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United States
Department of
Agriculture

Forest Service

**Intermountain
Research Station
Ogden, Utah 84401**

General Technical
Report INT-180

April 1985

Field Guide to Forest Plants of Northern Idaho

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Drawings originally published in C.L. Hitchcock and others (1955-69) were used with permission from the University of Washington Press. New illustrations have been added through the volunteer efforts of Anita Cholewa, Lisa Marie Skovlin, (Sawtooth National Forest) and Kathleen Dawes (Moscow, ID).

CONTENTS

	Page
Introduction	1
Species Description Format	2
Trees	5
Shrubs	29
Ferns and Friends	83
Forbs	97
Graminoids	195
Descriptive Drawings	221
Collecting and Pressing Methods	229
Glossary	232
References	239
Index of Scientific Names	242
Index of Common Names	244

TABLES

1.	Key to Native Trees and Tall Shrubs	7
2.	Betula Conspectus	11
3.	Shrub Characteristics	30
4.	Alnus Conspectus	33
5.	Ribes Conspectus	60
6.	Rosa Conspectus	63
7.	Rubus Conspectus	67
8.	Vaccinium Conspectus	78
9.	Key to Ferns and Friends	84
10.	Forb Characteristics	98
11.	Corallorhiza Conspectus	126
12.	Liliaceae Conspectus	129
13.	Habenaria Conspectus	142
14.	Mitella Conspectus	156
15.	Pyrola Conspectus	170
16.	Viola Conspectus	190
17.	Graminoid Characteristics	196
18.	Carex Conspectus	202
19.	Luzula Conspectus	213

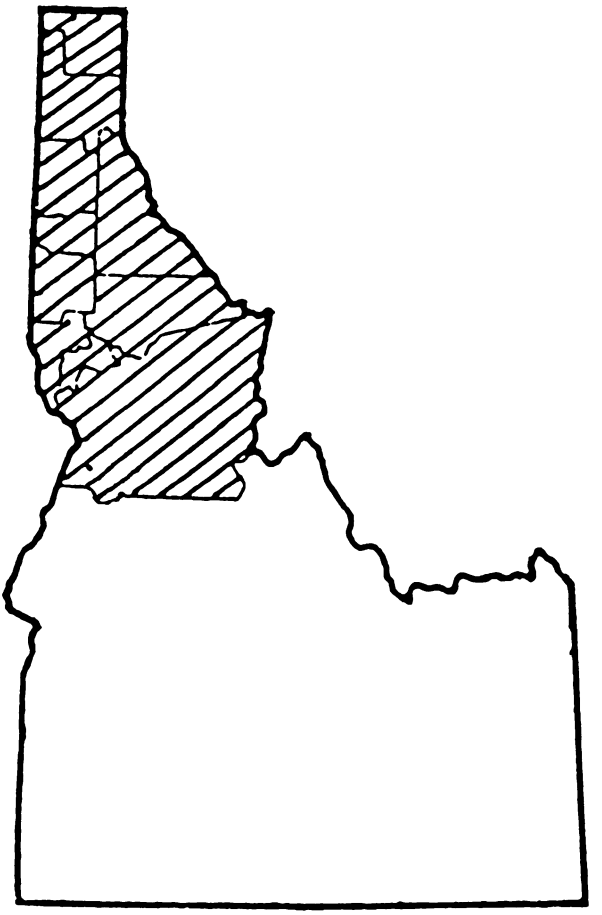


Figure 1.--The portion of Idaho (hatched area) covered by this guide.

INTRODUCTION

This field guide has been developed specifically to complement the Forest Habitat Types of Northern Idaho (Cooper and others 1983). The geographic area covered is Idaho's forested lands from the Salmon River drainage north to the Canadian border (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 (C.L. Hitchcock and Cronquist 1973) and Vascular Plants of the Pacific Northwest, Parts 1-5 (C.L. Hitchcock and others 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 table, 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.

This publication is the product of two previous informal drafts. Many corrections, additional species, keys, species comparison guides, and handy field characteristics have been added. 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
Intermountain Forest and
Range Experiment Station
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 pages 3-4.

(A) The species description layout was patterned after a similar description layout in Randall and Keniston (1968). The text and terminology style was patterned after the above cited plant taxonomies. Line drawings used throughout the guide are from C.L. Hitchcock and others (1955-1969), Hayes and Garrison (1960), and Anon. (1981). Additional drawings were provided by persons listed in Acknowlegments. Scale perspective is provided by a six foot forester standing next to a typical plant.

(B) Family from Cronquist (1981). GRAMINEAE tribes from A.S. Hitchcock (1971).

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

(D) Standarized vegetation codes are from Garrison and others (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, *Spiraea betulifolia* var. *lucida* becomes Spbel. Genera are designated by a code of the first 5-letters or less being all capitalized, such as SPIRA, ACER, POA. Common names follow C.L. Hitchcock and Cronquist (1973); Garrison and others (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 listing of current record trees and forms explaining the process for nominating new record trees, contact:

Idaho Big Tree Program
Department of Forest Resources
College of Forestry, Wildlife, and Range Sciences
University of Idaho
Moscow, ID 83843

(F) General characteristics were condensed from several taxonomic treatments, (Davis 1952; Hayes 1960; A.S. Hitchcock 1971; C.L. Hitchcock and others 1955-1969; C.L. Hitchcock and Cronquist 1973; Lee and Pfister 1978). C.L. Hitchcock and Cronquist (1973) was used as the authority. General field identification characteristics have been supplied by many individuals (see Acknowledgments). A glossary of taxonomic terms is included at the end of 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, (<1in) 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 and others (1978), Partridge and Miller (1974). Insects: Partridge and others (1978), Fowells (1965), and Furniss and Carolin (1977). 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 in commas. 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, due to their rarity or limited distribution, are being monitored. You can learn 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, available from:

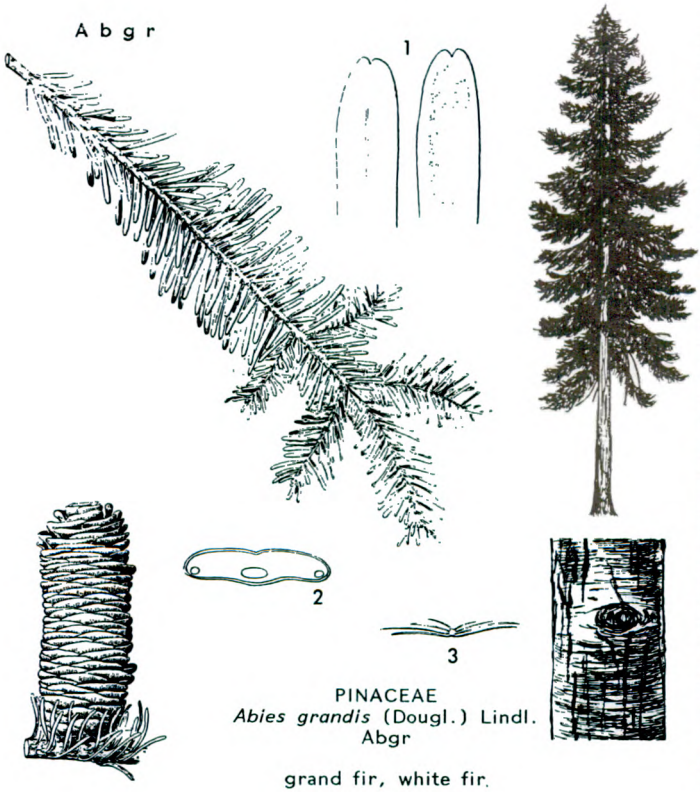
FWR Experiment Station
University of Idaho
Moscow, Idaho 83843

(L) The habitat type constancy table shows the percentage of stands within a habitat type in that one can expect to find the species described. The list of habitat types and constancy values comes from Cooper and others (1983). 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 enviromental gradient of hot-dry to cold-wet. The constancy values are given for midseral to climax stand conditions. Most species have different occurences and constancy in highly disturbed habitats. Constancy codes: blank = 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, scalelike, overlapping	*Thuja plicata*	25
2. Leaves linear or needlelike		
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 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 (6mm) pointed, red-brown	*Pseudotsuga menziesii*	23
10. Buds: Small (3mm) rounded light colored.	*Tsuga* spp.	26,27
1. LEAVES BROAD, THIN, FLAT; DECIDUOUS		
11. Leaves opposite		
12. Leaves compound.	*Sambucus* spp.	71
12. Leaves simple		
13. Palmately lobed "maplelike"	*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 in catkins		
18. Female catkins persistent and conelike	*Alnus* spp.	33
18. Female catkins deciduous, not conelike		
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



PINACEAE
Abies grandis (Dougl.) Lindl.
Abgr

grand fir, white fir.

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

IDAHO CHAMPION: 1981. 54.9in dbh; 172in circum. + 218ft tall + 7.7ft crown= 398pts; Pierce RD., Clearwater NF.

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

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

LEAVES: Flat needles, 2-3cm (1in) 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 **two ranked** (3).

CONES: Cylindrical, 6-11cm (2-4in); 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	Psme
	Aruv	h.t.	
2	Phma	Phma	
1	Smst	h.t.	
10	Phma	Phma	Abgr
10	Cooc	h.t.	
10	Libo	Libo	
10	Xete	h.t.	
10	Asca	Asca	
10	Tabr	h.t.	
10	Mefe		
9	Setr h.t.		
10	Phma	Clun	
10	Clun	h.t.	
10	Tabr		
10	Mefe		
10	Xete		
10	Vagl	Xete	
10	Cooc	h.t.	
9	Clun	Clun	Thpl
10	Tabr	h.t.	
9	Mefe		
9	Xete		
10	Asca	Asca	
10	Tabr	h.t.	
10	Mefe		
9	Gydr h.t.		
8	Adpe h.t.		
9	Adpe	Atfi	
6	Atfi	h.t.	
3	Opho h.t.		
7	Clun	Clun	Tshe
7	Arnu	h.t.	
6	Mefe		
7	Xete		
9	Asca	Asca	
9	Arnu	h.t.	
7	Mefe		
5	Gydr h.t.		
3	Mefe	Clun	Tsme
1	Xete	h.t.	
1	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
1	Vagl	Xete	
	Luhi	h.t.	
7	Clun	Clun	Abla
4	Mefe	h.t.	
5	Xete		
3	Cooc		
2	Xete	Mefe	
4	Vasc	h.t.	
	Luhi		
2	Mefe	Stam	
4	Lica	h.t.	
	Caca	Caca	
7	Vaca	h.t.	
4	Legl		
7	Cooc		
2	Vagl	Xete	
2	Vasc	h.t.	
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru	Caru	4
	h.t.	Aruv	
	Phma	Phma	
	h.t.	Smst	
Abgr	Phma	Phma	
	h.t.	Cooc	
	Libo	Libo	2
	h.t.	Xete	4
	Asca	Asca	1
	h.t.	Tabr	1
		Mefe	2
	Setr h.t.		3
	Clun h.t.	Phma	+
		Clun	1
		Tabr	3
		Mefe	4
		Xete	3
	Xete	Vagl	6
	h.t.	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	Adpe	
	h.t.	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.		6
	Xete c.t.		
	Vaca c.t.		

PINACEAE

Abies lasiocarpa (Hook.) Nutt.

Abla

subalpine fir, alpine fir

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

IDAHO CHAMPION: 1981. 49.9in dbh; 156.7in circum. + 137ft tall + 5ft crown= 298pts; Pierce RD, Clearwater NF.

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

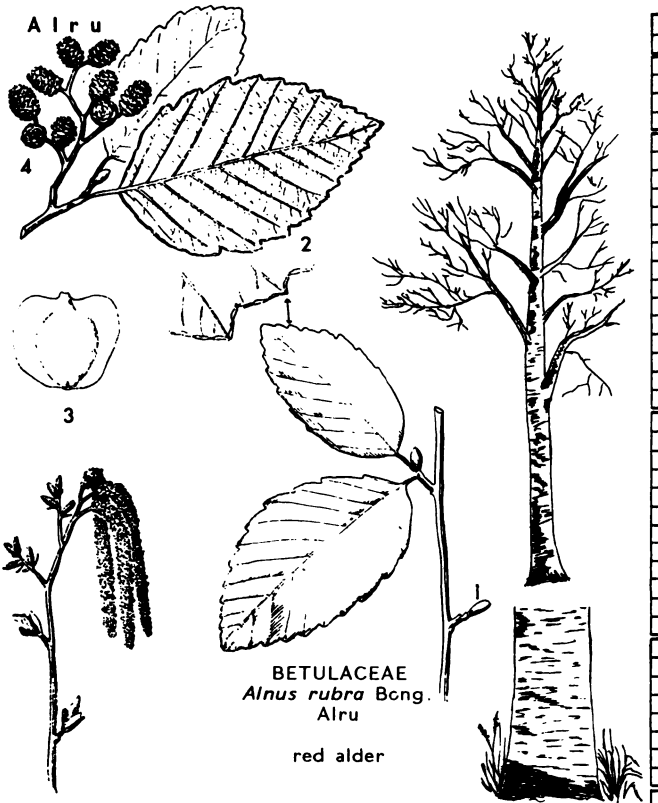
BUDS: Rounded, light brown, 6mm long.

LEAVES: Thick needles, 2-4cm (1-2in) 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, 6-10cm (2-4in) 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.



BETULACEAE
Alnus rubra Bong.
Alru

red alder

FORM: Rapidly growing trees; up to 25m (80ft) tall.
IDAHO CHAMPION: 1973. 22in dbh; 70in circum. * 75ft tall * 6.5ft crown= 152pts; Bonner Co.
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, 5-15cm (2-6in) 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), 1-2cm 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	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		Thpl
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
+	Adpe h.t.		
1	Adpe	Atfi	
	Atfi	h.t.	
	Opho h.t.		
	Clun		Tshe
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Arnu	h.t.	
3	Mefe		
	Gydr h.t.		
	Mefe	Clun	Tshe
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun		Abla
	Mefe	Clun	
	Xete	h.t.	
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Table 2.--KEY TO BETULA SPECIES

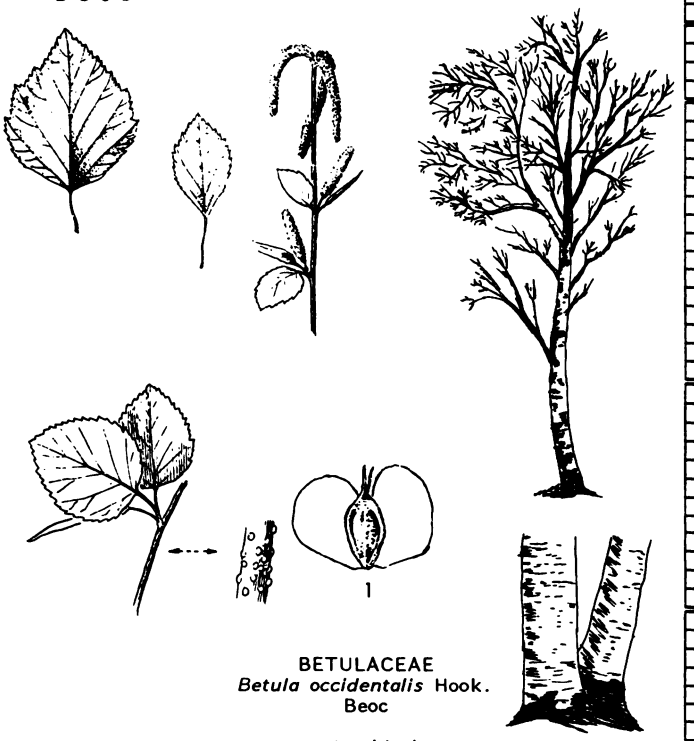
1. Female catkins cone-like, persistent; pith triangular; twigs slightly angled.. . . . . .ALNUS CONSPECTUS PAGE 33

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	3cm (1in)	resin dotted grey sticky	riparian or bogs
Betula occidentalis water birch Beoc	12	tree	not exfoliating reddish brown	serrate broadly ovate sticky	5-8cm (2-3in)	resin dotted green sticky	riparian
Betula papyrifera paper birch Bepa	13	tree	exfoliating white-brown	double serrate round ovate	5-10cm (2-4in)	smooth non aromatic glandular	upland

B e o c



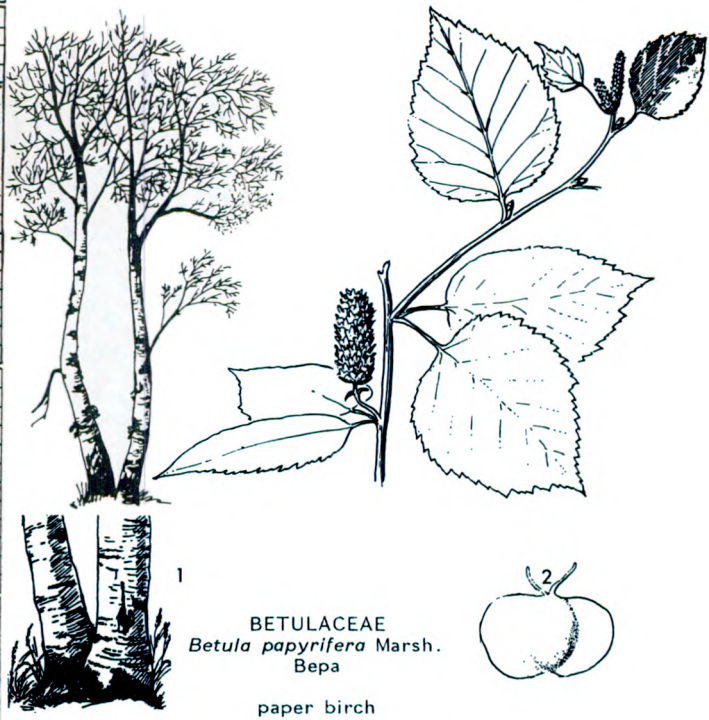
BETULACEAE
Betula occidentalis Hook.
Beoc

water birch

FORM: Small tree or loosely branched shrub, up to 15m (13-26ft) tall; frequently found in crowded, dense thickets.
IDAHO CHAMPION: var. *occidentalis*, 1973. 29in dbh; 91.1in circum. + 50ft tall + 7ft crown= 148pts; Sawtooth NF.
BARK: Smooth, shiny, reddish-brown, marked by pale horizontal lenticels; bark does not exfoliate.
BUDS: Brown, resinous, pointed, about 6mm long.
LEAVES: Alternate, deciduous, broadly ovate to diamond-shaped, 3-5cm (1-2in), serrate to dentate, green above, pale yellow-green and minutely glandular below, initially sticky; changes to dull yellow in autumn.
FLOWERS: Cylindrical catkin 2cm 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	Psme
	Aruv	h.t.	
	Phma	Phma	
+	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr	h.t.	
	Phma	Clun	
	Clun		
	Tabr		
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
	Xete	Asca	
	Asca	h.t.	
	Tabr		
	Mefe		
	Gydr	h.t.	
	Adpe	h.t.	
	Adpe	Atfi	
	Atfi	h.t.	
	Opho	h.t.	
	Clun	Clun	Tshe
	Arnu	h.t.	
	Mefe		
	Xete	Asca	
	Asca	h.t.	
1	Arnu		
	Mefe		
	Gydr	h.t.	
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc	Mefe	
	Xete	h.t.	
	Vasc		
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc	Xete	
	Vagl	h.t.	
	Vasc		
	Luhi		
	Vasc	h.t.	Pico
	Xete	c.t.	
	Vaca	c.t.	

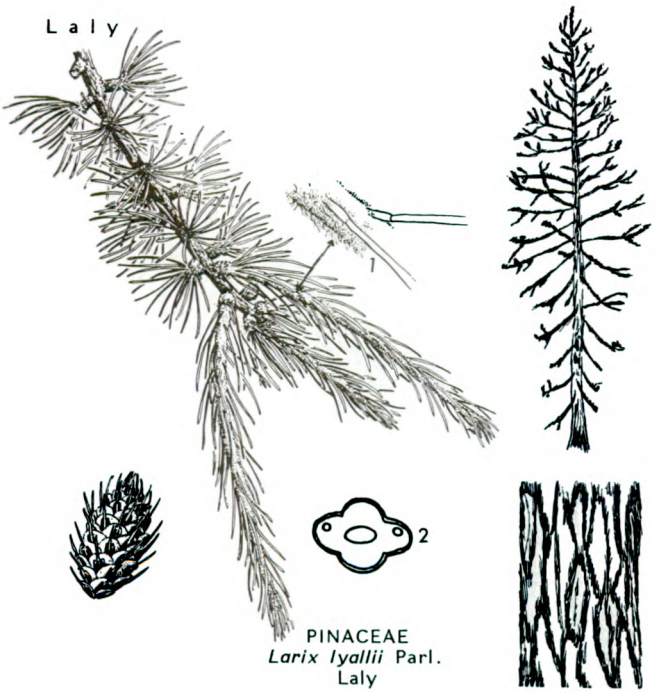
Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	
	Phma h.t.	Phma	
		Smst	+
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	1
		Tabr	
		Mefe	
		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 Marsh.
Bepa

paper birch

FORM: Tree, 15-20m (50-66ft) tall; old trees have open crowns and short, pendulous branches.
IDAHO CHAMPION: var. *commutata*: 1973. 29in dbh; 91in circum. + 70ft tall + 16.5ft crown= 178pts; Bonner Co.
BARK: Young trees bronze to light reddish brown, **aging cream-white to coppery**, with horizontal raised lenticels (1); **peeling in thin, papery strips**, thus its common name.
BUDS: Resinous, orange-brown; pointed ovate, 3-5mm long.
LEAVES: Alternate, deciduous, ovate, 6-10cm (2-4in) long, yellow-green and smooth above, pale below, usually doubly serrate.
FLOWERS: Cylindrical catkin 2-4cm (1-2in) 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.



