basal, up to 30 cm (12 in) long; no aerial leaf-bearing stems.

FLOWERS: Showy, yellow, solitary sunflower head, 5–8 cm (2–3 in) in diameter; April–July.

FRUIT: Glabrous achenes.

ENEMIES: Fire: resistant, regeneration from caudex to preburn levels within 2–5 years.

NOTES: Native Americans named it “pash”; young stalks, roots and seeds were used for food.

4	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
1	Aruv		
2	Phma	Phma h.t.	
+	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	2
		Vaca	
		Legl	1
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



RANUNCULACEAE
Caltha biflora var. *rotundifolia* (Huth) C.L. Hitch.
[*Caltha leptosepala* DC.]

white marsh-marigold, twinflowered marsh-marigold,
broad-leaved marsh-marigold

FORM: Deciduous, glabrous, perennial with flower stalks up to 15 cm (6 in) tall.

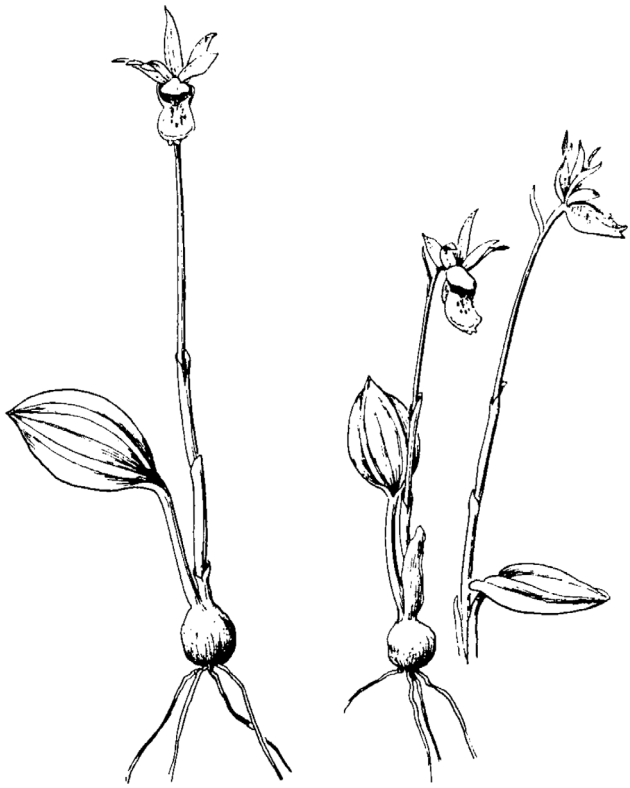
LEAVES: Mainly basal, usually over 5 cm (2 in) long, petioles much longer than blade, blade suborbicular to ovate, entire to broadly crenate, basal margins overlapping.

FLOWERS: Generally, two per stem, regular, borne on long peduncle with white sepals, petals lacking; late May–Aug.

FRUIT: Several seeded, sessile follicle (1).

HABITAT: Perennial wet subalpine sites in *Abies lasiocarpa* series. An *Abies lasiocarpa*/*Caltha biflora* h.t. is described in central Idaho (Steele and others 1981).

Cabu2



ORCHIDACEAE
Calypso bulbosa (L.) Oakes

fairy-slipper, venus-slipper

FORM: Deciduous, fragrant, glabrous perennial, 5–20 cm (2–8 in) tall from corm.

LEAVES: Basal, simple, entire, single green leaf per plant, long petioled, broadly ovate-elliptic, with parallel veins, mostly 3–6 cm (1–2 in) long, produced at tip of corm in the fall, persistent through winter then withering in summer.

FLOWERS: Solitary, rarely two, purplish, orchid flower, 15–22 mm (< 1 in) long, scoop-shaped lip, bearded with yellow hairs and streaked with purple; March–June.

FRUIT: Erect capsule about 1 cm (<1 in).

HABITAT: Mostly in rather deep shade and rich soil of cool moist forests.

NOTES: Flowers should not be picked, as damage to delicate roots holding the small corm destroys the plant.

	Syal h.t.		Pipo
1	Phma h.t.		
	Caru	Caru h.t.	Psme
1	Aruv		
	Phma	Phma h.t.	
+	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
1	Tabr		
2	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
2	Mefe		
+	Xete		
2	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
1	Mefe		
1	Xete		
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Gydr h.t.		
+	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
1	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		1
Psme	Caru h.t.	Caru	
		Aruv	3
	Phma h.t.	Phma	3
		Smst	1
Abgr	Phma h.t.	Phma	2
		Cooc	
	Libo h.t.	Libo	2
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	1
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	1
		Tabr	
		Mefe	
		Xete	+
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	1
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	
		Vaca	5
		Legl	1
	Xete h.t.	Cooc	
		Vagl	1
		Vasc	1
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		3



CAMPANULACEAE
Campanula rotundifolia L.

Scotch or bluebell bellflower, lady's-thimble

FORM: Deciduous, rhizomatous, perennial forb, 10–80 cm (4–31 in) tall.

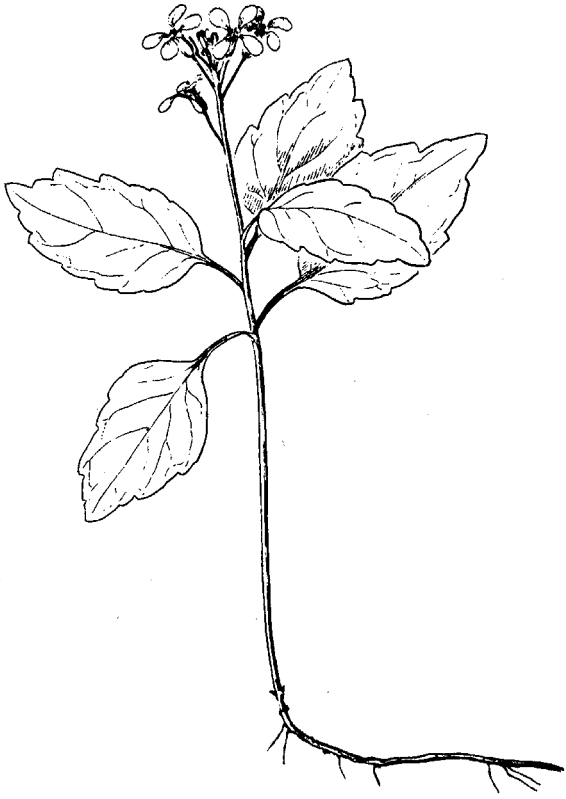
LEAVES: Basal leaves in rosettes, cordate and petiolate, 2 cm (1 in) long; cauline leaves: alternate, sessile, appearing linear, 1–8 cm (1–3 in) long.

FLOWERS: Several, erect to nodding, 5-merous, bell-shaped blue, 2–3 cm (1 in) long, in a lax inflorescence; June–Aug.

FRUIT: Nodding capsule, 5–8 mm long.

SIMILAR SPECIES: Young basal rosette may be confused with *Viola* species (p. 190) and some members of Brassicaceae.

Caco5



BRASSICACEAE
Cardamine constancei Detling

Constance's bittercress

FORM: Deciduous, perennial forb, 15–30 cm (6–12 in) tall, with unbranched stems, from slender rhizomes.

LEAVES: Simple, shallowly lobed, broadly ovate, 5–13 cm (2–5 in), mostly clustered near stem tip.

FLOWERS: Pink, 4-merous, 2–3 cm (1 in) long, borne in few-flowered racemes; May–June.

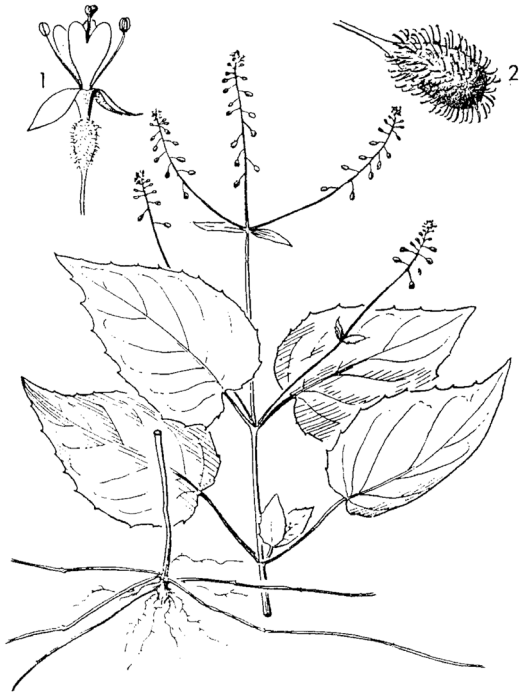
FRUIT: Unknown silique.

HABITAT: Moist shaded stream bottoms of *Thuja plicata* series.

NOTES: Found associated with relic coastal vegetation and is considered rare (Idaho Native Plant Society 2023).

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
1	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
1	Adpe h.t.		
1	Adpe	Atfi h.t.	
	Atfi		
1	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		3
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	1
		Smst	2
Abgr	Phma h.t.	Phma	2
		Cooc	1
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	2
		Tabr	+
		Mefe	2
	Setr h.t.		7
	Clun h.t.	Phma	+
		Clun	1
		Tabr	1
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	1
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Gydr h.t.		1
	Adpe h.t.		5
	Atfi h.t.	Adpe	9
		Atfi	6
	Opho h.t.		6
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ONAGRACEAE
Circaea alpina L.

dwarf enchanter's nightshade, enchanter's nightshade, alpine circaea

FORM: Slender, perennial forb, 10–50 cm (4–20 in) tall, rhizomatous or arising from tuberous rhizome.

LEAVES: Opposite, leaf pairs alternating at right angles to each other, thin, pale green, cordate-ovate, 2–6 cm (1–2 in) long, margins entire to sharply toothed, petioles with narrow wings.

FLOWERS: Small, white, **2-merous**, 1 mm long, **petals deeply 2-lobed** (1), in short terminal and axillary racemes; May–July.

FRUIT: Interesting capsule, 2 mm long, covered with **soft, hooked hairs** (2).

HABITAT: Growing in seasonally wet to moist soil.



LILIACEAE
Clintonia uniflora (Menzies ex Schult.) Kunth.

queen's cup beadlily, bride's bonnet

FORM: Small, perennial, rhizomatous forb, deciduous but remaining green throughout the growing season.

LEAVES: Basal, **2–3**, **broad, flat**, simple, entire, oblong, 7–15 cm (3–6 in) long; **glabrous above**, **silvery hairs below and on margins**, hairs occasionally very reduced.

FLOWERS: White, **solitary**, **showy**, **3-merous**, about 2 cm (1 in) long; June–July.

FRUIT: Smooth, blue berry, 6–10 mm long.

SIMILAR SPECIES: *Erythronium grandiflorum*, p. 135, not hairy.

HABITAT: Indicator of moderate moisture and heat gradients in northern Idaho.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
1	Cooc		
	Libo	Libo h.t.	
	Xete		
10	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
10	Setr h.t.		
10	Phma	Clun h.t.	
10	Clun		
9	Tabr		
8	Mefe		
9	Xete		
1	Vagl	Xete h.t.	
1	Cooc		
9	Clun	Clun h.t.	Thpl
10	Tabr		
10	Mefe		
10	Xete		
10	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
10	Gydr h.t.		
10	Adpe h.t.		
10	Adpe	Atfi h.t.	
9	Atfi		
10	Opho h.t.		
10	Clun	Clun h.t.	Tshe
10	Arnu		
10	Mefe		
10	Xete		
10	Asca	Asca h.t.	
10	Arnu		
10	Mefe		
10	Gydr h.t.		
9	Mefe	Clun h.t.	Tsme
9	Xete		
1	Xete	Mefe h.t.	
1	Luhi		
10	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
10	Clun	Clun h.t.	Abla
9	Mefe		
9	Xete		
4	Cooc	Mefe h.t.	
	Xete		
1	Vasc		
	Luhi		
8	Mefe	Stam h.t.	
6	Lica		
5	Caca	Caca h.t.	
5	Vaca		
1	Legl		
1	Cooc	Xete h.t.	
1	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	2
		Aruv	
	Phma h.t.	Phma	1
		Smst	+
Abgr	Phma h.t.	Phma	2
		Cooc	10
	Libo h.t.	Libo	7
		Xete	10
	Asca h.t.	Asca	8
		Tabr	10
		Mefe	9
	Setr h.t.		10
	Clun h.t.	Phma	6
		Clun	9
		Tabr	10
		Mefe	10
		Xete	9
	Xete h.t.	Vagl	5
		Cooc	10
Thpl	Clun h.t.	Clun	9
		Tabr	10
		Mefe	10
		Xete	9
	Asca h.t.	Asca	10
		Tabr	10
		Mefe	10
	Gydr h.t.		10
	Adpe h.t.		10
	Atfi h.t.	Adpe	10
		Atfi	8
	Opho h.t.		4
Tshe	Clun h.t.	Clun	4
		Arnu	3
		Mefe	4
		Xete	4
	Asca h.t.	Asca	9
		Arnu	3
		Mefe	7
	Gydr h.t.		5
Tsme	Clun h.t.	Mefe	5
		Xete	4
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	7
		Luhi	
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	7
		Mefe	5
		Xete	5
	Mefe h.t.	Cooc	10
		Xete	2
		Vasc	
		Luhi	
	Stam h.t.	Mefe	6
		Lica	6
	Caca h.t.	Caca	5
		Vaca	7
		Legl	5
	Xete h.t.	Cooc	10
		Vagl	1
		Vasc	1
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		5
	Vaca c.t.		



RANUNCULACEAE
Coptis occidentalis (Nutt.) Torr. & A. Gray

western goldthread, Idaho goldthread

FORM: Evergreen, low, perennial forb with widespread, slender, **yellowish-gold rhizomes**.

LEAVES: Basal, **leathery**, **shiny**, **petiolate**, trifoliolate leaves; leaflets broadly ovate, sharply serrate, 3–6 cm (1–2 in) long, 3-lobed about half their length.

FLOWERS: 2–5 small, regular flowers consisting of 5–7 tubular whitish petals, 6–10 mm long; blooming very early, immediately after snowmelt; April–May.

FRUIT: Several-seeded follicle, 8–12 mm long.

SIMILAR SPECIES: *Anemone piperi*, p. 107, leaves deciduous.

NOTES: Common name goldthread refers to its **yellow rhizomes**.

Table 11— *Corallorhiza* Species Conspectus.

			INFLORESCENCE		
Species	**Page**	**Stem**	**Flower**	**Lip**	**Spur**
Corallorhiza maculata spotted coral-root **Coma3**	127	stout purplish to reddish (albino forms)	10-30 reddish- purple flowers 8-10mm long 	laterally lobed white with wine-red spots 	poorly developed 
Corallorhiza mertensiana western coral-root **Come**	N/A	slender reddish	30+ pink, some yellow 	laterally lobed not spotted 	well-developed tip 1-3 mm long 
Corallorhiza striata striped coral-root **Cost2**	N/A	purplish	7-30 pinkish 	not lobed 3-5 reddish stripes 	spur lacking 

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	1
		Tabr	+
		Mefe	1
	Setr h.t.		1
	Clun h.t.	Phma	+
		Clun	+
		Tabr	
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	
		Cooc	1
Thpl	Clun h.t.	Clun	1
		Tabr	1
		Mefe	
		Xete	1
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Gydr h.t.		1
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	2
		Arnu	1
		Mefe	1
		Xete	2
	Asca h.t.	Asca	2
		Arnu	1
		Mefe	
	Gydr h.t.		1
Tsme	Clun h.t.	Mefe	1
		Xete	2
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	2
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	1
		Vasc	
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ORCHIDACEAE
Corallorhiza maculata (Raf.) Raf.

Pacific coral-root, spotted coral-root, large coral-root

FORM: Stout, purplish, **parasitic forb**, 20–40 cm (8–16 in) tall from much branched rhizome.

STEMS: Erect, glabrous, reddish, brownish, yellowish (albino forms) or purplish with several alternate bracts, but **lacks green leaves**.

FLOWERS: 10–30 flowers, in a widely spreading raceme; perianth reddish-purple to pinkish, with a **poorly developed spur** (1), **white lip strongly wine-red spotted** (2); May–Aug.

FRUIT: Nodding, ovoid capsule, 1–2 cm (1 in) long.

SIMILAR SPECIES: *Corallorhiza* Species Conspectus, p. 126.

NOTES: Albino plants quite common. *Corallorhiza* and common name coral-root is derived from the coral-like formation of their roots.

Coca



CORNACEAE
Cornus canadensis L.

bunchberry dogwood, puddingberry, dwarf cornel

FORM: Low, rhizomatous, trailing **subshrub**, largely herbaceous, 5–20 cm (2–8 in) tall.

STEMS: Erect, greenish to reddish stems.

LEAVES: Evergreen, elliptic, with prominent, pinnate venation, 2–8 cm (1–3 in) long, **4–7 in a terminal whorl**.

FLOWERS: In solitary, terminal, condensed cymes, greenish-white petals with deep purplish tinge, subtended by **4 white, pinkish or purple-tinged**, **ovate bracts**, 1–2 cm (< 1 in) long; June–Aug.

FRUIT: Tight cluster of **bright red**, **fleshy**, **2-seeded drupes**, 6–8 mm long.

NOTES: A widely used ornamental which is easily introduced by seed or transplanting.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
2	Asca	Asca h.t.	
4	Tabr		
3	Mefe		
	Setr h.t.		
1	Phma	Clun h.t.	
3	Clun		
4	Tabr		
5	Mefe		
4	Xete		
1	Vagl	Xete h.t.	
1	Cooc		
4	Clun	Clun h.t.	Thpl
6	Tabr		
4	Mefe		
3	Xete		
5	Asca	Asca h.t.	
4	Tabr		
4	Mefe		
2	Gydr h.t.		
8	Adpe h.t.		
9	Adpe	Atfi h.t.	
4	Atfi		
3	Opho h.t.		
2	Clun	Clun h.t.	Tshe
5	Arnu		
4	Mefe		
1	Xete		
2	Asca	Asca h.t.	
3	Arnu		
	Mefe		
3	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
1	Mefe		
	Xete		
3	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
2	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Table 12—Liliaceae Species Conspectus.

Species	Page	Stems	Leaf and Bases	Leaf Margins	Flowers	Fruit
Disporum hookeri [*Prosartes hookeri*] Hooker's fairy-bell **Diho**	130	BRANCHED brownish, (not green), hairy	sessile ovate-elliptic rounded base	strongly ciliate with forward pointing hairs	terminal 2-3 white, bell-shaped	smooth red berry from leaf axils
Disporum trachycarpum [*Prosartes trachycarpa*] wartberry fairy-bell **Ditr**	131	BRANCHED, brownish (not green), very hairy	sessile ovate-oblong rounded base	strongly ciliate with spreading hairs	terminal 1-2 white bellshaped from leaf axils	pebbly, yellow-reddish globose berry
Smilacina racemosa [*Maianthemum racemosum*] large false Solomon's seal **Smra**	177	unbranched BROWNISH-GREEN	sessile, broadly-ovate, slightly clasping bases	smooth	terminal panicle of small numerous white flowers	reddish berry (immature 3-spotted) not attached directly to main stem
Smilacina stellata [*Maianthemum stellatum*] little false Solomon's seal **Smst**	178	unbranched GREEN	sessile lanceolate hairy on leaf bottom	smooth	terminal raceme of 5-10 white flowers on zigzag rachis	greenish yellow with 3 red stripes aging to black attached directly to main stem
Streptopus amplexifolius clasping-leaved twisted-stalk **Stam**	179	BRANCHED, GREEN	sessile ovate with obvious CLASPING BASES	smooth	solitary greenish white; borne on TWISTED STALKS below each leaf	bright orange berry on a twisted stalk



LILIACEAE
Disporum hookeri (Torr.) Nicholson
[*Prosartes hookeri* Torr.]

Hooker's fairy-bell, Oregon fairy-bell

FORM: Deciduous, branched, hairy, perennial forb, up to 1 m (3 ft) tall, arising from rhizomes.

STEMS: Branched, brownish to purplish, not green.

LEAVES: Alternate, simple, entire, ovate to ovate-elliptic, acuminate, 5–15 cm (2–6 in) long, prominently veined, hairy beneath, **short ciliate with forward-pointing hairs on leaf margins** (1) (hand lens helpful).

FLOWERS: 2–3 terminal creamy white, 3-merous bell-shaped flowers, 9–18 mm long on a short, pendent peduncle, often concealed by the leaves; April–July.

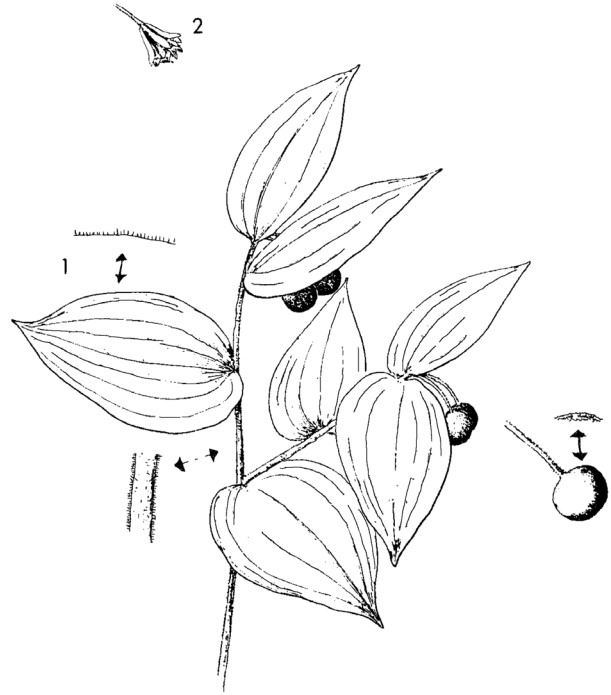
FRUIT: 2–3 red berries, broadly oval, smooth to slightly hairy, pointed tip, 7–9 mm long, 4–6 seeded, inedible.

SIMILAR SPECIES: Liliaceae Species Conspectus, p. 129.

NOTES: Fruits are generally considered inedible.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
+	Phma	Phma h.t.	
6	Smst		
4	Phma	Phma h.t.	Abgr
6	Cooc		
	Libo	Libo h.t.	
	Xete		
7	Asca	Asca h.t.	
2	Tabr		
2	Mefe		
1	Setr h.t.		
7	Phma	Clun h.t.	
4	Clun		
	Tabr		
1	Mefe		
1	Xete		
	Vagl	Xete h.t.	
	Cooc		
5	Clun	Clun h.t.	Thpl
2	Tabr		
4	Mefe		
1	Xete		
7	Asca	Asca h.t.	
7	Tabr		
9	Mefe		
9	Gydr h.t.		
7	Adpe h.t.		
7	Adpe	Atfi h.t.	
8	Atfi		
9	Opho h.t.		
5	Clun	Clun h.t.	Tshe
6	Arnu		
4	Mefe		
5	Xete		
8	Asca	Asca h.t.	
10	Arnu		
3	Mefe		
9	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
2	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
2	Mefe	Stam h.t.	
1	Lica		
2	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	2
		Aruv	1
	Phma h.t.	Phma	3
		Smst	4
Abgr	Phma h.t.	Phma	3
		Cooc	3
	Libo h.t.	Libo	3
		Xete	1
	Asca h.t.	Asca	2
		Tabr	+
		Mefe	
	Setr h.t.		1
	Clun h.t.	Phma	2
		Clun	3
		Tabr	
		Mefe	
		Xete	1
	Xete h.t.	Vagl	+
		Cooc	
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Gydr h.t.		1
	Adpe h.t.		1
	Atfi h.t.	Adpe	1
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	1
		Arnu	2
		Mefe	
		Xete	1
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



LILIACEAE
Disporum trachycarpum (Wats.) Benth. & Hook.
[*Prosartes trachycarpa* S. Watson]

wartberry fairy-bell, rough-fruit fairy-bell, Sierra fairy-bell

FORM: Deciduous, perennial, branched, hairy forb, 30–60 cm (12–24 in) tall, arising from rhizomes.

STEMS: Branched, brownish to purplish, not green.

LEAVES: Alternate, simple, entire, ovate to ovate-oblong, acuminate, 4–12 cm (2–5 in) long, with rounded base, prominently veined, glabrous above, hairy below, **margins ciliate with spreading hairs, not pointing forward** (1), hairs less dense and not uniform (hand lens helpful).

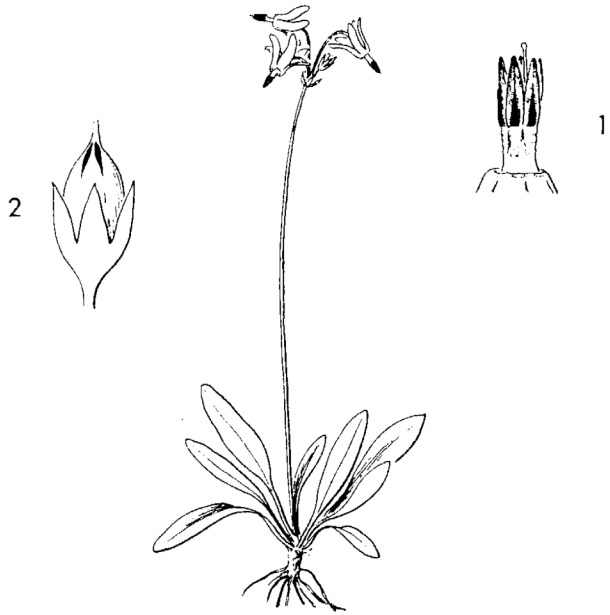
FLOWERS: 1–2 on stout, hairy pedicels; creamy white bell-shaped (2), 8–15 mm long, terminal, often concealed by leaves; May–July.

FRUIT: Yellow to reddish, glabrous, round berry, 7–10 mm long, with a bumpy surface, 6–12 seeded, inedible.

SIMILAR SPECIES: Liliaceae Species Conspectus, p. 129.

HABITAT: *D. trachycarpum* drier habitats than *D. hookeri*, but species are often found together.

NOTES: Fruits are generally considered inedible.



PRIMULACEAE
Dodecatheon jeffreyi Van Houtte

Jeffrey's shooting star, tall mt. shooting star

FORM: Fleshy, herbaceous, deciduous perennial in large clumps, 10–60 cm (4–24 in) tall, from slender rootstocks.

LEAVES: Simple, basal, fleshy, generally entire, oblanceolate leaves, with long winged petioles, 5–40 cm (2–16 in) long by 1–6 cm (< 3 in) broad.

FLOWERS: 3–20 regular flowers in terminal umbel on a naked stalk; nodding, short tubular 4- or 5-merous flowers having reflexed petals, 1–3 cm (1 in) long; yellow to reddish anthers 6–10 mm long (1); June–Aug.

FRUIT: 1-celled, ovoid capsule, 7–11 mm long (2).

SIMILAR SPECIES: *Dodecatheon pulchellum* (dark-throat shooting star), drier and lower elevation.

HABITAT: High elevation wet sites.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
3	Lica		
7	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		4
Psme	Caru h.t.	Caru	4
		Aruv	
	Phma h.t.	Phma	1
		Smst	+
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	1
		Xete	1
	Asca h.t.	Asca	1
		Tabr	+
		Mefe	
	Setr h.t.		1
	Clun h.t.	Phma	
		Clun	
		Tabr	1
		Mefe	
		Xete	1
	Xete h.t.	Vagl	2
		Cooc	1
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	1
		Xete	2
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	1
		Mefe	1
		Xete	1
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	1
		Luhi	2
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	7
		Mefe	1
		Xete	2
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	2
		Vaca	5
		Legl	1
	Xete h.t.	Cooc	1
		Vagl	2
		Vasc	2
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ONAGRACEAE
Epilobium angustifolium L.
[*Chamaenerion angustifolium* (L.) Scop.]

fireweed, blooming Sally

FORM: Glabrous, deciduous, perennial forb from widespread rhizomelike roots, 1–3 m (3–10 ft) tall.

LEAVES: Alternate, sessile, entire, **willowlike**, narrowly lanceolate, 10–15 cm (4–6 in) long, prominent white mid-vein, distinct venation pattern is created by the **connection of the lateral veins at the margins**.

FLOWERS: Pink to purple, 4-merous, short-clawed (1) petals, 8–20 mm long, in many-flowered, terminal racemes; June–Sept.

FRUIT: Linear, green to red, dehiscent capsule (2), 5–8 cm (2–3 in) long, seeds long, soft hairy from tip.

ENEMIES: Fire: resistant, regeneration from rhizomes and seed to preburn levels within 1–2 years.

HABITAT: Widespread, successional species; common along roads and old burns.

NOTES: Edible, crisp, peeled stem, older leaves used for tea. Dried seed pods make excellent tinder.



ASTERACEAE
Erigeron peregrinus (Pursh) Greene

subalpine daisy, wandering daisy, wandering fleabane

FORM: Glabrous, deciduous, leafy perennial forb up to 70 cm (28 in) tall, from fibrous-rooted, short rhizome.

LEAVES: Basal leaves simple, entire, wide oblanceolate, tapering to petiole, alternate cauline leaves various.

FLOWERS: Solitary or few heads, 30–80 deep rose-purple ray flowers, 8–25 mm long, disk flowers, 10–25 mm wide; July–Aug.

FRUIT: Symmetrical, 4–7 nerved achene (1).

SIMILAR SPECIES: *Erigeron* and *Aster* species.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
+	Clun	Clun h.t.	Tshe
1	Arnu		
1	Mefe		
1	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
1	Luhi		
	Vagl	Xete h.t.	
1	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
1	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
2	Caca	Caca h.t.	
2	Vaca		
3	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
1	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		2
	Phma h.t.		9
Psme	Caru h.t.	Caru	6
		Aruv	
	Phma h.t.	Phma	2
		Smst	2
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		2
	Clun h.t.	Phma	1
		Clun	+
		Tabr	
		Mefe	
		Xete	+
	Xete h.t.	Vagl	1
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	+
		Xete	1
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	1
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	2
		Luhi	2
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	2
		Vaca	
		Legl	
	Xete h.t.	Cooc	1
		Vagl	
		Vasc	2
		Luhi	3
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



LILIACEAE
Erythronium grandiflorum Pursh

glacier lily, dogtooth-violet, pale or yellow fawn-lily

FORM: Early growing, deciduous, perennial forb, 10–20 cm (4–8 in) tall, from deep-seated, elongate corms.

LEAVES: Basal pair, **withers after flowering**, leaves uniformly green, glabrous, **margins and underside not hairy**, not mottled, gradually narrowing to broad petioles, 10–20 cm (4–8 in) long.

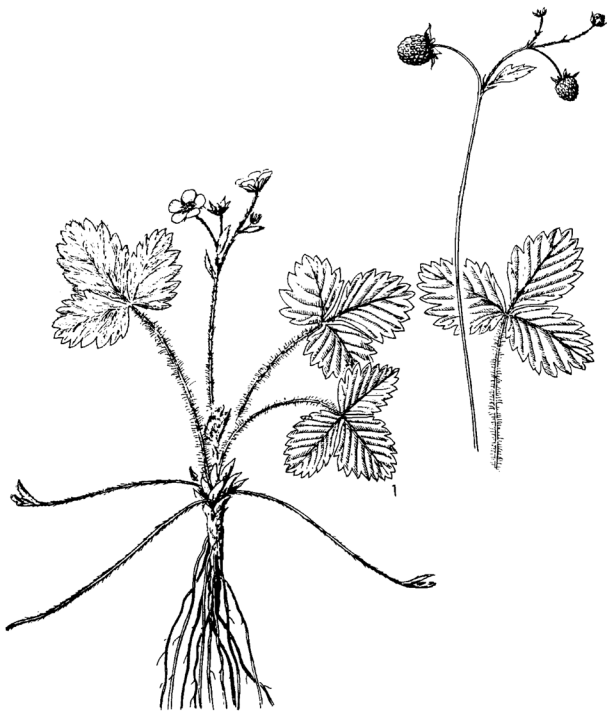
FLOWERS: Solitary or 2–5 in loose racemes, **showy, bright yellow to golden, with reflexed petals**, 2–4 cm (1–2 in) long, stamens exposed, white, red, or yellow, 10–12 mm long; March–Aug.

FRUIT: Green cylindrical capsule, 3 cm (1 in) long (1).

SIMILAR SPECIES: *Clintonia uniflora*, p. 124, leaves hairy and green throughout growing season.

HABITAT: Sagebrush slopes to montane forests.

NOTES: The starchy cooked bulbs were an important food for Native Americans.



ROSACEAE
Fragaria vesca L.

woodland strawberry

FORM: Strongly stoloniferous, deciduous, perennial forb.