PINACEAE
Larix lyallii Parl.
Laly

subalpine larch, alpine larch, Lyall larch

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

IDAHO CHAMPION: 1970. 50in dbh; 157in circum. * 95ft tall * 9.5ft crown= 261pts; Bonners Ferry RD, Kaniksu NF.

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 furrows.

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

CONES: Reddish-yellow to purplish-green 3-5cm (1-2in) long; bracts much longer than cone 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 2000m (6550ft) elevation in the spruce-fir zone.

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

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

Laoc

PINACEAE

Larix occidentalis Nutt.

Laoc

western larch, tamarack

1

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

IDAHO CHAMPION: 1977. 76.2in dbh; 239.3in circum. * 142ft tall * 5.5ft crown= 387pts; 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* .

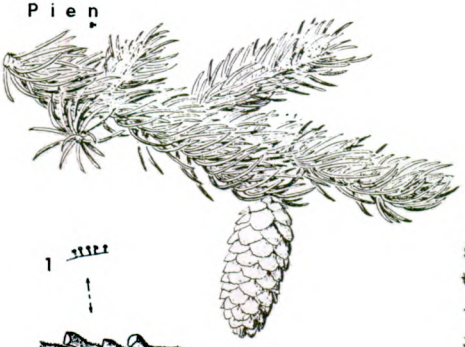
LEAVES: **Deciduous,** 15-30 needles borne on short spur, pale green, **broadly triangular with no resin ducts visible** (1), 2-4cm (1-2in) long; becoming yellow and falling in late fall after *Larix lyallii*.

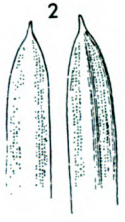
CONES: Oblong, 2-3cm (<2in) long; thin, red-brown scales; borne upright on spur shoot, may remain on tree for several years; ripens Aug.-Sept.; seed shed Sept.-Oct.

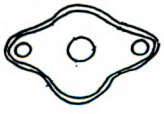
ENEMIES: Diseases: *Fomes officinalis, Fomes pini, Phaeolus* (*Polyporus*) *schweinitzii, Armillaria* species, *Phellinus* (*Poria*) *weirii* and *Hypodermella laricis*; Insects: larch casebearer; Fire: very resistant.

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

Pien







PINACEAE

Picea engelmannii Parry ex Engelm.

Pien

Engelmann spruce

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

NATIONAL CHAMPION: 1970. 92.4 in dbh; 290in circum. + 179ft tall + 10.8ft crown= 480pts; Valley Co., ID.

STEMS: Young twigs finely pubescent (1).

BARK: Thin, brownish-red, scaly.

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

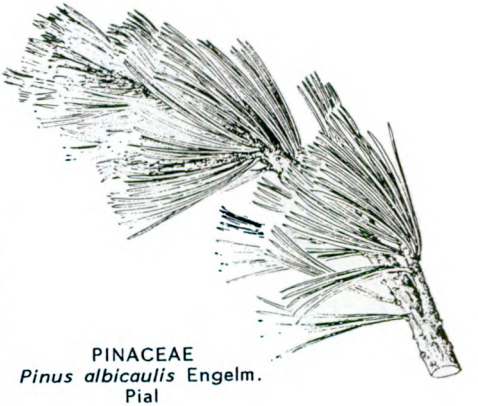
ENEMIES: Diseases: *Armillaria* species, *Fomes annosus*, *Phaeolus* (*Polyporus*) *schweinitzii*, *Fomes pini*, broom rust, and dwarf mistletoe; Insects: western budworm, and tip weevil; Fire: very susceptible.

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	Xete h.t.	
4	Vagl		
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		
	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	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.

Pial

whitebark pine

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

NATIONAL CHAMPION: 1980. 105.4in dbh; 331in circum. + 69ft tall + 11.7ft crown= 412pts; Sawtooth NRA, ID.

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

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

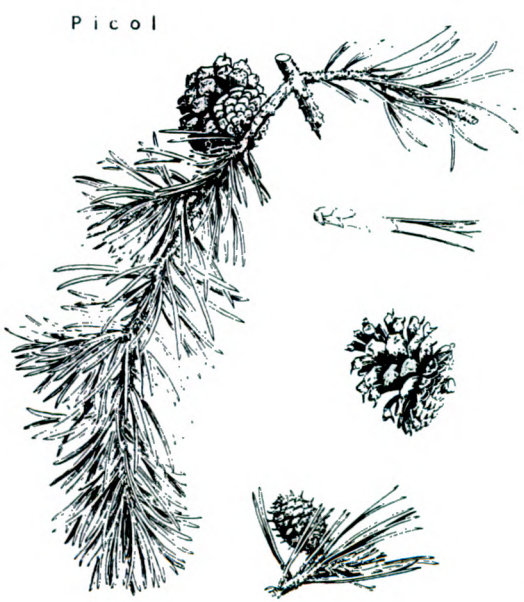
CONES: Ovoid, deep red to purple-brown, 5-10cm (2-4in) long, thick scales with stout, **pointed umbos** (1) (protuberances); cones **disintegrate on ground,** rarely found whole.

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. flexilis* (limber pine), not found in Idaho north of Riggins.

HABITAT: Subalpine slopes and ridges.

Picol



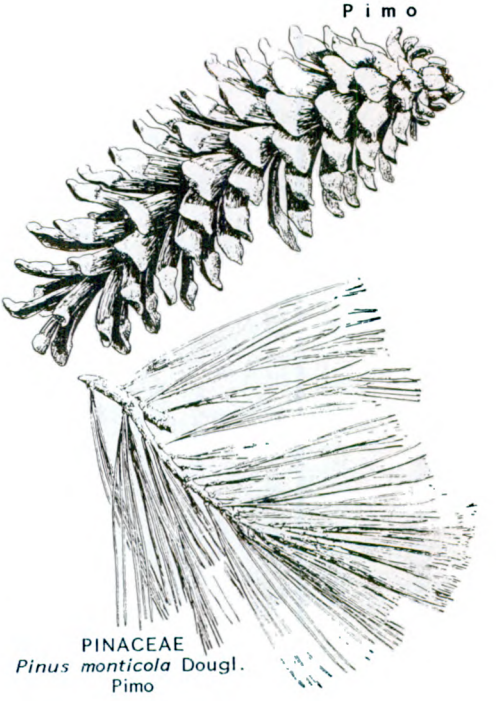
PINACEAE
Pinus contorta var. *latifolia* Engelm. in Wats.
Picol

Rocky Mtn. lodgepole pine, jack pine

FORM: Tree, up to 30m (100ft) tall with short crown.
NATIONAL CHAMPION: 1980. 43.6in dbh; 137in circum.+ 135ft tall + 10.3ft crown= 282pts; Valley Co., ID.
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,** 3-8cm (1-3in) long; stiff, often twisted; yellowish green.
CONES: Subsessile, 3-5cm (1-2in) 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	
	Smst	h.t.	
3	Phma	Phma	Abgr
1	Cooc	h.t.	
5	Libo	Libo	
9	Xete	h.t.	
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
2	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	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 Dougl.
Pimo

western white pine

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

IDAHO CHAMPION: 1981. 81.8in dbh; 257in circum. + 214ft tall + 9.5ft crown= 481pts; Palouse RD, Clearwater NF.

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**, 5-10cm (2-4in) long, blue-green, slender and flexible, tip blunt.

CONES: Narrow and curved, 12-38cm (5-15in) 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 Dougl.
Pipo

ponderosa pine, yellow pine, bull pine

FORM: Tree, 43m (140ft) tall; with symmetrical bole.
IDAHO CHAMPION: 1962. 88in dbh; 276.6in circum. + 138ft tall; description incomplete; Valley 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**, 12-20cm (5-8in) long.
CONES: Ovate, 8-15cm (3-6in) 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*) *schweinitzi*, *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	Psme
4	Aruv	h.t.	
8	Phma	Phma	
9	Smst	h.t.	
7	Phma	Phma	Abgr
3	Cooc	h.t.	
6	Libo	Libo	
4	Xete	h.t.	
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.
Potr

quaking aspen, trembling aspen

FORM: Small tree, up to 25m (82ft) tall, forming dense colonies, rarely singular.
IDAHO CHAMPION: 1982. 30.1in dbh; 94.6in circum. * 86ft tall * 10ft crown= 190.6pts; Camas Co.
BARK: Smooth, **greenish-white to cream colored becoming** blackish and rough with injury and old age.
BUDS: Resinous, sharp tipped, reddish-brown, 1cm long (1).
LEAVES: Alternate, deciduous, broadly ovate almost round, 2-9cm (1-4in) 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.**
FLOWER: 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

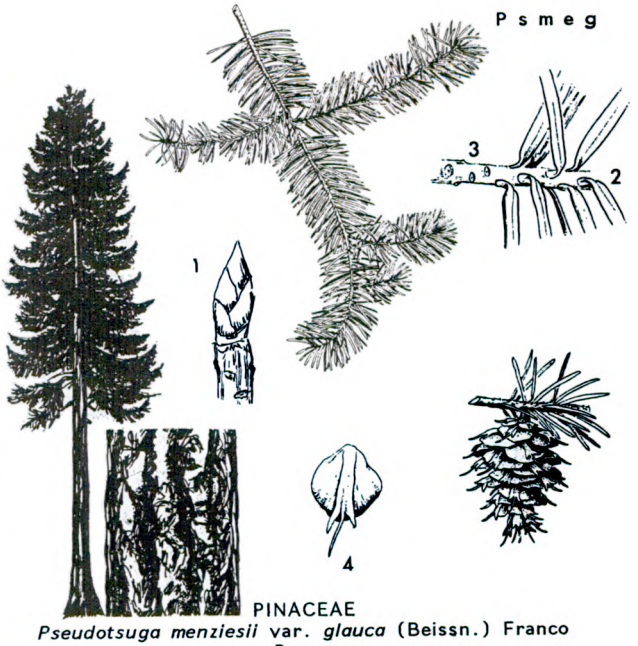
SALICACEAE
Populus trichocarpa T. & G. ex Hook.
Potr2

black cottonwood

FORM: Large tree, 10-30m (30-100ft) tall, with broad, open crown.
IDAHO CHAMPION: 1984. 32.9in dbh; 103in circum. * 113ft tall * 3.75ft crown= 220pts; Boundary Co.
BARK: Smooth, yellowish-tan to grey on young bark, aging grey with **rough and narrow flattened ridges.**
BUDS: Orange-brown 2cm (<1in) long; tip sharp (1), resinous with **fragrant odor when crushed.**
LEAVES: Alternate, deciduous, ovate, 5-15cm (2-6in) long, apex acute, margins finely toothed, dark green above, **silver-white beneath, round petioles** (2), strongly resinous, especially when young.
FLOWER: 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	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
	Phma		
+	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		Thpl
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
+	Atfi	h.t.	
1	Opho h.t.		
	Clun		Tshe
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
1	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Tsme
1	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun		Abla
	Mefe	Clun	
	Xete	h.t.	
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	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.		
	Vaca c.t.		



PINACEAE

Pseudotsuga menziesii var. *glauca* (Beissn.) Franco

Psmeg

Rocky Mountain Douglas-fir, red fir

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

IDAHO CHAMPION: 1978. 75in dbh; 217.5in circum. + 150ft tall + 8.75ft crown=377pts; Wallace RD, Coeur d'Alene NF.

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.**

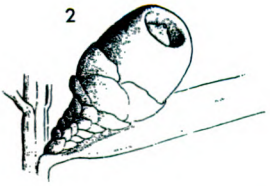
BUDS: Shiny, **reddish-brown, sharp-pointed,** 6mm long (1).

LEAVES: Linear, flattened, blue-green **petiolate** needle (2), 2-3cm (1in) 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, 4-10cm (2-4in) long, with **three-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.

T a b r



2

1

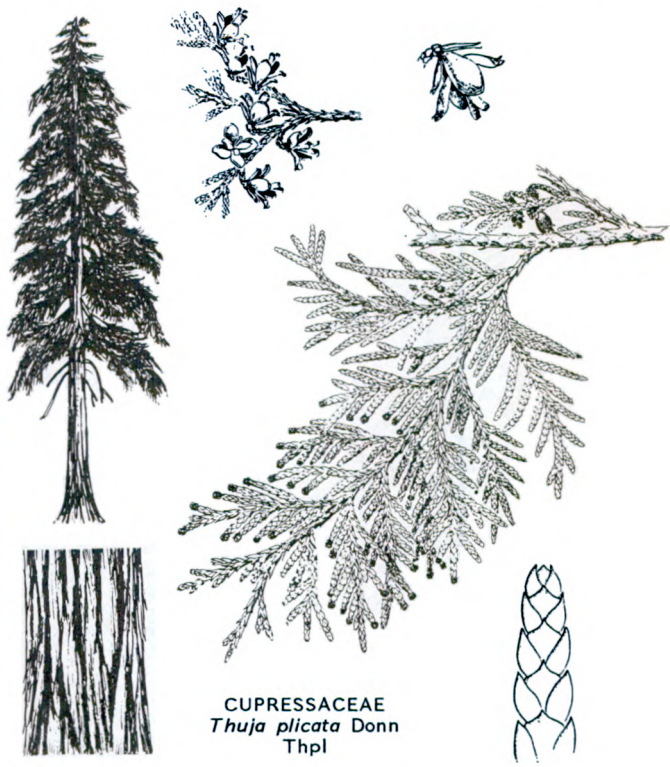
TAXACEAE
Taxus brevifolia Nutt.
Tabr

western yew, Pacific yew

FORM: Large, evergreen shrub to small tree, 5-10m (16-30ft) tall with erect or contorted trunk.
IDAHO CHAMPION: 1967: 33.7in dbh; 105.8 in circum. + 28ft tall + 13.75ft crown= 148pts; Slate Creek RD, Nezperce NF.
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	Asca h.t.	
2	Asca		
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.		Ptco
	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
Thpl

western redcedar 1

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

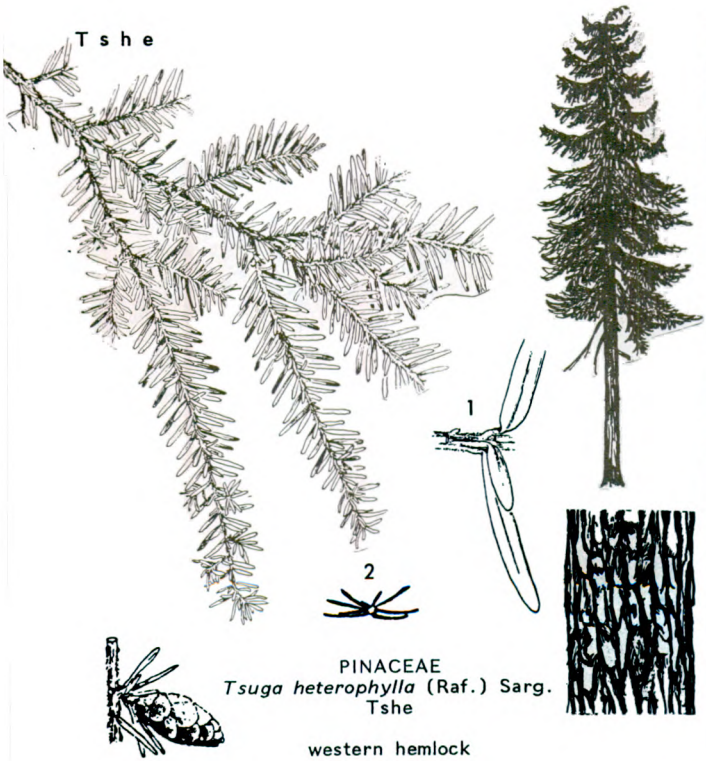
IDAHO CHAMPION: 1979. 216in dbh; 680in circum. * 177ft tall * 9.9ft crown= 867pts; Palouse RD, Clearwater NF.

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: Ovoid-cylindrical cones about 1cm 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.
Tshe

western hemlock

FORM: Tree, 30-50m (100-160ft) tall; narrow pyramidal crown with **drooping terminal leader.**
IDAHO CHAMPION: None Registered
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, 2mm long.
LEAVES: **Thin, flat,** singular, **petiolate,** dark green needles 6-10mm long, **grooved above, marked with white stomata bands** below, apex rounded, **needles of varying lengths** (1), **2-ranked on twig** (2).
CONES: Light brown, **2cm (<1in) long,** thin scales narrow with wavy margin; ripens first year, Aug.-Oct.; seed shed Sept.-Jan., after seed release cones remain on trees until the next summer.
ENEMIES: Diseases: *Echinodontium tinctorium, Fomes anosus, 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 **sa**pling *Taxus brevifolia,* p.24.
NOTE: Largest hemlock native to the United States.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
1	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
	Tabr		
	Mefe		
1	Xete		
	Vagl	Xete	
	Cooc	h.t.	
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	
2	Atfi	h.t.	
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		
2	Xete	Mefe h.t.	
	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.		

Hpo	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.) Carr.

Tsme

mountain hemlock

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

IDAHO CHAMPION: 1978. 58.9in dbh; 185in circum. + 113ft tall + 7.5ft crown= 305pts; Red Ives RD, St. Joe NF.

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

BUDS: Brown, sharp pointed, 3mm long.

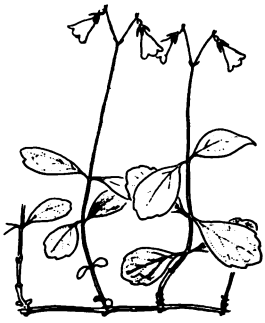
LEAVES: Singular, **plump, petiolate** needles 1-3cm (1in) long, deep bluish-green with **stomata on both surfaces,** apex blunt, **needles of even length and extending out on all sides of twig** (↑).

CONES: Mature cones, cylindrical, with thin scales, **3-8cm (1-3in) 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



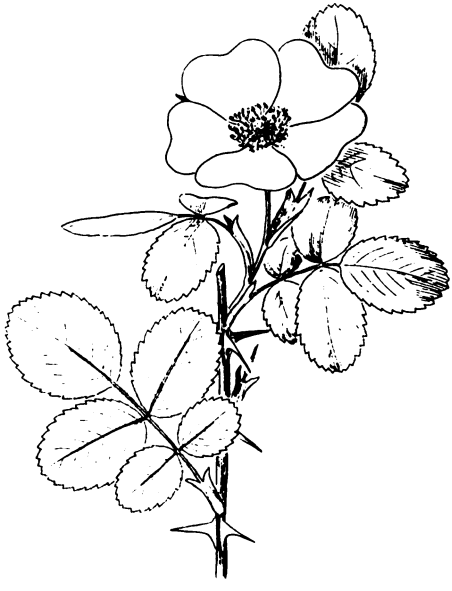


Table 3.--SHRUB CHARACTERISTICS

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 berrylike 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 ssp.	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

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

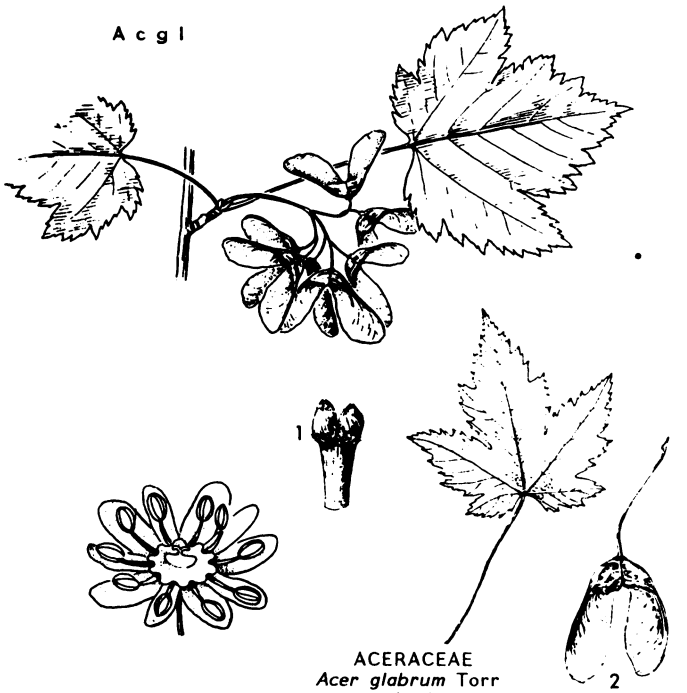
4 LEAF TYPE
C -Compound
E -Entire
I -Inrolled
L -Lobed
Li-Linear
M -Palmate or Maplelike
P -Pinnate
S -Simple
T -Toothed or Serrate

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
M- Maroon
O -Orange
P -Pink
R -Red
W -White
Y -Yellow

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

- = "to" / = "or" () = "can also be" GW = greenish-white



ACERACEAE
Acer glabrum Torr
Acgl

Rocky Mountain maple, Douglas maple

FORM: Shrub (var. *glabrum*) or small tree (var. *douglasii*), 1-10m (3-33ft) tall.
IDAHO CHAMPION: var. *glabrum*: 1973. 5.4in dbh; 16.9in circum. + 25ft tall + 3.75ft crown= 45.8pts; Sawtooth NF.
NATIONAL CHAMPION: var. *douglasii*: 1973. 12in dbh; 38in circum. + 47ft tall + 5.25ft crown = 91pts; Canyon RD, Clearwater NF, ID.
STEMS: Smooth, reddish-purple; old bark grey.
BUDS: **Opposite,** smooth, red, plump ovate, buds, 3mm long; **bud scales paired** (1).
LEAVES: **Opposite,** deciduous, simple, 3-5 toothed, palmately lobed, maplelike leaves, dark green often with reddish tints, 2-14cm (1-6in) long, trifoliolate leaves may frequently be found; var. *glabrum*: leaves more deeply lobed, mostly <6cm wide; var. *douglasii*: leaves shallowly lobed, >6cm wide.
FLOWERS: Small, greenish-yellow, borne in short terminal or axillary clusters; appearing with the leaves; April-June.
FRUIT: Double samaras (2) 2-3cm (1in) long.
NOTES: Only maple native to northern Idaho.

	Syal h.t.		Pipo
1	Phma h.t.		
4	Caru	Caru	Psme
1	Aruv	h.t.	
4	Phma	Phma	
4	Smst	h.t.	
8	Phma	Phma	Abgr
10	Cooc	h.t.	
5	Libo	Libo	
1	Xete	h.t.	
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	Xete h.t.	
	Cooc		
1	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Table 4.--KEY TO ALNUS SPECIES

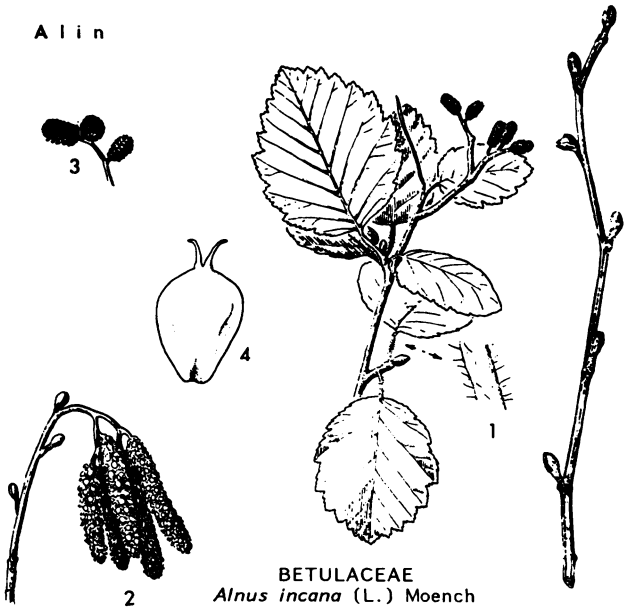
1. Female catkins tasselllike, not persistent; pith compressed; twigs round, resin-dotted. . .BETULA CONSPECTUS PAGE 11

1. Female catkins conelike, persistent; pith triangular; twigs slightly angled. . . . . .ALNUS CONSPECTUS BELOW

ALNUS SPECIES CONSPECTUS

Species	Page	Form	Pith	Buds	Leaves	Cones
Alnus incana leaf 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 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

A l i n



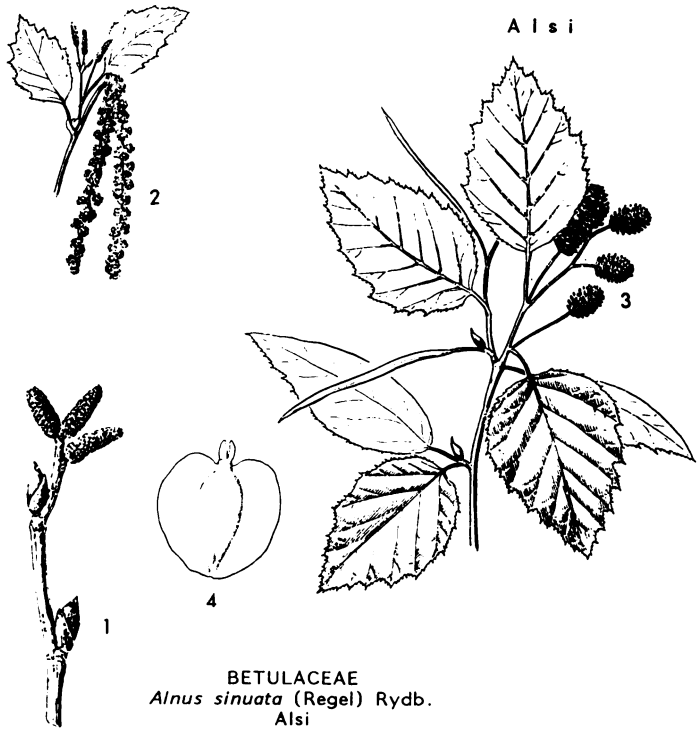
BETULACEAE
Alnus incana (L.) Moench
previously
Alnus tenuifolia Nutt.
Alin

thinleaf alder

FORM: Large shrub or small tree, up to 12m (40ft) tall with a tendency to form thickets.
IDAHO CHAMPION: 1969. 10.2in dbh; 32in circum. + 30ft tall + 5ft crown= 67pts; Payette NF.
STEMS: Usually somewhat 3-sided, sometimes with short rusty hairs (1); cambium and pith turns 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, 3-7cm (1-3in) long; dull green both sides with yellow-green on central vein; not sticky.
FLOWERS: Next seasons 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 9-13mm long; March-May.
FRUIT: A small, wingless nutlet (4).
SIMILAR SPECIES: Alnus Conspectus, p.33.
HABITAT: Associated with riparian to sub-irrigated sites.
NOTES: Roots have nitrogen fixing nodules.

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

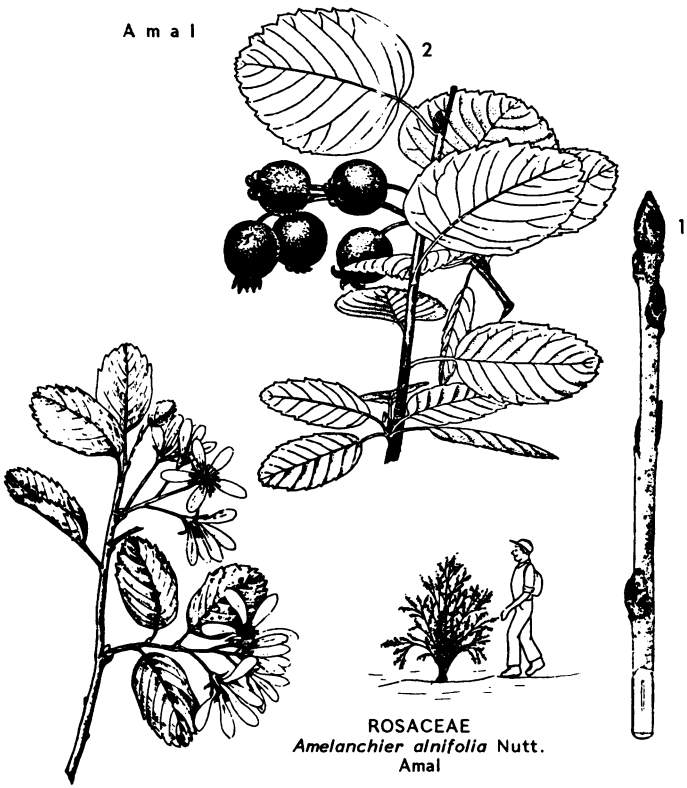


BETULACEAE
Alnus sinuata (Regel) Rydb.
Alsi

Sitka alder

FORM: Multiple-stemmed shrub, ascending and bushy, up to 3m (10ft) 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, 3mm long (1).
LEAVES: Alternate, deciduous, ovate, 3-10cm (1-4in) long, shiny green, margins doubly serrate with fine sharp teeth, apex acute, sticky when young.
FLOWERS: Male catkins (2) up to 10cm (4in) long, only male catkins are exposed over winter; a cluster of 3-6 **persistent, semi-woody, conelike female catkins** (3) on thin stalks 15mm long; female catkins developing **along with leaves; May-July.**
FRUIT: A small winged nutlet (4).
SIMILAR SPECIES: Alnus Conspectus, p.33.
HABITAT: Moist montane woods and streambanks.
NOTES: Roots have nitrogen fixing nodules.

A m a l



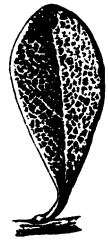
ROSACEAE
Amelanchier alnifolia Nutt.
Amal

serviceberry, Saskatoon serviceberry

FORM: **Shrubs or small trees,** 2-7m (6-20ft) tall, spreading to erect.
IDAHO CHAMPION: 1978. 9.6in dbh; 30.2in circum. + 32ft + 5.75ft crown= 68pts; Slate Creek RD, Nezperce NF.
BARK: Glabrous, reddish-brown aging to grey.
BUDS: Alternate, reddish-brown, conical 3-6mm 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, 5-10mm long; 3-20 in short racemes; April-July.
FRUIT: Dark purple pome (apple), 10-14mm 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	Psme
2	Aruv	h.t.	
7	Phma	Phma	
8	Smst	h.t.	
7	Phma	Phma	Abgr
9	Cooc	h.t.	
6	Libo	Libo	
7	Xete	h.t.	
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.		
	Vaca c.t.		

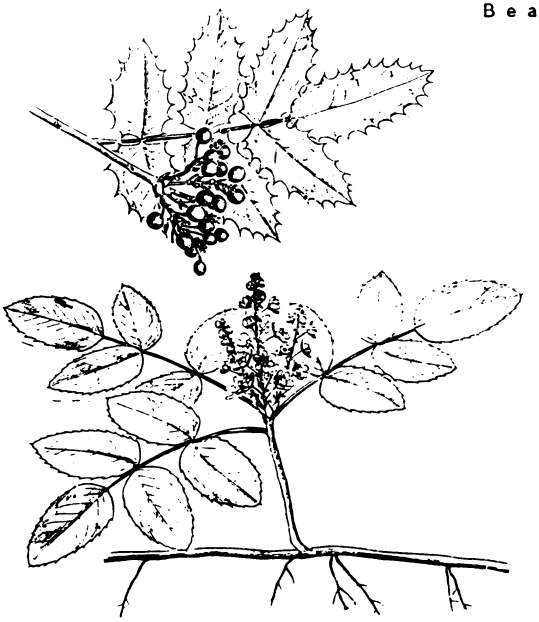
Pipo	Syal h.t.		
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	9
	Phma h.t.	Phma	1
		Smst	
Abgr	Phma h.t.	Phma	
		Cooc	
	Libo h.t.	Libo	3
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	+
		Clun	1
		Tabr	
		Mefe	1
		Xete	1
	Xete h.t.	Vagl	2
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		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.		



ERICACEAE
Arctostaphylos uva-ursi (L.) Spreng.
Aruv

bearberry, kinnikinnick

FORM: **Prostrate**, often rooting along the stems, usually not over 20cm (8in) tall, sometimes mat forming.
LEAVES: **Alternate, evergreen**, glabrous, entire, spatulate leaves, 1-3cm (1in) long, dark green somewhat shiny above, paler below.
FLOWERS: White to pink, urn-shaped, 5mm long; borne in terminal clusters; April-June.
FRUIT: Bright red berry 7-10mm 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.** Indians used leaves as tobacco and to make a yellow dye. Fruit makes good jelly; and it is a good ground cover plant.



BERBERIDACEAE

Berberis repens Lindl. — Bere — creeping oregon grape

Berberis aquifolium Pursh. — Beaq — tall oregon grape

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

LEAVES: Alternate, **evergreen**, odd-pinnately compound, **sessile**, hollylike leaflets.
Bere: 10-20cm (4-8in) long, generally with 5 leaflets, ovate, dull green above and paler beneath, 15-42 **inconspicous** teeth, rounded tip; turning red in winter.
Beaq: 15-31cm (6-12in) 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, 6-8mm 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.** Indians ate the berries, and used roots for dye **and medicinal** purposes.

Beaq

4		Syal h.t.		Pipo
6		Phma h.t.		
8		Caru	Caru	Psme
4		Aruv	h.t.	
5	1	Phma	Phma	
6		Smst	h.t.	
6		Phma	Phma	Abgr
3		Cooc	h.t.	
6		Libo	Libo	
4		Xete	h.t.	
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.		

1

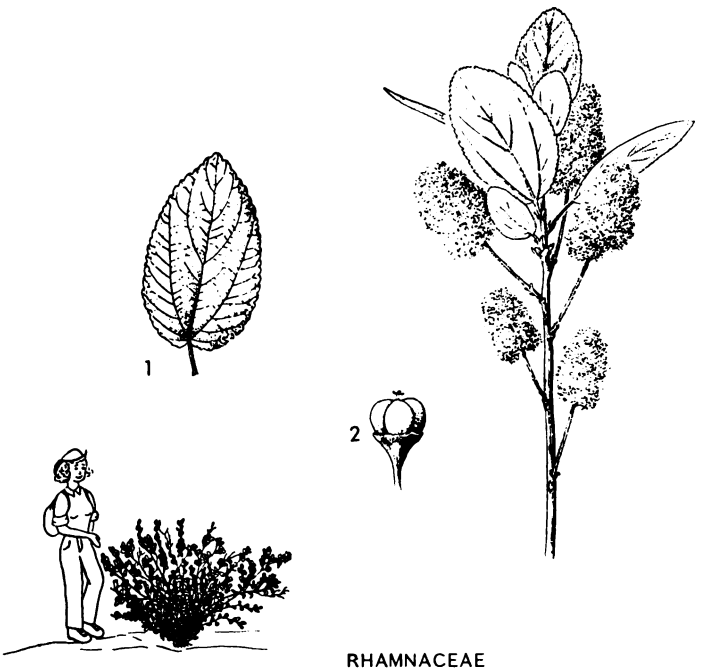
2

BETULACEAE
Betula glandulosa Michx.
Begl

bog birch, swamp birch

FORM: An erect, many branched shrub, 1-3m (3-10ft) 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, 1-2cm (<1in) 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.

Cesa



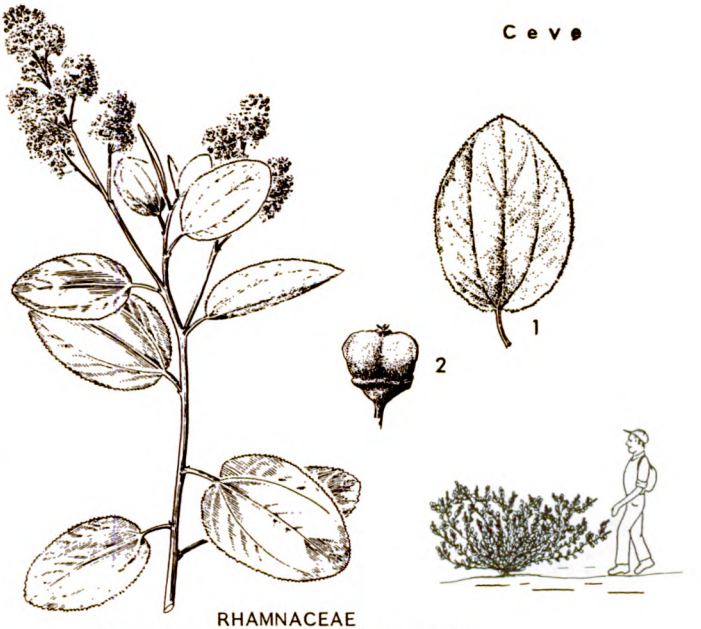
RHAMNACEAE
Ceanothus sanguineus Pursh
Cesa

redstem ceanothus

FORM: Erect loosely branched shrubs, 1-3m (3-10ft) tall, often forming thickets.
BARK: Glabrous, **reddish purple**; pith solid.
BUDS: Alternate, stalked with bud scales.
LEAVES: **Alternate, deciduous,** thin, simple ovate, 3-10cm (1-4in) 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 4mm 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.		Ptpo
3	Phma h.t.		Ptpo
	Caru	Caru	Psme
	Aruv	h.t.	Psme
2	Phma	Phma	Psme
+	Smst	h.t.	Psme
1	Phma	Phma	Abgr
1	Cooc	h.t.	Abgr
	Libo	Libo	Abgr
	Xete	h.t.	Abgr
+	Asca	Asca h.t.	Abgr
	Tabr		Abgr
	Mefe		Abgr
	Setr h.t.		Abgr
+	Phma	Clun h.t.	Abgr
	Clun		Abgr
	Tabr		Abgr
	Mefe		Abgr
+	Xete	Xete h.t.	Abgr
	Vagl		Abgr
	Cooc		Abgr
	Clun	Clun h.t.	Thpl
	Tabr		Thpl
	Mefe		Thpl
	Xete		Thpl
+	Asca	Asca h.t.	Thpl
	Tabr		Thpl
	Mefe		Thpl
	Gydr h.t.		Thpl
	Adpe h.t.		Thpl
	Adpe	Atfi h.t.	Thpl
	Atfi		Thpl
	Opho h.t.		Thpl
	Clun	Clun h.t.	Tshe
	Arnu		Tshe
	Mefe		Tshe
	Xete		Tshe
	Asca	Asca h.t.	Tshe
	Arnu		Tshe
	Mefe		Tshe
	Gydr h.t.		Tshe
	Mefe	Clun h.t.	Tsme
	Xete		Tsme
	Xete	Mefe h.t.	Tsme
	Luhi		Tsme
	Mefe	Stam h.t.	Tsme
	Luhi		Tsme
	Vagl	Xete h.t.	Tsme
	Luhi		Tsme
	Clun	Clun h.t.	Abla
	Mefe		Abla
	Xete		Abla
	Cooc	Mefe h.t.	Abla
	Xete		Abla
	Vasc		Abla
	Luhi		Abla
	Mefe	Stam h.t.	Abla
	Lica		Abla
	Caca	Caca h.t.	Abla
	Vaca		Abla
	Legl		Abla
	Cooc	Xete h.t.	Abla
	Vagl		Abla
	Vasc		Abla
	Luhi		Abla
	Vasc h.t.		Pico
	Xete c.t.		Pico
	Vaca c.t.		Pico

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.

Ceve

shinyleaf ceanothus, snowbush, evergreen ceanothus

FORM: Erect to spreading, heavy-scented shrub, 1-3m (3-10ft) 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, 5-12cm (2-5in) long; June-Aug.

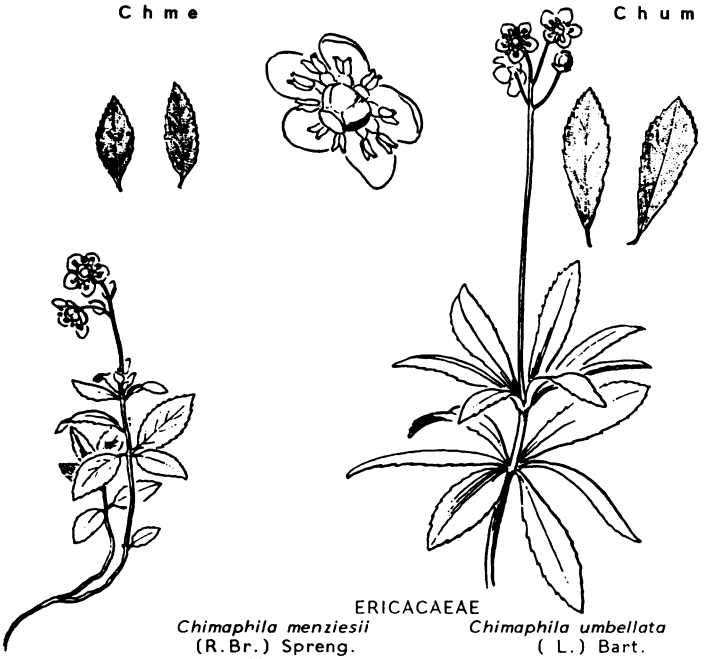
FRUIT: 3-seeded mechanically explosive capsule, containing heavy seed (2).

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. Indians used leaves for tobacco and tea, and roots for red dye.



ERICACEAE

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

Chimaphila umbellata (L.) Bart. — Chum — prince's pine, western pipsissewa

FORM: Subshrub from slender rhizomatous rootstocks.
Chme: 5-15cm (2-6in) tall.
Chum: 10-30cm (4-12in) tall.
STEMS: Simple or branched, slightly woody, glabrous.
Chme: reddish.
Chum: greenish.
LEAVES: Evergreen, simple, sharply serrate.
Chme: alternate, somewhat whorled, dull bluish-green, ellipitic, blade 2-6cm (1-2in) long.
Chum: whorled, bright green and shiny, oblanceolate, blade 3-7cm (1-3in) long.
FLOWERS: Waxy, white to pink, 5-merous, 5-7mm long; June-Aug.
Chme: 1-3 flowers.
Chum: in groups of 3-15; flower stem with fine hairs.
FRUIT: Globose, 5-celled capsule, 7mm 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	Psme
1	3	Aruv	h.t.	
1	1	Phma	Phma	
1	+	Smst	h.t.	
2	3	Phma	Phma	Abgr
6	1	Cooc	h.t.	
5	8	Libo	Libo	
3	10	Xete	h.t.	
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	Xete h.t.	
2	9	Vagl		
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	
1	1	Atfi	h.t.	
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		
	6	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	
		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.