LEAVES: Basal, long petiolate, trifoliolate leaves, **leaflets yellow-green**, sessile, broadly elliptic, sparsely hairy above, upper leaf surface appears slightly bulged between main and lateral veins, margins coarsely serrate with **terminal tooth of leaflet larger or same size as uppermost lateral teeth** (1) (**does not form gun sight as in *Fragaria virginiana***).

FLOWERS: Showy, white or pinkish, 5-merous, 3–11 in open cyme, **inflorescence longer than leaves**; April–June.

FRUIT: Succulent, edible, red strawberry, about 1 cm broad.

ENEMIES: Fire: moderate to low resistance, regeneration from stolons to preburn levels within 3–7 years.

SIMILAR SPECIES: *Fragaria virginiana*, p. 137.

NOTES: Leaves used to make tea high in vitamin C.

3	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
4	Aruv		
5	Phma	Phma h.t.	
6	Smst		
7	Phma	Phma h.t.	Abgr
6	Cooc		
7	Libo	Libo h.t.	
4	Xete		
6	Asca	Asca h.t.	
1	Tabr		
2	Mefe		
	Setr h.t.		
7	Phma	Clun h.t.	
3	Clun		
1	Tabr		
2	Mefe		
5	Xete		
4	Vagl	Xete h.t.	
5	Cooc		
2	Clun	Clun h.t.	Thpl
	Tabr		
4	Mefe		
	Xete		
2	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Gydr h.t.		
1	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
	Opho h.t.		
1	Clun	Clun h.t.	Tshe
1	Arnu		
	Mefe		
1	Xete		
2	Asca	Asca h.t.	
1	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
2	Xete		
3	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
3	Lica		
3	Caca	Caca h.t.	
2	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	2
		Smst	1
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	2
		Xete	
	Asca h.t.	Asca	
		Tabr	+
		Mefe	1
	Setr h.t.		2
	Clun h.t.	Phma	3
		Clun	2
		Tabr	2
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	2
		Cooc	1
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	2
		Tabr	
		Mefe	
	Gydr h.t.		1
	Adpe h.t.		1
	Atfi h.t.	Adpe	2
		Atfi	1
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	1
		Mefe	1
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	3
		Mefe	1
		Xete	1
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	2
		Vaca	5
		Legl	2
	Xete h.t.	Cooc	1
		Vagl	1
		Vasc	1
		Luhi	
Pico	Vasc h.t.		1
	Xete c.t.		
	Vaca c.t.		7



ROSACEAE
Fragaria virginiana Mill.

strawberry, blueleaf strawberry, mountain strawberry

FORM: Strongly stoloiferous, deciduous, perennial forb.

LEAVES: Basal, long petiolate, trifoliolate leaves; leaflets sessile, broadly ovate, 2–7 cm (1–3 in) long, crenate-serrate, glaucous, bluish-green above, thick **not prominently veined**, **upper surface not bulged**, margins coarsely serrate, **terminal tooth of leaflets generally shorter than adjacent lateral teeth, creating a gun sight** (1).

FLOWERS: White or pinkish, 5-merous, 2–15 in open cyme, **inflorescence shorter than leaves**; May–Aug.

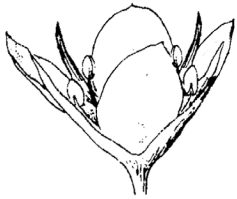
FRUIT: Succulent, edible, red strawberry, about 1 cm broad.

ENEMIES: Fire: moderate to low resistance, regeneration from stolons to preburn levels within 3–7 years.

SIMILAR SPECIES: *Fragaria vesca*, p. 136.

NOTES: Leaves used to make tea high in vitamin C.





GENTIANACEAE
Frasera fastigiata (Pursh) A. Heller

clustered frasera

FORM: Stout, glabrous, unbranched, deciduous, perennial forb; flowering stem 5–15 dm (2–5 ft) tall.

LEAVES: Cauline leaves: lanceolate, whorls of 3–5, reduced upward; basal leaves: thin, acute, obovate, 20–45 cm (8–18 in) long.

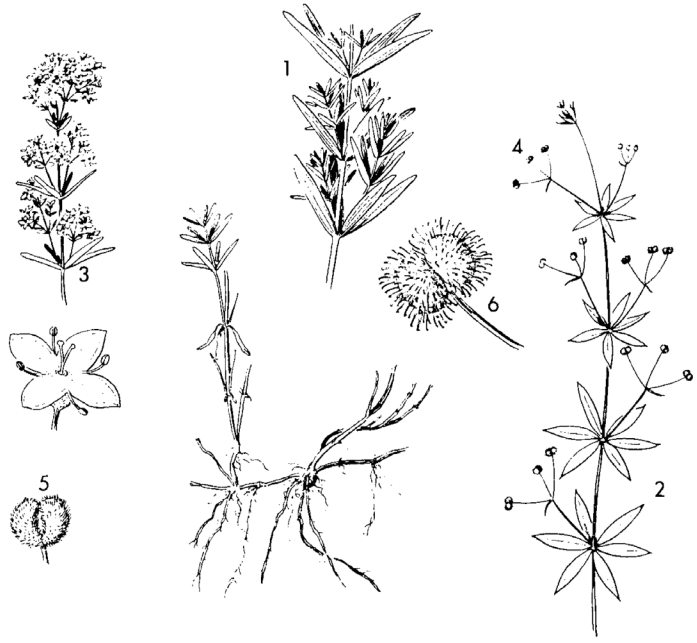
FLOWERS: Regular, blue or bluish-purple, 4-merous, tubular to campanulate (bell-shaped), numerous in large, narrow, congested panicle; May–July.

FRUIT: Ovoid, slightly compressed capsule, 12–18 mm long.

SIMILAR SPECIES: *Frasera speciosa* (giant frasera), and early stages of *Veratrum* species, p. 188.

1	Syal h.t.		Pipo
3	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
+	Phma	Phma h.t.	
2	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Setr h.t.		
1	Phma	Clun h.t.	
2	Clun		
	Tabr		
1	Mefe		
	Xete		
	Vagl	Xete h.t.	
1	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
2	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1	1
	Phma h.t.		10	1
Psme	Caru h.t.	Caru		
		Aruv		
	Phma h.t.	Phma	2	3
		Smst	1	9
Abgr	Phma h.t.	Phma	1	8
		Cooc		10
	Libo h.t.	Libo	1	5
		Xete		1
	Asca h.t.	Asca	1	8
		Tabr	2	4
		Mefe	1	5
	Setr h.t.		2	2
	Clun h.t.	Phma	+	9
		Clun		7
		Tabr		1
		Mefe	2	4
		Xete	1	5
	Xete h.t.	Vagl		1
		Cooc		1
Thpl	Clun h.t.	Clun		6
		Tabr		1
		Mefe		6
		Xete		3
	Asca h.t.	Asca		7
		Tabr	1	7
		Mefe		10
	Gydr h.t.			9
	Adpe h.t.			10
	Atfi h.t.	Adpe		10
		Atfi		9
	Opho h.t.			7
Tshe	Clun h.t.	Clun		2
		Arnu		6
		Mefe		7
		Xete		1
	Asca h.t.	Asca		7
		Arnu		4
		Mefe		7
	Gydr h.t.			4
Tsme	Clun h.t.	Mefe		4
		Xete		1
	Mefe h.t.	Xete		
		Luhi		
	Stam h.t.	Mefe		5
		Luhi		
	Xete h.t.	Vagl		
		Luhi		
Abla	Clun h.t.	Clun	3	7
		Mefe		5
		Xete		6
	Mefe h.t.	Cooc		1
		Xete		
		Vasc		
		Luhi		
	Stam h.t.	Mefe		5
		Lica		6
	Caca h.t.	Caca	2	5
		Vaca		2
		Legl		
	Xete h.t.	Cooc		1
		Vagl		1
		Vasc		
		Luhi		
Pico	Vasc h.t.			
	Xete c.t.			
	Vaca c.t.			



RUBIACEAE

Galium boreale L.

northern bedstraw

Gallium triflorum Michx.

sweetscented bedstraw, fragrant bedstraw

FORM: Square stemmed, deciduous, perennial forb with numerous stems from **creeping rhizomes**.
Gabo: erect and stout, 2–8 dm (8–32 in) tall.
Gatr: usually lax, **trails on ground**, **2–8 dm (8–32 in) long.**

LEAVES: Simple, entire, **sessile in whorls**, 1–4 cm (< 2 in) long.
Gabo: 4/whorl (1), 3-nerved, lanceolate with rounded tip.
Gatr: 6/whorl (2), 1-nerved, narrowly elliptic, vanilla scented.

FLOWERS: White, 4-merous, tubular.
Gabo: showy, **numerous in terminal cymose panicle**, (3); June–Aug.
Gatr: usually borne in **threes at ends of axillary peduncles** (4); June–Aug.

FRUIT: Dry capsule, 2 mm long.
Gabo: glabrous or with straight hairs, 2 mm long (5).
Gatr: covered with **hooked hairs**, 1–2 mm long (6).

SIMILAR SPECIES: *Galium aparine* (goose grass) weedy, **clinging annual** from short taproot, **leaves 6–8 per whorl**, narrow, 1-nerved; small hooks on stems.

NOTES: A member of the coffee family; the roasted and ground seeds can be used for coffee. The roots make yellow dye.



GERANIACEAE
Geranium viscosissimum Fisch. & C.A. Mey.

sticky purple geranium

FORM: Glandular-hairy, deciduous, perennial forb, 40–90 cm (16–35 in) tall, with several stems.

LEAVES: Sharply toothed, densely glandular-hairy, 5(7) palmately-lobed blades, 5–12 cm (2–5 in) broad.

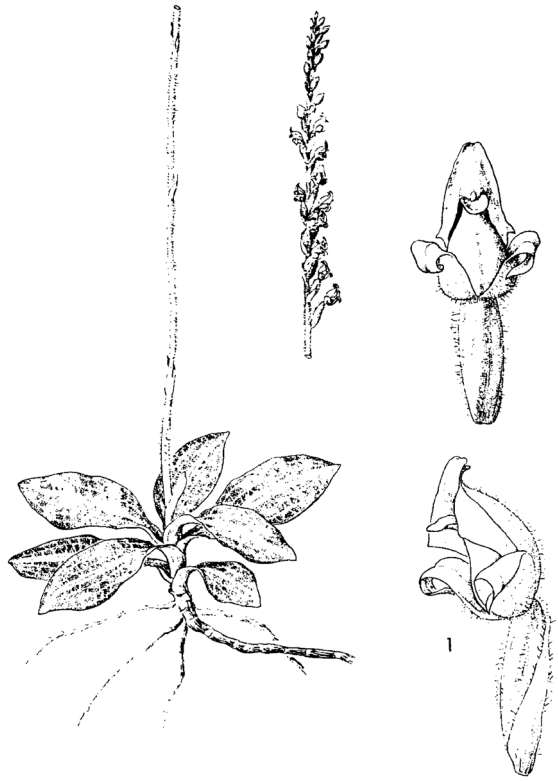
FLOWERS: Showy, **sticky**, **opposite**, 5-merous, pink to deep purplish-red (rarely white), **petals hairy at base**, generally only two cymose inflorescences; May–Aug.

FRUIT: Slender, glandular-hairy capsular fruit, containing 1–2 seeds, capsule tipped with slender persistent styles usually recurving after seeds are explosively shed (1).

SIMILAR SPECIES: *Ranunculus* species, *Trollius* species, and *Delphinium* species.

1	Syal h.t.		Pipo
6	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
+	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
+	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	4
		Aruv	2
	Phma h.t.	Phma	3
		Smst	4
Abgr	Phma h.t.	Phma	4
		Cooc	4
	Libo h.t.	Libo	5
		Xete	6
	Asca h.t.	Asca	4
		Tabr	7
		Mefe	9
	Setr h.t.		4
	Clun h.t.	Phma	3
		Clun	6
		Tabr	10
		Mefe	7
		Xete	7
	Xete h.t.	Vagl	5
		Cooc	9
Thpl	Clun h.t.	Clun	7
		Tabr	6
		Mefe	7
		Xete	10
	Asca h.t.	Asca	8
		Tabr	10
		Mefe	7
	Gydr h.t.		7
	Adpe h.t.		8
	Atfi h.t.	Adpe	4
		Atfi	5
	Opho h.t.		5
Tshe	Clun h.t.	Clun	7
		Arnu	6
		Mefe	6
		Xete	7
	Asca h.t.	Asca	5
		Arnu	9
		Mefe	7
	Gydr h.t.		7
Tsme	Clun h.t.	Mefe	7
		Xete	5
	Mefe h.t.	Xete	5
		Luhi	3
	Stam h.t.	Mefe	5
		Luhi	2
	Xete h.t.	Vagl	5
		Luhi	2
Abla	Clun h.t.	Clun	10
		Mefe	10
		Xete	7
	Mefe h.t.	Cooc	8
		Xete	5
		Vasc	7
		Luhi	2
	Stam h.t.	Mefe	7
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	2
	Xete h.t.	Cooc	6
		Vagl	4
		Vasc	4
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		5
	Vaca c.t.		



ORCHIDACEAE
Goodyera oblongifolia Raf.

western rattlesnake-plantain, giant rattlesnake-plantain

FORM: Evergreen, perennial forb from short rhizomes.

LEAVES: Basal rosette of thick, simple, entire, elliptic-lanceolate leaves with wide petioles, 3–7 cm (1–3 in) long, **mottled or white striped especially along midrib**.

FLOWERS: Many small, dull white to greenish, hood-shaped, glandular pubescent, 3-merous, flowers, 6–10 mm long, borne in tight 1-sided spike or in loose spiral up to 10 cm (4 in) long, **lip not saccate**, **spur lacking** (1); July–Aug.

FRUIT: Erect capsule, 1 cm long.

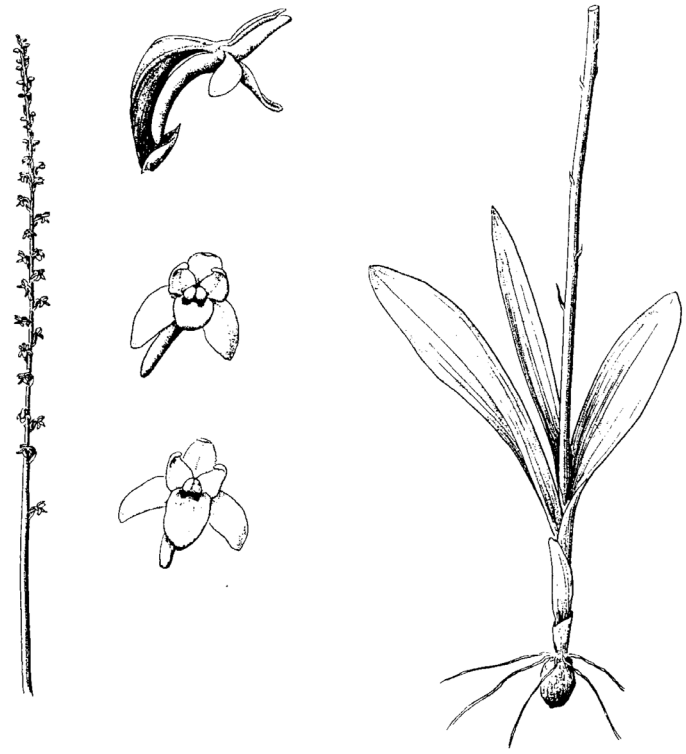
SIMILAR SPECIES: *Habenaria* Species Conspectus, p. 142.

NOTES: Most common orchid in northern Idaho forests. Native Americans once thought it was a cure for rattlesnake bites, thus its common name rattlesnake-plantain.

Table 13— *Habenaria* Species Conspectus.

Species	Page	Leaf description	Leaf persistence	Flowers	Similar species
Habenaria elegans [*Platanthera elegans*] elegant rein-orchid **Hael**	N/A	1-3 near basal oblanceolate	withering at flowering	slightly fragrant white spur, 8-18 mm long reduced upwards subsessile	**Haun**
Habenaria orbiculata [*Platanthera orbiculata*] large round-leaved rein-orchid **Haor**	N/A	two large basal orbicular shiny above flat on ground	withering after flowers	fragrant greenish strongly curved spur on pedicels	
Habenaria saccata [*Platanthera stricta*] slender bog-orchid **Hasa**	N/A	cauline oblong reduced upward	withering with stem	fragrant greenish spur with enlarged tip reduced upward	
Habenaria unalascensis [*Platanthera unalascensis*] short-spurred rein-orchid **Haun**	143	2-4 basal lanceolate	withering before flowering	moderately fragrant white or greenish spur cylindrical subsessile	**Hael**

Pipo	Syal h.t.		1
	Phma h.t.		
Psme	Caru h.t.	Caru	4
		Aruv	
	Phma h.t.	Phma	+
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	1
		Clun	
		Tabr	
		Mefe	
		Xete	1
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ORCHIDACEAE
Habenaria unalascensis (Spreng.) Wats.
[*Platanthera unalascensis* (Spreng.) Kurtz]

Alaska rein-orchid, short-spurred rein-orchid

FORM: Glabrous, deciduous, perennial forb, 20–60 cm (8–24 in) tall, from fleshy-fibrous roots with 1–3 rounded tubers.

STEMS: Single, leafy at base, bracteate above.

LEAVES: Basal cluster of 2–4 simple, entire, oblanceolate to lanceolate leaves, 8–15 cm (3–6 in) long, **withering before or during flowering**.

FLOWERS: Numerous, fragrant, white, greenish or yellowish green, spirally arranged in a narrow, rather densely flowered raceme, 10–40 cm (4–16 in) long, 3-merous with a short narrowly cylindric spur, 3–8 mm long; late June–Aug.

FRUIT: Erect, ellipsoid capsule up to 10 mm long.

SIMILAR SPECIES: *Habenaria* Species Conspectus, p. 142.

HABITAT: Dry woods to gravelly streambanks and open mountainsides.



APIACEAE
Heracleum lanatum Michx.
[*Heracleum maximum* W. Bartram]

cow parsnip, American hogweed

FORM: Robust, single-stemmed, deciduous, perennial forb, 1–3 m (3–10 ft) tall, from taproot.

STEMS: Stout, erect and covered with woolly hairs.

LEAVES: Alternate, once-ternately compound with broad, distinct petiolate leaflets, palmately lobed, coarsely toothed, **10–30 cm (4–12 in) long and wide**.

FLOWERS: White in **compound umbels** on terminal or axillary stalks, 10–20 cm (4–8 in) wide; June–Aug.

FRUIT: Glabrous to slightly hairy obovate to obcordate, strongly dorsally flattened schizocarp (1), 7–12 mm long by 5–9 mm wide.

HABITAT: Streambanks and moist, low ground, from lowlands to mid-montane.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
+	Tabr		
	Mefe		
1	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Gydr h.t.		
	Adpe h.t.		
1	Adpe	Atfi h.t.	
3	Atfi		
1	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Arnu		
	Mefe		
+	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
4	Lica		
3	Caca	Caca h.t.	
2	Vaca		
3	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		3
	Phma h.t.		6
Psme	Caru h.t.	Caru	8
		Aruv	6
	Phma h.t.	Phma	2
		Smst	1
Abgr	Phma h.t.	Phma	1
		Cooc	1
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



SAXIFRAGACEAE
Heuchera cylindrica Douglas

roundleaf alumroot, lava alumroot

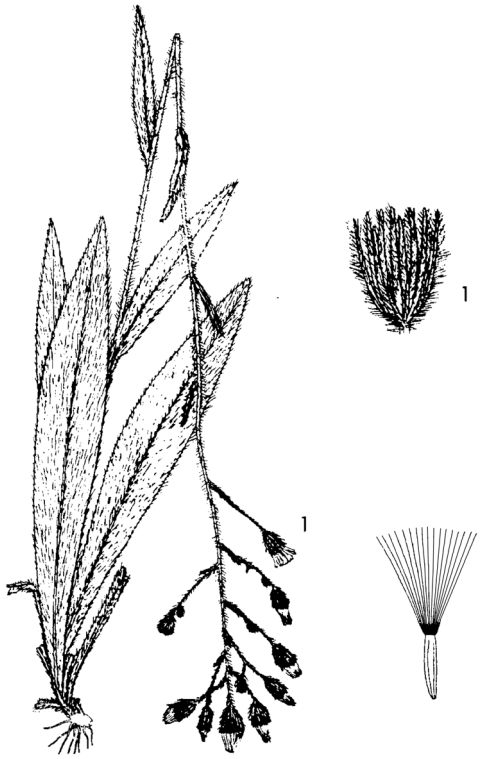
FORM: Evergreen, perennial forb, flowering stem naked or with 1–3 brownish bracts, 15–90 cm (6–35 in) tall, from short, thick rhizomes.

LEAVES: Numerous, **basal leaves**, ovate to nearly reniform, margins crenate-dentate, smooth to hairy, **generally longer than broad**, 1–6 cm (< 2 in) long, all but smaller leaves with deeply cordate base.

FLOWERS: White to greenish-yellow, 5-merous, tubular-companulate, 10 mm long, in open panicle, 3–12 cm (1–5 in) long, April–Aug.

FRUIT: Many seeded capsule, 6–10 mm long.

SIMILAR SPECIES: *Heuchera grossulariifolia* (gooseberry-leaved alumroot) and possibly *Mitella* Species Conspectus, p. 156.



ASTERACEAE
Hieracium albertinum Farr
[*Hieracium scouleri* Hook.]

western hawkweed, Scouler's hawkweed

FORM: Deciduous, perennial forb, densely hairy throughout with long, white bristles drying yellow, 3–13 dm (1–4 ft) tall from short rhizomes, **milky sap** throughout.

LEAVES: Firm, entire, variously hairy, lower cauline leaves elongate, persistent, 10–25 cm (4–10 in) long; middle and upper leaves gradually reduced.

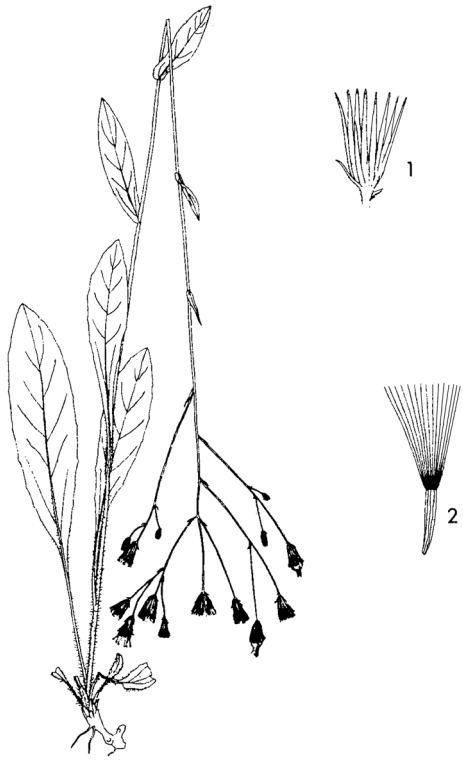
FLOWERS: Yellow, heads few to many, 15–50 flowered, involucre densely covered with long, white bristles, drying yellow (1); July–Aug.

FRUIT: Achene.

SIMILAR SPECIES: *Hieracium albiflorum*, p. 147, white flowers.

2	Syal h.t.		Pipo
3	Phma h.t.		
4	Caru	Caru h.t.	Psme
4	Aruv		
3	Phma	Phma h.t.	
2	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
+	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
1	Vagl		
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		3
Psme	Caru h.t.	Caru	6
		Aruv	2
	Phma h.t.	Phma	3
		Smst	5
Abgr	Phma h.t.	Phma	5
		Cooc	6
	Libo h.t.	Libo	8
		Xete	7
	Asca h.t.	Asca	6
		Tabr	1
		Mefe	1
	Setr h.t.		3
	Clun h.t.	Phma	7
		Clun	7
		Tabr	2
		Mefe	2
		Xete	6
	Xete h.t.	Vagl	6
		Cooc	5
Thpl	Clun h.t.	Clun	6
		Tabr	2
		Mefe	3
		Xete	2
	Asca h.t.	Asca	5
		Tabr	1
		Mefe	1
	Gydr h.t.		4
	Adpe h.t.		5
	Atfi h.t.	Adpe	1
		Atfi	1
	Opho h.t.		4
Tshe	Clun h.t.	Clun	4
		Arnu	6
		Mefe	4
		Xete	6
	Asca h.t.	Asca	5
		Arnu	4
		Mefe	7
	Gydr h.t.		2
Tsme	Clun h.t.	Mefe	3
		Xete	5
	Mefe h.t.	Xete	1
		Luhi	5
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	3
		Luhi	2
Abla	Clun h.t.	Clun	
		Mefe	2
		Xete	5
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	1
	Stam h.t.	Mefe	3
		Lica	3
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	4
		Vagl	4
		Vasc	3
		Luhi	
Pico	Vasc h.t.		7
	Xete c.t.		5
	Vaca c.t.		7



ASTERACEAE
Hieracium albiflorum Hook.

white-flowered hawkweed

FORM: Deciduous, perennial forb, long-hairy at base becoming glabrous upwards, 3–12 dm (1–4 ft) tall, from a short rhizome; **milky sap** throughout.

LEAVES: Slightly to moderately hairy, margin entire or slightly wavy, 4–17 cm (2–7 in) long; basal and lowest cauline leaves: persistent; middle and upper leaves: sessile, reduced, and generally less hairy.

FLOWERS: White, usually 13–34 in several to many heads on slender peduncles; involucre 6–11 mm high (1), narrow, blackish-green, glabrous to hairy; June–Aug.

FRUIT: Achene (2).

SIMILAR SPECIES: *Hieracium albertinum* [*Hieracium scouleri*], p. 146, yellow flowers.



HYPERICACEAE
Hypericum perforatum L.

common St. John's wort, Klamath weed, goatweed

FORM: Erect, deciduous, freely branching, perennial forb 30–80 cm (12–32 in) tall, from a taproot with short rhizomes.

LEAVES: Opposite, simple, entire, sessile, elliptic to oblanceolate, 1–3 cm (< 1 in) long, black dotted and **finely translucent-dotted, making the leaf appear full of holes** when held up to light (1).

FLOWERS: Many 5-merous, regular, yellow flowers 10–15 mm wide; in large, compound cymes; June–July.

FRUIT: Acute, 3-celled capsule, 5–8 mm long.

ENEMIES: While *Chrysolina quadrigemina* and *Chrysolina hyperici* (Klamath weed beetles) exert biological control, St. John's wort is resurging on the landscape with these biocontrol agents not performing as well as in the past (BC Ministry of Forests 2020).

HABITAT: Widespread, **introduced weed**, **poisonous to livestock.**

NOTES: In England, there is a custom of hanging **Hype** over doorways for prosperity. It was also used to make a dark yellow dye.

4	Syal h.t.		Pipo
1	Phma h.t.		
	Caru	Caru h.t.	Psme
2	Aruv		
+	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	1
		Smst	+
Abgr	Phma h.t.	Phma	1
		Cooc	1
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	1
		Tabr	
		Mefe	
		Xete	1
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Tabr	1
		Mefe	
	Gydr h.t.		
	Adpe h.t.		2
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



FABACEAE
Lathyrus nevadensis S. Watson

Cusick's peavine, peavine

FORM: Deciduous, rhizomatous, perennial forb, erect to climbing, 15–80 cm (6–32 in) tall from creeping rootstocks.

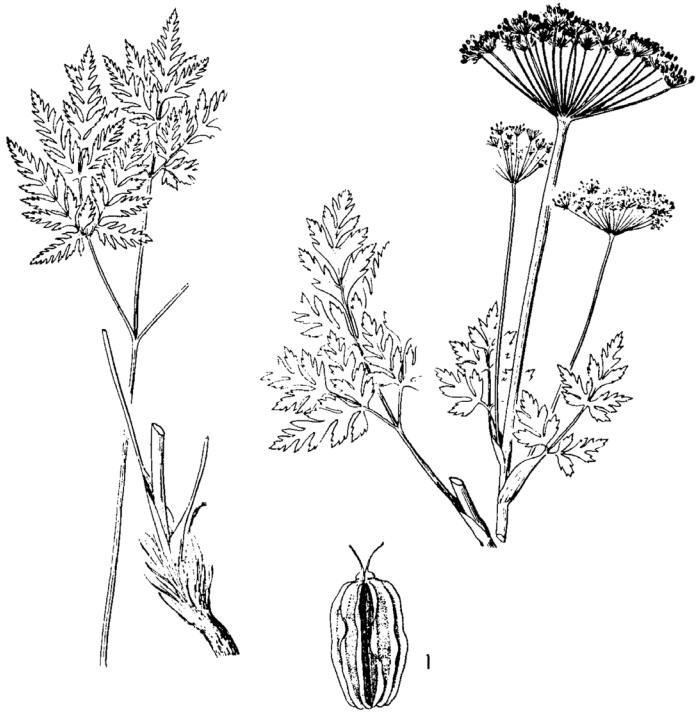
STEMS: Angled but not winged.

LEAVES: Alternate, pinnately compound, 4–10 leaflets, paired or scattered, thin, ovate to obovate, with **well-developed unbranched tendrils** and narrow stipules.

FLOWERS: 2–7 papilionaceous (pea-flowers) generally white, lined with pink, 13–20 mm long in a **raceme**; May–July.

FRUIT: Glabrous pod, 3–7 cm (1–3 in) long.

SIMILAR SPECIES: *Lathyrus ochroleucus* (cream-flowered peavine) white flowers, glabrous leaflets; and *Vicia americana*, p. 189.



APIACEAE
Ligusticum canbyi J.M. Coult. & Rose

Canby's licorice-root

FORM: Deciduous, leafy, perennial forb 5–15 dm (20–59 in) tall from fibrous root-crowns.

STEMS: Stout, freely branching.

LEAVES: Mostly basal with 1 or more well-developed cauline leaves; ternate-pinnately compound; small lanceolate leaflets 1–5 cm (< 2 in) long and < 2 cm (< 1 in) wide.

FLOWERS: White or pinkish, irregular in compound umbels; **terminal umbel 15–40 rays**, **larger than laterals**; May–Aug.

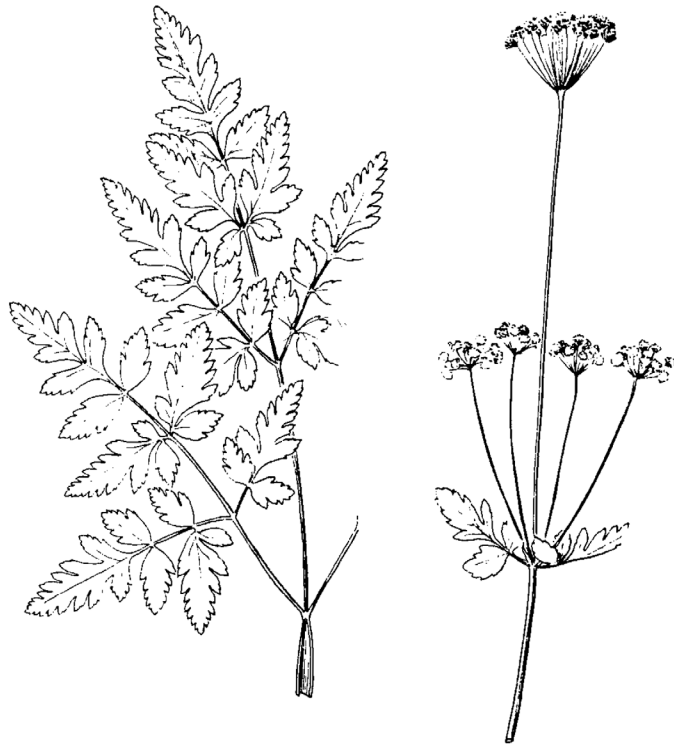
FRUIT: Oblong or elliptic, dry schizocarp, 4–5 mm long, ribs narrowly winged (1).

SIMILAR SPECIES: *Ligusticum verticillatum*, p. 151, less dissected; and *Ligusticum grayi* (Gray's licorice-root), 7–14 rays.

NOTES: Relatively common *Ligusticum* in northern Idaho.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
1	Atfi		
	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
1	Mefe		
	Xete		
+	Asca	Asca h.t.	
1	Arnu		
3	Mefe		
+	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
5	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
	Xete		
1	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
4	Mefe	Stam h.t.	
5	Lica		
5	Caca	Caca h.t.	
7	Vaca		
2	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
1	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	1
		Smst	1
Abgr	Phma h.t.	Phma	
		Cooc	7
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	1
	Setr h.t.		
	Clun h.t.	Phma	1
		Clun	+
		Tabr	
		Mefe	2
		Xete	2
	Xete h.t.	Vagl	
		Cooc	1
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	1
		Xete	1
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		1
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	2
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	2
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	1
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



APIACEAE
Ligusticum verticillatum (Hook.) J.M. Coult. & Rose

verticillate-umbel licorice-root

FORM: Robust, deciduous, soft-stemmed perennial, 1–2 m (3–7 ft) tall, from fibrous root-crowns.