Costs

red-osier dogwood

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

IDAHO CHAMPION: 1976. **4.1in dbh; 12.9in circum. + 26ft** tall + 3.8ft crown= 43pts; Idaho, Co.

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

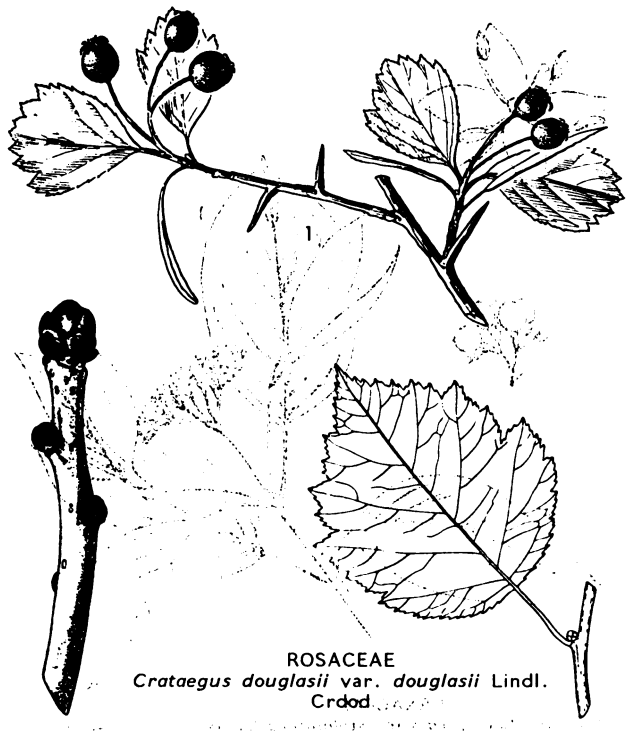
BUDS: **Opposite, one pair of bud scales.**

LEAVES: **Opposite, deciduous, simple, entire, ovate 4-12cm** (2-5in) **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 2-4mm long, in flat-topped terminal** cymes, **not showy; May-July.**

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

HABITAT: **Riparian, and other warm, moist sites.**



ROSACEAE
Crataegus douglasii var. *douglasii* Lindl.
Crdod

black hawthorn

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

IDAHO CHAMPION: var. *douglasii*: 1976. 20.5in dbh, 64in circum. + 21ft tall + 6.25ft crown= 91pts; Palouse RD, Clearwater NF.

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

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

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

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

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

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

NOTES: Most common of Idaho's hawthorns.

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

Pial	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.			6
	Xete c.t.			
	Vaca c.t.			

G a h u

G a o v

ERICACEAE

Caultheria humifusa (Grah.) Rydb.	*Caultheria ovatifolia* Gray
Gahu	Gaov
western wintergreen	Oregon wintergreen slender wintergreen

FORM: Low subshrub; mat forming with stems freely branching.
Gahu: stems seldom over 10cm (4in) long, scarcely 3cm (1in) tall.
Gaov: stems 5-20cm (2-8in) long, sometimes ascending to 30cm (12in) 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, 1-2cm long and 5-15mm broad, margins finely toothed to entire.
Gaov: ovate to almost heart-shaped, margins finely but distinctly toothed, 2-4cm (1-2in) long and 1-3cm (1in) broad.

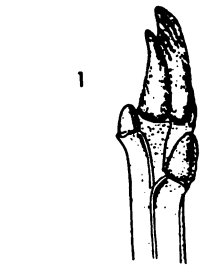
FLOWERS: Corolla white or pinkish, bell-shaped, borne single in leaf axils.
Gahu: calyx glabrous; July-Aug.
Gaov: calyx covered with long glandular brown hairs; June-Aug.

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

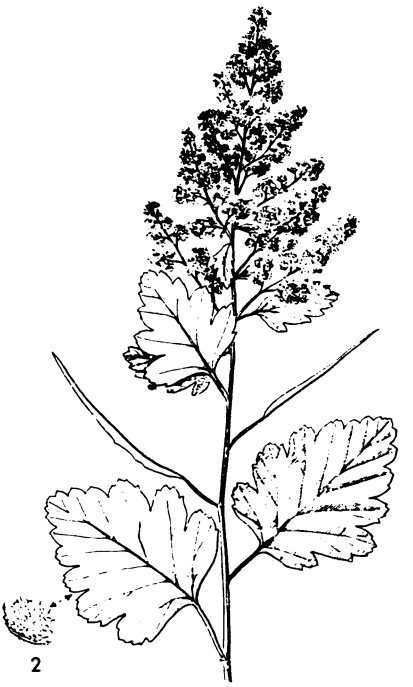
SIMILAR SPECIES: *Arctostaphylos uva-ursi*, p.37; and *Linnaea borealis*, p.48.

HABITAT: Gahu: moist subalpine to alpine, most common on Nezperce NF;
Gaov: midelevation forest, drier and warmer than Gahu.

Hodi



1



2

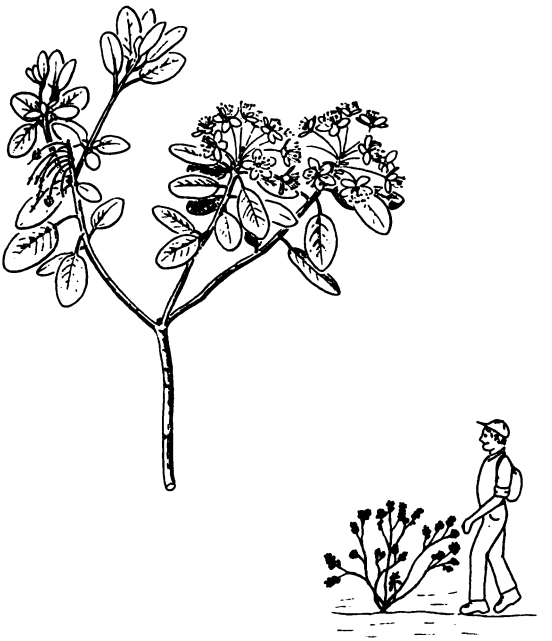
ROSACEAE
Holodiscus discolor (Pursh) Maxim
Hodi

ocean-spray

FORM: Erect to many-branched shrub, 1-4m (3-13ft) tall.
STEMS: Young stems **slightly ridged**, pith large, white and spongy; older stems have **shreddy bark**.
BUDS: 2-3 purplish-brown bud scales, 6mm long (1).
LEAVES: **Alternate**, deciduous, broadly triangular with truncate base, 3-8cm (1-3in) 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, 1-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: Indians ate the seeds raw or cooked.

1	Syal h.t.		Pipo
9	Phma h.t.		
	Caru	Caru	Psme
1	Aruv	h.t.	
7	Phma	Phma	
9	Smst	h.t.	
8	Phma	Phma	Abgr
9	Cooc	h.t.	
3	Libo	Libo	
3	Xete	h.t.	
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		
	Xete	Mefe h.t.	
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc		
	Vagl	Xete h.t.	
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Pog	Syal h.t.		
P.	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.		

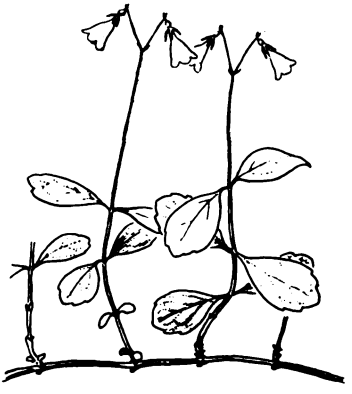


ERICACEAE
Ledum glandulosum Nutt. var. *glandulosum*
Legl g

Labrador tea

FORM: Erect shrub, 5-20dm (2-7ft) tall.
STEMS: Young branches finely hairy and dotted with glands, older branches smooth.
LEAVES: Alternate, **evergreen**, entire, ovate to elliptic, 2-6cm (1-2in) 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, 1-3mm long.
SIMILAR SPECIES: *Menziesia ferruginea*, 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.**

L i b o 2



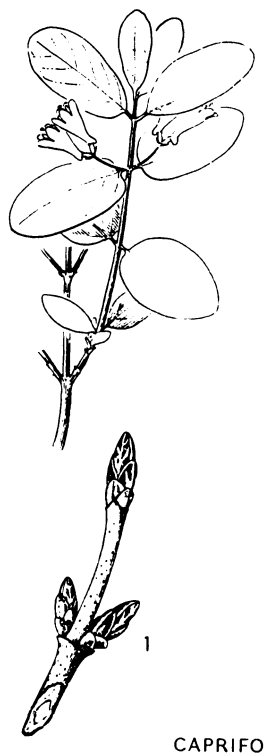
CAPRIFOLIACEAE
Linnaea borealis L.
Libo2

twinflower

FORM: Trailing, woody perennial, subshrub with short erect stems, less than 10cm (4in) tall.
STEMS: Slender but woody.
LEAVES: Opposite, evergreen, firm, elliptic, 7-25mm long, with shallow teeth near apex.
FLOWERS: A pair of tiny, pink, nodding, bell-shaped flowers, 2-5mm long; June-Sept.
FRUIT: Small, 1-seeded capsule.
SIMILAR SPECIES: *Satureja 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.		Pod
	Phma h.t.		
	Caru	Caru	Psme
1	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
10	Libo	Libo	
10	Xete	h.t.	
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.		
	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.		
	Xete c.t.		
	Vaca c.t.		



L o u t 2

CAPRIFOLIACEAE
Lonicera utahensis Wats.
Lout2

Utah honeysuckle

FORM: Widely branching, low to medium shrub, 1-2m (3-7ft) 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, 2-6cm (1-2in) long, smooth above and smooth or hairy below.
FLOWERS: Light yellow, trumpet-shaped pair, 1-2cm (1in) long, borne in leaf axils; May-July.
FRUIT: Bright red, united twin berries (2), 1cm thick; edible but insipid.
SIMILAR SPECIES: *Symphoricarpos albus*, p.76, hollow, dark pith; *Lonicera caerulea* (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.

Mefe

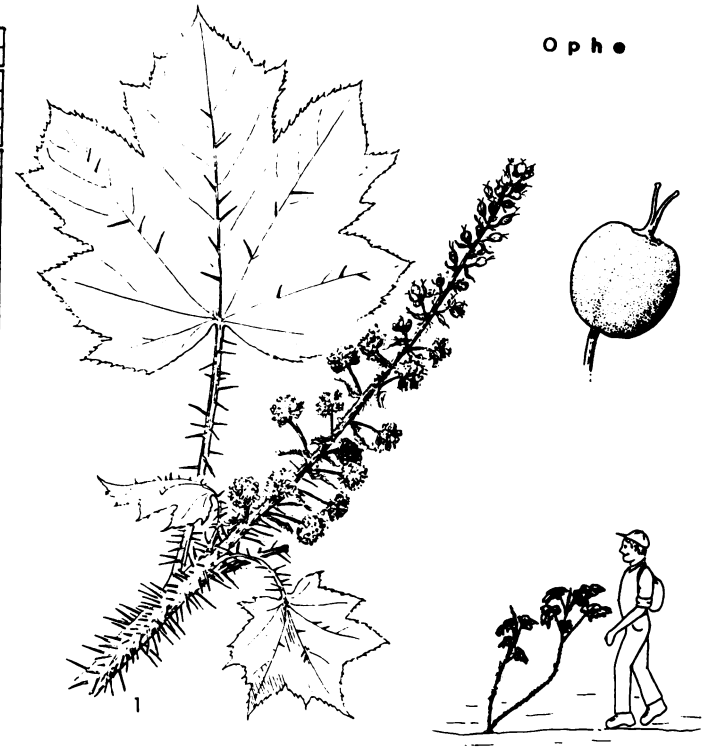
ERICACEAE
Menziesia ferruginea Smith
Mefe

fool's huckleberry, mock azalea

FORM: Straggly, erect shrub 1-2m (3-7ft) 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, 4-6cm (2in) 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, 6-8mm long, borne in terminal clusters on last year's growth; June-July.
FRUIT: Many-seeded, ovoid, capsule, 5-7mm long.
SIMILAR SPECIES: *Rhododendron albiflorum,* p.59, no odor; *Ledum glandulosum,* p.47, evergreen with an odor; and Vaccinium Conspectus, p.78.
NOTES: Shrub is sticky when touched.

	Syal h.t.		Phod
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
1	Xete	h.t.	
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
	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.
Opho

Devil's club

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

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

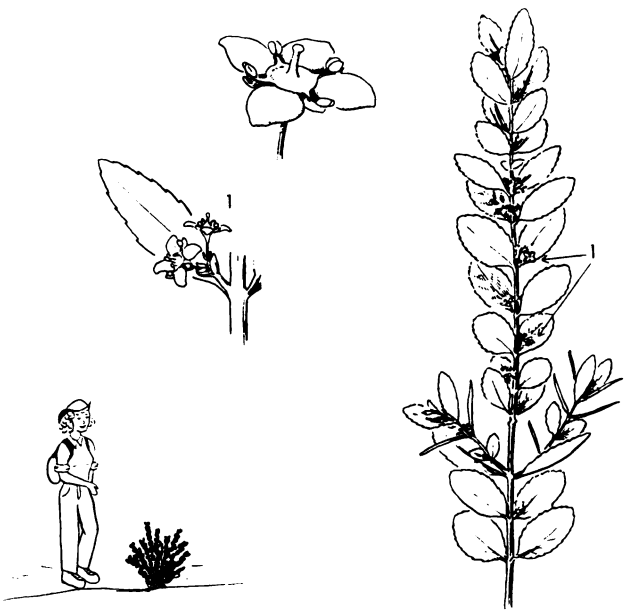
FLOWERS: Small, greenish-white in a terminal raceme up to 25cm (10in) long; May-July.

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

SIMILAR SPECIES: *Rubus parviflorus*, p.68, unarmed.

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

P a m y



CELASTRACEAE
Pachistima myrsinites (Pursh) Raf.
Pamy

pachistima, myrtle boxwood, mountain lover

FORM: Low shrubs, 20-60cm (8-24in) 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, 1-3cm (1in) long.

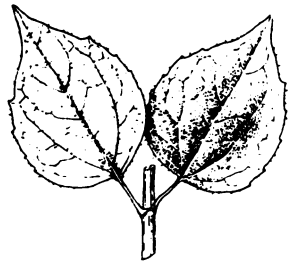
FLOWERS: Maroon colored, 3-4mm broad, numerous in axillary clusters (1); April-June.

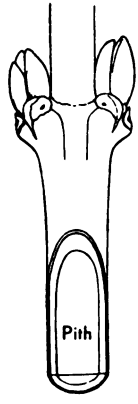
FRUIT: Small whitish fleshy berrylike aril.

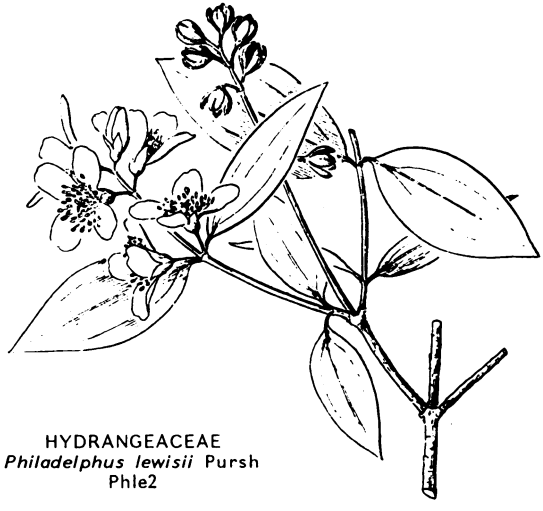
NOTES: **No longer a habitat type indicator species!!!** Makes a nice low hedge for landscaping.

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

Pigl	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	Asca h.t.	Clun	2
		Tabr	
		Mefe	
		Xete	
		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.		







Phle2

HYDRANGEACEAE

Philadelphus lewisii Pursh

Phle2

Lewis mockorange, syringa, mockorange

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

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

BUDS: Opposite, hidden under leaf scars.

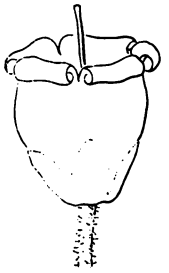
LEAVES: **Opposite**, deciduous, simple, light green, 3-8cm (1-3in) long, may be serrate, **3 major veins** from leaf bases.

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

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

NOTES: **Idaho State Flower.**

Phem



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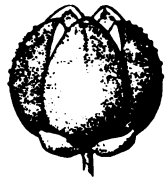


2

ERICACEAE
Phyllodoce empetriformis (Sw) D. Don
Phem

red mountain-heather, pink mountain-heath

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

STEMS: Young stems finely puberulent, soon glabrous.

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

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

FRUIT: Capsule (2).

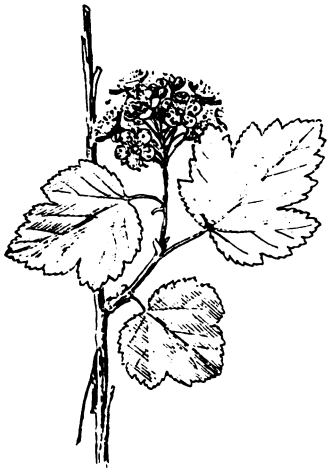
SIMILAR SPECIES: *Phyllodoce glanduliflora* (yellow mountain-heath), flower yellowish to white; *P. empetriformis* and *P. glanduliflora* will freely hybridize.

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

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

Lipo	Syal h.t.		1
Ericaceae	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.		

1



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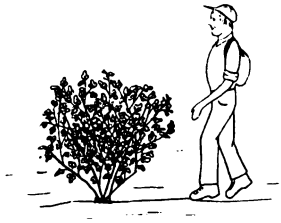


ROSACEAE

Physocarpus malvaceus (Greene) Kuntze

Phma

ninebark

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

BARK: Loose, shreddy; brown to grey.

LEAVES: Alternate, deciduous with 3 palmate lobes, maplelike, doubly toothed, 3-6cm (1-2in) 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.

Prem

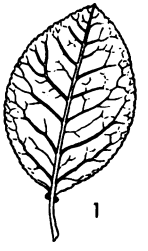
ROSACEAE
Prunus emarginata (Dougl.) Walpers
Prem

bittercherry

FORM: Tall shrub to small tree, 2-15m (7-50ft) tall.
IDAHO CHAMPION: var. *mollis*: 1966. 8.6 dbh, 27in circum. + 52ft tall + 4.5 crown=84pts; Priest Lake RD, Kaniksu NF.
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, 6mm 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 5-10mm, drying dark.
SIMILAR SPECIES: *Prunus virginiana,* p.57, petiole glands; and *Amelanchier alnifolia,* p.36.

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

Pipo	Syal h.t.		6
	Phma h.t.		6
Psme	Caru	Caru	
	h.t.	Aruv	
	Phma	Phma	2
	h.t.	Smst	1
Abgr	Phma	Phma	
	h.t.	Cooc	
	Libo	Libo	1
	h.t.	Xete	
	Asca	Asca	
	h.t.	Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	+
		Tabr	
		Mefe	
		Xete	
	Xete	Vagl	
	h.t.	Cooc	
Thpl	Clun h.t.	Clun	+
		Tabr	
		Mefe	
		Xete	
	Asca h.t.	Asca	+
		Tabr	
		Mefe	
	Gydr h.t.		
	Adpe h.t.		+
	Atfi	Adpe	
	h.t.	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.		



1

Prvim

ROSACEAE

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

Prvim

common chokecherry

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

IDAHO CHAMPION: var. *melanocarpa*: 1972. 14.6in dbh; 46in circum. + 39ft tall + 8.25ft crown= 93 pts; Bingham 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.

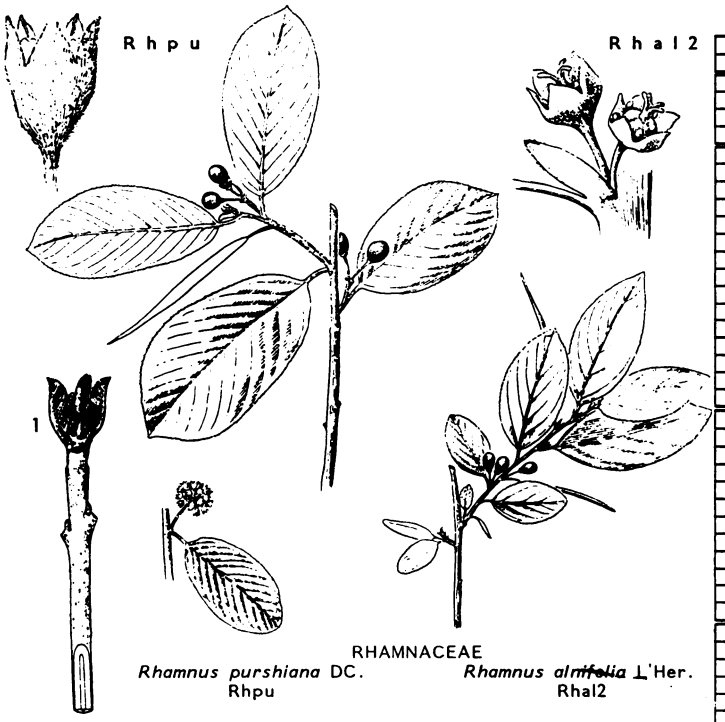
LEAVES: Alternate, deciduous, elliptic to ovate-oblong, apex acute, finely serrate, 4-10cm (2-4in) long; **petiole with 2-3 prominent glands** (1).