LEAVES: Glabrous, 1–2 ternate-pinnate; mostly basal, large, long petiolate toothed or lobed, leaflets ovate to oblong, 3–8 cm (1–3 in) long; several, alternate cauline leaves differ from basal leaves in having progressively shorter petioles and fewer leaflets; **less dissected** than other *Ligusticum* species.

FLOWERS: White, in compound umbels; terminal umbel generally 15–30 flowered; May–Aug.

FRUIT: Elliptic, dry schizocarp, 4–6 mm long, with narrowly winged ribs.

SIMILAR SPECIES: *Angelica arguta*, p. 108, prefruit stages; and *Ligusticum canbyi*, p. 150, more dissected leaves.

NOTES: Relatively scarce in northern Idaho, generally found in the Selway and Clearwater River drainages. The Confederated Salish and Kootenai tribes of the Flathead Nation smoked the root for relief of sore throats.



ORCHIDACEAE
Listera caurina Piper
[*Neottia banksiana* (Lind.) Rchb. f.]

western twayblade, northwestern twayblade

FORM: Deciduous, perennial forb, 10–35 cm (4–14 in) tall.

STEMS: Slender, glandular-pubescent above leaves, glabrous below.

LEAVES: Two, **nearly opposite**, simple, entire, **sessile with a clasping base**, lanceolate-ovate, 2–6 cm (1–2 in) long; positioned well above midlength of stem.

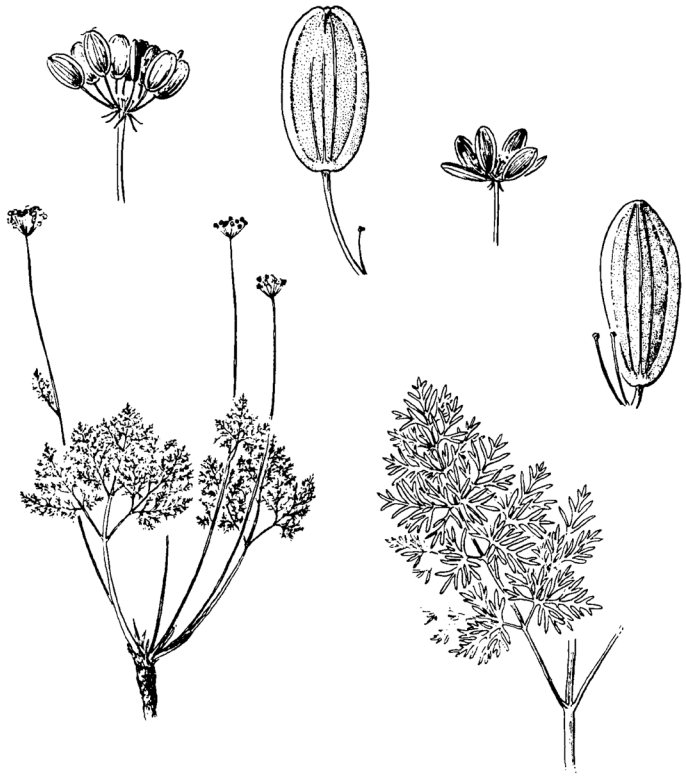
FLOWERS: Small, 3-merous, greenish to purplish-green, 3–4 mm long; **lip angled down**, **narrow not clawed**; 5–25 flowers in a slender, lax raceme; June–early Aug.

FRUIT: Green ovoid, glabrous capsule not longer than 5–6 mm.

SIMILAR SPECIES: *Listera cordata* (heart-leaf twayblade) [*Neottia cordata*], forked lip and *N. convallarioides* (broad-lipped twayblade), horizontal lip clawed.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
2	Libo	Libo h.t.	
1	Xete		
	Asca	Asca h.t.	
1	Tabr		
1	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
2	Xete		
2	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
5	Tabr		
1	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Tabr		
3	Mefe		
2	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
1	Opho h.t.		
1	Clun	Clun h.t.	Tshe
1	Arnu		
2	Mefe		
1	Xete		
1	Asca	Asca h.t.	
3	Arnu		
3	Mefe		
2	Gydr h.t.		
3	Mefe	Clun h.t.	Tsme
4	Xete		
1	Xete	Mefe h.t.	
2	Luhi		
2	Mefe	Stam h.t.	
5	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
2	Mefe		
1	Xete		
3	Cooc	Mefe h.t.	
2	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
2	Caca	Caca h.t.	
	Vaca		
1	Legl		
1	Cooc	Xete h.t.	
	Vagl		
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		4
	Phma h.t.		6
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	1
		Smst	
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	2
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



APIACEAE
Lomatium dissectum (Nutt.) Mathias & Constance

fern-leaved lomatium, desert-parsley, sessile-frond fernleaf biscuit-root

FORM: Robust, deciduous, leafy, perennial forb, 5–15 dm (20–59 in) tall, several stems from a large woody root.

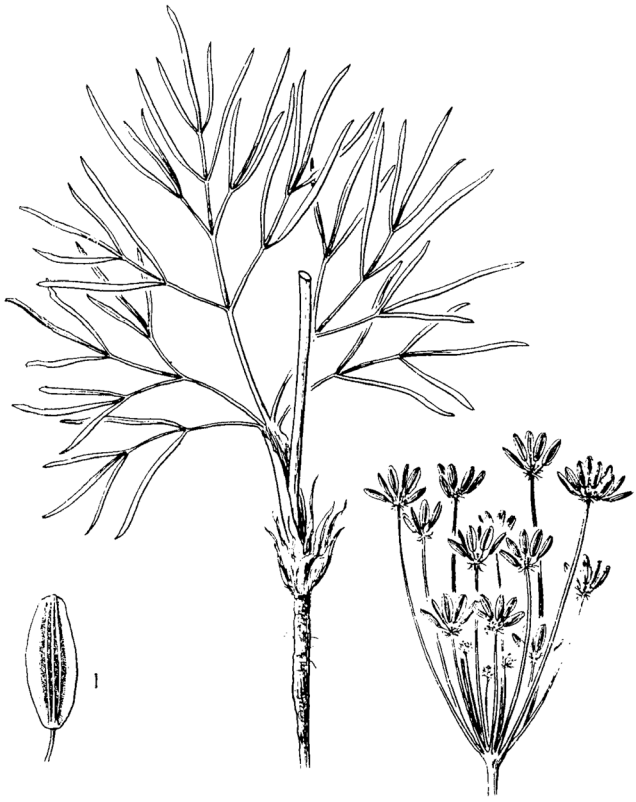
LEAVES: Large, basal and cauline; ternate then 2–4 **pinnately dissected into small, narrow fernlike segments**; leaves have a spicy fragrance.

FLOWERS: 10–30 yellow or purple flowers in **compound umbels**; April–June.

FRUIT: Elliptic, dry schizocarp, with corky-thickened wings, 8–17 mm long.

SIMILAR SPECIES: Other *Lomatium* species.

NOTES: Native Americans and early settlers made flour from the roots.



APIACEAE
Lomatium triternatum (Pursh) J.M. Coult. & Rose

nine-leaved lomatium, triternate biscuit-root

FORM: Perennial forb 20–80 cm (8–32 in) tall, stems leafy, all clustered in a basal rosette, from a short caudex.

LEAVES: Few or solitary, usually basal, ternately to ternate-pinnately 2–3 times deeply cut into **long, narrow leaflets**, 1–10 cm (< 4 in) long, entire or shallowly toothed.

FLOWERS: Yellow or white flowers in **compound umbels**; May–July.

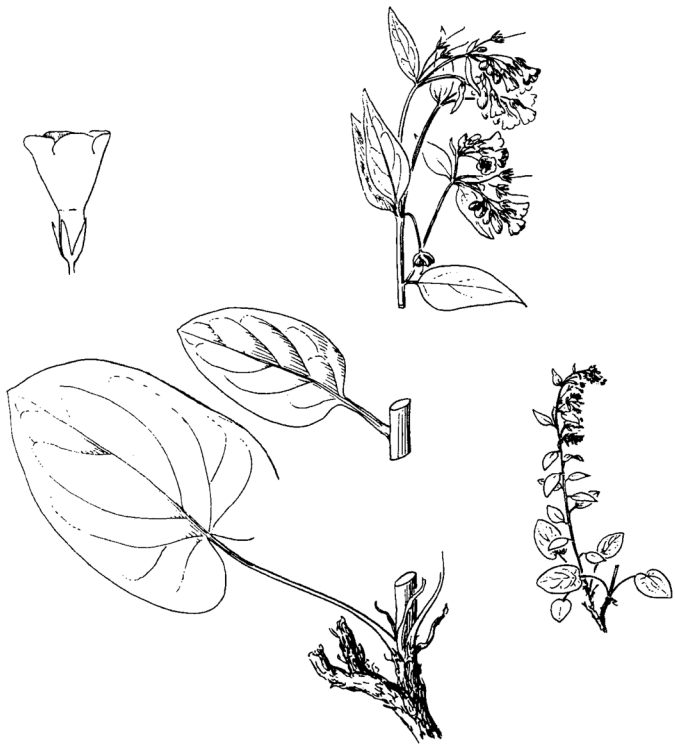
FRUIT: Oblong to elliptic, broadly winged, dry schizocarp (1).

SIMILAR SPECIES: *Lomatium ambiguum* (Wyeth biscuit-root).

NOTES: Native Americans and early settlers baked biscuits and large cakes from flour made from the roots.

2	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	+
		Mefe	
	Setr h.t.		3
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	1
	Gydr h.t.		2
	Adpe h.t.		
	Atfi h.t.	Adpe	2
		Atfi	3
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	1
		Xete	
	Asca h.t.	Asca	+
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	1
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	2
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	1
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	2
		Vaca	2
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



BORAGINACEAE
Mertensia paniculata (Aiton) G. Don

tall bluebells, panicle bluebells

FORM: Erect, deciduous, perennial forb, 2–15 dm (8–59 in) tall, numerous stems from a stout rhizome.

LEAVES: Alternate, numerous cauline leaves, simple, entire, very thin, obvious lateral veins, ovate to lanceolate, short-petiolate, acuminate with rounded base, 3–14 cm (1–6 in) long; basal leaves when present, long petiolate, cordate.

FLOWERS: Blue, sometimes white or pink, 5-merous, tubular 9–16 mm long, **in branched, open, terminal cymes**; May–Aug.

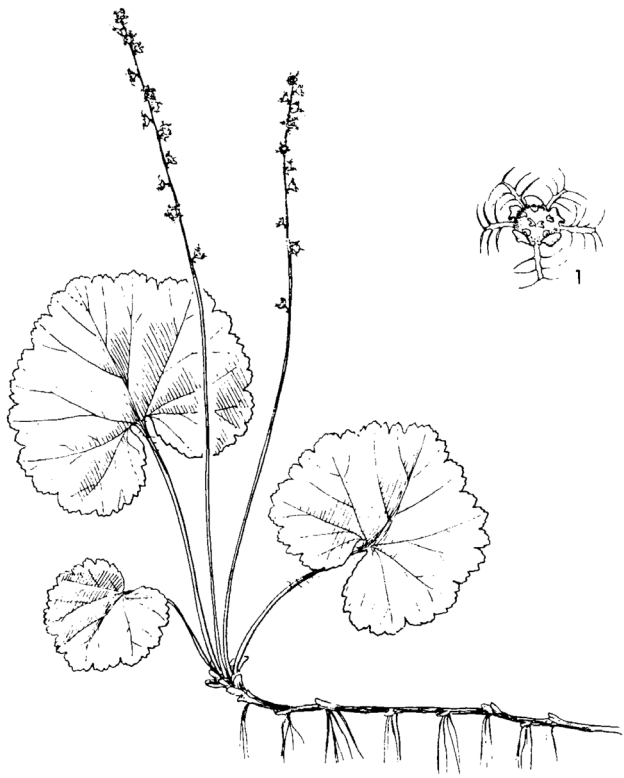
FRUIT: Nutlet.

HABITAT: Streamsides and wet meadows.

Table 14— *Mitella* Species Conspectus.

Species	Page	Leaves	Leaf shape	Flowers	Petals	Stamens
Mitella breweri [*Pectiantia breweri*] Brewer's mitrewort **Mibr**	157	basal	cordate-kidney 7-11 lobed, with brownish hairs	20-60 in raceme greenish saucer-shaped blossoming upward	dissected into 5-9 lateral segments	5 stamens, alternate with the petals
Mitella caulescens [*Mitellastra caulescens*] leafy mitrewort **Mica3**	N/A	mostly basal with a few cauline	cordate and hairy 5-7 lobed	up to 25 in raceme green bell-shaped blossoming downward	dissected into 8 segments	5 stamens, leafy alternate with the petals
Mitella pentandra [*Pectiantia pentandra*] five-stamened mitrewort **Mipe**	158	basal	ovate-cordate 5-9 lobed hairy, glandular	6-25 in raceme greenish saucer-shaped blossoming upward	dissected into 4-10 segments	5 stamens opposite the petals
Mitella stauropetala [*Ozomelis stauropetala*] side-flowered mitrewort **Mist2**	159	basal	cordate-kidney 5-7 lobed underneath purplish	10-48 in raceme whitish; bellshaped 1-sided raceme blossoming upward	3-lobed not dissected	5 stamens alternate with the petals

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	3
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	7
		Luhi	5
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	2
		Vasc	
		Luhi	
	Stam h.t.	Mefe	2
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



SAXIFRAGACEAE
Mitella breweri Gray
[*Pectiantia breweri* (A. Gray) Rydb.]

Brewer's mitrewort

FORM: Rhizomatous, deciduous, perennial forb with leafless flowering stem, 10–30 cm (4–12 in) tall.

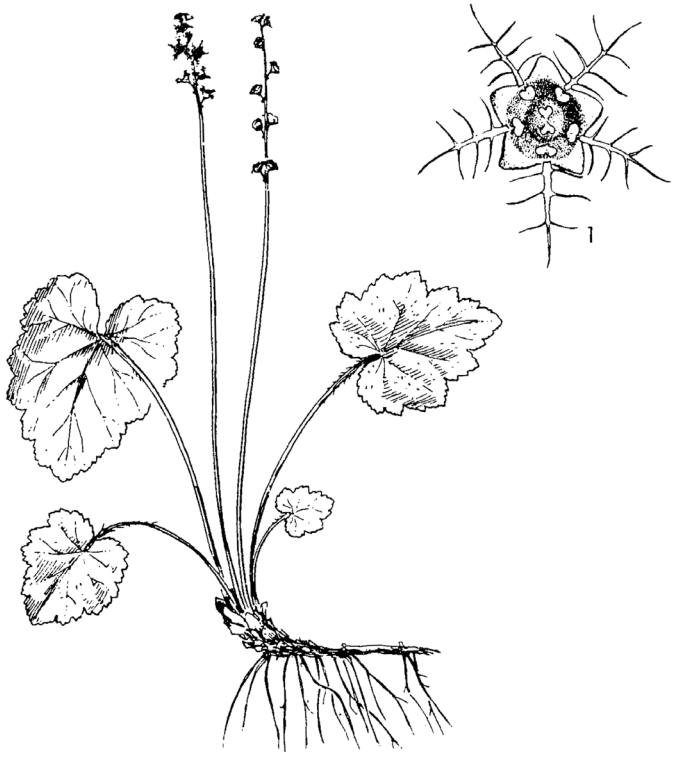
LEAVES: Basal, cordate to reniform, 4–8 cm (2–3 in) broad, shallowly 7–11 lobed, slightly round-toothed with **few brownish hairs on upper surface**.

FLOWERS: Calyx saucer-shaped, greenish-yellow petals pinnately dissected into 5–9 lateral paired segments (1), stamens 5, **alternate with petals**; **in 20–60 flowered racemes**, blossoming upward; May–Aug.

FRUIT: Numerous, small, shiny, black seeds contained in the saucer-shaped dehiscent capsule.

SIMILAR SPECIES: *Mitella* Species Conspectus, p. 156; *Tiarella trifoliata*, p. 183; and *Heuchera* species, p. 145.

HABITAT: High elevation, cold, very moist to wet sites.



SAXIFRAGACEAE
Mitella pentandra Hook.
[*Pectiantia pentandra* (Hook.) Rydb.]

alpine mitrewort, five-stamened mitrewort

FORM: Low, occasionally stoloniferous, deciduous, perennial forb; flower stems 20–30 cm (8–12 in) tall.

LEAVES: Basal, ovate-cordate, 2–5 cm (1–2 in) broad, hairy and glandular, shallowly 5- to 9-lobed, with rounded teeth, doubly crenate, **puberulent on upper surface**.

FLOWERS: Calyx saucer-shaped, 3–4 mm broad, petals **greenish, pinnately dissected into 4–10 lateral segments** (1), 2–3 mm long, stamens 5, **opposite the petals**; 6–25 flowers in **raceme to panicle**; June–Aug.

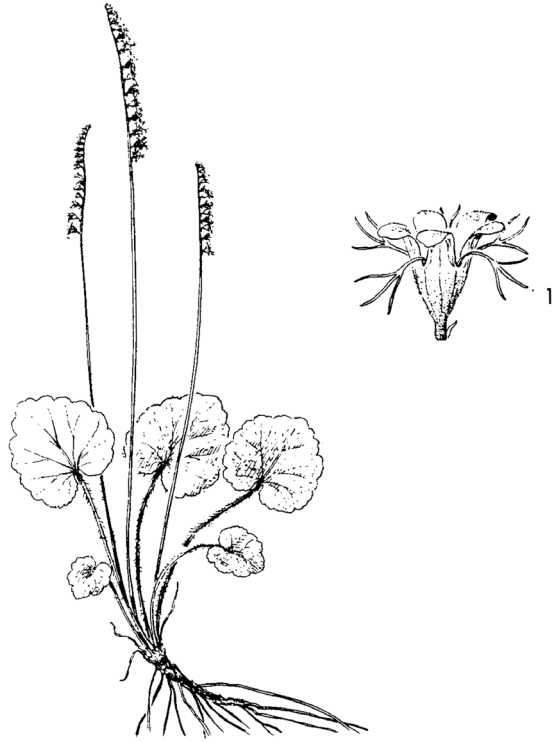
FRUIT: Numerous, small, shiny, black seeds contained in the saucer-shaped dehiscent capsule.

SIMILAR SPECIES: *Mitella* Species Conspectus, p. 156; *Tiarella trifoliata*, p. 183; and *Heuchera* species, p. 145.

HABITAT: Moist woods, especially along streams to wet mountain meadows.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
1	Tabr		
	Mefe		
	Gydr h.t.		
1	Adpe h.t.		
2	Adpe	Atfi h.t.	
2	Atfi		
1	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
5	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
2	Luhi		
4	Mefe	Stam h.t.	
2	Lica		
3	Caca	Caca h.t.	
2	Vaca		
2	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
1	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		
Psme	Caru h.t.	Caru	2
		Aruv	1
	Phma h.t.	Phma	2
		Smst	5
Abgr	Phma h.t.	Phma	3
		Cooc	3
	Libo h.t.	Libo	5
		Xete	1
	Asca h.t.	Asca	5
		Tabr	6
		Mefe	5
	Setr h.t.		7
	Clun h.t.	Phma	4
		Clun	6
		Tabr	5
		Mefe	4
		Xete	2
	Xete h.t.	Vagl	1
		Cooc	2
Thpl	Clun h.t.	Clun	2
		Tabr	1
		Mefe	3
		Xete	3
	Asca h.t.	Asca	3
		Tabr	2
		Mefe	3
	Gydr h.t.		3
	Adpe h.t.		3
	Atfi h.t.	Adpe	1
		Atfi	2
	Opho h.t.		1
Tshe	Clun h.t.	Clun	2
		Arnu	1
		Mefe	2
		Xete	1
	Asca h.t.	Asca	2
		Arnu	
		Mefe	3
	Gydr h.t.		2
Tsme	Clun h.t.	Mefe	2
		Xete	
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	3
		Mefe	2
		Xete	6
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	1
	Stam h.t.	Mefe	2
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	1
		Vagl	1
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



SAXIFRAGACEAE
Mitella stauropetala Piper
[*Ozomelis stauropetala* (Piper) Rydb.]

side-flowered mitrewort, cross-shaped mitrewort

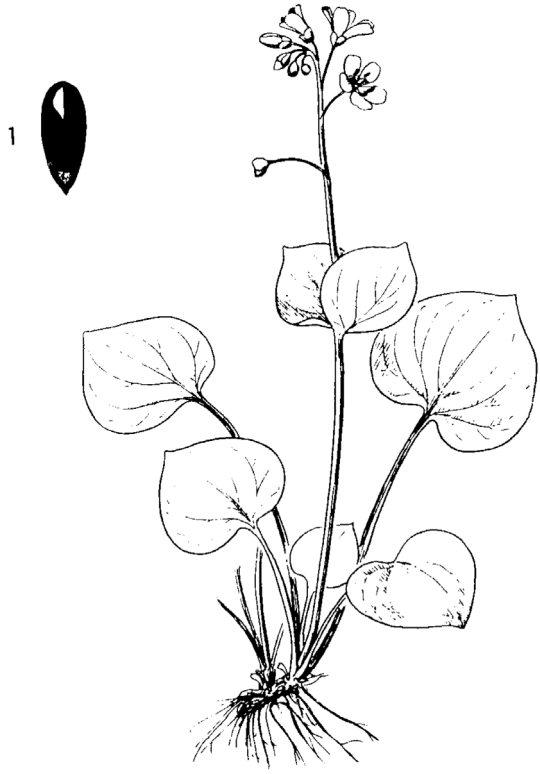
FORM: Rhizomatous, deciduous, perennial forb; flower stems slender, several, up to 50 cm (20 in) tall.

LEAVES: Cordate to kidney-shaped, often purplish-tinged, 2–8 cm (1–3 in) broad, shallowly 5–7 lobed, 1 or 2 times crenate, **puberulent on upper surface**.

FLOWERS: Calyx bell-shaped, 4–6 mm long; petals 3-lobed, whitish or purplish-tinged 3–4 mm long; 5 stamens, **alternate with petals** (1); 10–35 flowers in **simple 1-sided racemes**; May–June.

FRUIT: Numerous, small, shiny, black seeds contained in the saucer-shaped dehiscent capsule.

SIMILAR SPECIES: *Mitella* Species Conspectus, p. 156; *Tiarella trifoliata*, p. 183; and *Heuchera* species, p. 145.



MONTIACEAE
Montia cordifolia (Wats.) Pax & Hoffm. in E. & P.
[*Claytonia cordifolia* S. Watson]

broadleaved montia, broadleaved claytonia

FORM: Succulent, perennial forb, without fleshy taproots.

LEAVES: Several basal leaves, simple, entire triangular-ovate to somewhat cordate, 3–6 cm (1–2 in) broad; **two cauline leaves, opposite**, broadly lanceolate, 1–5 cm (< 2 in) wide.

FLOWERS: Regular, 5-merous, white, 3- to 10-flowered, in **lax racemes not subtended by bracts**; May–Sept.

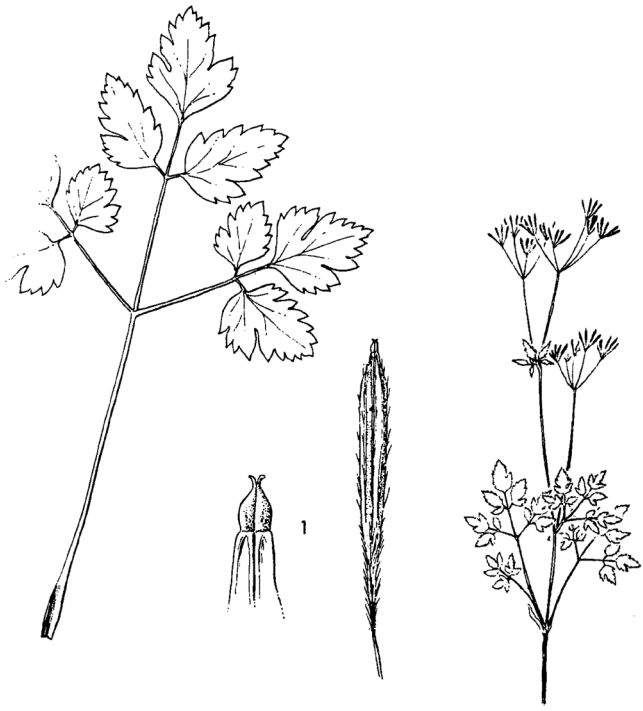
FRUIT: Smooth to warty, shiny black, acutely margined capsule (1).

SIMILAR SPECIES: *Montia sibirica* (western springbeauty) [*Claytonia sibirica*] flowers subtended by bracts; and *Montia perfoliata* (miner's lettuce) [*Claytonia perfoliata*], cauline leaves form a disc.

NOTES: Leaves and stems are eaten boiled, steamed or raw as salad greens.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
1	Asca	Asca h.t.	
+	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
1	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
3	Mefe		
1	Gydr h.t.		
1	Adpe h.t.		
1	Adpe	Atfi h.t.	
2	Atfi		
1	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Arnu		
	Mefe		
+	Gydr h.t.		
1	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
2	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		7
Psme	Caru h.t.	Caru	4
		Aruv	
	Phma h.t.	Phma	3
		Smst	9
Abgr	Phma h.t.	Phma	7
		Cooc	4
	Libo h.t.	Libo	6
		Xete	3
	Asca h.t.	Asca	8
		Tabr	8
		Mefe	8
	Setr h.t.		10
	Clun h.t.	Phma	7
		Clun	8
		Tabr	6
		Mefe	5
		Xete	6
	Xete h.t.	Vagl	2
		Cooc	4
Thpl	Clun h.t.	Clun	5
		Tabr	2
		Mefe	3
		Xete	3
	Asca h.t.	Asca	5
		Tabr	4
		Mefe	4
	Gydr h.t.		3
	Adpe h.t.		7
	Atfi h.t.	Adpe	8
		Atfi	7
	Opho h.t.		8
Tshe	Clun h.t.	Clun	2
		Arnu	4
		Mefe	4
		Xete	3
	Asca h.t.	Asca	7
		Arnu	7
		Mefe	10
	Gydr h.t.		5
Tsme	Clun h.t.	Mefe	1
		Xete	4
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	7
		Mefe	4
		Xete	5
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	5
		Lica	5
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	1
		Vagl	1
		Vasc	
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



APIACEAE
Osmorhiza chilensis H. & A.
[*Osmorhiza berteroi* DC.]

mountain sweet-cicely

FORM: Deciduous, perennial forb 3–10 dm (1–3 ft) tall, from well-developed taproot.

STEMS: Solitary, rather slender.

LEAVES: Thin, **trifoliolate**, leaflets narrow, ovate, coarsely serrate, deeply cut or lobed, 2–7 cm (1–3 in) long; several basal leaves with long petioles; 1–3 cauline leaves with short petioles.

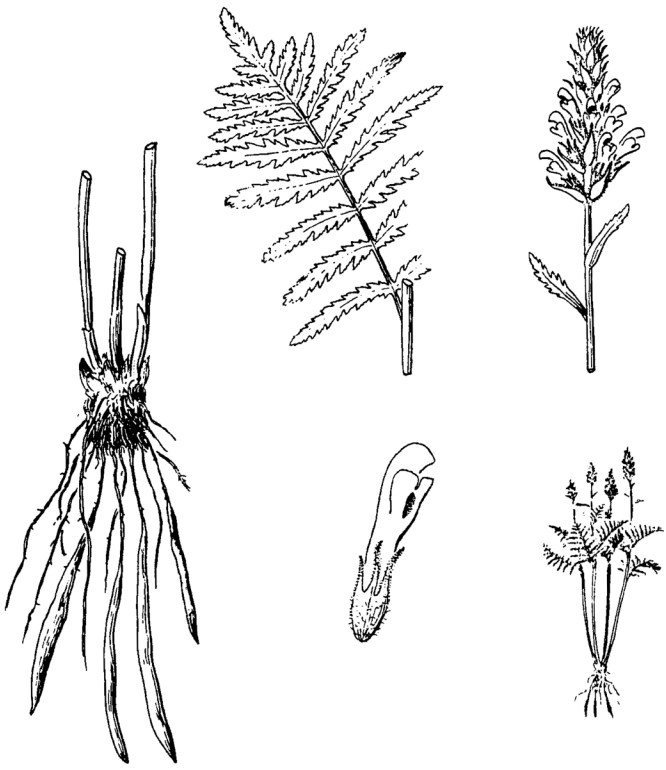
FLOWERS: Inconspicuous, greenish-white, 0.3–1 mm in loose compound umbels; April–June.

FRUIT: Green (dries to black), hairy schizocarp with beaklike apex, which **clings to pant legs** (1).

SIMILAR SPECIES: *Osmorhiza purpurea* (purple sweet-root), purple flowers, armed fruit; and *Osmorhiza occidentalis* (western sweet-cicely), strong **licorice smell**, **glabrous fruit**, and clustered stems.

HABITAT: Common in all forested regions of northern Idaho.

NOTES: Roots dug in March and April may be eaten raw or cooked.



OROBANCHACEAE
Pedicularis bracteosa Benth.

bracted lousewort

FORM: Erect, deciduous, perennial forb, up to 1 m (3 ft) tall, coarsely fibrous-rooted often with some tuberous-thickened roots.

LEAVES: Alternate, glabrous, **pinnately divided (fernlike),** doubly serrate, linear-oblong 1–7 cm (< 3 in) long; basal leaves petiolate or missing, cauline leaves sessile or short petiolate.

FLOWERS: Purple or red to yellowish, **bilabiate,** calyx lobes five, 13–21 mm long, **galea beakless**, in crowded spike-like raceme; June–Aug.

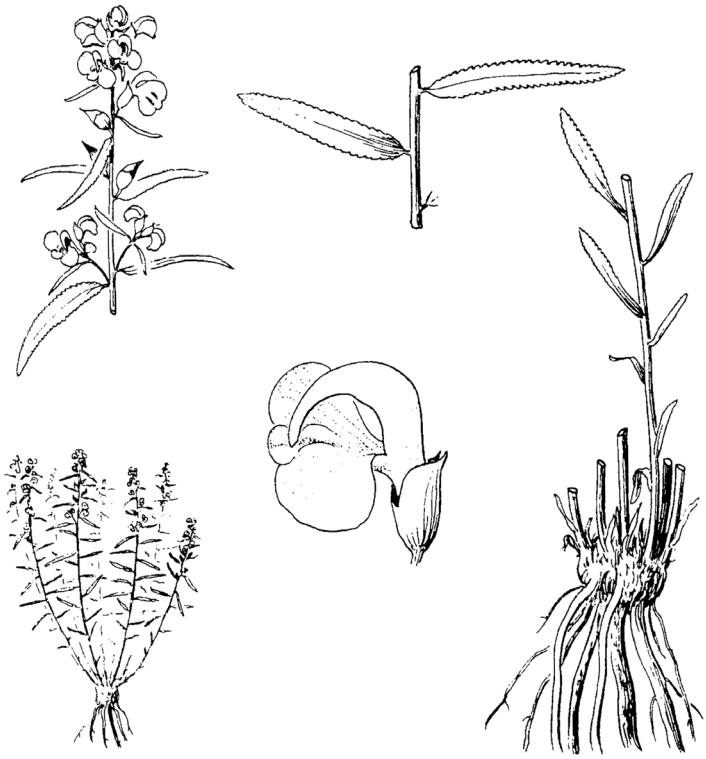
FRUIT: Capsule.

SIMILAR SPECIES: *Pedicularis contorta* (white coiled-beak lousewort) long white beak and narrow pinnate leaves; and *P. racemosa*, p. 163, long white beak and simple leaves; both have flowers in open racemes.

NOTES: *Pedicularis* is an intermediate host for stalactiform blister rust. Alternate life-cycle host for *Cronartium ribicola* (white pine blister rust) (McDonald et al. 2006). This is the only *Pedicularis* species native to Idaho with **large, compound cauline leaves**.