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

FRUIT: Shiny, red to purple or black drupe, 8-11mm 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.
Rhpu

cascara, chittam bark

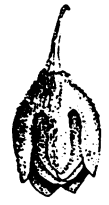
Rhamnus alnifolia L'Her.
Rhal2

buckthorn

FORM: Erect, tall shrub or small tree to 10m (33ft) tall.
IDAHO CHAMPION: Rhpu: 1975. 26.7in dbh; 83.8in circum. * 33ft tall * 5ft crown= 122pts; Slate Creek RD, Nezperce NF.
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, 6-13cm (2-5in) 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, 3-4mm 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, 6-9mm long.
SIMILAR SPECIES: Alnus 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	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
	Phma	Clun	
	Clun		
	Tabr	h.t.	
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
+	Atfi	h.t.	
	Opho h.t.		
	Clun	Clun	Tshe
	Arnu	h.t.	
	Mefe		
	Xete		
+	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
+	Mefe	h.t.	
	Xete		
	Cooc	Mefe	
+	Xete	h.t.	
	Vasc		
+	Luhi		
	Mefe	Stam	
	Lica	h.t.	
2	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc	Xete	
	Vagl	h.t.	
	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.		
	Atfl h.t.	Adpe	
		Atfl	+
	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.		
Pial	Vaca c.t.		



1

R h a l

ERICACEAE
Rhododendron albiflorum Hook.
Rhal

white rhododendron

FORM: Erect, nonodorous, medium shrub, 1-2m (3-7ft) tall.
STEMS: Erect, slender branched, with peeling bark; young stems covered with long, reddish-brown hairs.
LEAVES: **Alternate but appearing whorled,** deciduous, entire, elliptic, 4-9cm (2-4in) 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, 10-20mm 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*, p.47, odorous; and *Menziesia ferruginea*, p.50, sticky, odorous, bluegreen 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 6-8mm
Ribes hudsonianum stinking currant Rihu	N/A	unarmed	smooth yellow glandular	maplelike 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	maplelike 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	maplelike 3-5 lobed hairy both surface 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 (Pursh) Foir.
Rila

prickly currant, swamp currant

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

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

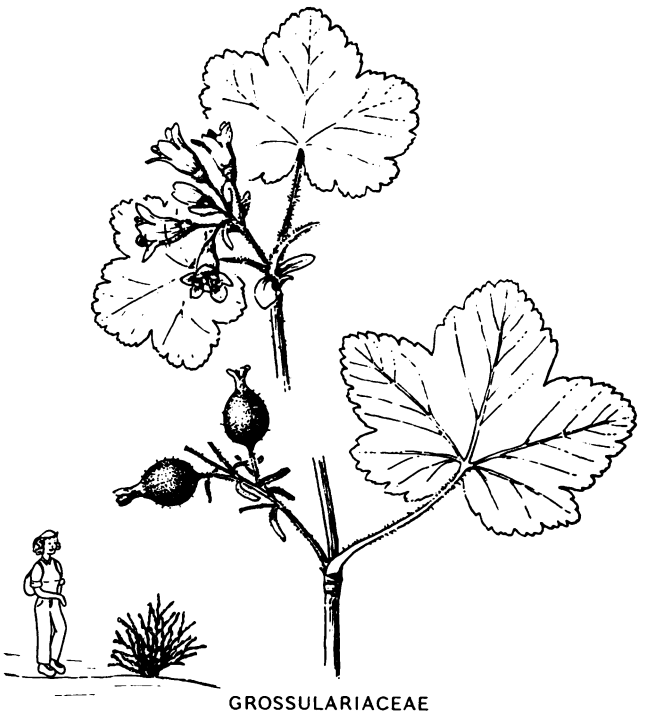
FLOWERS: Yellow-green to reddish, **shallow saucer-shaped;** 7-15 flowers in an elongate raceme; April-July.

FRUIT: Edible, dark purple berry, 6-8mm 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 levels within 2-5 years; common pioneer species.

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

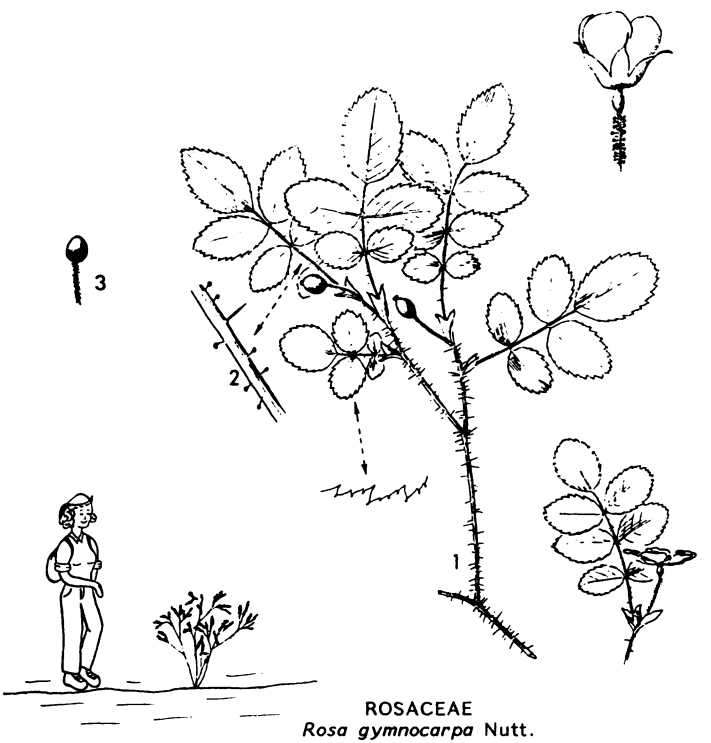
sticky currant

FORM: Erect to spreading, straggly, **unarmed** shrub, 1-2m (3-7ft) 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, 3-6cm (1-2in) 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, 6-7mm 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 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	Psme
1	Aruv	h.t.	
1	Phma	Phma	
1	Smst	h.t.	
	Phma	Phma	Abgr
1	Cooc	h.t.	
	Libo	Libo	
1	Xete	h.t.	
1	Asca	Asca	
+	Tabr	h.t.	
	Mefe		
	Setr h.t.		
1	Phma	Clun	
+	Clun		
	Tabr	h.t.	
1	Mefe		
1	Xete		
1	Vagl	Xete	
3	Cooc	h.t.	
+	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
	Xete		
1	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
1	Opho h.t.		
	Clun	Clun	Tshe
	Arnu	h.t.	
	Mefe		
	Xete		
+	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Tsme
1	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
2	Xete		
	Cooc	Mefe	
2	Xete	h.t.	
	Vasc		
	Luhi		
1	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
1	Cooc	Xete	
1	Vagl	h.t.	
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Table 6.--ROSA SPECIES CONSPECTUS

Species	Page	Arming	Leaf Margins	Flowers		Fruit
Rosa acicularis prickly rose Roac	N/A	numerous various sized bristly prickles	double serrate	large, pink singular or in pairs		persistent calyx purplish, pearshaped 1-2cm (<1in) 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 1-2cm (<1in) 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 1-2cm (<1in) hip
Rosa woodsii pearhip rose Rowo	66	2 stout prickles on stem below leaves	coarsely serrate	small, pink in clusters		persistent calyx red, round, 6-12mm hip



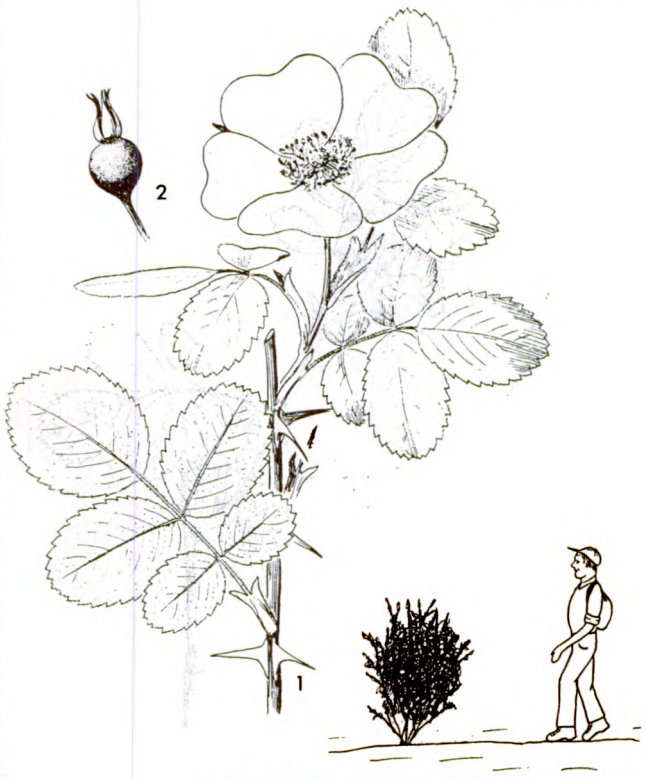
ROSACEAE
Rosa gymnocarpa Nutt.
Rogy

baldhip rose, wild rose

FORM: Finely branched shrub, 3-12dm (1-4ft) 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, 1-4cm long, doubly serrate with gland-tipped teeth.
FLOWERS: Small, pink, 1-3cm (1in) long, mostly borne singly at end of branches; smaller flowers and fruits than other rose species; June-July.
FRUIT: Scarlet, pear-shaped hips, 1cm diameter; calyx deciduous from mature hips (3).
SIMILAR SPECIES: Rosa 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	Psme
2	Aruv	h.t.	
5	Phma	Phma	
8	Smst	h.t.	
9	Phma	Phma	Abgr
9	Cooc	h.t.	
9	Libo	Libo	
7	Xete	h.t.	
9	Asca	Asca	
6	Tabr	h.t.	
8	Mefe		
6	Setr h.t.		
10	Phma	Clun	
10	Clun	h.t.	
8	Tabr		
8	Mefe		
9	Xete	Xete	
7	Vagl	h.t.	
9	Cooc		
9	Clun	Clun	Thpl
7	Tabr	h.t.	
6	Mefe		
6	Xete	Asca	
8	Asca	h.t.	
5	Tabr		
3	Mefe		
7	Gydr h.t.		
7	Adpe h.t.		
7	Adpe	Atfi	
4	Atfi	h.t.	
3	Opho h.t.		
5	Clun	Clun	Tshe
10	Arnu	h.t.	
3	Mefe		
6	Xete	Asca	
8	Asca	h.t.	
10	Arnu		
	Mefe		
7	Gydr h.t.		
2	Mefe	Clun	Tsme
2	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
1	Vagl	Xete	
	Luhi	h.t.	
7	Clun	Clun	Abla
1	Mefe	h.t.	
5	Xete		
2	Cooc	Mefe	
	Xete	h.t.	
	Vasc		
	Luhi		
1	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
2	Cooc	Xete	
1	Vagl	h.t.	
1	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

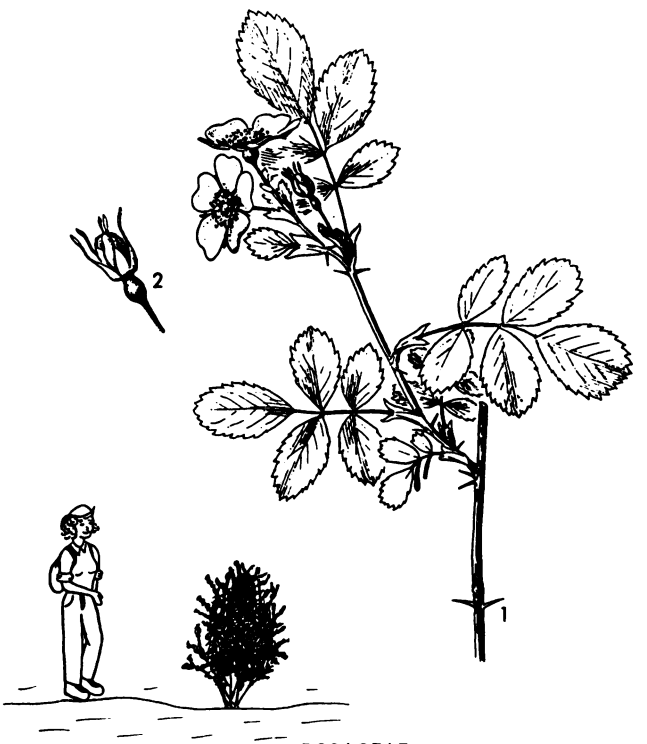
Pipo	Syal h.t.		1
	Phma h.t.		
Psme	Caru h.t.	Caru	
		Aruv	1
	Phma h.t.	Phma	+
		Smst	1
Abgr	Phma h.t.	Phma	1
		Cooc	
	Libo h.t.	Libo	1
		Xete	
	Asca h.t.	Asca	
		Tabr	
		Mefe	
	Setr h.t.		
	Clun h.t.	Phma	
		Clun	
		Tabr	
		Mefe	
		Xete	
	Xete h.t.	Vagl	
		Cooc	
Thpl	Clun h.t.	Clun	
		Tabr	
		Mefe	
		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 Presl
Ronu

Nootka rose

FORM: **Erect,** low **to medium** shrub, 1-2m (3-7ft) 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 1-7cm (1-3in) long; serrate or doubly **serrate.**
FLOWERS: Large, pink, 4-8cm (2-3in) long; **solitary at** ends of branches; May-July.
FRUIT: Thick, purplish-red spherical hips, 1-2cm (1in) diameter; calyx remains **on hips** (2).
SIMILAR SPECIES: Rosa **Conspectus,** p.63.
NOTES: **Rose hips can be used in jellies and teas and** provide a good **source of vitamin C.**



ROSACEAE
Rosa woodsii Lindl.
Rowo

pearhip rose

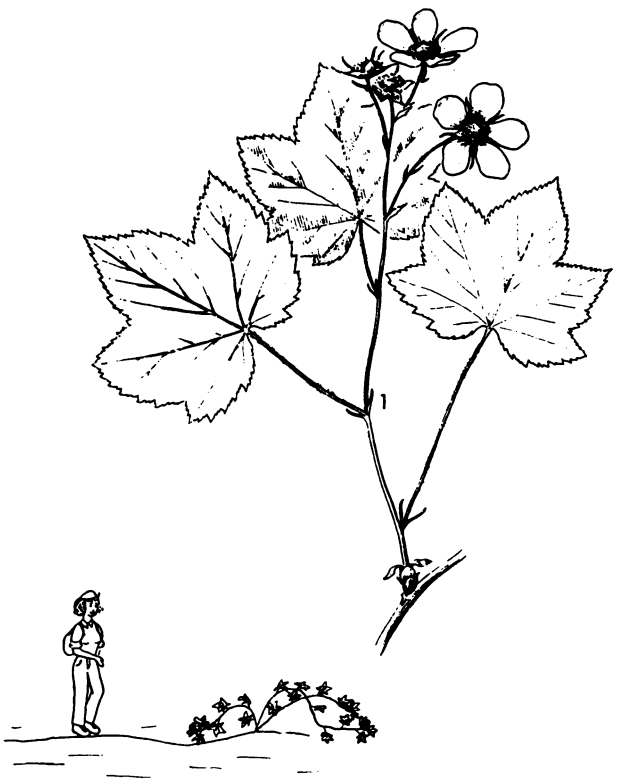
FORM: Erect, medium shrub, 1-2m (3-7ft) tall.
STEMS: Stout, strongly armed to unarmed with or without infrastipular prickles (1).
LEAVES: Alternate, deciduous, odd-pinnately compound with 5-9 leaflets, elliptic up to 5cm (2in) long, coarsely toothed.
FLOWERS: Small, pink, 3-5cm (1-2in) long in terminal clusters; May-July.
FRUIT: Red hips, 6-12mm diameter; calyx remains on hips (2).
SIMILAR SPECIES: Rosa Conspectus, p.63.
NOTES: Rose hips can be used in jellies and tea; and provide a good source of vitamin C.

7	Syal h.t.		Pico
10	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
1	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
+	Phma	Clun	
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun	Thpl
	Tabr	h.t.	
1	Mefe		
	Xete		
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
1	Opho h.t.		
	Clun	Clun	Tsme
	Arnu	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Ysme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc h.t.		Plco
	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 2m (7ft) 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 thimbleberry Rupa	68	erect shrub up to 2m (7ft) tall	unarmed	deciduous simple maplelike double serrate	white 5-23cm (2-9in) clusters	red aggregate thimblelike druplets	widespread
Rubus pedatus strawberry bramble Rupe	69	mat-forming herbaceous perennial <10cm (4in) 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

R u p a



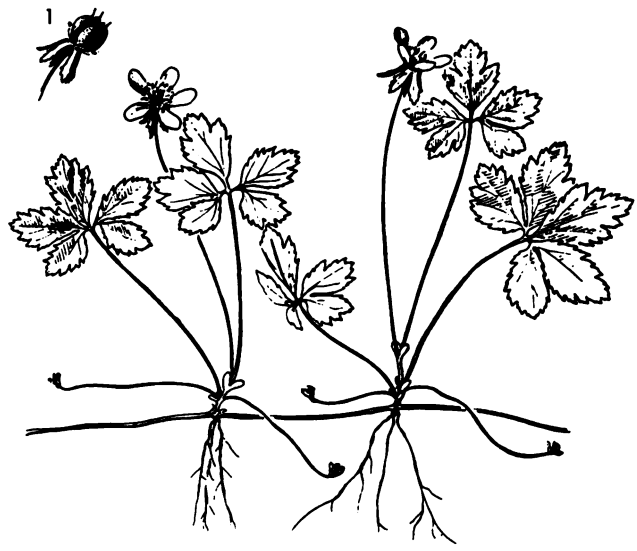
ROSACEAE
Rubus parviflorus Nutt.
Rupa

western thimbleberry

FORM: Erect, low to medium, **unarmed shrub**, 5-20dm (2-7ft) 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, 6-15cm (2-6in) 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*, p.51, armed.

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

Pial	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 J.E. Smith
Rupe

strawberry bramble

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

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

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

Sasc

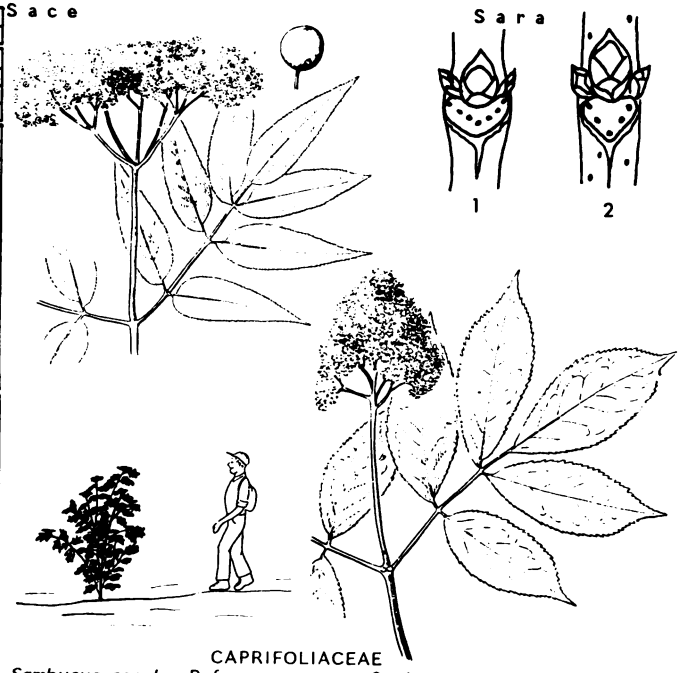
SALICACEAE
Salix scouleriana Barratt in Hook.
Sasc

Scouler willow

FORM: Tall shrub or small tree, 2-10m (7-33ft) tall.
IDAHO CHAMPION: 1969. 21.5in dbh; 67.6in circum. * 45ft tall * 5ft crown= 118pts; 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 appresssed to stem with a single, caplike bud-scale.**
LEAVES: Alternate, deciduous, entire; mostly **oblanceolate** with cuneate base, 3-8cm (1-3in) long; rounded or broad tip; hairy when young; mature leaves dark green, glabrous above; undersurface whitened (glaucous) and sparsely reddish hairy.
FLOWERS: Catkins, **appearing before the leaves.**
FRUIT: Short, hairy **capsule**, 5-8mm long.
NOTES: Common upland willow in **northern Idaho.**

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
1	Phma	Phma	
1	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
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 h.t.	
	Asca		
	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.		