	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
1	Aruv		
+	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
1	Mefe		
2	Xete		
2	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
2	Mefe		
1	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
1	Atfi		
1	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
3	Mefe		
1	Xete		
+	Asca	Asca h.t.	
	Arnu		
	Mefe		
+	Gydr h.t.		
3	Mefe	Clun h.t.	Tsme
1	Xete		
2	Xete	Mefe h.t.	
4	Luhi		
2	Mefe	Stam h.t.	
2	Luhi		
3	Vagl	Xete h.t.	
1	Luhi		
	Clun	Clun h.t.	Abla
2	Mefe		
1	Xete		
1	Cooc	Mefe h.t.	
	Xete		
5	Vasc		
2	Luhi		
5	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
2	Vaca		
	Legl		
	Cooc	Xete h.t.	
2	Vagl		
+	Vasc		
1	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	2
		Aruv	
	Phma h.t.	Phma	+
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	1
	Libo h.t.	Libo	3
		Xete	4
	Asca h.t.	Asca	+
		Tabr	1
		Mefe	2
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	3
		Tabr	2
		Mefe	5
		Xete	4
	Xete h.t.	Vagl	4
		Cooc	7
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	2
		Xete	1
	Asca h.t.	Asca	2
		Tabr	1
		Mefe	3
	Gydr h.t.		1
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	1
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	1
		Xete	1
	Asca h.t.	Asca	+
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	3
		Xete	1
	Mefe h.t.	Xete	2
		Luhi	2
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	3
		Luhi	1
Abla	Clun h.t.	Clun	3
		Mefe	7
		Xete	5
	Mefe h.t.	Cooc	7
		Xete	2
		Vasc	5
		Luhi	2
	Stam h.t.	Mefe	3
		Lica	2
	Caca h.t.	Caca	3
		Vaca	
		Legl	1
	Xete h.t.	Cooc	6
		Vagl	1
		Vasc	3
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		3



OROBANCHACEAE
Pedicularis racemosa Douglas ex Benth.

leafy lousewort, sickletop lousewort

FORM: Deciduous, glabrous, perennial forb, 15–50 cm (6–20 in) tall, from a woody caudex.

LEAVES: Simple, alternate, all cauline, short-petiolate, linear to lanceolate, **doubly serrate**, **not dissected**, 4–10 cm (2–4 in) long, lowest leaves reduced.

FLOWERS: White, sometimes tinged with yellow or rose, bilabiate, calyx lobes 2, galea strongly arched and tapering into **a down-curved beak**, which touches the prominent lower lip, in an elongated, lax, spikelike raceme; June–Sept.

FRUIT: Glabrous, flattened, asymmetrical capsule.

SIMILAR SPECIES: *Pedicularis contorta* (white coiled-beak lousewort) long, white beak and narrow pinnate leaves; and *P. bracteosa*, p. 162, purple beakless flowers and large compound leaves.

NOTES: *Pedicularis* is an intermediate host for stalactiform blister rust. Alternate life-cycle host for *Cronartium ribicola* (white pine blister rust) (McDonald et al. 2006). This is the only *Pedicularis* species native to Idaho with **simple leaves**.



HYDROPHYLLACEAE
Phacelia heterophylla Pursh

varileaf phacelia, virgate phacelia

FORM: Erect, deciduous biennial or short-lived perennial forb from a taproot.

STEMS: Stout stems, 2–12 dm (8–47 in) tall; herbage green or greyish with short pubescence.

LEAVES: Greyish with fine hairs, mostly entire but some **well-developed middle and lower leaves having 1–2 pairs of lateral lobes or leaflets at base of blade** (1); cauline leaves reduced upward; basal leaves longer petiolate and generally larger than the upper cauline leaves.

FLOWERS: Dull whitish to occasionally purplish, rotate, 3–6 mm long, in **hairy, branched, open cymes**; May–July.

FRUIT: Capsule.

SIMILAR SPECIES: *Phacelia hastata* (whiteleaf phacelia) and *P. linearis* (threadleaf phacelia).

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
1	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	2
		Tabr	2
		Mefe	2
	Setr h.t.		3
	Clun h.t.	Phma	
		Clun	
		Tabr	1
		Mefe	2
		Xete	1
	Xete h.t.	Vagl	1
		Cooc	1
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	
		Xete	1
	Asca h.t.	Asca	+
		Arnu	
		Mefe	3
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	1
		Xete	
	Mefe h.t.	Xete	2
		Luhi	5
	Stam h.t.	Mefe	
		Luhi	10
	Xete h.t.	Vagl	2
		Luhi	2
Abla	Clun h.t.	Clun	3
		Mefe	2
		Xete	1
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	1
		Luhi	
	Stam h.t.	Mefe	2
		Lica	4
	Caca h.t.	Caca	
		Vaca	7
		Legl	
	Xete h.t.	Cooc	1
		Vagl	1
		Vasc	+
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



POLEMONIACEAE
Polemonium pulcherrimum Hook.

Jacob's-ladder, skunk-leaved polemonium, showy polemonium, sky pilot

FORM: Deciduous, perennial forb, with several loose, erect stems, 30–50 cm (12–20 in) tall from a branched woody base.

LEAVES: Foul mephitic (skunklike) odor, pinnately compound with 11–25 opposite or offset leaflets; basal leaves well-developed and often tufted; alternate, cauline leaves reduced.

FLOWERS: Showy, **blue** with a yellow eye, **bell-shaped**, 7–13 mm long in headlike cymes; May–Aug.

FRUIT: Capsule.

HABITAT: Moderate to high elevations in the mountains, often in moist or shaded places.



ROSACEAE
Potentilla glandulosa Lindl.
[*Drymocallis glandulosa* (Lindl.) Rydb.]

sticky cinquefoil, gland cinquefoil

FORM: Erect, **glandular**, deciduous, perennial forb, 15–40 cm (6–16 in) tall with branched crown and well-developed rootstocks.

LEAVES: Mostly basal with a few alternate cauline leaves, reduced upwards; **pinnately compound with 5–9 glandular leaflets**, sharply toothed, obovate, 1–3 cm (< 1 in) long.

FLOWERS: Few to many deep to pale yellow, 5-merous, bowl-shaped, in cymes; May–July.

FRUIT: Achene (1).

SIMILAR SPECIES: *Potentilla arguta* (valley cinquefoil) [*Drymocallis arguta*] paler flowers and narrow inflorescence; and *Geum triflorum* (prairie smoke avens).

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
3	Phma	Phma h.t.	
2	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		4
	Phma h.t.		4
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	+
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ROSACEAE
Potentilla gracilis Douglas ex Hook.

cinquefoil

FORM: Deciduous, generally hairy, perennial forb, with several stout stems, 40–80 cm (16–32 in) tall from a branched caudex.

LEAVES: Numerous, alternate, mostly basal; **blades digitate (handlike) with long petioles** up to 30 cm (12 in), leaflets 7–9, cuneate or dissected, margins slightly revolute, lighter and slightly woolly on underside, 3–8 cm (1–3 in) long; 1–2 cauline leaves.

FLOWERS: Numerous, **yellow**, 5-merous; in large, open, flat-topped, terminal cymes; June–Aug.

FRUIT: Greenish achene.

SIMILAR SPECIES: Other *Potentilla* species.



LAMIACEAE
Prunella vulgaris L.

self-heal

FORM: Deciduous, fibrous-rooted, hairy to glabrous, perennial forb 10–50 cm (4–20 in) long, from a caudex.

STEMS: Solitary or clustered, erect to prostrate **squared stems**.

LEAVES: Few, petiolate, basal and **opposite cauline**; entire with lanceolate or elliptic blades 2–9 cm (1–4 in) long.

FLOWERS: Purplish-blue, **bilabiate**, 7–10 mm long, crowded into short, **dense terminal spikes**; May–Sept.

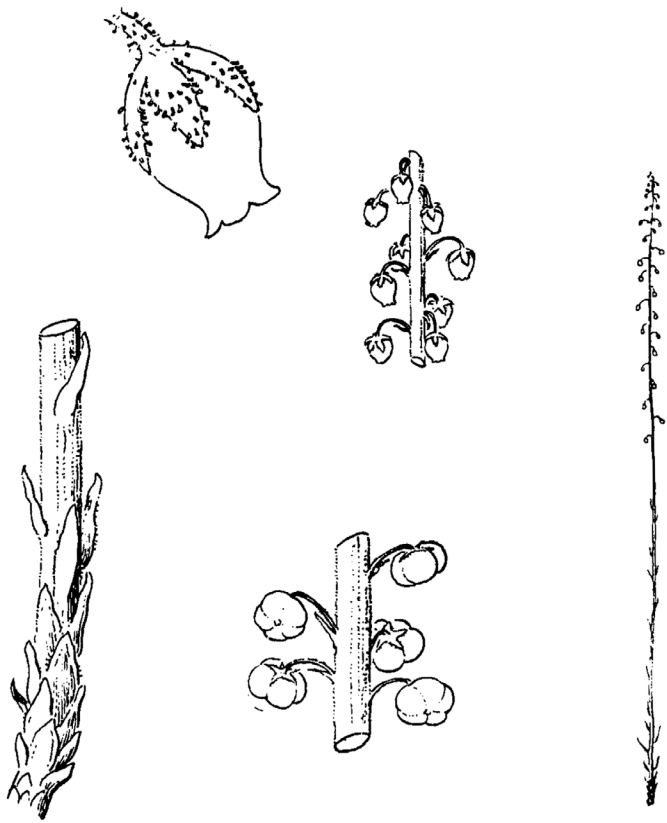
FRUIT: Hard nutlets.

HABITAT: Moist places or **disturbed sites** such as logging roads and skid trails.

NOTES: Once a common medicinal herb used now as a refreshing beverage.

2	Syal h.t.		Pipo
3	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
+	Phma	Phma h.t.	
1	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
1	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
1	Adpe h.t.		
1	Adpe	Atfi h.t.	
1	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
1	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
3	Caca	Caca h.t.	
2	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		3
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	+
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	1
		Tabr	
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	2
		Cooc	2
Thpl	Clun h.t.	Clun	1
		Tabr	1
		Mefe	1
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		1
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	2
		Arnu	
		Mefe	
		Xete	1
	Asca h.t.	Asca	2
		Arnu	1
		Mefe	2
	Gydr h.t.		1
Tsme	Clun h.t.	Mefe	+
		Xete	
	Mefe h.t.	Xete	2
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	1
	Xete h.t.	Cooc	
		Vagl	1
		Vasc	+
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ERICACEAE
Pterospora andromedea Nutt.

pinedrops, woodland pinedrops

FORM: Perennial, sticky-glandular, **parasitic forb**, 3–10 dm (1–3 ft) tall.

STEMS: Tall, reddish-yellow aging to reddish-brown, **unbranched**, glandular-hairy; **dried stalks persistent for 1 or more years**.

LEAVES: Alternate scalelike, lanceolate to linear-lanceolate **reddish-brown bracts**.

FLOWERS: Pale yellow, **urn-shaped**, each flower on short, **recurved pedicel** in elongate terminal raceme, 1–5 dm (4–20 in) long; June–Aug.

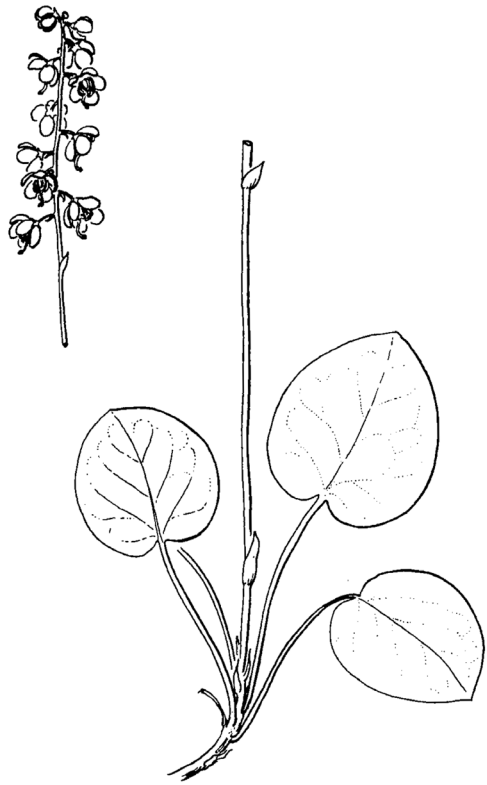
FRUIT: Depressed-globose, reddish-brown capsule, 8–12 mm broad.

HABITAT: Deep humus in coniferous forests.

Table 15— *Pyrola* Species Conspectus.

Species	Page	Leaves and Stems	Leaf Shape	Leaf color	Flowers	Similar species
Pyrola asarifolia common pink wintergreen **Pyas**	171	numerous basal	obovate	shiny green above purplish-brown below not mottled	10-25 in raceme pink to rose; nodding styles strongly curved	**Asca3** **Pypi**
Pyrola chlorantha greenish wintergreen **Pych**	N/A	several basal reddish-brown stems	rotund round-toothed	dull dark green not mottled	2-8 in raceme pale yellowish style curved	
Pyrola picta white vein pyrola **Pypi**	N/A	mostly basal	elliptic thickened margins	dark green with greyish mottling along main veins	10-25 in raceme yellowish or green style curved	**Pyas** **Goob**
Pyrola secunda [*Orthilia secunda*] one-sided wintergreen **Pyse**	172	numerous leaves leafy aerial stem	ovate to elliptic	light green	6-20 in nodding raceme flowers on one side white; styles straight	**Gaov**

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	1
		Xete	3
	Asca h.t.	Asca	2
		Tabr	2
		Mefe	2
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	1
		Tabr	4
		Mefe	6
		Xete	3
	Xete h.t.	Vagl	2
		Cooc	2
Thpl	Clun h.t.	Clun	3
		Tabr	5
		Mefe	7
		Xete	7
	Asca h.t.	Asca	3
		Tabr	5
		Mefe	4
	Gydr h.t.		6
	Adpe h.t.		1
	Atfi h.t.	Adpe	1
		Atfi	1
	Opho h.t.		1
Tshe	Clun h.t.	Clun	6
		Arnu	3
		Mefe	6
		Xete	7
	Asca h.t.	Asca	3
		Arnu	4
		Mefe	3
	Gydr h.t.		6
Tsme	Clun h.t.	Mefe	5
		Xete	5
	Mefe h.t.	Xete	4
		Luhi	1
	Stam h.t.	Mefe	5
		Luhi	
	Xete h.t.	Vagl	3
		Luhi	
Abla	Clun h.t.	Clun	7
		Mefe	4
		Xete	3
	Mefe h.t.	Cooc	8
		Xete	2
		Vasc	1
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	
		Vaca	5
		Legl	2
	Xete h.t.	Cooc	1
		Vagl	
		Vasc	1
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ERICACEAE
Pyrola asarifolia Michx.

common pink wintergreen, alpine pyrola, liverleaf wintergreen

FORM: Evergreen, perennial, rhizomatous forb; glabrous flowering stems 15–40 cm (6–16 in) tall with 1–3 inconspicuous bracts below the inflorescence.

LEAVES: Numerous **basal** leaves with petioles usually at least as long as the blades; simple, entire, circular to elliptic, leathery, **shiny dark green above, often purplish-brown beneath**, 3–8 cm (1–3 in) wide, **no white mottling along midveins**.

FLOWERS: Pink to rose or purplish-red, 10–15 mm broad, with a **strongly curved style**, 5–8 mm long, 10–25 nodding flowers in elongate terminal racemes; June–Sept.

FRUIT: Capsule, 6–8 mm broad.

SIMILAR SPECIES: *Pyrola* Species Conspectus, p. 170; *Asarum caudatum*, p. 116; and *Viola orbiculata*, p. 193.



PYROLACEAE
Pyrola secunda L.
[*Orthilia secunda* (L.) House]

one-sided wintergreen, sidebells

FORM: Evergreen, perennial, rhizomatous forb; **single aerial stem leafy toward the base and often woody**, 5–15 cm (2–6 in) tall with 1–2 small bracts.

LEAVES: Numerous, alternate leaves; crenulate to serrate, dark green above, pale below, ovate to ovate-elliptic blades, 1–6 cm (< 2 in) long on short petioles.

FLOWERS: White with straight style, 5–6 mm broad; 6–20 nodding flowers in **1-sided racemes**; June–Aug.

FRUIT: Globose capsule, 5 mm in diameter.

ENEMIES: Fire: susceptible, regeneration from seed to preburn levels within 10 years.

SIMILAR SPECIES: *Pyrola* Species Conspectus, p. 170.

	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
2	Aruv		
	Phma	Phma h.t.	
+	Smst		
1	Phma	Phma h.t.	Abgr
1	Cooc		
4	Libo	Libo h.t.	
4	Xete		
3	Asca	Asca h.t.	
4	Tabr		
5	Mefe		
1	Setr h.t.		
2	Phma	Clun h.t.	
3	Clun		
5	Tabr		
5	Mefe		
5	Xete		
5	Vagl	Xete h.t.	
5	Cooc		
4	Clun	Clun h.t.	Thpl
6	Tabr		
7	Mefe		
6	Xete		
5	Asca	Asca h.t.	
7	Tabr		
4	Mefe		
5	Gydr h.t.		
1	Adpe h.t.		
	Adpe	Atfi h.t.	
1	Atfi		
1	Opho h.t.		
6	Clun	Clun h.t.	Tshe
5	Arnu		
7	Mefe		
7	Xete		
5	Asca	Asca h.t.	
6	Arnu		
3	Mefe		
5	Gydr h.t.		
7	Mefe	Clun h.t.	Tsme
10	Xete		
5	Xete	Mefe h.t.	
2	Luhi		
	Mefe	Stam h.t.	
2	Luhi		
5	Vagl	Xete h.t.	
2	Luhi		
7	Clun	Clun h.t.	Abla
7	Mefe		
6	Xete		
7	Cooc	Mefe h.t.	
8	Xete		
5	Vasc		
4	Luhi		
6	Mefe	Stam h.t.	
4	Lica		
2	Caca	Caca h.t.	
	Vaca		
2	Legl		
6	Cooc	Xete h.t.	
3	Vagl		
2	Vasc		
1	Luhi		
	Vasc h.t.		Pico
5	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		1
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	+
		Mefe	
	Setr h.t.		3
	Clun h.t.	Phma	
		Clun	1
		Tabr	
		Mefe	
		Xete	+
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	2
	Caca h.t.	Caca	3
		Vaca	
		Legl	2
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



RANUNCULACEAE
Ranunculus uncinatus D. Don ex G. Don

little buttercup

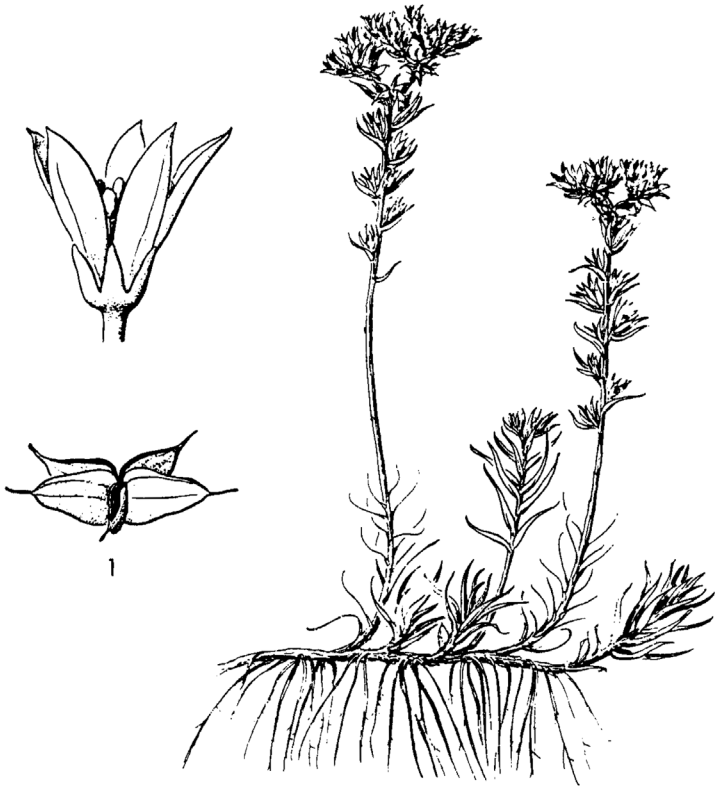
FORM: Deciduous, annual or perennial; single, erect, hairy to glabrous stem, 20–60 cm (8–24 in) tall.

LEAVES: Mostly basal, long petiolate blades, simple, cordate-reniform, deeply 3-lobed, glabrous above, hairy and paler below, 3–8 cm (1–3 in) long; 1–2 alternate, short-petiolate cauline leaves.

FLOWERS: Small, single, yellow, 5-merous, terminal, 2–3 mm long; May–Aug.

FRUIT: Papery, achene 3–4 mm long, with short hooked style (1).

SIMILAR SPECIES: *Trautvetteria caroliniensis*, p. 184; *Trollius laxus* (globeflower) [*T. albiflorus*]; and other *Ranunculus* species.



CRASSULACEAE
Sedum stenopetalum Pursh

wormleaf stonecrop

FORM: Glabrous, **succulent** perennial up to 19 cm (7 in) tall, appearing somewhat evergreen.

LEAVES: Alternate, linear, broadened, 15–25 mm (< 1 in) long, **strongly keeled (observed mainly on fresh material)**; persistent on old stems, mostly basal.

FLOWERS: Yellow, regular, spreading, 5-merous, 8–14 mm, in tight cymes; late May–July.

FRUIT: Follicles widely divergent (1), not glandular.

SIMILAR SPECIES: *Sedum lanceolatum* (lanceleaved stonecrop), leaves not keeled.

NOTES: Young leaves can be used in salads, but excessive amounts may act as a laxative.

	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
+	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
1	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
1	Luhi		
	Mefe	Stam h.t.	
2	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	1
		Tabr	1
		Mefe	1
	Setr h.t.		8
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	2
	Asca h.t.	Asca	1
		Tabr	1
		Mefe	6
	Gydr h.t.		
	Adpe h.t.		2
	Atfi h.t.	Adpe	
		Atfi	6
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Arnu	3
		Mefe	
	Gydr h.t.		1
Tsme	Clun h.t.	Mefe	2
		Xete	1
	Mefe h.t.	Xete	
		Luhi	2
	Stam h.t.	Mefe	7
		Luhi	5
	Xete h.t.	Vagl	1
		Luhi	1
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	
		Luhi	1
	Stam h.t.	Mefe	6
		Lica	9
	Caca h.t.	Caca	8
		Vaca	5
		Legl	4
	Xete h.t.	Cooc	
		Vagl	
		Vasc	+
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ASTERACEAE
Senecio triangularis Hook.

arrowleaf groundsel

FORM: Tall, deciduous, perennial forb, 3–15 dm (1–5 ft) with several stems arising from fibrous roots.

LEAVES: Numerous, alternate, simple, **distinctly triangular leaves**, 4–20 cm (2–8 in); **basal leaves strongly toothed**, with long petioles; cauline leaves become reduced, sessile and less triangular upwards.

FLOWERS: Few to numerous **yellow heads in flat-topped inflorescence**; June–Sept.

FRUIT: Achene.

HABITAT: Seasonally wet or very moist to riparian sites.



CARYOPHYLLACEAE
Silene menziesii Hook.

Menzies's silene

FORM: Low, matted, deciduous, dioecious perennial with numerous, hairy, branched stems, 5–30 cm (2–12 in) long.

LEAVES: Numerous, **opposite**, **mostly cauline**, **hairy**, lanceolate, 2–6 cm (1–2 in) long, sessile or subsessile.

FLOWERS: Unisexual, calyx tubular-campanulate, white petals, 5–8 mm long, **clawed but not divided to base** (1); several in a leafy, open cyme; May–Aug.

FRUIT: Dehiscent capsule.

SIMILAR SPECIES: *Arenaria macrophylla* [*Moehringia macrophylla*], p. 113.

1	Syal h.t.		Pipo
3	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
1	Phma	Phma h.t.	
1	Smst		
3	Phma	Phma h.t.	Abgr
4	Cooc		
1	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
+	Tabr		
1	Mefe		
	Setr h.t.		
1	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
1	Xete		
1	Vagl	Xete h.t.	
1	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Tabr		
1	Mefe		
1	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
1	Opho h.t.		
1	Clun	Clun h.t.	Tshe
	Arnu		
1	Mefe		
	Xete		
2	Asca	Asca h.t.	
1	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
1	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		1
Psme	Caru h.t.	Caru	8
		Aruv	3
	Phma h.t.	Phma	6
		Smst	9
Abgr	Phma h.t.	Phma	8
		Cooc	1
	Libo h.t.	Libo	2
		Xete	1
	Asca h.t.	Asca	3
		Tabr	1
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	7
		Clun	3
		Tabr	
		Mefe	2
		Xete	2
	Xete h.t.	Vagl	1
		Cooc	4
Thpl	Clun h.t.	Clun	1
		Tabr	1
		Mefe	2
		Xete	1
	Asca h.t.	Asca	3
		Tabr	5
		Mefe	6
	Gydr h.t.		2
	Adpe h.t.		1
	Atfi h.t.	Adpe	2
		Atfi	2
	Opho h.t.		1
Tshe	Clun h.t.	Clun	1
		Arnu	1
		Mefe	3
		Xete	1
	Asca h.t.	Asca	2
		Arnu	
		Mefe	3
	Gydr h.t.		1
Tsme	Clun h.t.	Mefe	+
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



ASPARAGACEAE
Smilacina racemosa (L.) Desf.
[*Maianthemum racemosum* (L.) Link]

large false Solomon's seal, Solomon-plume, false spikenard

FORM: Stongly rhizomatous, deciduous perennial, 3–9 dm (1–3 ft) tall.

STEM: Erect, **green,** leafy flower stem unbranched, stiffly arched, ascending, with spreading hairs in the inflorescence.

LEAVES: Alternate, **parallel-veined**, simple, entire, sessile, finely hairy, lanceolate to elliptic, acuminate, 7–20 cm (3–8 in) long.

FLOWERS: Numerous, small, white flowers, 4–7 mm long, in a freely branching, **terminal panicle**, 5–12 cm (2–5 in) long; April–July.

FRUIT: Globose berry, 5–7 mm in diameter; **immature fruit mottled green and brown, becoming all red**.

SIMILAR SPECIES: Liliaceae Species Conspectus, p. 129.

NOTES: Edible but with strong laxative properties.



ASPARAGACEAE
Smilacina stellata (L.) Desf.
[*Maianthemum stellatum* (L.) Link]

starry Solomon's seal, star-flowered Solomon's seal,
little false Solomon's seal

FORM: Rhizomatous perennial, 20–60 cm (8–24 in) tall.

STEM: Erect, **green**, flowering stem unbranched, stiffly arched and ascending.

LEAVES: Alternate, **sessile**, **parallel-veined**, lanceolate to oblong, acuminate, 5–7 cm (2–3 in) long, glabrous to strongly hairy.

FLOWERS: 5–10 in a terminal raceme, white, 4–7 mm long; **rachis of inflorescence usually zigzag**, flower directly attached to main stem; May–June.

FRUIT: Globose, greenish-yellow berries becoming black; **immature fruit green with 3 red stripes**.

SIMILAR SPECIES: Liliaceae Species Conspectus, p. 129.

NOTES: Edible but with strong laxative properties.

1	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
	Aruv		
2	Phma	Phma h.t.	
6	Smst		
7	Phma	Phma h.t.	Abgr
7	Cooc		
6	Libo	Libo h.t.	
1	Xete		
10	Asca	Asca h.t.	
10	Tabr		
8	Mefe		
9	Setr h.t.		
9	Phma	Clun h.t.	
10	Clun		
6	Tabr		
4	Mefe		
6	Xete		
1	Vagl	Xete h.t.	
4	Cooc		
9	Clun	Clun h.t.	Thpl
7	Tabr		
8	Mefe		
6	Xete		
9	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
9	Gydr h.t.		
9	Adpe h.t.		
9	Adpe	Atfi h.t.	
9	Atfi		
8	Opho h.t.		
5	Clun	Clun h.t.	Tshe
9	Arnu		
3	Mefe		
7	Xete		
10	Asca	Asca h.t.	
10	Arnu		
10	Mefe		
10	Gydr h.t.		
4	Mefe	Clun h.t.	Tsme
6	Xete		
	Xete	Mefe h.t.	
	Luhi		
5	Mefe	Stam h.t.	
	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
10	Clun	Clun h.t.	Abla
4	Mefe		
7	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
5	Mefe	Stam h.t.	
6	Lica		
5	Caca	Caca h.t.	
2	Vaca		
	Legl		
	Cooc	Xete h.t.	
1	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	+
		Mefe	
	Setr h.t.		1
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	+
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	2
		Mefe	1
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	3
	Gydr h.t.		3
	Adpe h.t.		4
	Atfi h.t.	Adpe	6
		Atfi	6
	Opho h.t.		8
Tshe	Clun h.t.	Clun	1
		Arnu	
		Mefe	2
		Xete	1
	Asca h.t.	Asca	1
		Arnu	1
		Mefe	
	Gydr h.t.		4
Tsme	Clun h.t.	Mefe	1
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	5
		Luhi	2
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	3
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	5
		Lica	4
	Caca h.t.	Caca	2
		Vaca	1
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



LILIACEAE
Streptopus amplexifolius (L.) DC.

twisted-stalk, clasping-leaved twisted stalk, cucumber-root

FORM: Slender, herbaceous, deciduous, rhizomatous perennial, mostly 6–12 dm (2–4 ft) tall.

STEMS: Erect, **green,** usually branched below middle stem.

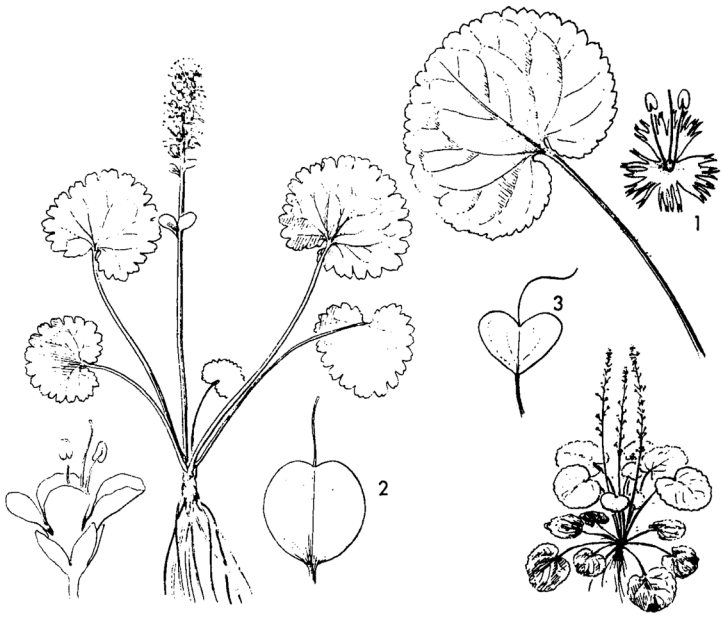
LEAVES: Alternate, **parallel-veined**, **glabrous**, ovate, acuminate, mostly 5–12 cm (2–5 in) long, **sessile with cordate clasping bases** (1).

FLOWERS: Greenish-white, 3-merous, bell-shaped, 9–15 mm long; solitary or in pairs **on twisted stalks beneath each leaf along upper part of stem**; May–July.

FRUIT: Inedible, elongated, **bright orange berry**, slightly translucent, 10–12 mm long.

SIMILAR SPECIES: Liliaceae Species Conspectus, p. 129; and *Streptopus streptopoides* (small twisted-stalk), hairy at nodes, found in Bonner and Boundary Counties, and is considered a rare plant (Idaho Native Plant Society 2023).

Symi **Sypl**



PLANTAGINACEAE

Synthyris missurica (Raf.) Pennell — mountain kittentails

Synthyris platycarpa Gail & Pennell — evergreen kittentails

FORM: Perennial from short rhizome.
Symi: 1–6 dm (4–24 in) tall.
Sypl: 1–3 dm (4–12 in) tall.

LEAVES: Basal leaves, long-petiolate with cordate blade, palmately veined, persistent to second season.
Symi: glabrous, **deeply cordate**, 2–8 cm (1–3 in) wide.
Sypl: pubescent, **round cordate**, bright green, 1–12 cm (1–5 in) wide; hairy upper surface, glabrous below, densely white hairy when young.

FLOWERS: Corollas subrotate, lobes longer than tube, 4-merous, borne in dense racemes.
Symi: bright bluish-purple, 4–7 mm long; April–July.
Sypl: bluish-violet, **petal lobes incised** (1), 2–4 mm long; June–July.

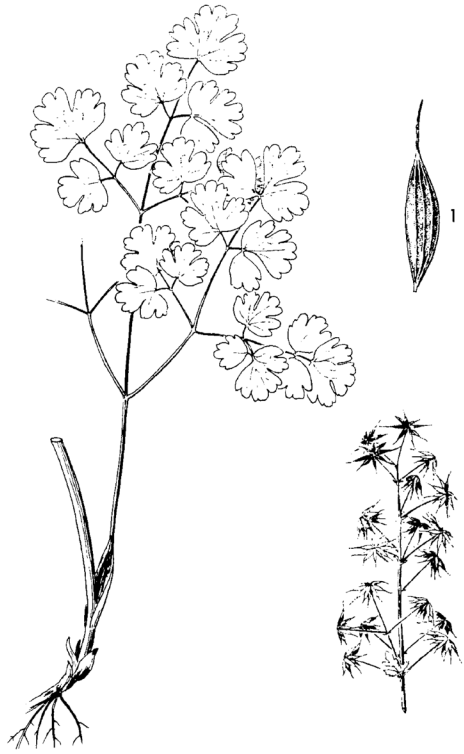
FRUIT:
Symi: Ovate capsule, 5–7 mm high, as wide as high, **shallowly notched** (2).
Sypl: Heart-shaped capsule (3), 3–5 mm wide, nearly twice as wide as high.

SIMILAR SPECIES: *Viola orbiculata*, p. 193; and *Heuchera* species, p. 145.

NOTES: Sypl is a geographic endemic associated with coastal disjunct species and is considered a rare plant on the Nez Perce—Clearwater National Forests (Idaho Native Plant Society 2023).

		Syal h.t.		Pipo
1		Phma h.t.		
		Caru	Caru h.t.	Psme
		Aruv		
1		Phma	Phma h.t.	
+		Smst		
1		Phma	Phma h.t.	Abgr
1	1	Cooc		
3		Libo	Libo h.t.	
		Xete		
	1	Asca	Asca h.t.	
	3	Tabr		
	3	Mefe		
	6	Setr h.t.		
		Phma	Clun h.t.	
	+	Clun		
		Tabr		
	1	Mefe		
	1	Xete		
		Vagl	Xete h.t.	
1		Cooc		
	1	Clun	Clun h.t.	Thpl
	1	Tabr		
		Mefe		
		Xete		
+	1	Asca	Asca h.t.	
	4	Tabr		
		Mefe		
1	1	Gydr h.t.		
+	1	Adpe h.t.		
	1	Adpe	Atfi h.t.	
		Atfi		
		Opho h.t.		
		Clun	Clun h.t.	Tshe
		Arnu		
		Mefe		
		Xete		
		Asca	Asca h.t.	
		Arnu		
		Mefe		
		Gydr h.t.		
	1	Mefe	Clun h.t.	Tsme
		Xete		
		Xete	Mefe h.t.	
		Luhi		
		Mefe	Stam h.t.	
		Luhi		
		Vagl	Xete h.t.	
		Luhi		
		Clun	Clun h.t.	Abla
	1	Mefe		
	2	Xete		
		Cooc	Mefe h.t.	
		Xete		
	1	Vasc		
		Luhi		
	1	Mefe	Stam h.t.	
	1	Lica		
		Caca	Caca h.t.	
		Vaca		
		Legl		
		Cooc	Xete h.t.	
		Vagl		
	+	Vasc		
		Luhi		
	1	Vasc h.t.		Pico
		Xete c.t.		
		Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		4
Psme	Caru h.t.	Caru	6
		Aruv	2
	Phma h.t.	Phma	4
		Smst	5
Abgr	Phma h.t.	Phma	6
		Cooc	6
	Libo h.t.	Libo	5
		Xete	6
	Asca h.t.	Asca	8
		Tabr	8
		Mefe	7
	Setr h.t.		10
	Clun h.t.	Phma	7
		Clun	5
		Tabr	5
		Mefe	6
		Xete	5
	Xete h.t.	Vagl	1
		Cooc	6
Thpl	Clun h.t.	Clun	5
		Tabr	4
		Mefe	4
		Xete	3
	Asca h.t.	Asca	7
		Tabr	2
		Mefe	10
	Gydr h.t.		4
	Adpe h.t.		4
	Atfi h.t.	Adpe	2
		Atfi	5
	Opho h.t.		2
Tshe	Clun h.t.	Clun	1
		Arnu	4
		Mefe	6
		Xete	4
	Asca h.t.	Asca	4
		Arnu	1
		Mefe	10
	Gydr h.t.		2
Tsme	Clun h.t.	Mefe	4
		Xete	2
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	5
		Luhi	
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	10
		Mefe	8
		Xete	8
	Mefe h.t.	Cooc	2
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	7
		Lica	6
	Caca h.t.	Caca	7
		Vaca	2
		Legl	2
	Xete h.t.	Cooc	1
		Vagl	3
		Vasc	+
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		3



RANUNCULACEAE
Thalictrum occidentale A. Gray

western meadowrue

FORM: Glabrous, deciduous, dioecious perennial, 4–10 dm (1–3 ft) tall.

LEAVES: Mostly cauline, alternate, 3–4 times ternate, leaflets generally **rounded**, **3-lobed and delicate**; leaf canopy usually **oriented horizontally**.

FLOWERS: Unisexual, inconspicuous, 4–5 merous, irregular greenish-white to purplish in a panicle; May–July.

FRUIT: Green-purple achene (1).

SIMILAR SPECIES: *Aquilegia* species, p. 111, leaves not as dissected, individual leaflets larger and fewer.



FABACEAE

Thermopsis montana Nutt. ex Torr. & A. Gray

Montana golden pea, mountain golden-banner, mountain thermopsis

FORM: Rhizomatous, deciduous, perennial forb, 5–10 dm (2–3 ft) tall.

LEAVES: Alternate, **trifoliolate with large stipules** (1), hairy leaflets broadly ovate, 3–8 cm (1–3 in) long.

FLOWERS: Golden-yellow, papilionaceous (pea-flower); 10–60 in dense to open raceme; May–Aug.

FRUIT: Erect, straight, hairy pods (2), 4–8 cm (2–3 in) long.

NOTES: Toxic to cattle and humans. Nitrogen fixer easily grown from seed, transplanting difficult.

	Syal h.t.		Pipo
1	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
1	Cooc		
3	Libo	Libo h.t.	
3	Xete		
	Asca	Asca h.t.	
+	Tabr		
2	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
2	Mefe		
3	Xete		
2	Vagl	Xete h.t.	
	Cooc		
1	Clun	Clun h.t.	Thpl
	Tabr		
1	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
2	Adpe h.t.		
1	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
1	Xete		
	Xete	Mefe h.t.	
1	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
2	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
1	Vagl		
+	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	4
		Tabr	10
		Mefe	7
	Setr h.t.		7
	Clun h.t.	Phma	
		Clun	4
		Tabr	6
		Mefe	6
		Xete	2
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	4
		Tabr	9
		Mefe	9
		Xete	6
	Asca h.t.	Asca	8
		Tabr	10
		Mefe	9
	Gydr h.t.		10
	Adpe h.t.		9
	Atfi h.t.	Adpe	10
		Atfi	10
	Opho h.t.		9
Tshe	Clun h.t.	Clun	7
		Arnu	4
		Mefe	10
		Xete	7
	Asca h.t.	Asca	9
		Arnu	9
		Mefe	10
	Gydr h.t.		9
Tsme	Clun h.t.	Mefe	5
		Xete	2
	Mefe h.t.	Xete	1
		Luhi	
	Stam h.t.	Mefe	10
		Luhi	2
	Xete h.t.	Vagl	1
		Luhi	
Abla	Clun h.t.	Clun	7
		Mefe	5
		Xete	4
	Mefe h.t.	Cooc	2
		Xete	
		Vasc	1
		Luhi	
	Stam h.t.	Mefe	7
		Lica	7
	Caca h.t.	Caca	2
		Vaca	2
		Legl	2
	Xete h.t.	Cooc	1
		Vagl	1
		Vasc	+
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



SAXIFRAGACEAE
Tiarella trifoliata L.

coolwort foamflower, false mitrewort

FORM: Perennial, deciduous, rhizomatous forb, flowering stems 2–5 dm (8–20 in) tall.

LEAVES: 1–7 cm (< 3 in) long.
var. *unifoliata*: **simple**, shallowly to deeply **3–5 lobed** (1).
var. *trifoliata*: **compound**, **trifoliolate** with 3 petiolate leaflets, lobed no more than half their length (2).

FLOWERS: White, 5-merous, bell-shaped flowers in elongate panicles; May–Aug.

FRUIT: Capsule, 7–10 mm long.

SIMILAR SPECIES: *Mitella* Species Conspectus, p. 156; and *Tellima grandiflora* (fringecup).

NOTES: *Tiarella unifoliata* is now considered *T. trifoliata* var. *unifoliata*.



RANUNCULACEAE
Trautvetteria caroliniensis (Walter) Vail

false bugbane

FORM: Erect, rhizomatous, deciduous, perennial forb, mostly 5–8 dm (20–32 in) tall.

LEAVES: Mostly basal, **long-petiolate**, **palmately divided** into 5–11 broad serrate-dentate lobes, 10–25 cm (4–10 in) broad, glabrous above, pubescent below; 1–2 alternate, short petiolate cauline leaves (1).

FLOWERS: Inconspicuous, white or greenish, 4-merous, in loose, hairy, branched, terminal corymbs; May–Aug.

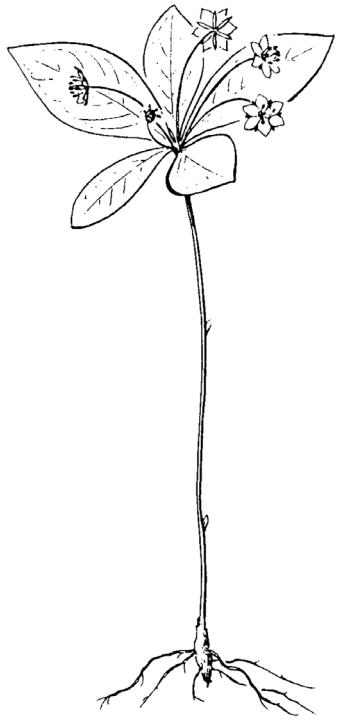
FRUIT: Achene (2).

SIMILAR SPECIES: *Trollius laxus* (globeflower) [*T. albiflorus*] and *Boykinia major* (mountain boykinia).

HABITAT: Wet seepage sites and along streambanks.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
1	Tabr		
1	Mefe		
1	Xete		
1	Asca	Asca h.t.	
2	Tabr		
1	Mefe		
2	Gydr h.t.		
2	Adpe h.t.		
7	Adpe	Atfi h.t.	
5	Atfi		
4	Opho h.t.		
	Clun	Clun h.t.	Tshe
1	Arnu		
1	Mefe		
	Xete		
+	Asca	Asca h.t.	
1	Arnu		
	Mefe		
2	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
1	Luhi		
2	Mefe	Stam h.t.	
2	Luhi		
1	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
1	Cooc	Mefe h.t.	
	Xete		
	Vasc		
1	Luhi		
4	Mefe	Stam h.t.	
5	Lica		
8	Caca	Caca h.t.	
2	Vaca		
1	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	1
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		3
	Atfi h.t.	Adpe	3
		Atfi	+
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	1
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



PRIMULACEAE
Trientalis latifolia Hook.
[*Lysimachia latifolia* (Hook.) Cholewa]

western starflower

FORM: Rhizomatous, **evergreen**, perennial forb, 10–25 cm (4–10 in) tall from short, erect tuber.

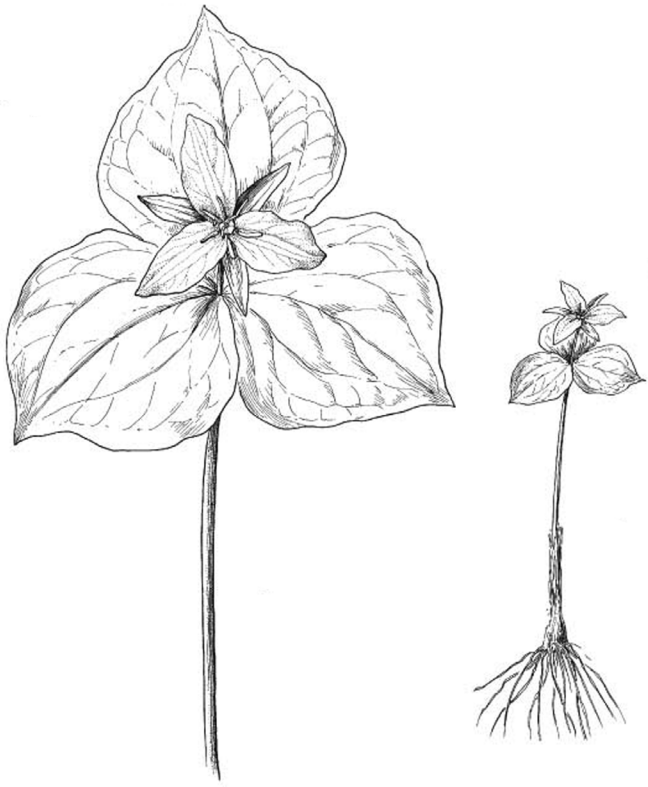
LEAVES: Erect or ascending stem with **terminal whorl of 4–8**, **entire leaves**, 3–10 cm (1–4 in) long; inconspicuous bracts present on lower stem.

FLOWERS: Solitary on slender pedicels; 6- or 7-merous, pinkish to rose, 8–12 mm broad; April–July.

FRUIT: Valvate capsule.

SIMILAR SPECIES: *Cornus canadensis*, p. 128.

NOTES: Occurs in Clearwater and Latah Counties as a coastal disjunct.



MELANTHIACEAE
Trillium ovatum Pursh

white trillium, trillium, western trillium, western wake-robin

FORM: Glabrous, deciduous, perennial forb, erect stem 10–30 cm (4–12 in) tall, from short, thick rhizomes.

LEAVES: Sessile, **whorl of three**, large, simple, entire broadly ovate, 5–15 cm (2–6 in) long.

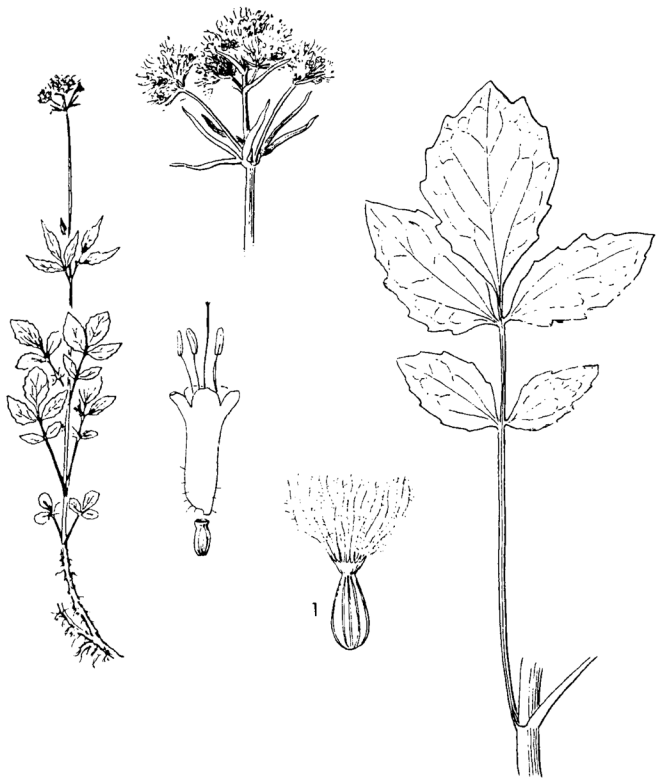
FLOWERS: Solitary, terminal, stalked, **3 white petals aging to pink**; March–June, later at high elevations.

FRUIT: Yellowish-green, many seeded berry.

SIMILAR SPECIES: *Trillium petiolatum* (purple trillium), **petiolate leaves and sessile, purple flowers**.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
1	Phma	Phma h.t.	
2	Smst		
2	Phma	Phma h.t.	Abgr
4	Cooc		
5	Libo	Libo h.t.	
1	Xete		
6	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
10	Setr h.t.		
3	Phma	Clun h.t.	
6	Clun		
8	Tabr		
9	Mefe		
5	Xete		
2	Vagl	Xete h.t.	
6	Cooc		
6	Clun	Clun h.t.	Thpl
9	Tabr		
6	Mefe		
7	Xete		
7	Asca	Asca h.t.	
10	Tabr		
9	Mefe		
9	Gydr h.t.		
8	Adpe h.t.		
8	Adpe	Atfi h.t.	
9	Atfi		
9	Opho h.t.		
5	Clun	Clun h.t.	Tshe
4	Arnu		
4	Mefe		
5	Xete		
7	Asca	Asca h.t.	
6	Arnu		
10	Mefe		
9	Gydr h.t.		
7	Mefe	Clun h.t.	Tsme
5	Xete		
1	Xete	Mefe h.t.	
	Luhi		
10	Mefe	Stam h.t.	
5	Luhi		
2	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
9	Mefe		
7	Xete		
6	Cooc	Mefe h.t.	
	Xete		
2	Vasc		
1	Luhi		
6	Mefe	Stam h.t.	
7	Lica		
7	Caca	Caca h.t.	
7	Vaca		
4	Legl		
3	Cooc	Xete h.t.	
2	Vagl		
	Vasc		
1	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	2
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	1
		Tabr	1
		Mefe	
	Setr h.t.		6
	Clun h.t.	Phma	
		Clun	1
		Tabr	
		Mefe	
		Xete	1
	Xete h.t.	Vagl	1
		Cooc	1
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	2
	Asca h.t.	Asca	+
		Tabr	
		Mefe	1
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	1
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	1
		Xete	
	Mefe h.t.	Xete	1
		Luhi	1
	Stam h.t.	Mefe	2
		Luhi	2
	Xete h.t.	Vagl	
		Luhi	1
Abla	Clun h.t.	Clun	
		Mefe	3
		Xete	3
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	2
		Luhi	1
	Stam h.t.	Mefe	4
		Lica	4
	Caca h.t.	Caca	2
		Vaca	5
		Legl	2
	Xete h.t.	Cooc	1
		Vagl	1
		Vasc	+
		Luhi	2
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



VALERIANACEAE
Valeriana sitchensis Bong.

Sitka valerian, mountain heliotrope

FORM: Robust, deciduous perennial, generally 3–12 dm (1–4 ft) tall from branched rhizomes.

LEAVES: Opposite, mainly cauline, mostly 2–5 pairs; **lowest pairs reduced**, **the next above well-developed**, **petiolate**, odd-pinnately compound, leaflets lance-shaped, coarsely toothed, **terminal leaflet largest**; basal leaves, when present, similar to cauline leaves.

FLOWERS: White, tubular to funnel-shaped flowers, 5–7 mm long in **ball-shaped compact inflorescence**; June–Aug.

FRUIT: Glabrous, mostly ovate or oblong-ovate achene (1), 3–6 mm wide.

NOTES: Dried powdered roots and leaves were added to tobacco as a flavoring by the Nlaka'pamux Nation.

Veca **Vevi**



MELANTHIACEAE

Veratrum californicum Durand — California false hellebore

Veratrum viride Aiton — American false hellebore, green false hellebore

FORM: Tall, deciduous, perennial forb, 1–2 m (3–7 ft) tall from thick rhizomes.

STEMS: Narrowing upward, glabrous below, becoming very woolly above.

LEAVES: Numerous, **parallel-veined**, **large**, simple, entire, alternate.
Veca: ovate to broadly elliptic, 20–30 cm (8–12 in) long.
Vevi: oblong-elliptic, up to 35 cm (14 in) long.

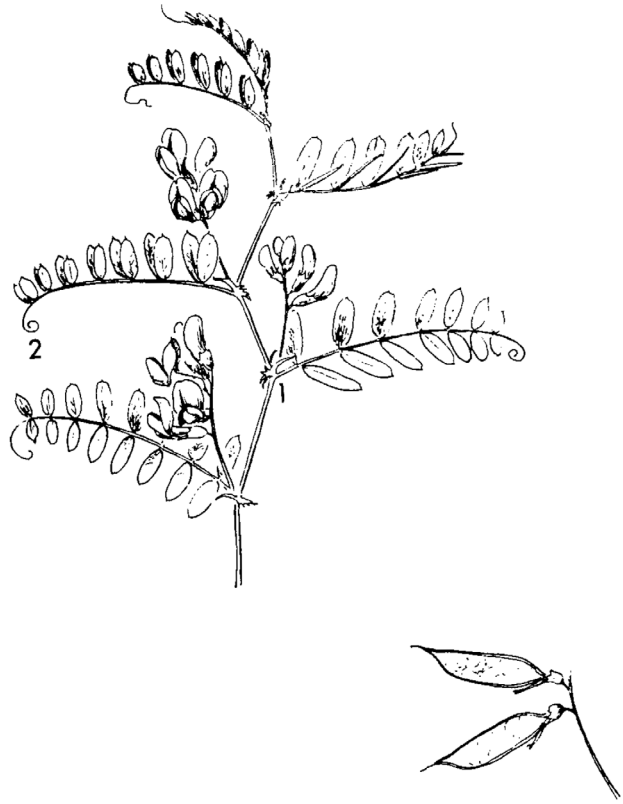
FLOWERS:
Veca: panicle dense, spreading to ascending, **erect not drooping**, 30–60 cm (12–24 in) long, flowers white or slightly greenish, 10–17 mm long; June–Aug.
Vevi: loose and open panicle, 30–70 cm (12–28 in) long, **drooping, with green flowers**, 6–10 mm; late June–Sept.

FRUIT:
Veca: glabrous, narrowly ovoid, 2–3 cm (< 1 in) long capsule, seeds broadly winged, straw-colored, 10–15 mm long.
Vevi: membranous, glabrous capsule, 2–3 cm (< 1 in) long, seeds 8–10 mm long.

NOTES: One of the most violently poisonous plants; causes deformities in lambs.

1		Syal h.t.		Pipo
6		Phma h.t.		
		Caru	Caru h.t.	Psme
		Aruv		
1	+	Phma	Phma h.t.	
1	1	Smst		
		Phma	Phma h.t.	Abgr
		Cooc		
		Libo	Libo h.t.	
		Xete		
	1	Asca	Asca h.t.	
	+	Tabr		
	2	Mefe		
1	1	Setr h.t.		
+	+	Phma	Clun h.t.	
	1	Clun		
	1	Tabr		
	1	Mefe		
		Xete		
		Vagl	Xete h.t.	
		Cooc		
	+	Clun	Clun h.t.	Thpl
	2	Tabr		
		Mefe		
	1	Xete		
	1	Asca	Asca h.t.	
	2	Tabr		
	3	Mefe		
	2	Gydr h.t.		
+	1	Adpe h.t.		
	2	Adpe	Atfi h.t.	
	5	Atfi		
1	3	Opho h.t.		
	1	Clun	Clun h.t.	Tshe
		Arnu		
		Mefe		
		Xete		
	1	Asca	Asca h.t.	
	1	Arnu		
		Mefe		
	1	Gydr h.t.		
4	1	Mefe	Clun h.t.	Tsme
		Xete		
1		Xete	Mefe h.t.	
	3	Luhi		
	5	Mefe	Stam h.t.	
2	5	Luhi		
		Vagl	Xete h.t.	
	1	Luhi		
		Clun	Clun h.t.	Abla
	2	Mefe		
	1	Xete		
	1	Cooc	Mefe h.t.	
	3	Xete		
		Vasc		
	1	Luhi		
	5	Mefe	Stam h.t.	
1	5	Lica		
2	5	Caca	Caca h.t.	
2		Vaca		
	2	Legl		
		Cooc	Xete h.t.	
		Vagl		
	+	Vasc		
	2	Luhi		
		Vasc h.t.		Pico
		Xete c.t.		
		Vaca c.t.		

Pipo	Syal h.t.		3
	Phma h.t.		6
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	1
		Smst	2
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		3
	Clun h.t.	Phma	
		Clun	1
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



FABACEAE
Vicia americana Muhl. ex Willd.

American vetch

FORM: Deciduous glabrous, perennial forb, 15–80 cm (6–32 in) tall.

STEMS: Weak or trailing, 4-angled stems.

LEAVES: Alternate, **pinnately compound** with 8–12 thin, bright green, linear to oval leaflets, variable in size; stipules jagged (1), **tendrils simple to branched**, well-developed (2).

FLOWERS: 4–10 **bluish-purple**, **drying blue**, 12–25 mm long in loose racemes; May–July.

FRUIT: Glabrous pods, 3 cm long.

SIMILAR SPECIES: Other *Vicia* species.

NOTES: Has nitrogen-fixing nodules.

Table 16—*Viola* Species Conspectus.

Species	Page	Rootstock	Leaves	Flower stem	Flower	Similar species
Viola adunca hook violet **Viad**	191	slender rhizomes	ovate finely toothed	variable cauline leaves	blue to violet 3 lower petals white based	
Viola canadensis Canadian violet **Vica**	N/A	short with slender stolons	cordate acute apex serrate	leafy near tip	white purplish-tinged outside 3 lower petals purple-veined	**Vigl**
Viola glabella pioneer violet **Vigl**	192	spreading fleshy rhizomes without stolons	reniform to cordate acute apex serrate	leafy near tip	bright yellow 3 lower petals purple-veined	**Vica**
Viola orbiculata round-leaved violet **Vior2**	193	short erect without stolons	evergreen orbicular rounded apex serrate	leafy near base	lemon yellow 3 lower petals purple-veined	**Asca3** **Pyas**

Pipo	Syal h.t.		1
	Phma h.t.		6
Psme	Caru h.t.	Caru	2
		Aruv	1
	Phma h.t.	Phma	3
		Smst	2
Abgr	Phma h.t.	Phma	2
		Cooc	1
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		3
	Clun h.t.	Phma	2
		Clun	1
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		+
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	2
		Arnu	2
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		3



VIOLACEAE
Viola adunca Sm.

hook violet, western dog violet, early blue violet

FORM: Deciduous perennial from slender rhizomes.

STEMS: Stemless in early spring, maturing to **leafy, aerial stems**, 10 cm (4 in) long.

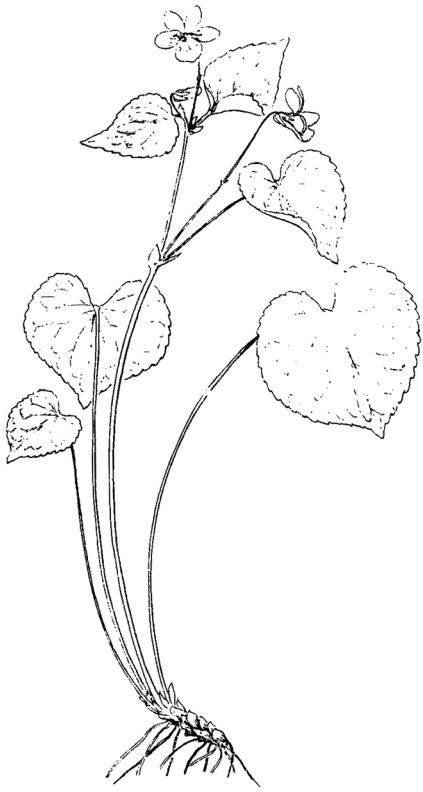
LEAVES: Simple, entire to finely crenate, ovate-lanceolate to kidney shaped, usually cordate at base, 1–3 cm (< 1 in) wide.

FLOWERS: Blue or purple to deep violet, 5–15 mm long; lower 3 petals often whitish based, purplish-violet veined; slender spur somewhat hooked, often over half the length of the lowest petals; April–Aug.

FRUIT: Explosively dehiscent capsule.

SIMILAR SPECIES: *Viola* Species Conspectus, p. 190; *Viola sempervirens* (redwood violet), a coastal disjunct in northern Idaho.

NOTES: Eaten raw or cooked, also used to thicken soup; high in vitamin C.



VIOLACEAE
Viola glabella Nutt.

pioneer violet, stream violet

FORM: Perennial with **leafy, aerial flowering stems**, 5–30 cm (2–12 in) tall, several leaves near the tip, from widely spreading fleshy rootstocks.

LEAVES: Blades reniform to ovate-cordate, 2–7 cm (1–3 in) wide, apex acute, crenate-serrulate, glabrous or puberulent petiole, 10–20 cm (4–8 in) long.

FLOWERS: Bright yellow petals, 8–14 mm long with short spur borne on upper part of stem, the lower 3 petals **purple-veined at the base**; March–July.

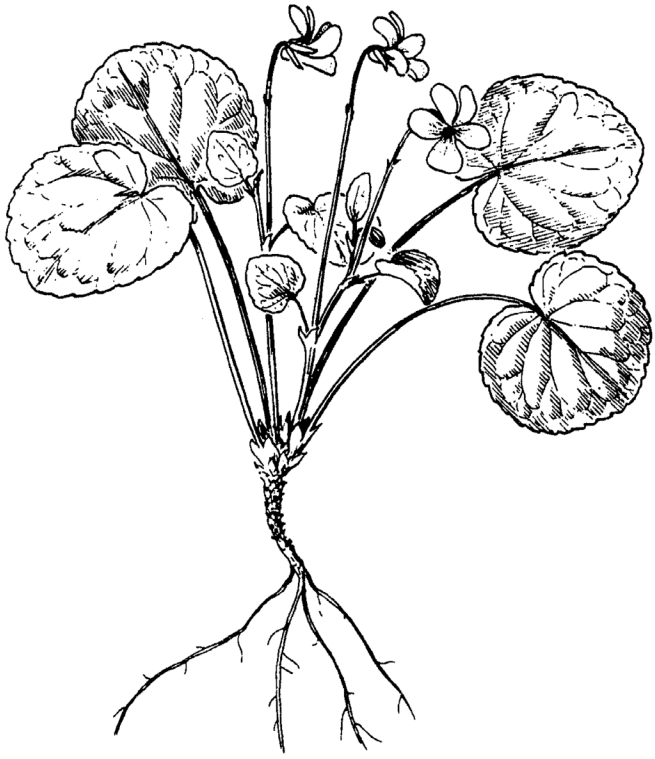
FRUIT: Explosively dehiscent capsule.

SIMILAR SPECIES: *Viola* Species Conspectus, p. 190; *Viola sempervirens* (redwood violet), a coastal disjunct in northern Idaho.

NOTES: Eaten raw or cooked, also used to thicken soup; high in vitamin C.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
+	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
1	Cooc		
	Libo	Libo h.t.	
	Xete		
2	Asca	Asca h.t.	
5	Tabr		
5	Mefe		
9	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
1	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
1	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
2	Asca	Asca h.t.	
4	Tabr		
3	Mefe		
1	Gydr h.t.		
3	Adpe h.t.		
7	Adpe	Atfi h.t.	
5	Atfi		
7	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
2	Asca	Asca h.t.	
1	Arnu		
	Mefe		
3	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
1	Luhi		
10	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
1	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
2	Mefe	Stam h.t.	
4	Lica		
5	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	6
		Xete	9
	Asca h.t.	Asca	7
		Tabr	10
		Mefe	10
	Setr h.t.		7
	Clun h.t.	Phma	3
		Clun	7
		Tabr	10
		Mefe	9
		Xete	8
	Xete h.t.	Vagl	7
		Cooc	7
Thpl	Clun h.t.	Clun	7
		Tabr	9
		Mefe	9
		Xete	9
	Asca h.t.	Asca	8
		Tabr	10
		Mefe	7
	Gydr h.t.		6
	Adpe h.t.		9
	Atfi h.t.	Adpe	8
		Atfi	6
	Opho h.t.		7
Tshe	Clun h.t.	Clun	9
		Arnu	8
		Mefe	10
		Xete	8
	Asca h.t.	Asca	6
		Arnu	8
		Mefe	7
	Gydr h.t.		8
Tsme	Clun h.t.	Mefe	9
		Xete	10
	Mefe h.t.	Xete	5
		Luhi	3
	Stam h.t.	Mefe	7
		Luhi	2
	Xete h.t.	Vagl	4
		Luhi	3
Abla	Clun h.t.	Clun	10
		Mefe	8
		Xete	8
	Mefe h.t.	Cooc	10
		Xete	7
		Vasc	8
		Luhi	2
	Stam h.t.	Mefe	8
		Lica	4
	Caca h.t.	Caca	2
		Vaca	7
		Legl	7
	Xete h.t.	Cooc	9
		Vagl	4
		Vasc	6
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		10
	Vaca c.t.		7



VIOLACEAE
Viola orbiculata (A. Gray) Geyer ex B.D. Jacks

round-leaved violet, darkwoods violet

FORM: Erect, deciduous, perennial forb with short, **nonleafy, aerial stems**, 5 cm (2 in) long, short rootstock, **without stolons**, covered with old petiole bases.