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



CAPRIFOLIACEAE

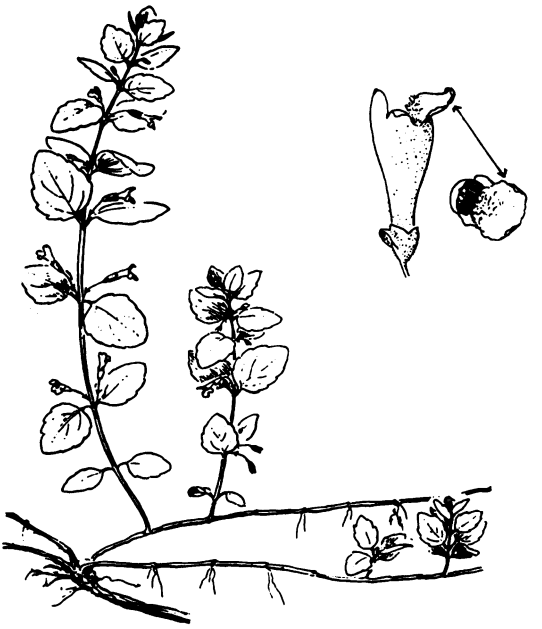
Sambucus cerulea Raf.
Sace

blue elderberry

Sambucus racemosa L.
Sara

elderberry

FORM: **Sace:** large shrub or small tree, 2-4m (7-13ft) tall.
Sara: medium to tall shrub, 1-3m (3-10ft) 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, 5-15cm (2-6in) long, finely serrate.
Sara: 5-7 odd-pinnate leaflets, 5-17cm (2-7in) 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 (LABIATAE)
Satureja douglasii (Benth.) Briq.
Sado

yerba buena, savory

FORM: Prostrate, perennial subshrub to 1m (3ft) 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 1-4cm (<2in) broad.

FLOWERS: White or purple-tinged, bilabiate, solitary in axils, 7-10mm 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, good herb, named by Spanish priest in California; used in tea.

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

Shca

buffaloberry, soapberry

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

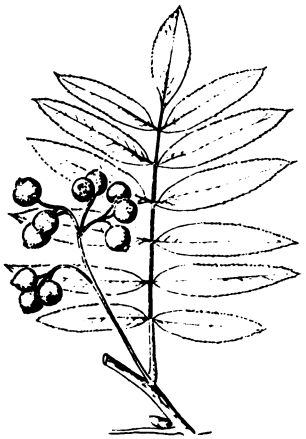
LEAVES: **Opposite, deciduous,** entire, ovate, 2-6cm (1-2in) long, dark greenish on upper surface with whitish silvery hair and **rusty-brown scales on lower surface** (2).

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

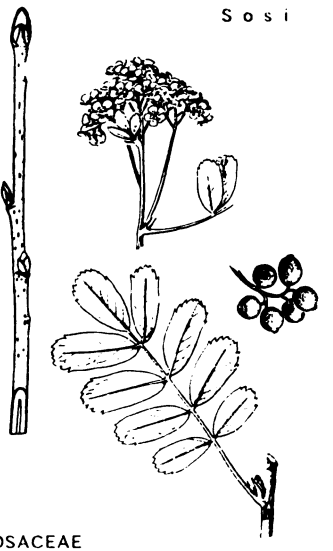
FRUIT: Orange to red, juicy, translucent berry.

NOTES: Indian name is soopolallie (soap berry); crushed berries yield a soapy frothy drink and also makes a jelly.

Sosc2



Sosi



ROSACEAE

Sorbus scopulina Greene
Sosc2

mountain-ash

Sorbus sitchensis Roemer
Sosi

Sitka mountain-ash

FORM: Erect, several-stemmed shrub, 1-4m (3-13ft) 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, 3-7cm (1-3in) long, **acuminate at tip,** finely serrate.
Sosi: **7-11 odd-pinnate leaflets,** 13-25cm (5-10in) long, leaflets, **bluish-green,** oblong, 2-5cm (1-2in) 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, 1cm.
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	Psme
		Aruv	h.t.	
1		Phma	Phma	
+	+	Smst	h.t.	
1		Phma	Phma	Abgr
1		Cooc	h.t.	
2		Libo	Libo	
		Xete	h.t.	
3	1	Asca	Asca	
2		Tabr	h.t.	
5		Mefe		
3		Setr h.t.		
3	1	Phma	Clun	
3		Clun		
3		Tabr		
5	1	Mefe	h.t.	
2	1	Xete		
4		Vagl	Xete	
3	1	Cooc	h.t.	
1	+	Clun		Thpl
2		Tabr	Clun	
3		Mefe	h.t.	
2		Xete		
2		Asca	Asca	
1		Tabr	h.t.	
3		Mefe		
2		Gydr h.t.		
2	+	Adpe h.t.		
1		Adpe	Atfi	
2	1	Atfi	h.t.	
2		Opho h.t.		
1		Clun		Tshe
1	1	Arnu	Clun	
7	1	Mefe	h.t.	
5	1	Xete		
1	+	Asca	Asca	
1		Arnu	h.t.	
7		Mefe		
2	+	Gydr h.t.		
6		Mefe	Clun	Tsme
7		Xete	h.t.	
3	1	Xete	Mefe	
2	1	Luhi	h.t.	
5		Mefe	Stam	
	2	Luhi	h.t.	
5	1	Vagl	Xete	
1		Luhi	h.t.	
		Clun		Abla
4	2	Mefe	Clun	
3	3	Xete	h.t.	
1	1	Cooc		
2	5	Xete	Mefe	
1		Vasc	h.t.	
5	2	Luhi		
5	1	Mefe	Stam	
2		Lica	h.t.	
3	2	Caca	Caca	
1		Vaca	h.t.	
		Legl		
2	1	Cooc		
3		Vagl	Xete	
1	+	Vasc	h.t.	
3	1	Luhi		
		Vasc h.t.		Pico
		Xete c.t.		
		Vaca c.t.		

Pipo	Syal h.t.		6
	Phma h.t.		10
Psme	Caru	Caru	10
	h.t.	Aruv	6
	Phma	Phma	8
	h.t.	Smst	9
Abgr	Phma	Phma	7
	h.t.	Cooc	7
	Libo	Libo	5
	h.t.	Xete	7
	Asca	Asca	5
	h.t.	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.		
	Vaca c.t.		

ROSACEAE
Spiraea betulifolia var. *lucida* (Doublas.) Hitchc.
Spbel

spiraea, shiny-leaf spiraea

FORM: Strongly rhizomatous, glabrous, medium shrub, 20-60cm (8-24in) tall.
STEMS: Erect, slender, light yellow-brown and smooth, not hairy; aging to reddish-brown.
LEAVES: Alternate, deciduous, ovate, 2-7cm (1-3in) 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, 3-8cm (1-3in) broad; June-July.
FRUIT: Glabrous follicles, 3mm 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.

Syal

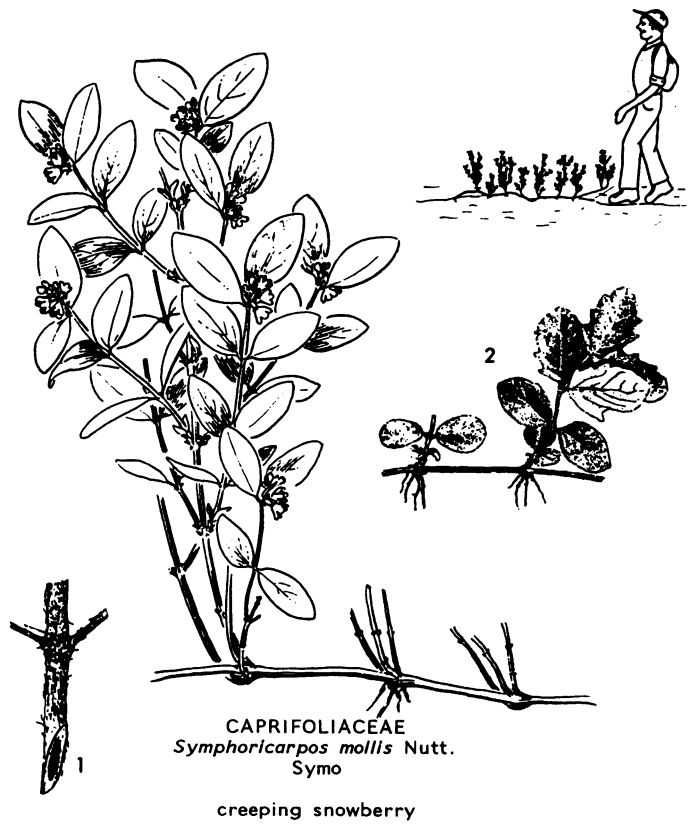
CAPRIFOLIACEAE
Symphoricarpos albus (L.) Blake
Syal

common snowberry

FORM: Erect, **rhizomatous** shrub, 1-2m (3-7ft) tall.
STEMS: **Opposite**, twigs very slender; older stems have shreddy, greyish bark with **hollow, brownish pith** (1).
LEAVES: **Opposite, deciduous**, elliptic, 2-5cm (1-2in) 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, 5-7mm long (3), in few-flowered racemes; May-July.
FRUIT: **White, spherical**, berrylike, 6-15mm 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	Psme
4	Aruv	h.t.	
9	Phma	Phma	
10	Smst	h.t.	
9	Phma	Phma	Abgr
9	Cooc	h.t.	
7	Libo	Libo	
1	Xete	h.t.	
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		
4	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.		
	Vaca c.t.		

Hog	Syal h.t.		
Pse	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.		



CAPRIFOLIACEAE
Symphoricarpos mollis Nutt.
Symo

creeping snowberry

FORM: Stoloniferous, trailing shrub, 3-6dm (1-2ft) tall.
STEMS: Opposite, often rooting at nodes 1-3m (3-10ft) 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, 1-3cm (1in) long; leaves on new shoots may have variable shapes, some resemble small oak leaves (2).
FLOWERS: Pink to white, bell-shaped, 3-5mm long; short, few-flowered, terminal racemes; June-July.
FRUIT: White, berrylike, 4-6mm 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; prinicpally on the St. Joe NF and Clearwater NF.

Table 8.--VACCINIUM SPECIES CONSPECTUS

Species	Page	Form	Stems	Leaves	Flowers	Fruit	Notes
V. caespitosum 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	ecologically similar to 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	ecologically similar to 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 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 Vaor	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.		1
	Xete c.t.		
	Vaca c.t.		

ERICACEAE
Vaccinium caespitosum Michx.
Vaca

dwarf huckleberry

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

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

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

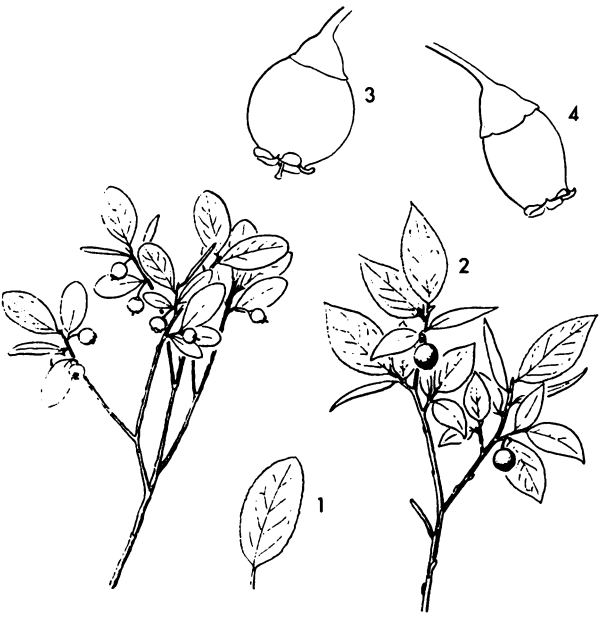
FLOWERS: Whitish to pink, narrowly urn-shaped, 5-6mm long; single in axils; May-July.

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

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

Vagl

Vame



ERICACEAE

Vaccinium globulare Rydb. Vagl	*Vaccinium membranaceum* Dougl. Vame
blue huckleberry	big huckleberry
globe huckleberry	thin-leaf blueberry

FORM: Spreading shrub, 4-10dm (1-3ft) tall.
STEMS: Older bark greyish and shreddy; young twigs somewhat angled.
Vagl: greenish-yellow.
Vame: yellow-green.
LEAVES: **Alternate**, deciduous, 2-4cm (1-2in) 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, 6-7mm long; May-June.
Vame: yellow-pink **urn-shaped** (4), longer than broad, 6mm long; April-June.
FRUIT: Delicious, edible berry, 6-8mm broad.
Vagl: glaucous bluish-purple.
Vame: purple or dark purplish-red.
NOTE: Vagl and Vame are considered ecological equivalents in northern Idaho.
SIMILAR SPECIES: Vaccinium Conspectus, p.78.

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

Ptpo	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.
Vamy

dwarf bilberry

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

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

LEAVES: Alternate, deciduous, light green, glabrous ovate, 1-3cm (1in), 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 Conspectus, p.78.

ERICACEAE
Vaccinium scoparium Leiberg
Vasc

grouse whortleberry, grouseberry

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

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

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

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

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

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

	Syal h.t.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
1	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
1	Libo	Libo	
3	Xete	h.t.	
	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
8	Xete c.t.		
8	Vaca c.t.		

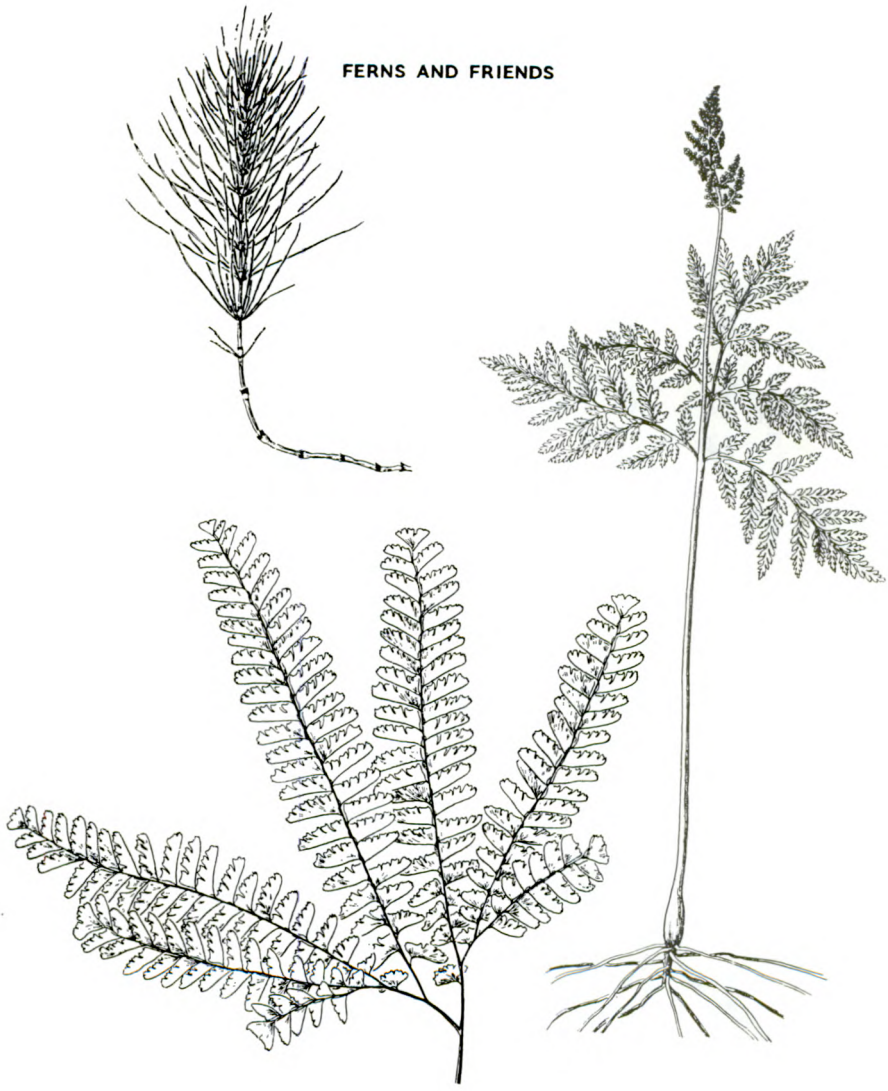
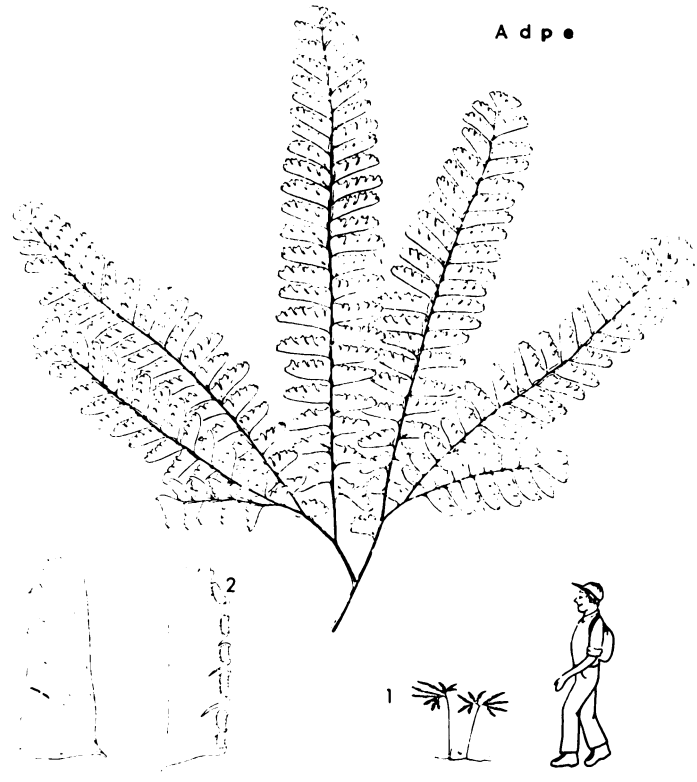


Table 9.--KEY TO FERNS AND FRIENDS

	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 25cm (10in) long		
7. Sori in cup-shaped indusium.	*Cystopteris fragilis*	88
7. Sori covering platelike indusium	*Woodsia oregana*	96
6. Leaves longer than 25cm (10in)		
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.		



POLYPODIACEAE
Adiantum pedatum L.
Adpe

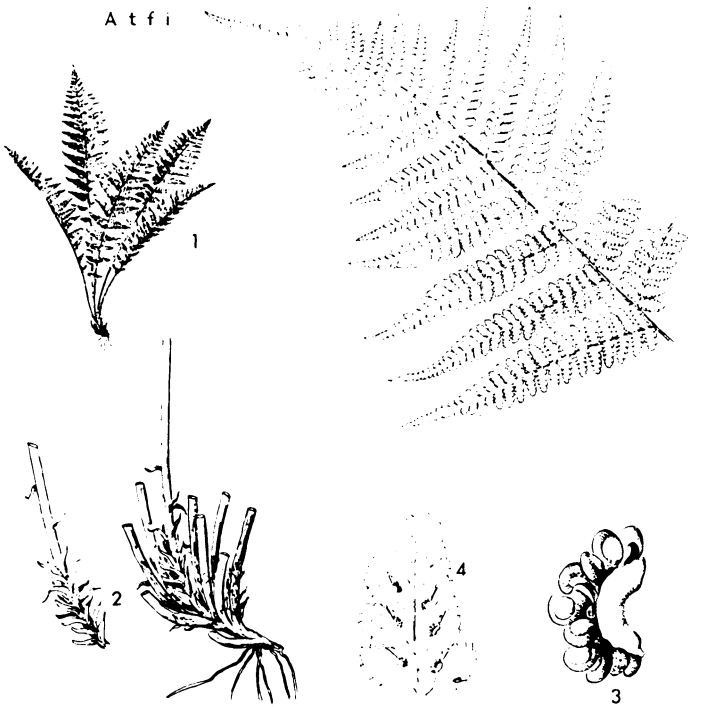
maidenhair fern

FORM: Erect, perennial fern, 10-60cm (4-24in) 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: Borne on reflexed margins (2).

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



POLYPODIACEAE
Athyrium filix-femina (L.) Roth
Atfi

ladyfern

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

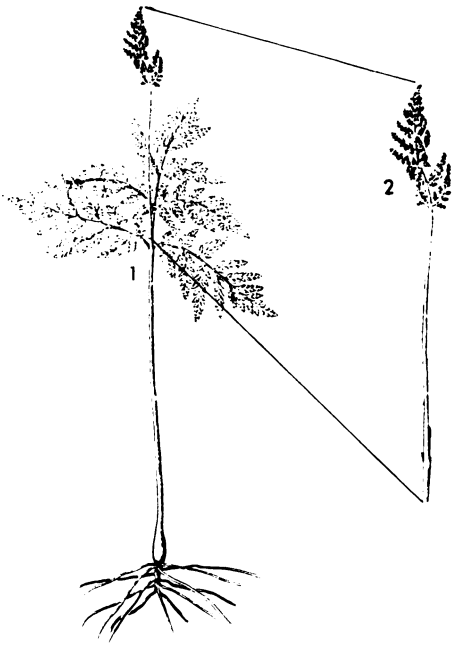
LEAVES: Deciduous, bi to tripinnate blade consisting of 20-35 pairs of offset pinnae, with the upper and lower pinnae progressively reduced, **tapering at both ends** (1); straw-colored **petiole, much shorter than blade,** bearing many **blackish scales toward the base** (2).