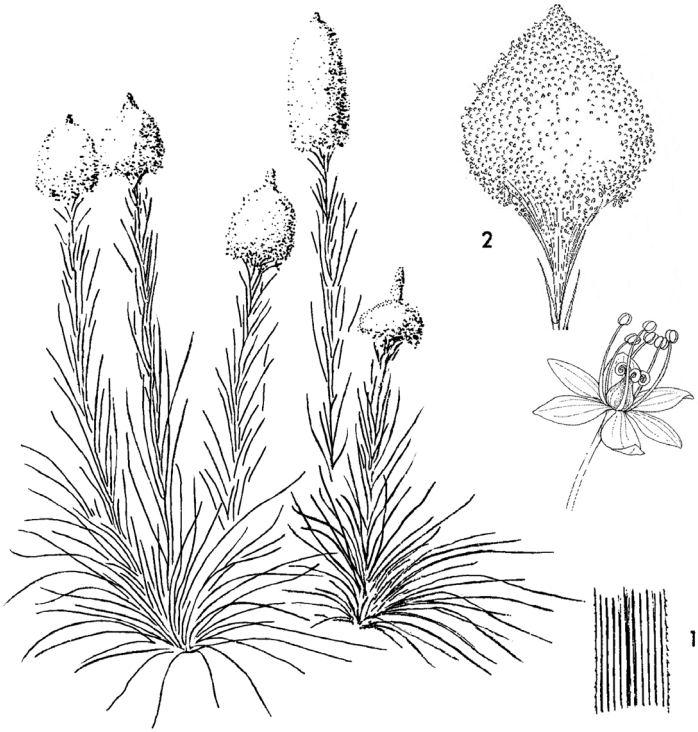
LEAVES: Orbicular-cordate to reniform, simple, serrate, 2–4 cm (1–2 in) broad, thin in texture, usually glabrous, **not purplish-mottled**; **withering but often persistent**.

FLOWERS: Lemon-yellow to gold, 5–15 mm long with short, saccate spur, lower 3 petals purple-veined at the base, lateral pair yellow-bearded; May–Aug.

FRUIT: Explosively dehiscent capsule.

SIMILAR SPECIES: *Asarum caudatum*, p. 116; *Viola* Species Conspectus, p. 190; and *Viola sempervirens* (redwoods violet), a coastal disjunct in northern Idaho.

NOTES: Eaten raw or cooked, also used to thicken soup; high in vitamin C.



MELANTHIACEAE
Xerophyllum tenax (Pursh) Nutt.

beargrass, western turkey-beard

FORM: Evergreen, **grasslike**, rhizomatous perennial forb, often growing in dense clumps.

LEAVES: Basal, rigid, simple, linear with sharp teeth on edges; **fine, white grooves on underside of leaf** extending to tip (1), 15–80 cm (6–32 in) long.

FLOWERS: Fragrant, 3-merous, cream colored to white, borne in a **terminal raceme on persistent flowering stems** (2), up to 15 dm (5 ft) tall; March–July, occurring sporadically.

FRUIT: Capsule, acute, broadly ovoid, about 6mm long.

ENEMIES: Fire: moderate resistance, regeneration from thick, woody rootstocks to preburn levels within 5–10 years.

NOTES: Plant was used by Native Americans; they used the leaves to make cloth and baskets and roots for food.

	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru h.t.	Psme
1	Aruv		
1	Phma	Phma h.t.	
	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
5	Libo	Libo h.t.	
9	Xete		
4	Asca	Asca h.t.	
6	Tabr		
9	Mefe		
4	Setr h.t.		
1	Phma	Clun h.t.	
2	Clun		
8	Tabr		
9	Mefe		
10	Xete		
10	Vagl	Xete h.t.	
9	Cooc		
2	Clun	Clun h.t.	Thpl
10	Tabr		
7	Mefe		
10	Xete		
3	Asca	Asca h.t.	
5	Tabr		
6	Mefe		
2	Gydr h.t.		
+	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
+	Opho h.t.		
4	Clun	Clun h.t.	Tshe
	Arnu		
7	Mefe		
10	Xete		
2	Asca	Asca h.t.	
	Arnu		
10	Mefe		
3	Gydr h.t.		
8	Mefe	Clun h.t.	Tsme
10	Xete		
10	Xete	Mefe h.t.	
10	Luhi		
7	Mefe	Stam h.t.	
7	Luhi		
10	Vagl	Xete h.t.	
10	Luhi		
	Clun	Clun h.t.	Abla
10	Mefe		
10	Xete		
10	Cooc	Mefe h.t.	
8	Xete		
10	Vasc		
10	Luhi		
6	Mefe	Stam h.t.	
7	Lica		
+	Caca	Caca h.t.	
7	Vaca		
7	Legl		
10	Cooc	Xete h.t.	
10	Vagl		
10	Vasc		
9	Luhi		
9	Vasc h.t.		Pico
10	Xete c.t.		
10	Vaca c.t.		

GRAMINOIDS





Table 17—Graminoid Characteristics

Characteristics / Species	Page	1 Life Cycle	2 Size	3 Growth Form	4 Roots	LEAF 5 Sheath	6 Blade	7 Auricles	8 Ligule	FLOWER 9 Inflorescence	10 Awns	Comments
GRASSES												
SPIKE INFLORESCENCE Sessile Spikelets												
Elymus glaucus	208	P	T	C	F	O	F	P	ST	S	LS	2 spikelets per node
Elytrigia spicata	209	P	T	C/S	F/R	O	F	P	ST	S	LB	previously Agsp
PANICLE INFLORESCENCE Pedicelate Spikelets												
Bromus tectorum	198	A	M	S	F	C	F	-	SR	O	LS	
Bromus vulgaris	199	A	T	S	F	C	F	-	LT	O	LS	basal leaves hairy
Calamagrostis canadensis	200	P	T	S	R	O	F	-	LR	O	SS	wet sites
Calamagrostis rubescens	201	P	T	S	R	O	F	-	LR	C	LB	leaves lax
Cinna latifolia	206	P	T	S	R	O	F	-	LR	O	SS	
Dactylis glomerata	207	P	T	S	F	C	F	-	LR	C	SS	
Festuca idahoensis	210	P	T	C	F	O	I	-	ST	O	LS	leaves tightly inrolled
Festuca occidentalis	211	P	T	C	F	O	I	-	ST	O	LS	
Koeleria nitida	212	P	M	C	F	O	F/I	-	SR	C	-	
Melica subulata	217	P	T	C	R	C	F	-	LR	C	-	bulbous base
Phleum pratense	218	P	T	S	F	O	F	S	ST	C	SS	bulbous base
Poa pratensis	219	P	T	S	R	C	F	-	ST	O	-	webby base on floret
Trisetum canescens	220	P	T	S	F	O	F	-	LR	C	LB	
SEDGES												
Carex concinnoides	203	P	M	S	R	C	F	-	-	S	-	
Carex geyeri	204	P	M	C/S	R	C	F	-	-	S	-	
Carex rossii	205	P	S	C	C	C	F	-	-	S	-	

Table 17 continued.

Characteristics / Species	Page	1 Life Cycle	2 Size	3 Growth Form	4 Roots	LEAF 5 Sheath	6 Blade	7 Auricles	8 Ligule	FLOWER 9 Inflorescence	10 Awns	Comments
WOODRUSHES												
Luzula campestris	214	P	M	C	F	C	F	-	-	S	-	blade bases hairy
Luzula hitchcockii	215	P	M	S	R	C	F	-	-	O	-	
Luzula parviflora	216	P	M	C	R	C	F	-	-	O	-	red mottled leaves

1. LIFE CYCLE
A-Annual
P-Perennial

2. SIZE
S-Small, 0-30cm (0-12in)
M-Medium, 3-6dm (12-24in)
T-Tall, 6dm+ (24in+)

3. GROWTH FORM
C-Caespitose or clumped
S-Single-stemmed or loosely tufted

4. ROOTS
F-Fibrous
R-Rhizomatous

5. SHEATH
C-Closed
O-Open

6. BLADE
F-Flat
I-Inrolled

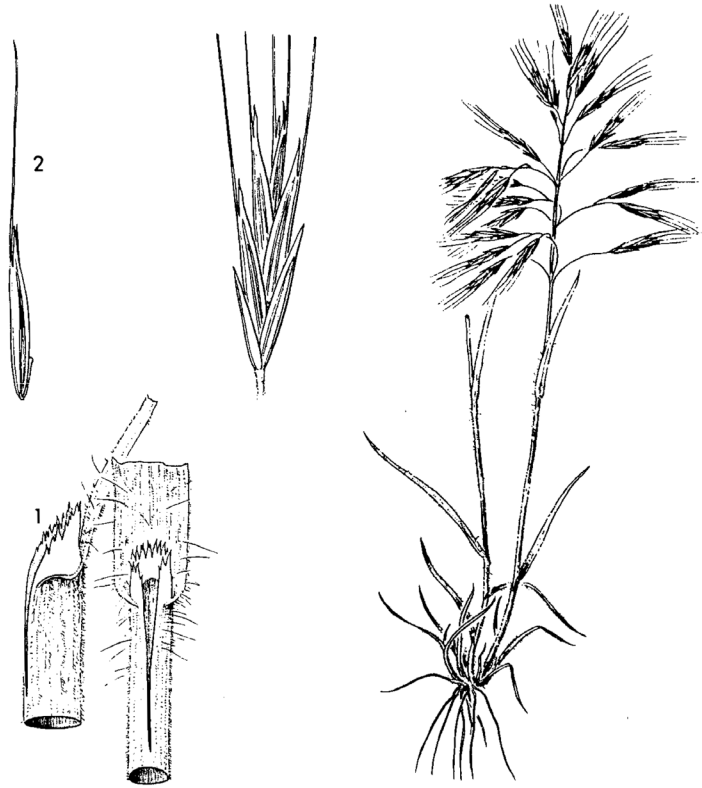
7. AURICLES
S-Small
P-Prominent

8. LIGULE
S-Short, 1-3mm
L-Long, 3mm+
R-Ragged
T-Truncate, straight

9. INFLORESCENCE
C-Closed or narrow panicle
O-Open or spreading panicle
S-Spike or spikelike

10. AWNS
S-Short, 1-3mm
L-Long, 3mm+
B-Bent
S-Straight

- = “to” / = “or”



POACEAE
Bromus tectorum L.

cheatgrass, downy brome

FORM: Erect **annual with fibrous, nonrhizomatous roots**, 30–60 cm (1–2 ft) tall, with a single hollow culm. Plant turns reddish-brown following flowering.

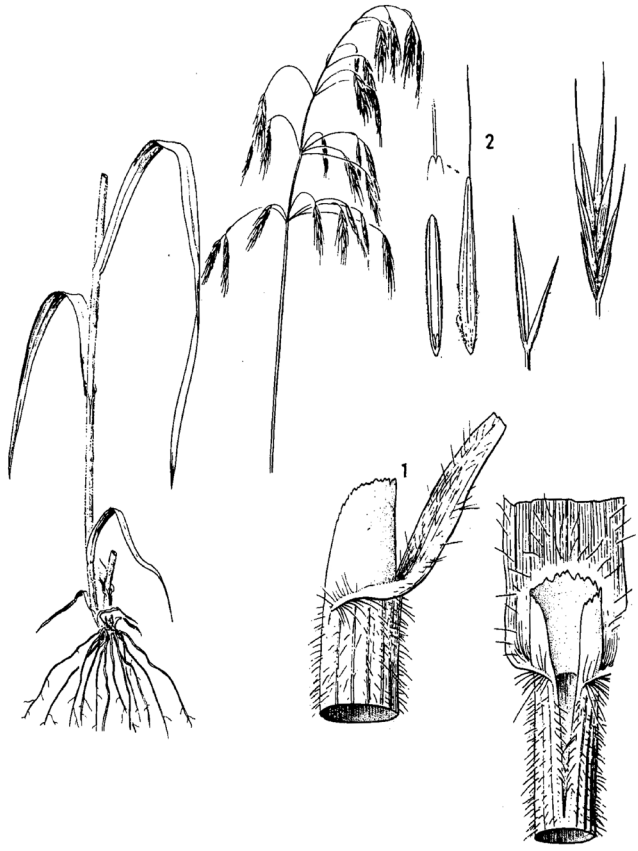
LEAVES: Blades mostly 2–4 mm broad with a blunt tip, sheaths closed, blades and sheaths pubescent; auricles lacking; ligules jagged (1), 1–3 mm long.

INFLORESCENCE: Large, somewhat compact, often drooping, purple-tinged panicle 5–15 cm (2–6 in) long; several large spikelets per slender branch, with several florets per spikelet; lemmas have soft awns (2), rarely bent, 10–15 mm long; April–June.

HABITAT: Introduced species, readily invades disturbed sites.

3	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
7	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
+	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
1	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		7
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	3
		Smst	7
Abgr	Phma h.t.	Phma	7
		Cooc	9
	Libo h.t.	Libo	6
		Xete	4
	Asca h.t.	Asca	9
		Tabr	8
		Mefe	9
	Setr h.t.		10
	Clun h.t.	Phma	7
		Clun	7
		Tabr	5
		Mefe	7
		Xete	7
	Xete h.t.	Vagl	2
		Cooc	3
Thpl	Clun h.t.	Clun	6
		Tabr	1
		Mefe	5
		Xete	3
	Asca h.t.	Asca	7
		Tabr	7
		Mefe	10
	Gydr h.t.		7
	Adpe h.t.		8
	Atfi h.t.	Adpe	7
		Atfi	7
	Opho h.t.		7
Tshe	Clun h.t.	Clun	4
		Arnu	4
		Mefe	7
		Xete	5
	Asca h.t.	Asca	9
		Arnu	6
		Mefe	7
	Gydr h.t.		6
Tsme	Clun h.t.	Mefe	6
		Xete	5
	Mefe h.t.	Xete	
		Luhi	1
	Stam h.t.	Mefe	5
		Luhi	2
	Xete h.t.	Vagl	1
		Luhi	1
Abla	Clun h.t.	Clun	7
		Mefe	7
		Xete	7
	Mefe h.t.	Cooc	3
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	5
		Lica	8
	Caca h.t.	Caca	3
		Vaca	
		Legl	1
	Xete h.t.	Cooc	2
		Vagl	1
		Vasc	+
		Luhi	1
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



POACEAE
Bromus vulgaris (Hook.) Shear

Columbia brome

FORM: Robust, hairy, **fibrous-rooted perennial**, nonrhizomatous, culms slender 30–80 cm (12–32 in) tall, never forms bunches.

LEAVES: Drooping, broad, flat blades, 5–10 mm wide, **sheaths closed**, **usually hairy** especially at the throat; auricles lacking; membranous ligules with ragged margins (1), 3–5 mm long.

INFLORESCENCE: Narrow, open, often drooping, panicle, 10–15 cm (4–6 in) long; more than 2 florets per spikelet; lemmas awned (2) 3–8 mm long; late June–Aug.

ENEMIES: Fire: very resistant, regeneration from seed to preburn levels within 1–2 years.

SIMILAR SPECIES: *Bromus inermis* (smooth brome), rhizomatous.



POACEAE
Calamagrostis canadensis (Michx.) P. Beauv.

bluejoint reedgrass

FORM: A robust, cool season perennial from creeping rhizomes, sometimes forming tufts; culms hollow 5–10 dm (2–3 ft) tall.

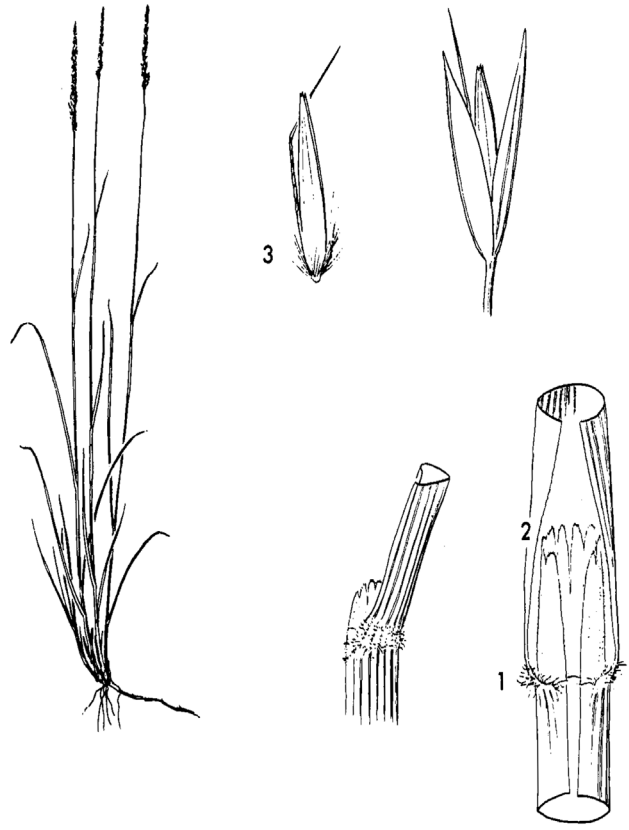
LEAVES: Numerous, flat blades, dull bluish-green, **rather lax**, **rough to touch**, 4–8 mm wide, open sheath **without hairy collar**; auricles lacking; finely ciliolate ligules (1), 3–8 mm long.

INFLORESCENCE: Open, diffuse panicle, drooping with age, 10–25 cm (4–10 in) long; mature spikelets have purplish-red color, one floret per spikelet and several spikelets per panicle branch; straight awn, attached at center of lemma, callus hairs nearly as long as lemma (2); late June–Aug.

HABITAT: Moist, poorly drained, cold sites, generally associated with **high elevation wet sites**.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
1	Atfi		
1	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
1	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
5	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
1	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
10	Caca	Caca h.t.	
10	Vaca		
4	Legl		
1	Cooc	Xete h.t.	
	Vagl		
+	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		4
	Phma h.t.		9
Psme	Caru h.t.	Caru	10
		Aruv	9
	Phma h.t.	Phma	7
		Smst	6
Abgr	Phma h.t.	Phma	8
		Cooc	3
	Libo h.t.	Libo	6
		Xete	7
	Asca h.t.	Asca	2
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	7
		Clun	3
		Tabr	
		Mefe	2
		Xete	4
	Xete h.t.	Vagl	6
		Cooc	3
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	2
		Xete	1
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	1
		Arnu	2
		Mefe	2
		Xete	1
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	+
		Xete	4
	Mefe h.t.	Xete	1
		Luhi	1
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	3
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	3
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	1
	Caca h.t.	Caca	
		Vaca	2
		Legl	4
	Xete h.t.	Cooc	4
		Vagl	5
		Vasc	5
		Luhi	
Pico	Vasc h.t.		10
	Xete c.t.		10
	Vaca c.t.		10



POACEAE
Calamagrostis rubescens Buckley

pinegrass

FORM: A common, perennial grass 5–10 dm (2–3 ft) tall, from creeping rhizomes; culms slender and hollow, usually with reddish bases.

LEAVES: Mostly basal, narrow, flat, generally lax blades 2–4 mm broad, dull green on upper surface and shiny green on lower surface; **collar with conspicuous tufts of hair** (1); sheaths open; auricles lacking; ciliolate ligules, 1–5 mm long, with ragged margins (2).

INFLORESCENCE: Narrow, spikelike panicle, pale greenish-white to purple, 8–15 cm (3–6 in) long; one floret per spikelet and many spikelets per branch; awn bent and twisted, attached near base of lemma, which is hidden by long callus hairs (3); **seldom flowers, except in full sunlight**; late June–Aug.

ENEMIES: Fire: moderately resistant, regeneration from rhizomes to preburn levels within 1–2 years.

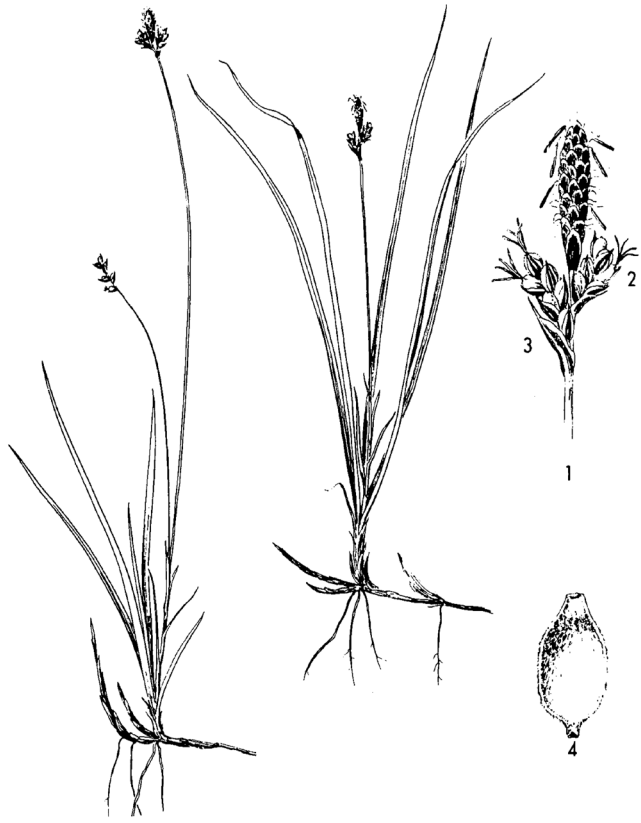
SIMILAR SPECIES: *Carex geyeri*, p. 204.

NOTES: Widespread grass in northern Rocky Mountains. Palatability is improved by burning.

Table 18—*Carex* Species Conspectus.

Species	Page	Form	Roots	Pistillate Flowers	Floral Bract	Illustration
Carex concinnoides northwestern sedge **Caco**	203	loose group of single stems	creeping rhizomes	5-12 flowered	subtending lowest pistillate spike, 1cm	
Carex geyeri elk sedge **Cage**	204	loose group of single stems	branching rhizomes	single flowered	bractless	
Carex rossii Ross's sedge **Caro**	205	tufted clump of many stems	fibrous	1-4 flowered	subtending entire spike 5cm	

Pipo	Syal h.t.		1
	Phma h.t.		
Psme	Caru h.t.	Caru	6
		Aruv	3
	Phma h.t.	Phma	+
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	1
	Libo h.t.	Libo	4
		Xete	6
	Asca h.t.	Asca	1
		Tabr	
		Mefe	
	Setr h.t.		1
	Clun h.t.	Phma	+
		Clun	1
		Tabr	
		Mefe	2
		Xete	1
	Xete h.t.	Vagl	4
		Cooc	3
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	1
		Xete	1
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		1
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	1
		Mefe	
		Xete	1
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		1
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	1
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	3
		Mefe	
		Xete	1
	Mefe h.t.	Cooc	1
		Xete	
		Vasc	1
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	
		Vaca	
		Legl	2
	Xete h.t.	Cooc	3
		Vagl	2
		Vasc	3
		Luhi	2
Pico	Vasc h.t.		10
	Xete c.t.		
	Vaca c.t.		7



CYPERACEAE
Carex concinnoides Mack.

northwestern sedge

FORM: Grasslike perennial with **3-ranked leaves and solid triangular culms**, 15–35 cm (6–14 in) tall; loosely tufted from strong, creeping, scaly rhizomes.

LEAVES: Firm, flat blades, 2–5 mm wide, generally longer than the culm, remaining green through winter, **basal sheaths reddish-brown to purplish-tinged, dark brown**.

INFLORESCENCE: Staminate spike terminal (1), sessile and solitary; 1–3 pistillate spikes (2), 5–10 sessile flowers, with 4 stigmas, borne close together toward end of culm with a **1 cm long bract** (3) **subtending the lowest pistillate spike**; culm becomes lax and prostrate as fruit matures; April-July.

FRUIT: Achene, 4-nerved, 2–3 mm long; perigynium hairy with short beak (4).

SIMILAR SPECIES: *Carex* Species Conspectus, p. 202.

Cage



CYPERACEAE
Carex geyeri Boott

elk sedge, Geyer's sedge

FORM: Strongly rhizomatous, grasslike, perennial with **3-ranked leaves and solid triangular culms**, 20–50 cm (8–20 in) tall, often appearing loosely bunched.

LEAVES: Flat, evergreen, 1–3 mm wide, as long as culms, usually with brown tips, reduced to scales at base, coarse to the touch, **basal sheaths tan to brown**.

INFLORESCENCE: Bractless, solitary terminal, staminate spike (1); 1–3 pistillate flowers with 3 stigmas below (2), borne on long erect culm; April–July.

FRUIT: Large 3-sided achene (3), 4–5 mm long.

ENEMIES: Fire: resistant, regeneration from rhizomes to preburn levels within 1–2 years.

SIMILAR SPECIES: *Calamagrostis rubescens*, p. 201; and *Carex* Species Conspectus, p. 202

1	Syal h.t.		Pipo
6	Phma h.t.		
10	Caru	Caru h.t.	Psme
1	Aruv		
4	Phma	Phma h.t.	
5	Smst		
3	Phma	Phma h.t.	Abgr
1	Cooc		
4	Libo	Libo h.t.	
	Xete		
2	Asca	Asca h.t.	
	Tabr		
1	Mefe		
2	Setr h.t.		
3	Phma	Clun h.t.	
2	Clun		
1	Tabr		
2	Mefe		
2	Xete		
4	Vagl	Xete h.t.	
3	Cooc		
1	Clun	Clun h.t.	Thpl
	Tabr		
1	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
2	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
2	Mefe	Clun h.t.	Tsme
5	Xete		
5	Xete	Mefe h.t.	
5	Luhi		
	Mefe	Stam h.t.	
2	Luhi		
4	Vagl	Xete h.t.	
4	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
4	Xete		
	Cooc	Mefe h.t.	
	Xete		
2	Vasc		
	Luhi		
	Mefe	Stam h.t.	
1	Lica		
2	Caca	Caca h.t.	
2	Vaca		
2	Legl		
2	Cooc	Xete h.t.	
6	Vagl		
4	Vasc		
3	Luhi		
	Vasc h.t.		Pico
5	Xete c.t.		
3	Vaca c.t.		

Pipo	Syal h.t.		2
	Phma h.t.		1
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	1
		Smst	1
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	1
	Asca h.t.	Asca	1
		Tabr	2
		Mefe	3
	Setr h.t.		6
	Clun h.t.	Phma	
		Clun	+
		Tabr	3
		Mefe	2
		Xete	2
	Xete h.t.	Vagl	1
		Cooc	1
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	1
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	2
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	+
		Xete	1
	Mefe h.t.	Xete	1
		Luhi	1
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	1
		Luhi	1
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	2
	Mefe h.t.	Cooc	
		Xete	
		Vasc	1
		Luhi	1
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	2
		Vaca	
		Legl	
	Xete h.t.	Cooc	1
		Vagl	2
		Vasc	1
		Luhi	1
Pico	Vasc h.t.		1
	Xete c.t.		
	Vaca c.t.		



CYPERACEAE
Carex rossii Boott

Ross's sedge

FORM: Grasslike perennial with **3-ranked leaves and slender, solid, triangular culms**, 1–3 dm (4–12 in) tall, densely tuft forming from short ascending rhizomes, culms same length or shorter than leaves.

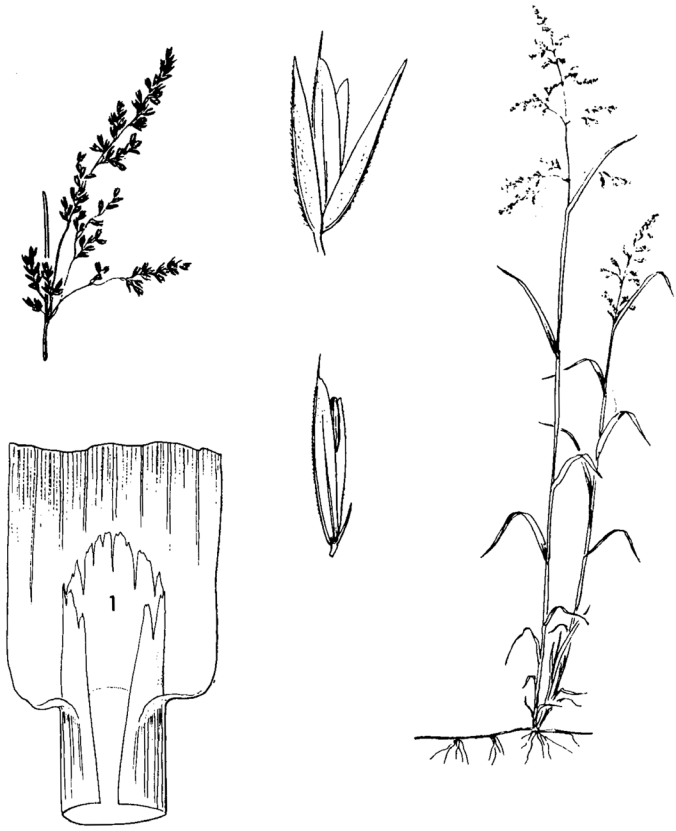
LEAVES: Blades elongate and lax, 1–4 mm wide, often longer than culm, **basal sheaths reddish**.

INFLORESCENCE: Terminal, solitary, staminate spike (1); 1–4 short, few-flowered lateral pistillate spikes borne near staminate spike, pistillate flowers (2) with 3 stigmas, **the lowest subtended by a leafy bract** (3) which is longer than the staminate spike, **one or more small pedunculate pistillate spikes often hidden near base of culms** (4); May–Aug.

FRUIT: 3-sided achene, perigynium (5) finely hairy, 2–5 mm long, beak 1–2 mm long.

ENEMIES: Fire: resistant, regeneration from rhizomes to preburn levels within 1–2 years.

SIMILAR SPECIES: *Carex* Species Conspectus, p. 202.



POACEAE
Cinna latifolia (Trevir. ex Göpp.) Griseb.

drooping woodreed

FORM: A cool season, rhizomatous perennial with hollow culms, 7–20 dm (2–7 ft) tall.

LEAVES: Blades thin and flat, deep green, 7–15 mm wide, veins very unequal in size, sheaths glabrous and open; auricles lacking; ligules (1) ragged, membranous, 3–8 mm long.

INFLORESCENCE: Loose, green panicle 15–30 cm (6–12 in) long, with spreading or drooping branches; spikelets with one floret, 4 mm long; lemma awned or awnless; June–Aug.

HABITAT: Generally associated with moist woods, meadows and riparian vegetation.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
+	Adpe h.t.		
	Adpe	Atfi h.t.	
1	Atfi		
	Opho h.t.		
+	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
1	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		1
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



POACEAE
Dactylis glomerata L.

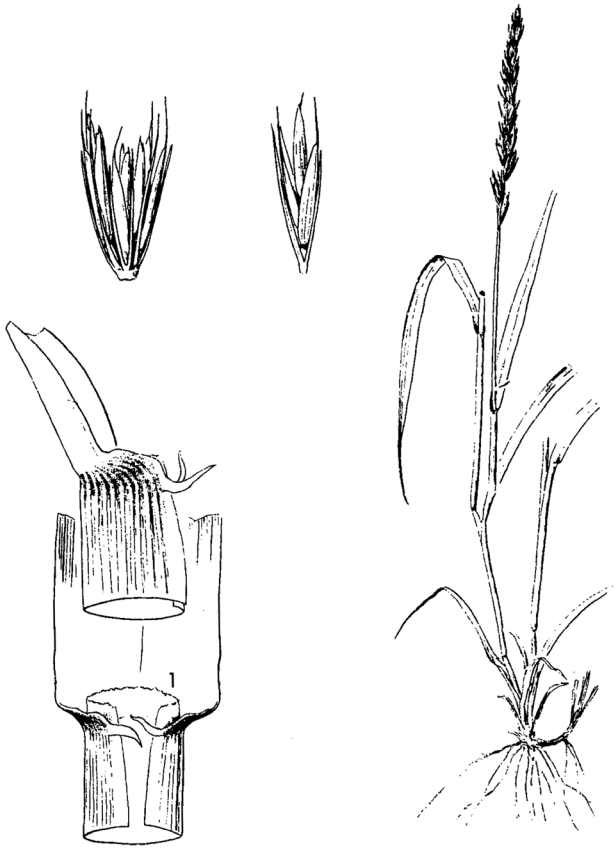
orchard grass

FORM: A tall, strongly tufted, cool season perennial with hollow culms up to 12 dm (4 ft) tall.

LEAVES: Blades flat, 3–11 mm broad, usually covered by short stiff hairs, **sheaths closed**; auricles lacking; membranous ligules (1), 3–11 mm long, with ciliolate margins.

INFLORESCENCE: A dense secund panicle with compressed spikelets, 3–15 cm (1–6 in) long, 3 florets per spikelet, lemma awned from tip (2), 1 mm long; June–Aug.

HABITAT: Seeded throughout forested zones, establishes well everywhere except very high elevations.



POACEAE
Elymus glaucus Buckley

blue wildrye

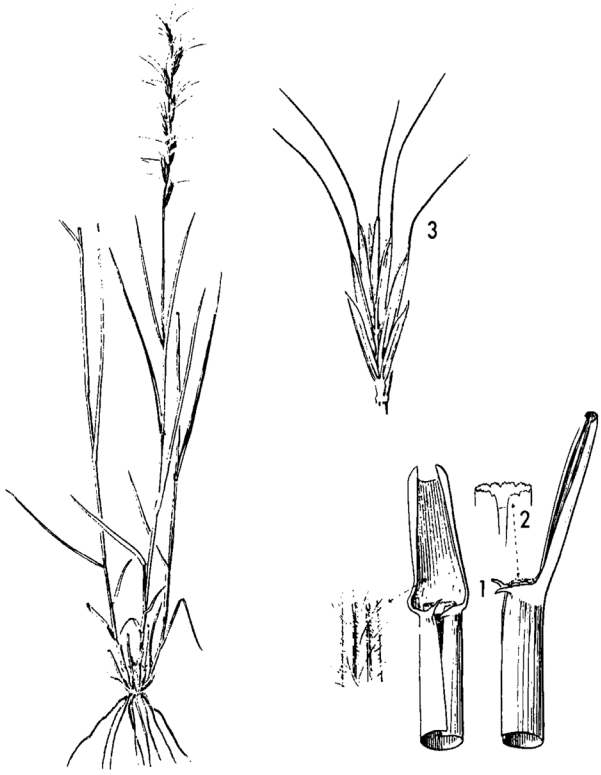
FORM: Dense, tufted, cool season perennial, without rhizomes, 5–10 dm (2–3 ft) tall; leaves usually lax and drooping, thus reducing its height.

LEAVES: Broad, flat, blue-green blades 5–10 mm wide; sheaths open, often with purple collar, **well-developed auricles**; short membranous ligules (1), 1 mm long.

INFLORESCENCE: Long, dense, erect to nodding spike, 5–15 cm (2–6 in) long; **2 sessile spikelets per node** and 3–5 florets per spikelet; lemma awned, 1–3 cm (1 in) long; June–Aug.

6	Syal h.t.		Pipo
4	Phma h.t.		
	Caru	Caru h.t.	Psme
1	Aruv		
1	Phma	Phma h.t.	
2	Smst		
2	Phma	Phma h.t.	Abgr
	Cooc		
1	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
1	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
1	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
3	Caca	Caca h.t.	
2	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		6
	Phma h.t.		3
Psme	Caru h.t.	Caru	4
		Aruv	1
	Phma h.t.	Phma	3
		Smst	1
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	+
	Xete h.t.	Vagl	1
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



POACEAE
Elytrigia spicata (Pursh.) D.R. Dewey
[*Pseudoroegneria spicata* (Pursh) Á. Löve]
previously *Agropyron spicatum* (Pursh.) Scribn and Smith

bluebunch wheatgrass, Agspic

FORM: A cool season perennial, occurring in rhizomatous and large bunch forms, 5–10 dm (2–3 ft) tall; culms erect, slender and hollow **with a bluish bloom**.

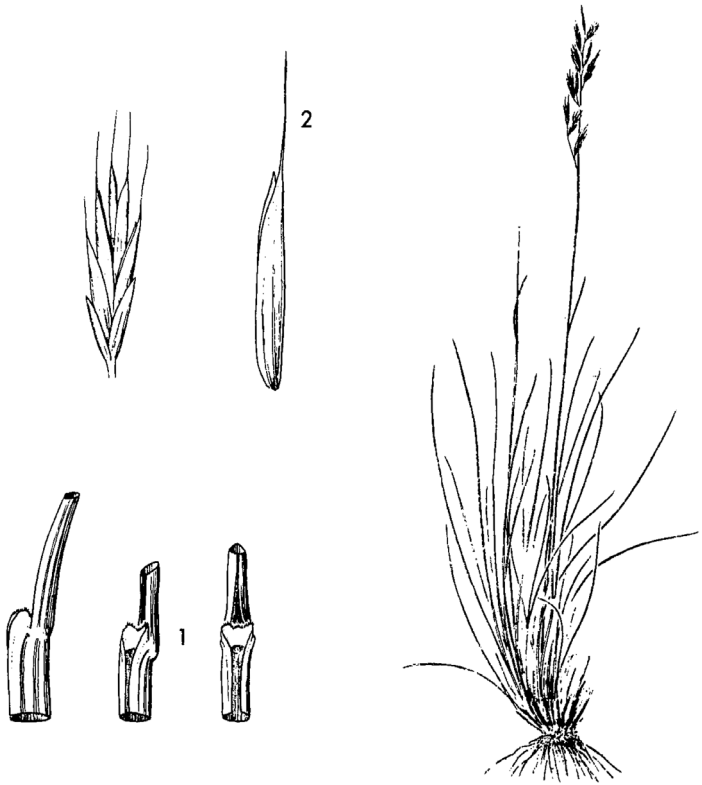
LEAVES: Erect, bluegreen, flat or loosely inrolled, hairy on upper surface, pointed, about 3 mm wide and 5–20 cm (2–8 in) long, often twisting when older; sheaths open; (1) **auricles very small and clawlike**; ligule short and collarlike (2).

INFLORESCENCE: Erect, **spike with one sessile spikelet per node**; lemma tipped by a **divergent awn** (3) about 2 cm (1 in) long; June–Aug.

ENEMIES: Fire: moderately resistant, regeneration from seed to preburn levels within 3–7 years.

SIMILAR SPECIES: Other *Elytrigia* species, *Lolium* species, and *Elymus* species.

NOTES: In northern Idaho this species has two forms: a bunchgrass form on hot, dry, steppe vegetation sites, and a spreading rhizomatous form on forested sites. It also occurs in an awnless form, var. *inerme*.



POACEAE
Festuca idahoensis Elmer

Idaho fescue

FORM: Erect, cool season, perennial **bunchgrass**, with fibrous, nonrhizomatous roots, 3–10 dm (1–3 ft) tall.

LEAVES: Numerous, mostly basal and erect, 5–12 cm (2–5 in) long, **tightly inrolled**, less than 1.5 mm broad, **green to blue-green**; open sheaths; without true auricles; small ciliolate ligules (1), higher on edges than center; late May–July.

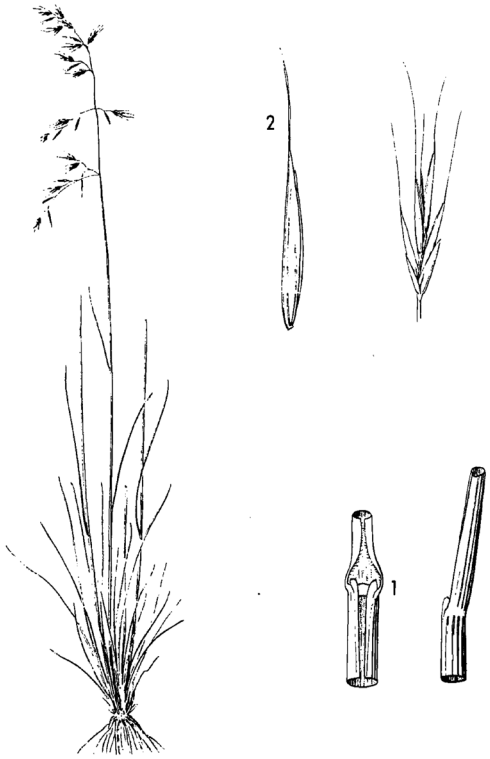
INFLORESCENCE: Narrow panicle, with erect branches 10–20 cm (4–8 in) long, one to several spikelets per branch with 5–7 florets per spikelet, **glumes of unequal length**, lemma with stout, short awn (2), 2–5 mm long.

ENEMIES: Fire: susceptible to moderately resistant, depending on season of burn, regeneration from seed to preburn levels within 5–10 years.

SIMILAR SPECIES: *Festuca occidentalis*, p. 211; *Festuca scabrella* (rough fescue) [*F. campestris*]; and *Festuca rubra* (red fescue).

1	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
4	Aruv		
1	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
1	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
+	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		4
	Phma h.t.		3
Psme	Caru h.t.	Caru	4
		Aruv	2
	Phma h.t.	Phma	3
		Smst	5
Abgr	Phma h.t.	Phma	2
		Cooc	
	Libo h.t.	Libo	5
		Xete	1
	Asca h.t.	Asca	2
		Tabr	
		Mefe	2
	Setr h.t.		
	Clun h.t.	Phma	1
		Clun	1
		Tabr	1
		Mefe	2
		Xete	1
	Xete h.t.	Vagl	1
		Cooc	1
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	2
		Xete	1
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		2
	Atfi h.t.	Adpe	
		Atfi	+
	Opho h.t.		2
Tshe	Clun h.t.	Clun	+
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		+
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	2
		Xete	1
	Mefe h.t.	Cooc	2
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	1
	Caca h.t.	Caca	
		Vaca	2
		Legl	1
	Xete h.t.	Cooc	
		Vagl	1
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



POACEAE
Festuca occidentalis Hook.

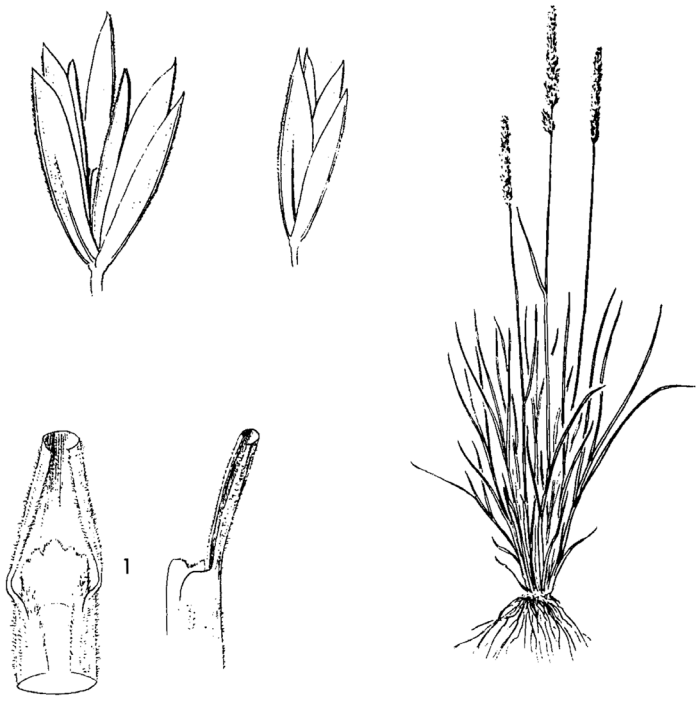
western fescue

FORM: Large, tufted perennial with erect culms, 6–10 dm (2–3 ft) tall.

LEAVES: Blades inrolled, sometimes flat, less than 1 mm wide, **rather soft, light green, not bluish**; sheaths open; auricles lacking; short ligules (1), 0.5 mm long, **highest on sides**.

INFLORESCENCE: Panicle large and open, usually drooping, 10–20 cm (4–8 in) long; few spikelets per panicle, 3–5 florets per spikelet, g**lumes of unequal length**, lemma (2) with flexible 6 mm long awn; late May–July.

SIMILAR SPECIES: *Festuca idahoensis*, p. 210 and *Festuca scabrella* (rough fescue) [*F. campestris*].



POACEAE
Koeleria nitida Nutt.
[*Koeleria macrantha* (Ledeb.) Schult.]
previously *Koeleria cristata* Pers.

Junegrass

FORM: Short, densely tufted, cool season perennial with erect, hollow culms, 30–60 cm (1–2 ft) tall.

LEAVES: Blades, generally folded to involute 1–3 mm broad, **prow-shaped tips**, hairy margins; **auricles lacking**; membranous ligules (1) with hairy edges, 0.5–2 mm higher in front than on sides.

INFLORESCENCE: Dense, spikelike panicle 4–13 cm (2–5 in) long; spikelets 2–4 flowered, lemma awnless or with very short awn; May–July.

ENEMIES: Fire: moderately susceptible to susceptible, regeneration from seed to preburn levels within 3–7 years.

SIMILAR SPECIES: *Poa* species, *Phleum* species, and *Alopecurus* species.

HABITAT: Warm, dry sites, all elevations on well drained soils.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
1	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
1	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Table 19—*Luzula* Species Conspectus.

Species	Page	Form	Roots	Leaves	Flowers	Habitat
Luzula campestris field woodrush **Luca2**	214	tufted	fibrous	cauline hairy pale green	congested clusters of 8-15	dry to moist sites
Luzula hitchcockii smooth woodrush **Luhi**	215	single stemmed to tufted	rhizomatous	basal hairy red mottled	open panicle deep brown to purplish brown	high elavation wet or heavy snowpack sites
Luzula parviflora millet woodrush **Lupa**	216	densely tufted	fibrous semi- stoloniferous	non-hairy pale to medium green	solitary open panicle greenish-tawny sometimes darker	dry to moist sites



JUNCACEAE
Luzula campestris (L.) DC.

field woodrush

FORM: Tufted, grasslike perennial, 10–50 cm (4–20 in) tall, with round, hollow culms.

LEAVES: Long, flat, pale green, mostly 2–6 mm wide, 2–4 cauline leaves and numerous basal leaves, sheaths closed, leaf bases and sheaths **fringed with slender hairs**.

INFLORESCENCE: Flowers congested into **small, erect, oblong spikes**, grouped in 8–15 semi-paniculate clusters; perianth pale green to deep chestnut brown, 2–5 mm long; April–July.

FRUIT: Ovoid capsule (1), 1–2 mm long.

SIMILAR SPECIES: *Luzula* Species Conspectus, p. 213.

1	Syal h.t.		Pipo
4	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
2	Phma	Phma h.t.	
2	Smst		
2	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Setr h.t.		
1	Phma	Clun h.t.	
2	Clun		
	Tabr		
	Mefe		
	Xete		
1	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
3	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
2	Gydr h.t.		
1	Adpe h.t.		
1	Adpe	Atfi h.t.	
+	Atfi		
	Opho h.t.		
1	Clun	Clun h.t.	Tshe
	Arnu		
1	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
+	Gydr h.t.		
+	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
2	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
3	Clun	Clun h.t.	Abla
1	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	1
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		1
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	1
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	1
		Xete	
	Mefe h.t.	Xete	3
		Luhi	9
	Stam h.t.	Mefe	7
		Luhi	
	Xete h.t.	Vagl	2
		Luhi	8
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	
	Mefe h.t.	Cooc	1
		Xete	5
		Vasc	4
		Luhi	10
	Stam h.t.	Mefe	5
		Lica	1
	Caca h.t.	Caca	2
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	1
		Vasc	1
		Luhi	10
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



JUNCACEAE
Luzula hitchcockii Hämet-Ahti
previously *Luzula glabrata* (Hoppe) Desv.

smooth woodrush

FORM: A short, **rhizomatous**, grasslike perennial, 15–50 cm (6–20 in) tall, with round, hollow culms.

LEAVES: Shiny, 4–10 mm broad and 2–6 cm (1–2 in) long, with flattened, **reddish-brown tips**; **often becoming mottled with rusty red in midsummer**; basal leaves purplish-tinged, usually hairy at base; sheaths closed.

INFLORESCENCE: Solitary, small flowers, **deep brown to purplish-brown**, borne in **open, nodding panicles**, 3–8 cm (1–3 in) long; July–Sept.

FRUIT: Reddish-brown capsule with three seeds (1).

SIMILAR SPECIES: *Luzula* Species Conspectus, p. 213.

HABITAT: High elevation sites with deep late-melting snowpack.



1

JUNCACEAE
Luzula parviflora (Ehrh.) Desv.

millet woodrush

FORM: A **tufted**, **grasslike** perennial, 20–50 cm (8–20 in) tall; culms hollow, decumbent, and sometimes semi-stoloniferous.

LEAVES: 2–4 linear-lanceolate, cauline leaves, 3–10 mm wide, with closed sheaths.

INFLORESCENCE: Flowers borne singly on nodding branches of an **open panicle**; **perianth greenish to purple-brown**; May–Aug.

FRUIT: Greenish, ovoid capsule (1), 1–2 mm long.

SIMILAR SPECIES: *Luzula* Species Conspectus, p. 213.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
2	Libo	Libo h.t.	
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
+	Clun		
	Tabr		
1	Mefe		
+	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
3	Mefe		
	Xete		
	Asca	Asca h.t.	
1	Tabr		
	Mefe		
2	Gydr h.t.		
3	Adpe h.t.		
3	Adpe	Atfi h.t.	
1	Atfi		
3	Opho h.t.		
1	Clun	Clun h.t.	Tshe
1	Arnu		
2	Mefe		
	Xete		
2	Asca	Asca h.t.	
	Arnu		
	Mefe		
1	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
2	Luhi		
	Vagl	Xete h.t.	
2	Luhi		
3	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
3	Xete		
	Vasc		
	Luhi		
1	Mefe	Stam h.t.	
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	2
Abgr	Phma h.t.	Phma	
		Cooc	1
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		1
	Clun h.t.	Phma	1
		Clun	2
		Tabr	
		Mefe	
		Xete	+
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	2
		Tabr	2
		Mefe	
		Xete	2
	Asca h.t.	Asca	2
		Tabr	1
		Mefe	
	Gydr h.t.		1
	Adpe h.t.		1
	Atfi h.t.	Adpe	3
		Atfi	1
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	1
	Asca h.t.	Asca	1
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	1
		Xete	1
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	1
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



POACEAE
Melica subulata (Griseb.) Scribn.

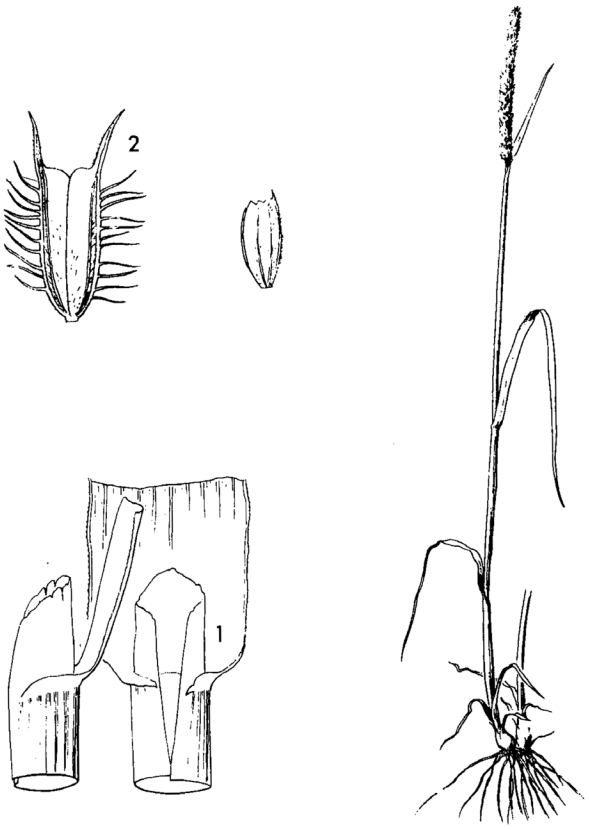
Alaska oniongrass

FORM: Tufted, perennial grass, 30–80 cm (12–32 in) tall; hollow culms enlarged and **bulbous at base** (1), attached to short rhizomes.

LEAVES: Very hairy, flat blades, 2–7 mm wide, **sheaths closed to the top**; auricles lacking; membranous ligules (2), 1–5 mm long.

INFLORESCENCE: Narrow panicle 10–20 cm (4–8 in) long, more than 2 florets per spikelet; **lemma awnless**, finely hairy near base; May–July.

SIMILAR SPECIES: *Bromus vulgaris*, p. 199, lemmas awned; and *Melica bulbosa* (onion grass).



POACEAE
Phleum pratense L.

timothy

FORM: An introduced, tufted, cool season perennial, with hollow culms and a **bulblike base**, up to 1 m (3 ft) tall.

LEAVES: Blades flat, 4–8 mm wide, tending to droop; open sheaths; **tiny rounded auricles**; entire, membranous ligules (1), 2–3 mm long.

INFLORESCENCE: Cylindrical spikelike panicle, 5–10 cm (2–4 in) long; spikelets 1-flowered, glumes awned (2), less than 2 mm long; June–Aug.

SIMILAR SPECIES: *Phleum alpinum* (alpine timothy), has shorter purplish inflorescence.

HABITAT: Escaped from cultivation and has been seeded throughout forested zone; grows well everywhere except high elevations.

NOTES: Important cultivated hay grass.

	Syal h.t.		Pipo
1	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
	Smst		
	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		1
	Phma h.t.		6
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	1
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		
	Atfi h.t.	Adpe	
		Atfi	
	Opho h.t.		
Tshe	Clun h.t.	Clun	
		Arnu	
		Mefe	
		Xete	
	Asca h.t.	Asca	
		Arnu	
		Mefe	
	Gydr h.t.		
Tsme	Clun h.t.	Mefe	
		Xete	
	Mefe h.t.	Xete	
		Luhi	
	Stam h.t.	Mefe	
		Luhi	
	Xete h.t.	Vagl	
		Luhi	
Abla	Clun h.t.	Clun	
		Mefe	
		Xete	
	Mefe h.t.	Cooc	
		Xete	
		Vasc	
		Luhi	
	Stam h.t.	Mefe	
		Lica	
	Caca h.t.	Caca	
		Vaca	
		Legl	
	Xete h.t.	Cooc	
		Vagl	
		Vasc	
		Luhi	
Pico	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



POACEAE
Poa pratensis L.

Kentucky bluegrass

FORM: Introduced, rhizomatous, turf forming, cool season perennial of variable height, erect culms may reach 1 m (3 ft).

LEAVES: Soft, flat leaves 2–4 mm wide with distinct **prow-shaped tips**; **sheaths closed half their length**; **auricles lacking**; short and truncate ligules, 2 mm long.

INFLORESCENCE: Purplish-tinged, spreading panicle, 3–10 cm (1–4 in) long, obtaining a nodding appearance when mature; lemmas awnless with **dense webby hairs at the base** (1); May–Oct.

ENEMIES: Fire: resistant, but damage from hot, spring burns, regeneration from rhizomes to preburn levels within 2–5 years.

SIMILAR SPECIES: *Poa palustris* (fowl bluegrass), stoloniferous with longer ligules and *Poa compressa* (Canadian bluegrass), culms strongly flattened.

NOTES: Often dominates heavily grazed dry and moist meadows.



POACEAE
Trisetum canescens Buckley

tall trisetum

FORM: Tufted perennial, with erect, hollow culms 5–10 dm (2–3 ft) tall.

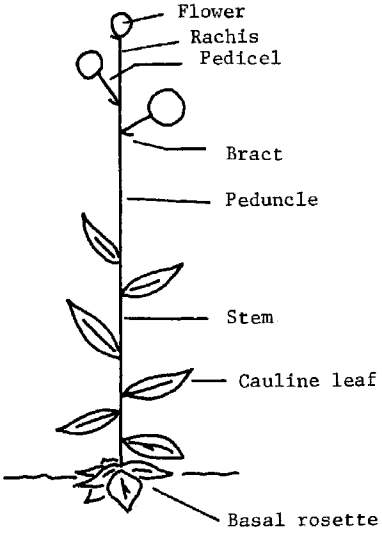
LEAVES: Blades flat and hairy, 4–10 mm broad; without auricles; ligules (1) finely serrate, 1–4 mm long.

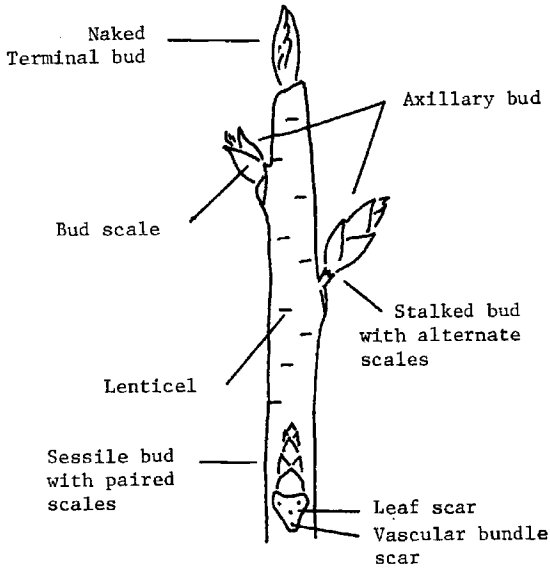
INFLORESCENCE: Loose, **narrow panicle**, 10–20 cm (4–8 in) long, spikelets 2–3 flowered; lemma with **geniculate awn** (2) 10–14 mm long; long pilose hairs on rachilla (3); late May–early July.

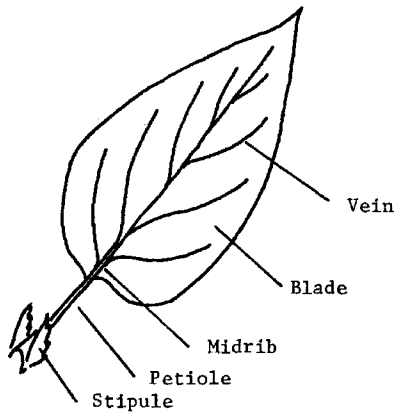
NOTES: Palatable, but not abundant enough to be an important forage species.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru h.t.	Psme
	Aruv		
	Phma	Phma h.t.	
+	Smst		
1	Phma	Phma h.t.	Abgr
	Cooc		
	Libo	Libo h.t.	
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
1	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi h.t.	
+	Atfi		
	Opho h.t.		
	Clun	Clun h.t.	Tshe
	Arnu		
	Mefe		
1	Xete		
1	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe h.t.	
	Luhi		
	Mefe	Stam h.t.	
	Luhi		
	Vagl	Xete h.t.	
	Luhi		
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

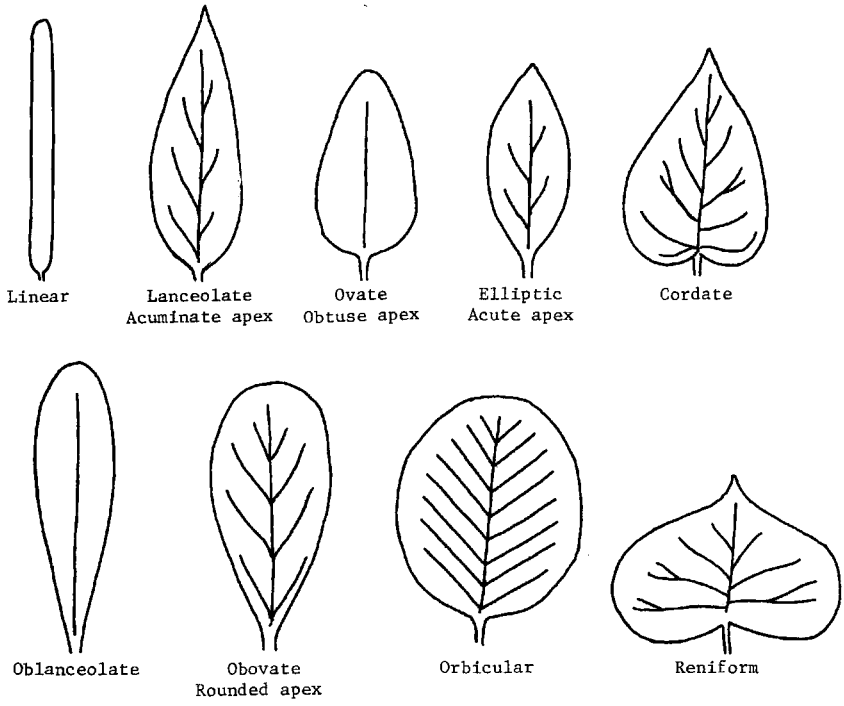
DESCRIPTIVE DRAWINGS
PLANT PARTS AND TERMINOLOGY



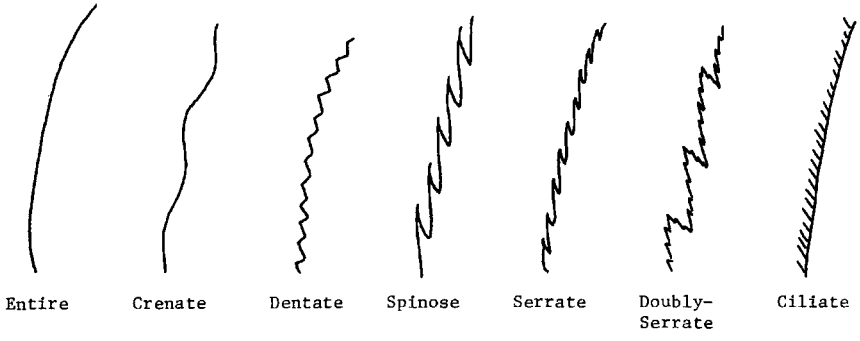




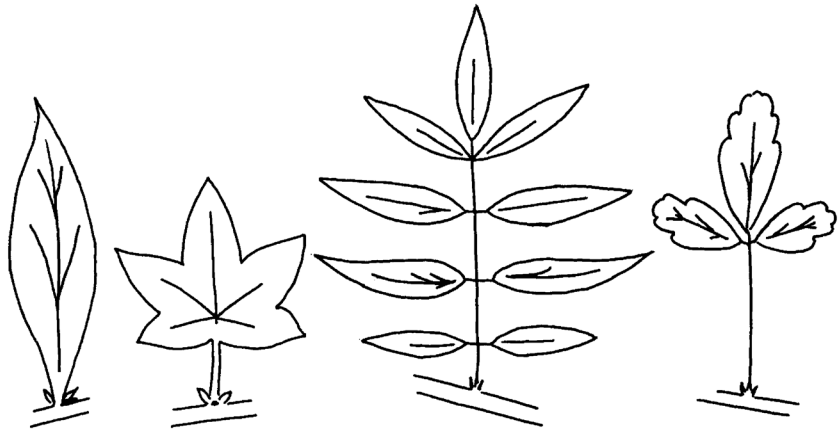
LEAF SHAPES



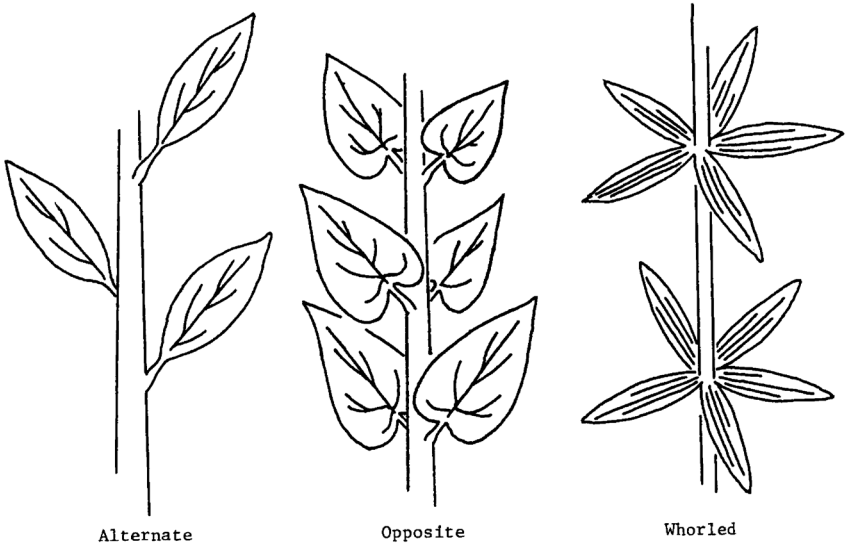
LEAF MARGINS



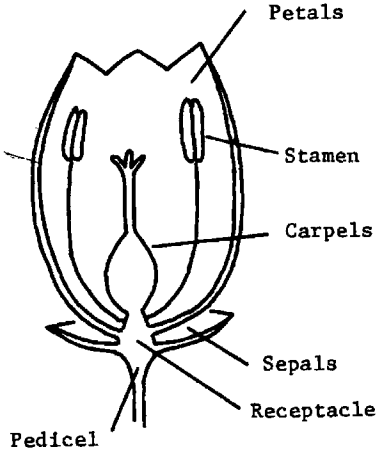
LEAF TYPES



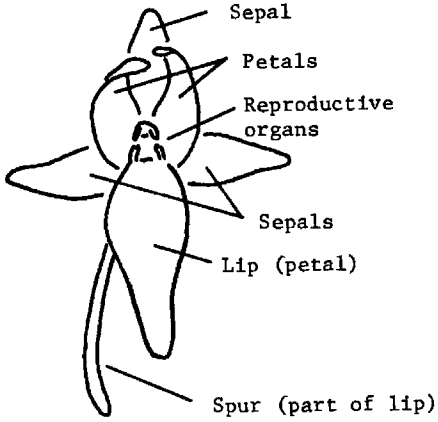
LEAF ARRANGEMENTS



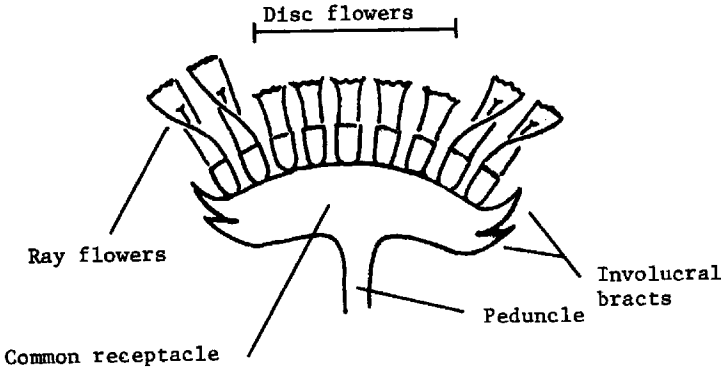
FLOWER PARTS



Regular

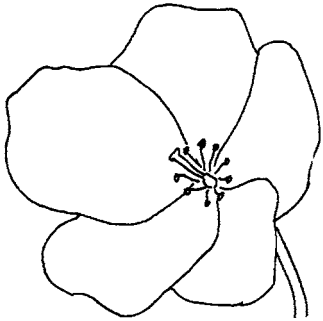


Irregular
(Orchid)