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, p.89-90; and *Cystopteris fragilis*, p.88.

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

grape fern, moonwort

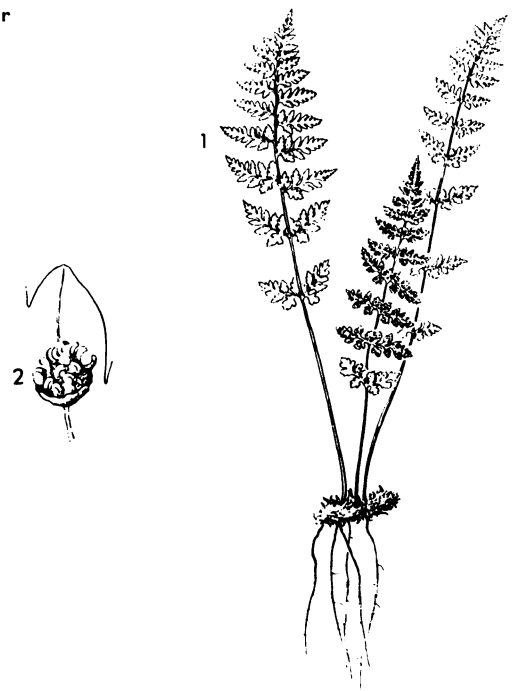
FORM: Erect perennial, 15-50cm (6-20in) tall, consisting of a **sterile segment** (1) and an **elongated fertile blade** (2) on a common stalk.

LEAVES: **Sterile blade deciduous**, thin, and membranous, deltoid, **bi to quadpinnately compound**, sharply toothed, generally wider than long, 10-30cm (4-12in) 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**, 4-17cm (2-7in) 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.

C y f r



POLYPODIACEAE
Cystopteris fragilis (L.) Bernh.
Cyfr

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,** 3-25cm (1-10in) by 1-10cm (1-4in), consisting of 8-18 pairs of offset leaflets, blade gradually tapers to tip (1).

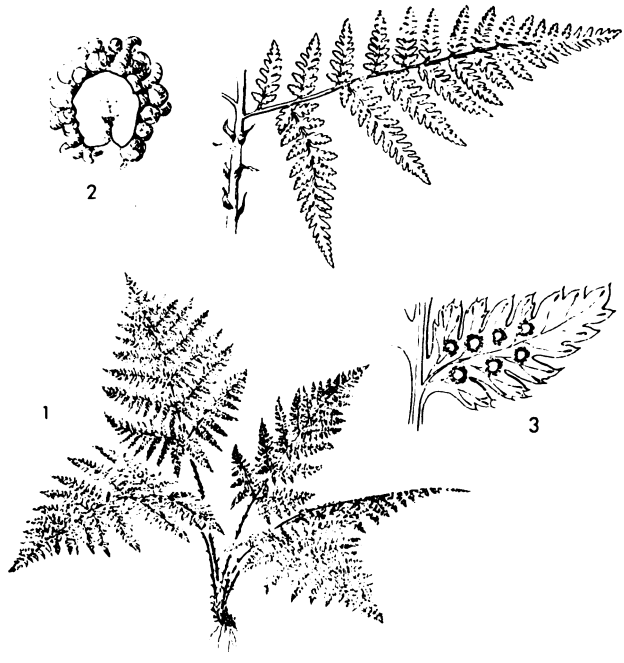
SORI: Small and numerous in **cuplike indusium borne on a veinlet** (2).

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

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

1	Syal h.t.		Ptpo
4	Phma h.t.		
	Caru	Caru	Psme
1	Aruv	h.t.	
2	Phma	Phma	
5	Smst	h.t.	
2	Phma	Phma	Abgr
3	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
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.		2
	Adpe h.t.		5
	Atfi h.t.	Adpe	4
		Atfi	6
	Opho h.t.		
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.		



POLYPODIACEAE

Dryopteris austriaca (Jacg.) Woynar ex Schinz & Thell.

Drau2

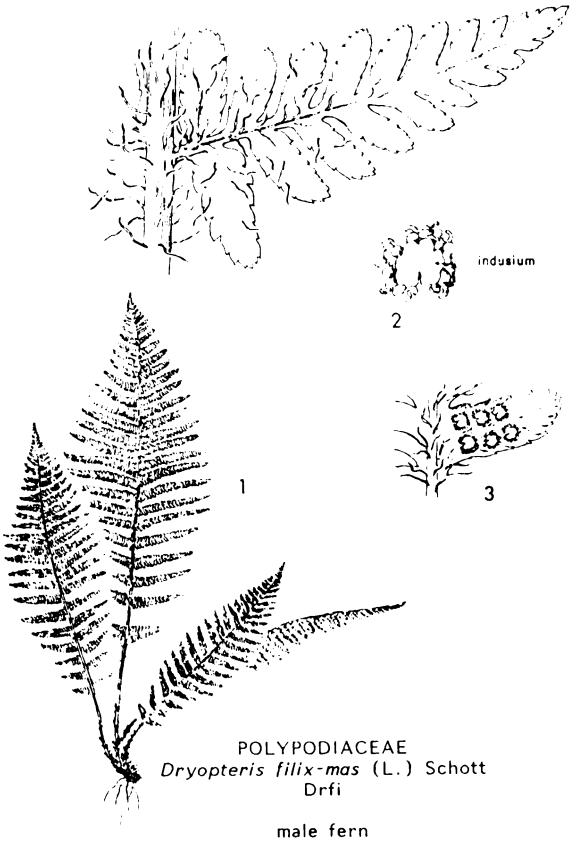
mountain woodfern, spreading woodfern

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), 20-50cm (8-20in) 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.



POLYPODIACEAE
Dryopteris filix-mas (L.) Schott
Drfi

male fern

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

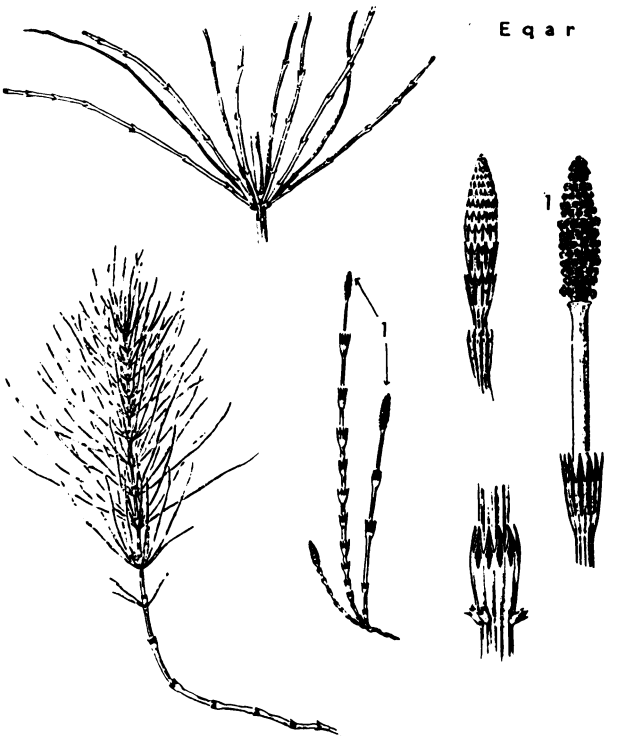
LEAVES: **Deciduous**, finely serrate, pinnate to bipinnate blade, 2-10dm (1-3ft) long, lanceolate to lance-oblong, slightly narrowed toward the base and tapers to a narrow tip (1).

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.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
+	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	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.
Eqar

field horsetail, common horsetail

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

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

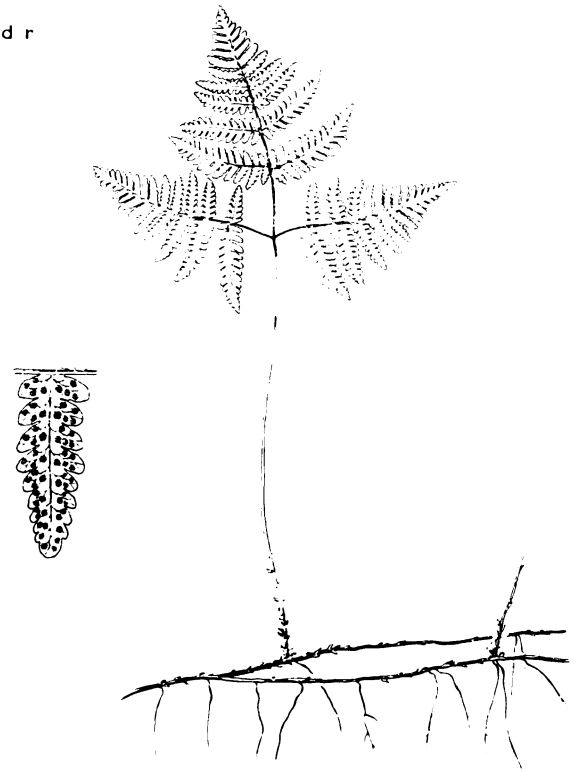
CONES: Blunt, 5-40mm (<2in) long, generally produced on fertile stems, but Eqar is unusual in that the late-season green stems may produce some cones.

SIMILAR SPECIES: *Equisetum hyemale* (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.**

G y d r



POLYPODIACEAE
Gymnocarpium dryopteris (L.) Newm.
Gydr

oak-fern

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

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

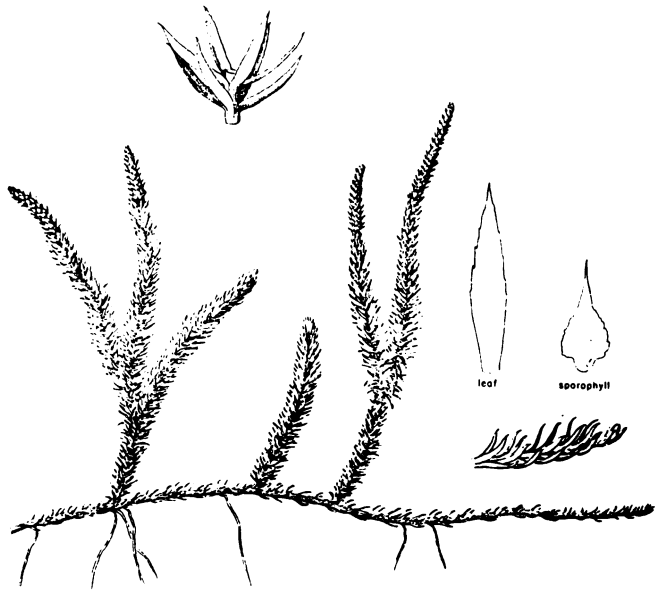
SORI: Small, circular, borne on undersurface of leaf; **indusium lacking.**

Similar Species: *Cystopteris montana,* (Mtn. bladder-fern), cuplike indusium.

HABITAT: Moist woods, streambanks, and wet cliffs.

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

stiff club-moss

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

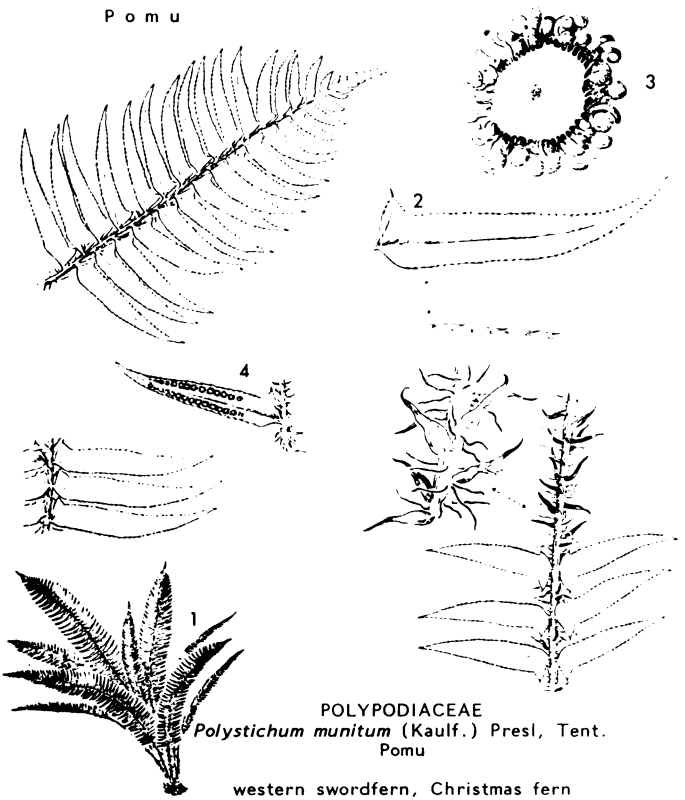
STEMS: Erect, once or twice branched, leafy stems, 5-25cm (2-10in) tall; trailing stems, sparsely leaved, elongate up to 1m (3ft) long, rooting at intervals.

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

CONES: Sessile, 1-4cm (<2in) 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, 3-4mm long.

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



1	Syal h.t.		Pipo
3	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
2	Smst	h.t.	
1	Phma	Phma	Abgr
7	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
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.	Tshe
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.	Tsme
1	Arnu		
2	Mefe		
1	Xete		
4	Asca	Asca h.t.	
4	Arnu		
3	Mefe		
2	Gydr h.t.		
1	Mefe	Clun h.t.	
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		
	Luni		
	Vasc n.t.		Pico
	Xete c.t.		
	Vaca c.t.		

POLYPODIACEAE

Polystichum munitum (Kaulf.) Presl, Tent.

Pomu

western swordfern, Christmas fern

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

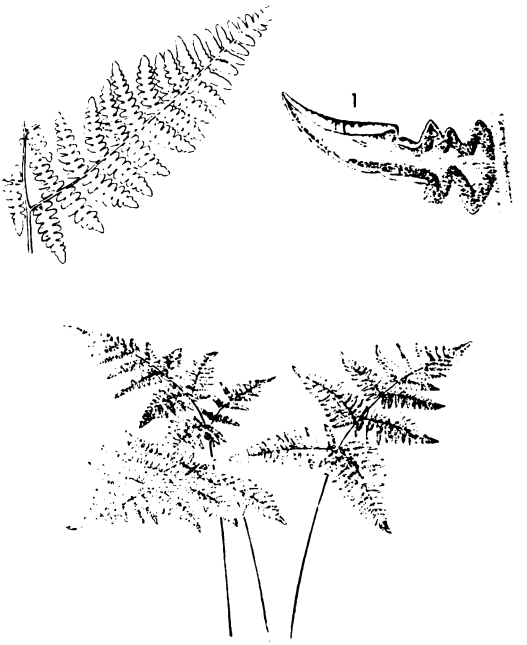
LEAVES: Evergreen, coarse and leathery, stiffly erect, **linear to lance-shaped, tapering at both ends** (1), 2-15dm (6-60in) long, mostly 35-70 offset, undivided pinnae on each side, 2-15cm (1-6in) long, with a basal lobe projecting upward (2), margins closely serrate with **incurved spinulose teeth**;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

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.		

Ptaq



POLYPODIACEAE

Pteridium aquilinum (L.) Kuhn in von der Decken

Ptaq

bracken fern

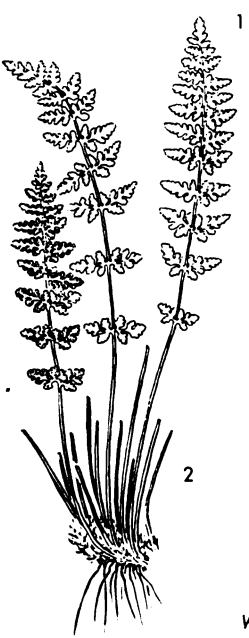
FORM: Medium to large, erect fern, 5-20dm (2-7ft) tall; vigorously clonal, from deep, branched rhizomes having **two light-colored external stripes and distinctive vascular bundles** in cross-section.

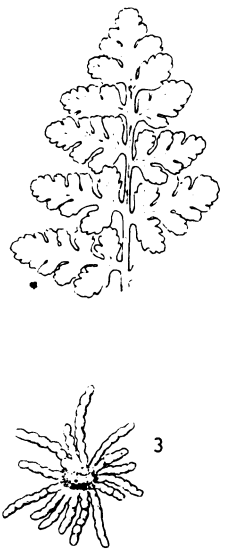
LEAVES: **Deciduous** but with a firm, leatherlike feel, tripinnate blade 3-10dm (1-3ft) long with alternate, sessile pinnules, edges rolled under and hairy below, petiole erect, hairy and nonscaly, generally shorter than blade.

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.





POLYPODIACEAE
Woodsia oregana D.C.
Woor

woodsia, Oregon woodsia

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

LEAVES: Numerous, **deciduous,** bi to tripinnate, lanceolate blades, 4-15cm (2-6in) 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.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
T	Asca	Asca	
+	Tabr	h.t.	
1	Mefe		
	Setr h.t.		
	Phma	Clun	
T	Clun		
	Tabr	h.t.	
1	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
T	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
	Xete		
T	Asca	Asca	
	Tabr	h.t.	
T	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	Opho h.t.		
	Clun	Clun	Tshe
	Arnu	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc	Mefe	
	Xete		
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc	Xete	
	Vagl		
	Vasc	h.t.	
	Luhi		
	Vasc n.t.		Pico
	Xete c.t.		
	Vaca c.t.		

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 lvs.
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	Bl	-	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	

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	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	X-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	Bl	-	A	square stems
Silene menziesii	176	P	D	S-M	O	SE	Cy	W	5	T	-	S	

(con.)

Table 10.--(con.)

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 Cd'A
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	CLTTr	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 fruits
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	lvs. wooly below

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 lvs.
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 Maplelike
P -Pinnate
S -Simple
T -Toothed or Serrate

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
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
Tr-Trifoliolate

- = "to" / = "or" () = "can also be" GW = greenish-white

A c m i

ASTERACEAE (COMPOSITAE)
Achillea millefolium L.
Acmi

common yarrow

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

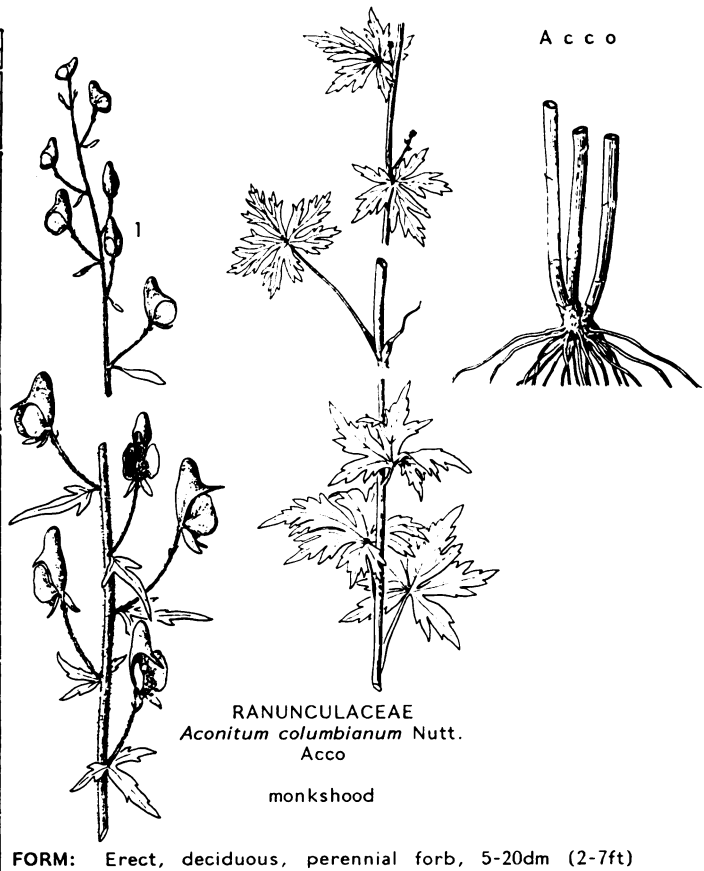
ENEMIES: Fire: moderately resistant, regeneration from seeds to preburn levels within 5-10 years.

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	Psme
7	Aruv	h.t.	
5	Phma	Phma	
1	Smst	h.t.	
3	Phma	Phma	Abgr
	Cooc	h.t.	
3	Libo	Libo	
	Xete	h.t.	
+	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.		
	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.
Acco

monkshood

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

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

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

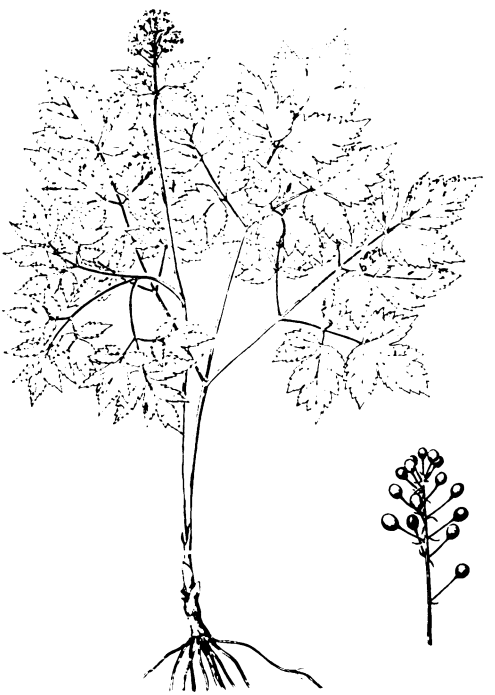
FRUIT: 3-5 glabrous to glandular follicles, 1-2mm long.