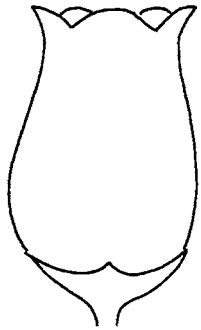


Head type
(Composite family only)

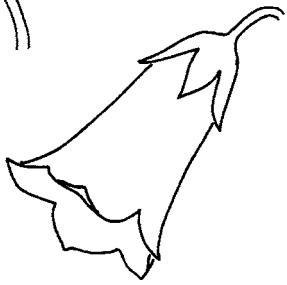
FLOWER SHAPES



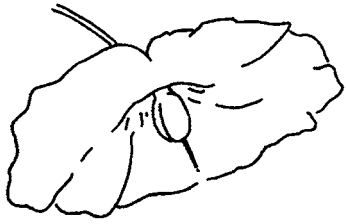
Regular



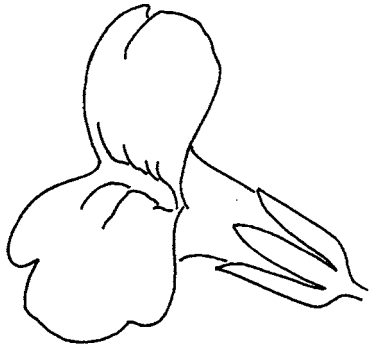
Urceolate
(urn-shaped)



Campanulate
(bell-shaped)

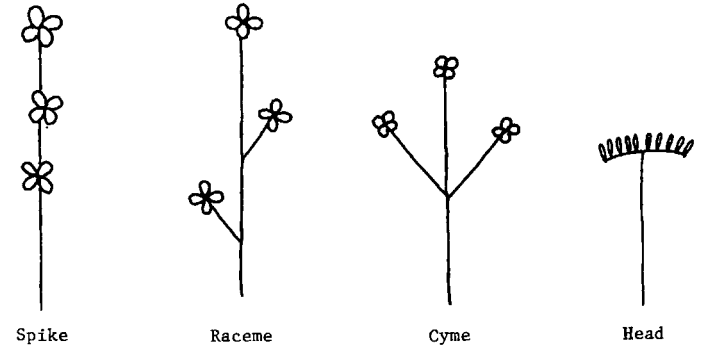


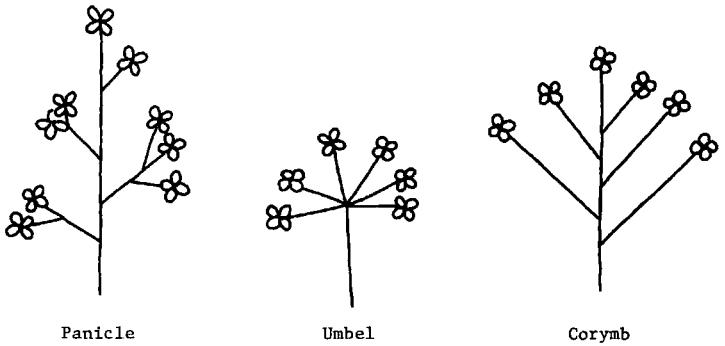
Rotate
(wheel-shaped)



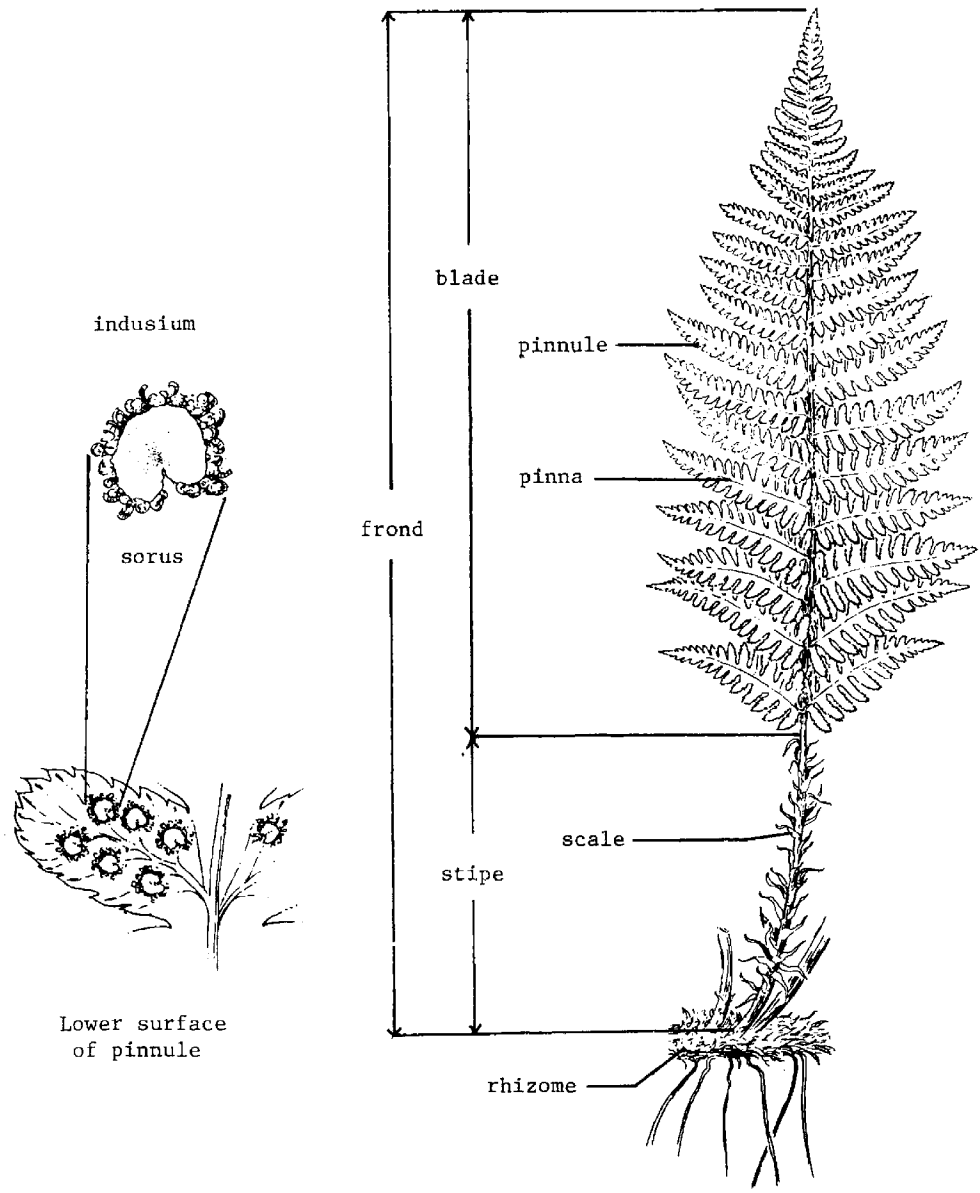
Bilabiate
(two-lipped)

INFLORESCENCE TYPES

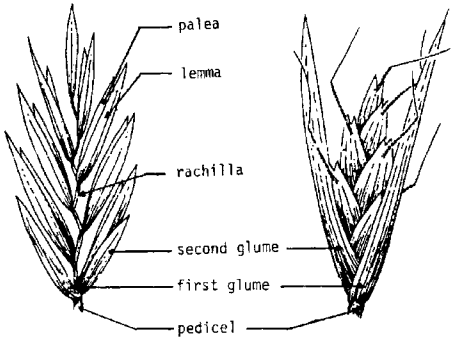


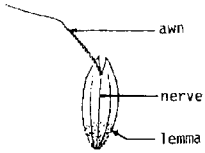


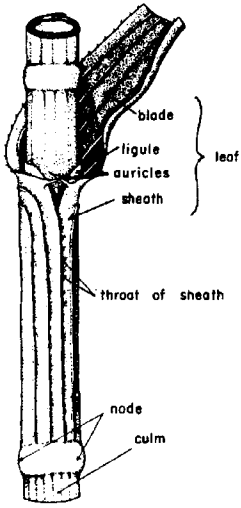
FERN PARTS

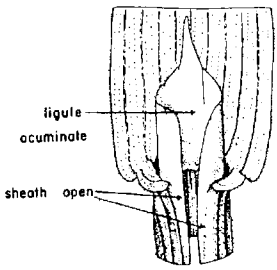

indusium
sorus
Lower surface
of pinnule
blade
frond
stipe
pinnule
pinna
scale
rhizome

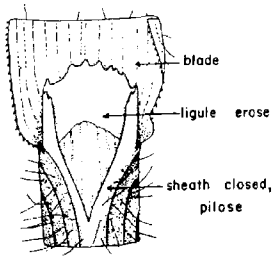
GRAMINOID PARTS



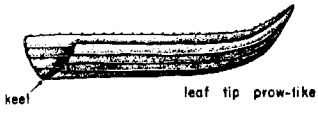


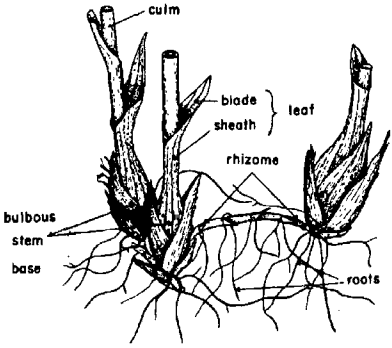


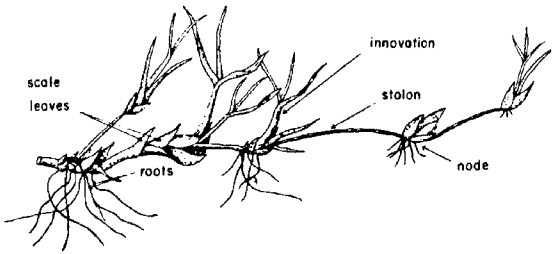












COLLECTING AND PRESSING METHODS

Collecting and pressing plants is an excellent way to learn the various species of an area. We suggest that each Forest Supervisor's Office and Ranger District have a collection of indicator species, similar "confuser" species, and other common species. Mounted specimens, along with color photographs, make ideal visual teaching aids when fresh material is not available. Dried specimens and collection site habitat data also serve as a source of information about geographical distribution, species variation, habitat, and miscellaneous information.

When collecting plants, especially on private property, seek the permission of the landowner. All National Parks and Monuments require a permit. Be discrete with the number of plants you collect; never take the only plant; leave a healthy population behind. Rare and endangered plants exist in northern Idaho and should NOT be collected. Find out more about northern Idaho species covered under the Endangered Species Act of 1973, by consulting FWR Bulletin No. 34, Vascular Plant Species of Concern in Idaho, 1981. You can also learn more about northern Idaho rare plants at the Idaho Native Plant Society website: https://idahonativeplants.org/rare-plants-list/ (the list is updated every 2 years). User information, including photos, on the occurrence and location of rare plants should be sent to the Director, Stillinger Herbarium, Department of Biological Sciences, University of Idaho, 875 Perimeter Drive MS-3026, Moscow, ID 83844-3026 or to the Idaho Department of Fish and Game at their website: https://idfg.idaho.gov/species/observations/plant.

The following suggestions should aid you in making plant collections. Accurate identification of a collected specimen requires careful selection in the field. Collect average specimens (not too small or too large) or collect several to show variations. Select specimen free of insect or pathological damage. Collect plants in flower, fruit, and/or seed (some species require all three stages for accurate identification). Collect the entire plant including stems, different leaf forms, and underground parts. If that is not possible, carefully describe the plant, noting pertinent descriptive characteristics.

Collected plant material should be immediately placed in a plant press. Because presses are not standard field gear, a dampened specimen can be kept in a plastic bag until it can be placed in a press. The plastic bag should be inflated slightly for added protection during travel.

A plant press is used to quickly dry and preserve fresh material. A good press consists of blotters separated by corrugated cardboard sheets, held between wooden lattices and tightly bound with straps. The corrugated sheets allow for air circulation and permit drying of the plants without discoloration or spoilage. A temporary press can be improvised out of an absorptive book, e.g., a phone book or magazine.

Care should be taken in placing the collected specimen in the press. Several small plants may be placed on one sheet, but crowding should be avoided. Flowers and fruits should be clearly visible. Flower color and any other characteristics that will be lost in pressing should be noted with the site information. Leaves should be laid flat with one or two leaves turned to show underside characteristics. A large specimen may need to be pruned to avoid overlapping. When pruning an overlapping part, a small space should be left on the specimen to indicate its removal. A neat and careful arrangement cannot be overstressed. Poorly pressed specimens require additional time to identify or may not be identifiable.

Drying time will vary between specimens. After three days, check the specimens and replace any moist blotters with dry ones. Exposing the press to sun and a breeze will hasten the drying. After a specimen is dried, it is ready to be mounted or mailed in a cardboard reinforced envelope to a herbarium for identification. Specimens may be sent to the UI Stillinger Herbarium for identification or verification.

Stillinger Herbarium
University of Idaho
875 Perimeter Drive MS 3026
Moscow, ID 83844-3026

Accurate and complete site information must be taken at the time of collection and recorded in a collection notebook with reference to the specimen number. Types of information to record are:

1. scientific name (if known)
2. locality: place name, legal description, county, State, National Forest
3. elevation, aspect, slope
4. vegetation type, preferably habitat type
5. microsite (area around plant)
6. abundance and distribution
7. soils (parent material, depth, structure, texture, and so forth)
8. notes on plant: size, fresh color, inflorescence (if destroyed in pressing)
9. date of collection
10. name of collector

These data are often instrumental in species identification. They are recorded on a herbarium label, which is retained with the mounted specimen for future reference. The herbarium label in fig. 2 can be used directly or as an example for designing special use labels.

NORTHERN IDAHO VOUCHER COLLECTION

Family _____ Herbarium No. _____

Scientific Name _____

State _____ County _____ NF & RD _____

Location _____ T. _____ R._____ Sec. _____ 1/4_____

Elevation _____ Slope _____ Aspect _____ Plot No. _____

Habitat Type _____

Current Vegetation Type _____

Microposition _____

_____

Principal Associated Species _____

_____

Size: Ht. _____ Dia. _____ Soil _____

Notes: _____

_____

_____

Collected by _____ No: _____ Date: _____

Confirmed by _____ Date: _____

Figure 2—Northern Idaho herbarium voucher label.

GLOSSARY

achene, akene: A dry, indehiscent, one-seeded fruit, p. 107, 114, 115, 116.
acuminate: Gradually tapering to a narrow tip or sharp point.
acute: Sharp-pointed.
alternate: Borne singly along a stem, not opposite, p. 223.
annual: A plant that germinates, flowers, and seeds in a single growing season or less than one year.
anthesis: The period during which a flower is fully expanded or fertilization takes place.
aril: A specialized outgrowth or fleshy thickening of the seed coat, p. 24, 52.
armed: Provided with spines, prickles, thorns, or sharp hairs.
association: A special or distinctive combination of two or more plant species that develop wherever ecologically equivalent habitats occur.
auricle: An ear-shaped appendage found on some plant parts, such as on the top margin of grass leaf sheaths, p. 228.
awn: Slender, generally terminal bristle, p. 228.
axil: The point of the angle formed by the leaf or petiole with the stem.
axillary: Located in or arising from an axil.
axis: The main stem of an inflorescence, especially of a panicle.

beak: A prominent elongate tip.
berry: A fleshy fruit developed from a single pistil, fleshy throughout, p. 34, 49, 73, 104, 124, 136.
bi-: Latin prefix meaning two.
biennial: A plant that completes its life cycle and dies in two years.
bilabiate: Two-lipped, p. 162, 181, 225.
bipinnate: Twice pinnate; the pinnae again pinnate.
blade: The expanded part of a leaf or petal, p. 221, 227.
bloom: A waxy powder covering a surface.
boreal: Northern.
bract: A very small or modified leaf, usually growing at the base of a flower or flower cluster, p. 126, 169, 203, 221.
branch: A lateral division of the stem.
bud: An undeveloped leafy shoot or flower, p. 221.
bulb: A short, vertical, underground shoot that has modified leaves or thickened leaf bases developed as food storage organs.
bunchgrass: A grass that grows in a bunch or clump.
bush: A low, thick shrub without a distinct trunk.

caespitose: Growing in dense, low tufts.
calyx: The outer circle of flower parts made up of sepals.
campanulate: Bell-shaped, p. 110, 130, 165, 180, 225.
capsule: A dry, dehiscent fruit composed of more than one carpel, p. 42, 53, 59, 70.
catkin, ament: A scaly, bracted spike of usually unisexual flowers, frequently deciduous in one piece, p. 33, 39, 70.
caudex: A short vertical, often woody, persistent stem at or just beneath the ground surface, p. 167.
cauline: Of or pertaining to the stem.
ciliate: Fringed with hairs on the margin, p. 222.
ciliolate: Diminutive of ciliate.
clasping (leaf): Partially surrounding the stem, p. 179.

cleft: Cut about halfway to the midrib or base, or a little deeper; deeply lobed.
climax: (1) A plant community (or a plant species) in a relatively stable condition that is able to reproduce indefinitely under existing conditions. (2) A stable community in which there will be no significant change in composition unless the environment or surroundings change. (3) A community in dynamic equilibrium that will not predictably change its composition or physiognomy without site disturbance.
clone: A group of plants derived from a single individual by asexual reproduction; all clone members have the same genotype and consequently tend to be uniform.
collar: The outer side of a grass leaf at the juncture of the blade and sheath, p. 228.
compound leaf: A leaf with 2 or more distinct leaflets, p. 223.
cone: (1) A fruit with woody, overlapping scales, p. 8, 20, 23. (2) A cluster of sporophylls or ovuliferous scales on an axis, p. 10, 35, 89, 91.
connate: Grown together or attached.
cool season: Refers to early flowering or maturing phenology, particularly for grasses, usually from March to June.
cordate: Shaped like a stylized heart, notched at the base, p. 222.
corm: A short, vertical, underground stem that is thickened as a storage organ, p. 120, 135.
corolla: The inner circle of flowering parts; collectively, all of the petals of a flower, p. 224.
corymb: A flat-topped or round-topped flower cluster, the flowers opening from the outside inward, p. 226.
corymbose: In a corymb.
creeping: Running along the ground, prostrate.
crenate: Provided with rounded teeth; scalloped, p. 222.
crenulate: Diminutive of crenate.
crown: The upper part of a tree, including the living branches with their foliage.
culm: The aerial stem of a grass, sedge, or other grass-like plants, p. 228.
cuneate: Wedge-shaped or triangular, the narrow end at the point of attachment.
cyme: A flat-topped flower cluster, the flowers opening from the center outward, p. 226.
cymose: With the flowers in a cyme.

deciduous: Falling after completion of the normal function; not persistent.
decumbent: With a prostrate or curved base and an erect or ascending tip.
decussate: In pairs alternately crossing at right angles.
dehiscent: A fruit that splits open.
deltoid: Shaped like an equilateral triangle.
dentate: With spreading pointed teeth, p. 222.
dimorphic: Of two forms.
dioecious: Producing male and female flowers on separate plants.
disjunct: A segment of a population separated by some distance from the main or principal population.
dissected: Deeply and often repeatedly divided into numerous smaller or slender parts.
drupe: A fleshy fruit with a solitary seed, p. 43, 57.
drupelet: Diminutive of drupe, p. 68.

ecological equivalents: Two or more species with very similar biological responses to changing environmental factors.
ecotone: Transition zone between two plant communities.
elliptic: Approximately the shape of a geometrical ellipse, p. 222.
endemic: Confined to a particular geographic area; native.
entire (margin): Not toothed or otherwise cut, p. 222.

evergreen: Remaining green throughout the year; not deciduous.
exfoliating: Peeling off in thin layers.
exserted: Projecting beyond an envelope, as stamens from a corolla.

family: A group of related plants. Families are divided into genera, which are further divided into species.
fascicle: Dense cluster or bundle, p. 18, 19, 20.
floret: In grasses, the flower parts with the subtending bracts, p. 228.
foliolate: Having leaflets.
follicle: Dry fruit of one carpel, which opens along seed-bearing suture at maturity, p. 103, 110, 174.
forb: Herbaceous plant that is not a graminoid.
frond: A leaf, especially of a fern, p. 227.

galea: The strongly concave or helmet-like upper lip of certain bilabiate corollas, p. 103.
geniculate: Abruptly bent or twisted.
genus (plural: genera): A group of closely-related species. The genus is designated by the first word in the scientific name of a plant and is always capitalized.
glabrate: Nearly glabrous, becoming glabrous.
glabrous: Smooth, without hairs or glands.
gland: A spot on the surface of an organ or at the end of a hair that produces a sticky or greasy substance.
glaucous: Covered with a powdery or waxy substance, a whitish bloom easily rubbed off.
globose (globular): Round like a globe.
glume: One of the two bracts found at the base of a grass spikelet, p. 228.
graminoid: All grasses (Poaceae) and grass-like plants, including sedges (Cyperaceae) and rushes (Juncaceae).

habit: The general appearance or manner of growth of a plant.
habitat: The environmental conditions or generalized kind of place in which a plant grows.
habitat type: (1) Expression of the biological potential of an area. (2) Collective term for those physical areas (environments) that support or can support the same plant association or did support it prior to its destruction or modification by fire, flood, grazing, logging, or epidemics, etc. (3) A taxonomic unit and a mapping unit.
head: Many flowers joined together in a short, dense, terminal cluster (Asteraceae), p. 224.
herb: A plant, either annual, biennial, or perennial, with the stems dying back to the ground at the end of the growing season.
herbaceous: Adjectival form of herb; also, leaf-like in color or texture, or not woody.
hips (of a rose): A floral cup that usually becomes enlarged and fleshy at fruiting time; the true fruits are achenes inside the hip, p. 60.

indehiscent: Not dehiscent, remaining closed at maturity.
indicator: A plant species or community, representative of specific environmental conditions.
indusium (plural: indusia): An epidermal outgrowth or reflexed and modified leaf margin which covers the sori of many ferns, p. 227.
inflorescence: A flower cluster; the arrangement of the flowers on the axis, p. 226.
involucre: A set of bracts surrounding a flower cluster, p. 224.

involute: With edges rolled inward toward the upper surface.

keel: A sharp or conspicuous longitudinal ridge, p. 228; also, the two partly united lower petals of many Fabaceae, p. 149, 183, 191.

lanceolate: Lance-shaped, broader toward one end and tapering to the other, p. 222.
leaflet: One of the small blades of a compound leaf, p. 223.
lemma: One of the two bracts (lemma and palea) subtending the individual flowers in grass spikelets; may be awned, p. 228.
lenticel: A slightly raised area in the bark of a stem or root, p. 221.
ligule: Term applied to the flattened part of the ray corolla in Asteraceae and to the appendage on the inner (upper) side of the leaf at the junction of blade and sheath in many Poaceae and some Cyperaceae, p. 228.
linear: Long and narrow, with parallel edges, p. 222.
lip: The upper or lower petal of many irregular flowers, p. 224.
lobe: A projecting segment of an organ.
low shrub: A shrub 15-90 cm (6-36 in) high.

medium shrub: A shrub 1-2 m (3-7 ft) high.
membranaceous, membranous: Thin and flexible, like a membrane.
-merous: Greek suffix, referring to the parts in each circle of flower organs, generally with a numerical prefix, such as 2-merous.
mesic: Moist, neither very wet nor very dry.
midmontane: Middle elevations in mountains.
midrib: The central vein of a leaf or leaflet.

naked: Lacking various organs or appendages; a naked flower lacks a perianth.
naturalized: Well-established, but originally coming from another area.
nerve: A prominent longitudinal vein of a leaf or other organ.
node: A place on a stem where a leaf is (or has been) attached.
nutlet: A very thick-walled achene, p. 34.

ob-: Greek prefix, meaning in a reverse direction.
oblanceolate: Widest well above midlength, inversely lanceolate, p. 222.
opposite: Situated directly across from each other at the same node; situated directly in front of (on the same radius as) another organ, as stamens opposite the petals, p. 223.
orbicular: Essentially circular in outline, p. 222.
oval: Broadly elliptic.
ovate: Egg-shaped in outline, p. 222.
ovoid: Solid ovate or solid oval.

palmate: With three or more lobes, nerves, leaflets, or branches arising from a common point, p. 32, 51, 55, 223.
palmately compound: Leaves divided to the base so that all leaflets are attached at the same point.
panicle: A branched, indeterminate inflorescence resembling a raceme whose rachis is branched to varying degrees, p. 226.
papilionaceous flower: One with a banner petal, two wing petals, and two partly connate keel petals, p. 149, 183, 191.
parasite: A plant that derives its food or water chiefly from another plant to which it is attached.
pedicel: The stalk of an individual flower, p. 221, 226.

perennial: A plant capable of living through more than 2 growing seasons and producing seeds for more than 1 year.
perianth: Petals and sepals of a flower together, p. 224.
perigynium: A special bract which encloses the achene of *Carex* species, p. 203, 204.
persistent: Remaining attached.
petal: One of the segments of the corolla, generally colored or white and serving to attract pollinators, p. 224.
petiolate: With a petiole.
petiole: A leaf stalk, p. 221.
phase: A subdivision of a plant association or a habitat type representing minor differences in climax vegetation or environmental conditions, respectively.
pinna: One of the primary divisions of a pinnately-compound leaf, p. 227.
pinnate: Leaflets arranged along each side of the common petiole of a compound leaf.
pinnately-compound: Leaves divided to the midrib; the leaflets or pinnae are arranged like the parts of a feather on the rachis, p. 86, 87, 89.
pinnule: Diminutive of pinnae; an ultimate leaflet of a leaf that is pinnately two or more times compound, p. 227.
pistil: The female organ of a flower, composed of 1 or more carpels.
pistillate: A flower with one or more pistils, but no stamens.
pith: The softer, central part of a twig or stem.
pod: Any kind of dry, dehiscent fruit.
pome: A fruit with a core, like an apple, p. 36, 74.
prickle: A small, sharp, usually slender outgrowth of the young bark, p. 61, 64.
procumbent: Lying on the ground or trailing, but not rooting at the nodes.
prostrate: Lying flat on the ground; may root at the nodes.
puberulent: Minutely pubescent, usually fine, short, loose hairs.
pubescent: Covered with short, soft hairs.

raceme: An elongate inflorescence with stalked flowers arranged along a central stem, p. 226.
rachilla: Diminutive of rachis; the axis of the spikelet in the grasses and sedges, p. 228.
rachis: A main axis, such as that of a compound leaf, p. 221, 226.
reflexed: Bent backward or downward.
reniform: Kidney-shaped, p. 222.
revolute: Rolled back from the margin toward bottom surface, p. 54.
rhizomatous: Bearing rhizomes.
rhizome: A creeping, underground stem, p. 227.
root: Three main types:
1. fibrous—consists of many fine-branched roots;
2. tuberous—few to several roots, all attached at the base of the stem and swollen, at least at the base, with stored food; and
3. tap—one main vertical root swollen with stored food.

rootstock: A horizontal, underground stem; rhizome.
rosette: A circular cluster of leaves, usually at ground level, p. 221.
rotate: Flat and circular in outline; saucer-shaped, p. 225.
rotund: Round or rounded.
rudimentary: Imperfectly developed.

samara: A dry, indehiscent, generally one-seeded, winged fruit, p. 32, 39.
saprophyte: A plant that lives on dead organic matter, neither parasitic nor making its own food.
scale: Any small, thin or flat structure.

scape: A leafless (or merely bracteate) flowering stem arising from a basal rosette, p. 141.
schizocarp: A fruit that splits into separate carpels at maturity, p. 108, 144, 150, 155.
secund: With the flowers or branches all on one side of the axis, p. 172.
seed: A mature, reproductive embryo with protective coat, with or without internal food (endosperm).
sepal: One of the segments of the calyx, typically green or greenish and leafy in texture, p. 224.
seral: Adjective term applied to any species or plant community primarily associated with secondary successional stages.
series: Group of habitat types with the same climax tree species. A taxonomic unit.
serotinous: Late in bearing or opening.
serrate: Toothed along the margin with sharp, forward-pointing teeth, p. 222.
serrulate: Diminutive of serrate.
sessile: Attached directly by the base, without a stalk.
sheath: An organ that partly or wholly surrounds another organ, such as a sheath of a grass leaf surrounding the stem, p. 228.
shrub: A woody, perennial plant having several flexible, more or less upright, stems that typically branch near the ground.
silique: An elongate capsule with two valves that are deciduous from the persistent, seed-bearing partition, p. 122.
simple leaf: A single leaf blade, not compound, p. 223.
sorus (plural: sori): A cluster of sporangia, as in ferns, p. 228.
species: A distinct kind of plant. Each plant has a two-word scientific Latin name, of which the first word designates the genus and the second word designates the species.
spicate: Arranged in a spike.
spike: An elongate flower cluster with sessile flowers arranged along a central stem, p. 226.
spine: A firm, slender, sharp-pointed structure, representing a modified leaf or stipule, p. 51.
spinulose: Provided with small spines, p. 38, 222.
sporangium (plural: sporangia): A case or container for spores.
spore: A one-celled reproductive structure other than a gamete or zygote.
sporophyll: A modified leaf which bears or subtends one or more sporangia, p.89.
sporophyte: Produces spores as reproductive bodies.
spur: A hollow, tubular projection of a flower petal, p. 224.
stamen: The male organ of a flower, consisting of a slender stalk (filament) and a knoblike, pollen-bearing tip (anther).
staminate: A flower with one or more stamens, but no pistil.
sterile: Unproductive or infertile.
stipe: A stalk supporting a single organ; the leaf stalk of a fern, p. 227.
stipule: A small, leaf-like growth at the base of a leaf stalk, p. 221.
stolon: An elongate, creeping stem on or above the surface of the ground, p. 228.
stoloniferous: Bearing stolons, p. 136.
stomata (stoma): Specialized openings in leaf surfaces that allow movement of gases.
sub-: Latin prefix meaning under, almost, or not quite.
subshrub: Very small shrub or low woody perennial, generally under 15 cm (6 in) high.
subtend: To be directly below or close to.
succession: The replacement of one community by another, developing toward a climax.
succulent: Fleshy and juicy.

tall shrub: A shrub over 2 m (7 ft) high, p. 118.
taproot: The primary descending, usually fleshy root.
tendril: A slender, coiling organ used for climbing or support, p. 149, 189.
tepal: A sepal or petal, or member of an undifferentiated perianth.
terete: Cylindrical; round in cross-section.
ternate: In threes.
thorn: A stiff, woody, modified stem with a sharp point, p. 44.
tomentose: Covered with tangled or matted, woolly hairs.
trailing: Running along the ground, but not rooting.
tree: A plant with a woody stem (trunk) that is unbranched for several feet above the ground.
tri-: Latin prefix meaning three.
tribe: A division of a large plant family; a subfamily.
trifoliate, trifoliolate: With three leaves; with three leaflets, p. 223.
truncate: With the apex (or base) transversely straight or nearly so, as if cut off.
tuber: A short, thickened part of a rhizome, used for food storage (potato).
tuberous: Thickened like a tuber.
twig: A small, secondary stem.

umbel: A flat-topped flower cluster in that all the flower stalks radiate from the same point, like the ribs of an umbrella, p. 226.
umbellate: In umbels., p. 226
umbo: A blunt or rounded elevation or protuberance on the end or side of a solid organ, as on the scales of pine cones, p. 17.
urceolate: Urn-shaped or pitcherlike, contracted at or just below the mouth, p. 50, 80, 225.

variety: A taxon below species that has consistent morphological variation from the species (but not sufficient to be a new species); a variety may have the same or (more usually) different geographical distribution.
vein: A vascular bundle; one of the network of tiny channels in a leaf through which the plant's fluids flow.
venation: System or pattern of veining.
villous: Pubescent with long, soft, often bent or curved, but not matted, hairs.

warm season: Refers to normal late flowering or maturing phenology, particularly for grasses, usually from late June to September.
weed: A general term for any undesirable or troublesome plant species—usually one introduced or out of place; occurs without intentional cultivation.
whorl: Arranged in a circle around a central point, p. 223.

xeric: Characterized or pertaining to conditions of scant moisture supply.

Definitions for this glossary were derived from: Hitchcock and Cronquist 1973, Johnson 1983, Lee and Pfister 1978, and Newcomb 1977.

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