SIMILAR SPECIES: *Trautvetteria caroliniensis*, p.184, and *Trollius laxus* (globe flower).

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

NOTES: Seeds and roots are poisonous.

A c r u



RANUNCULACEAE
Actaea rubra (Ait.) Willd.
Acru

baneberry

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

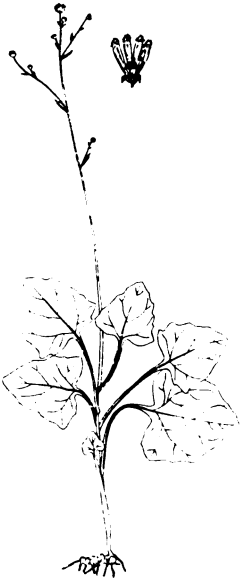
LEAVES: Alternate, all cauline, 2-3 times compound, 3-9cm (1-4in) long, sharply toothed and lobed.

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

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

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
3	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
1	Clun		
	Tabr		
	Mefe		
1	Xete	Xete h.t.	
	Vagl		
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 (COMPOSITAE)
Adenocaulon bicolor Hook.
Adbi

trail-plant, pathfinder

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

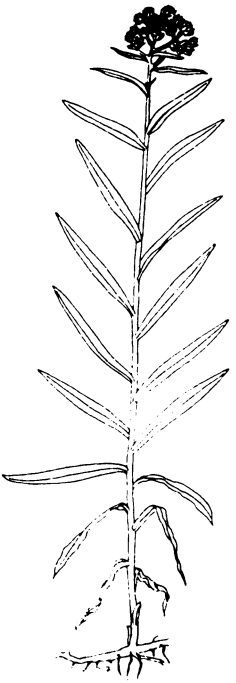
LEAVES: Alternate, mostly basal, **triangular to arrowhead-shaped blade, glabrous above, white-woolly below,** margins shallowly lobed, 3-15cm (1-6in) wide with long petioles.

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

FRUIT: Small, sticky achene, 5-8mm long.

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

A n m a



ASTERACEAE (COMPOSITAE)
Anaphalis margaritacea (L.) B. & H.
Anma

pearly everlasting

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

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

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

FRUIT: Achene covered with short, rounded projections.

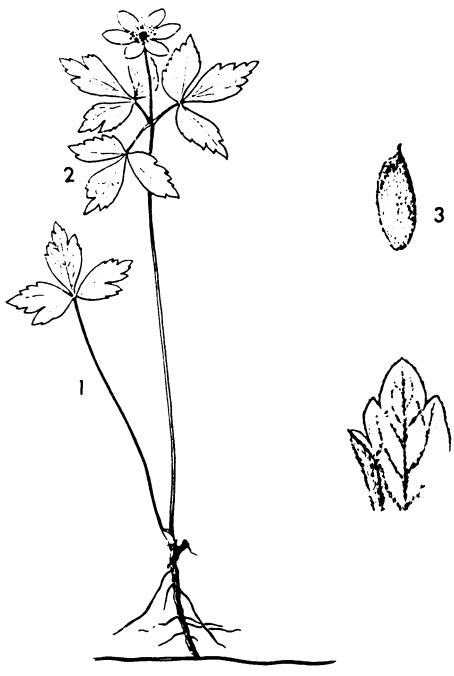
ENEMIES: Fire: resistant, regeneration from seeds to preburn levels within 5-10 years.

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	Psme
	Aruv	h.t.	
	Phma	Phma	
+	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
1	Clun		
1	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete	
	Cooc	h.t.	
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
1	Mefe		
	Gydr h.t.[c]		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	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	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun h.t.	Abla
	Mefe		
1	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
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.		

Mipo	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.		
	Vaca c.t.		



RANUNCULACEAE
Anemone piperi Britt.
Anpi

windflower, anemone

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

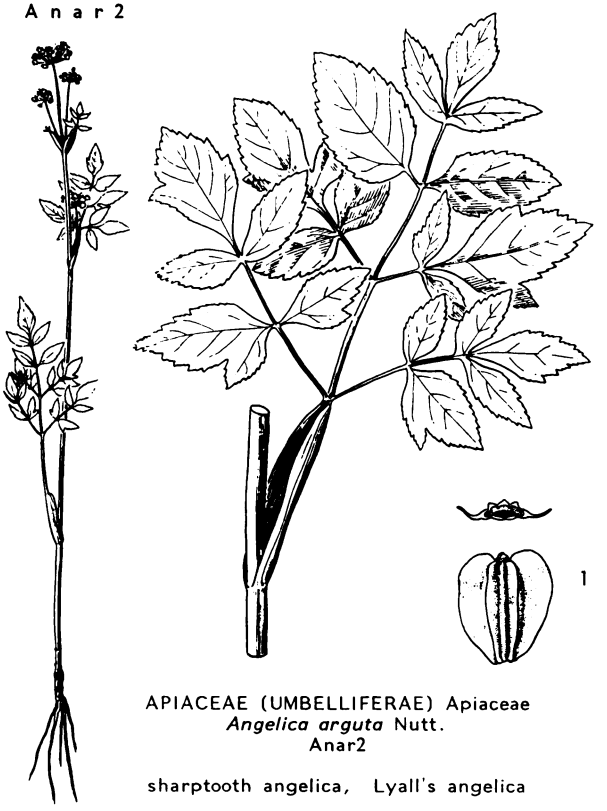
LEAVES: **Basal,** (if present) single (1), **biserrate,** trifoliolate leaflets up to 7cm (3in) long; cauline leaves similar to basal but always in a whorl of 3 short-petiolate dissected leaves(2).

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

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

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

A n a r 2



APIACEAE (UMBELLIFERAE) Apiaceae
Angelica arguta Nutt.
Anar2

sharptooth angelica, Lyall's angelica

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

LEAVES: Alternate, large, ternate-pinnate, about twice compound, 4-14cm (2-6in) 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 8cm (3in) wide; June-Aug.

FRUIT: Broad, elliptic, glabrous schizocarp with narrowly winged dorsal ribs (1), 4-7mm (2-3in) long by 4-5mm 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	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
2	Mefe		
	Setr h.t.		
+	Phma	Clun	
	Clun	h.t.	
	Tabr		
	Mefe		
	Xete	Xete	
	Vagl	h.t.	
1	Cooc		
1	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
	Xete		
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
1	Atfi	h.t.	
	Opho h.t.		
	Clun	Clun	Tshe
	Arnu	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
+	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
1	Lica	h.t.	
3	Caca	Caca	
2	Vaca	h.t.	
1	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

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

ASTERACEAE (COMPOSITAE)
Antennaria racemosa Hook.
Anra

pussy-toes, everlasting

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

LEAVES: Basal leaves, smooth, green upper surface with white cotton-hairy undersurface, elliptic with short petiole, 2-8cm (1-3in) 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.

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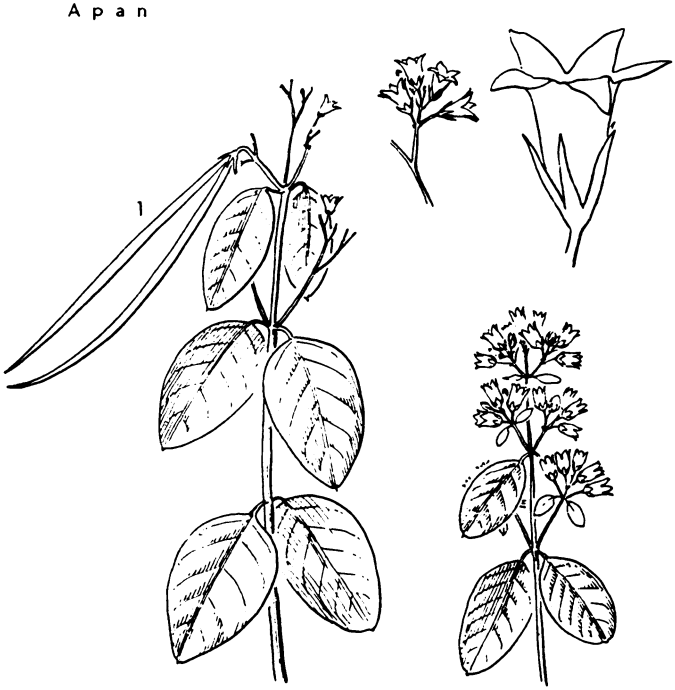


APOCYNACEAE
Apocynum androsaemifolium L.
Apan

spreading dogbane, flytrap dogbane

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

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

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

FRUIT: Long narrow follicles (1), 5-14cm (2-6in) 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	Psme
4	Aruv	h.t.	
3	Phma	Phma	
+	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr	h.t.	
1	Phma	Clun	
+	Clun	h.t.	
	Tabr		
	Mefe		
+	Xete		
1	Vagl	Xete	
	Cooc	h.t.	
1	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
1	Xete		
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr	h.t.	
	Adpe	h.t.	
	Adpe	Atfi	
	Atfi	h.t.	
1	Opho	h.t.	
1	Clun	Clun	Tshe
1	Arnu	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
1	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc	Mefe	
	Xete		
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc	Xete	
	Vagl		
	Vasc	h.t.	
	Luhi		
	Vasc	h.t.	Pico
	Xete	c.t.	
	Vaca	c.t.	

Pico	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. — Aqfo — red columbine, Sitka columbine

Aquilegia flavescens Wats. — Aqfl — yellow columbine

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

LEAVES: Deciduous, mostly basal, triternate, cuneate, thin, blue-green, 2-3 times lobed, 2-6cm (1-2in) long; cauline leaves alternates, 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.

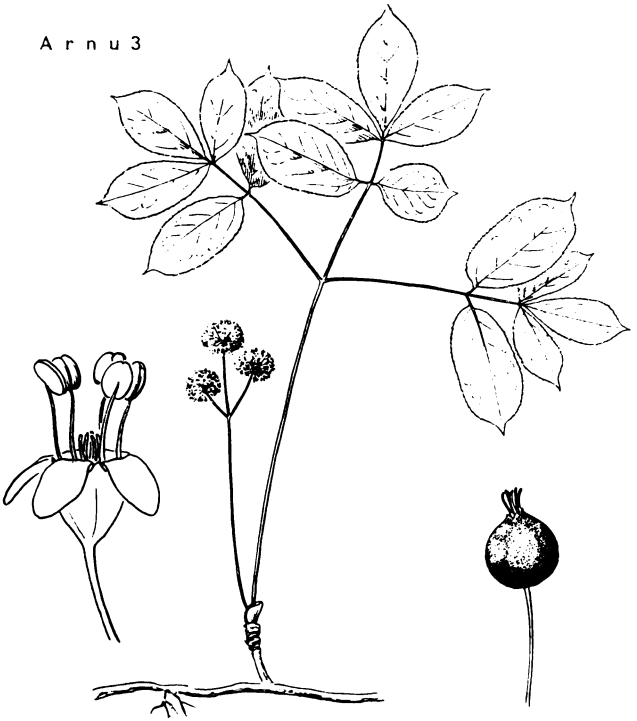
FRUIT: Erect follicles usually 5 with hairy spreading tips, 2cm (1in) long.

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

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

NOTES: Aqfo is more common than Aqfl, hybrids between the two species occur in the SW part of our range.

A r n u 3



ARALIACEAE
Aralia nudicaulis L.
Arnu3

wild sarsaparilla

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

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

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

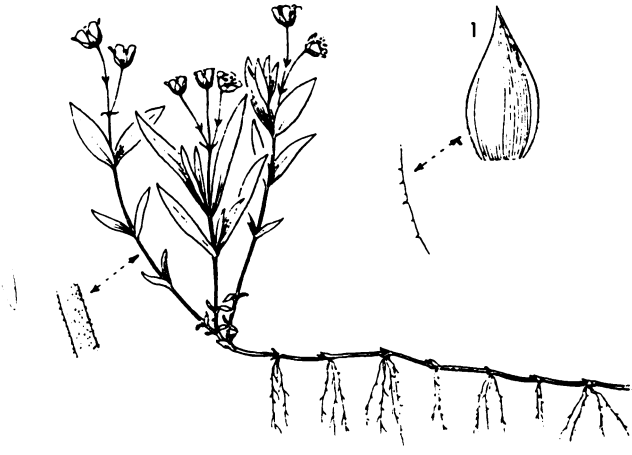
FLOWERS: Inflorescence shorter than leaves, consisting of **3-7 round ball umbels with** numerous, inconspicuous, 5-merous, greenish-white flowers, 5-6mm long; May-June.

FRUIT: Dark purple berry, 6-8mm 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	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
+	Phma	Clun	
	Clun		
	Tabr	h.t.	
	Mefe		
	Xete	Xete	
	Vagl	h.t.	
	Cooc		
+	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
	Xete		
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
+	Atfi	h.t.	
1	Opho h.t.		
+	Clun	Clun	Tshe
10	Arnu	h.t.	
	Mefe		
	Xete		
1	Asca	Asca	
10	Arnu	h.t.	
	Mefe		
1	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	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
		Cooc	1
	Mefe h.t.	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.		
	Vaca c.t.		



CARYOPHYLLACEAE
Arenaria macrophylla Hook.
Arma3

bigleaf sandwort

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

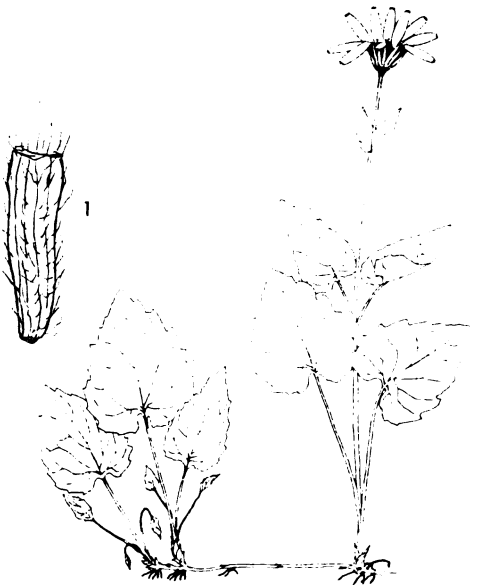
STEMS: **Terete or often 4-angled,** decumbent to erect, usually branching.

LEAVES: **Opposite, numerous,** simple, entire, pointed linear-ellipitic to lanceolate leaves, 2-5cm (1-2in) 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* (bluntleaf sandwort), sepals rounded, elliptic-oblong leaves.



ASTERACEAE (COMPOSITAE)
Arnica cordifolia Hook.
Arco

heartleaf arnica

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

LEAVES: **Opposite, bluish-green, heart-shaped,** entire to toothed, 4-12cm (2-5in) 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*.

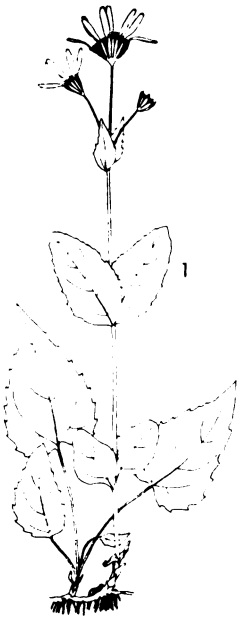
ENEMIES: Fire· moderate to low resistance, regeneration from rhizomes to preburn levels within 3-7 years.

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



Arla

ASTERACEAE (COMPOSITAE)
Arnica latifolia Bong.
Arla

mountain arnica, broadleaf arnica

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

LEAVES: Opposite, yellowish-green, entire to toothed, broadly lance-shaped, rarely heart-shaped, 2-14cm (1-6in) 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.

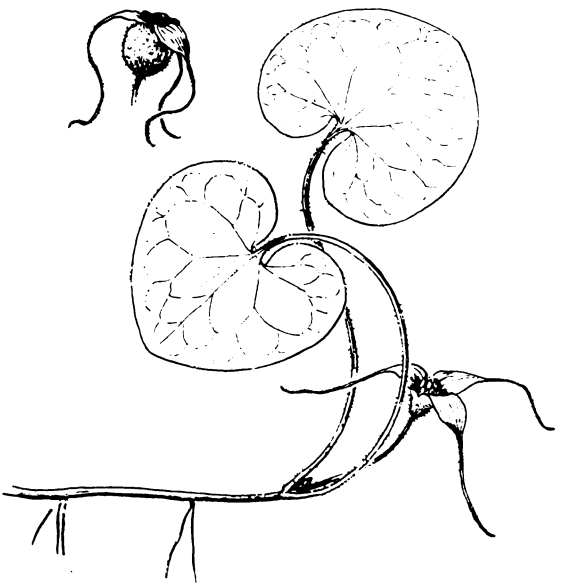
FRUIT: Achenes glandular or short hairy on upper portion or totally glabrous (2); most dependable character for distinguishing *A. cordifolia* from *A. latifolia*.

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*.

A s c a 3



ARISTOLOCHIACEAE
Asarum caudatum Lindl.
Asca3

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,** 4-10cm (2-4in) diameter, on long, generally fine hairly petioles; **crushed stems and leaves smell like lemon-ginger.**

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

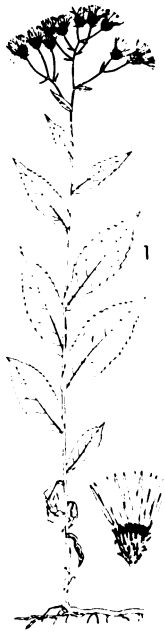
FRUIT: Fleshy capsule.

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	Psme
	Aruv	h.t.	
	Phma	Phma	
+	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
10	Asca	Asca h.t.	
10	Tabr		
10	Mefe		
9	Setr h.t.		
1	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
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	
9	Atfi	h.t.	
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 (COMPOSITAE)
Aster conspicuus Lindl.
Asco

showy aster

FORM: Stout, deciduous, perennial, 3-10dm (12-39in) tall; from creeping rhizomes.

LEAVES: Alternate, sharply toothed, thick and firm with a **sandpaper feel, sessile, ovate-elliptic,** 6-18cm (2-7in) 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, 10-15mm 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.

B a s a

ASTERACEAE (COMPOSITAE)
Balsamorhiza sagittata (Pursh) Nutt.
Basa

arrowleaf balsamroot

FORM: Deciduous, perennial forb, 20-80cm (8-32in) 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 30cm (12in) long; no aerial leaf-bearing stems.

FLOWERS: **Showy, yellow, solitary sunflower head**, 5-8cm (2-3in) in diameter; April-July.

FRUIT: Glabrous achenes.

ENEMIES: Fire: resistant, regeneration from caudex to preburn levels within 2-5 years.

NOTES: Indians named it "pash"; young stalks, roots and seeds were used for food.

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

RANUNCULACEAE

Caltha biflora var. *rotundifolia* (Huth) C.L. Hitch.

Cabi

white marsh marigold, twinflower marsh marigold

FORM: Deciduous, glabrous, perennial with flower stalks up to 15cm (6in) tall.

LEAVES: Mainly basal, usually over 5cm (2in) 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.

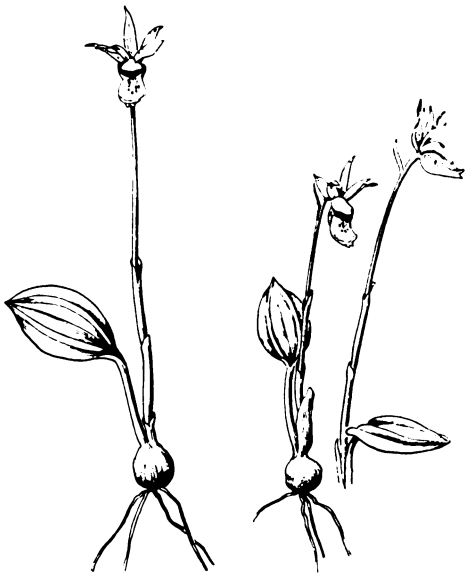
FRUIT: Several seeded, sessile follicle (1).

SIMILAR SPECIES: *Caltha leptosepala* (Alpine white marsh marigold) leaves longer than broad, scape very short, only one flower per stem.

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).

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.			

C a b u 2



ORCHIDACEAE
Calypso bulbosa (L.) Oakes.
Cabu2

fairy slipper

FORM: Deciduous, fragrant, glabrous perennial, 5-20cm (2-8in) tall from corm.

LEAVES: Basal, simple, entire, single green leaf per plant, long petioled, broadly ovate-elliptic, with parallel veins, mostly 3-6cm (1-2in) long, produced at tip of corm in the fall, persistent through winter then withering in summer.

FLOWERS: Solitary, rarely two, purplish, orchid flower, 15-22mm (<1in) long, scoop-shaped lip, bearded with yellow hairs and streaked with purple; March-June.

FRUIT: Erect capsule about 1cm.

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

CAMPANULACEAE
Campanula rotundifolia L.
Caro3

Scotch bellflower, lady s-thimble

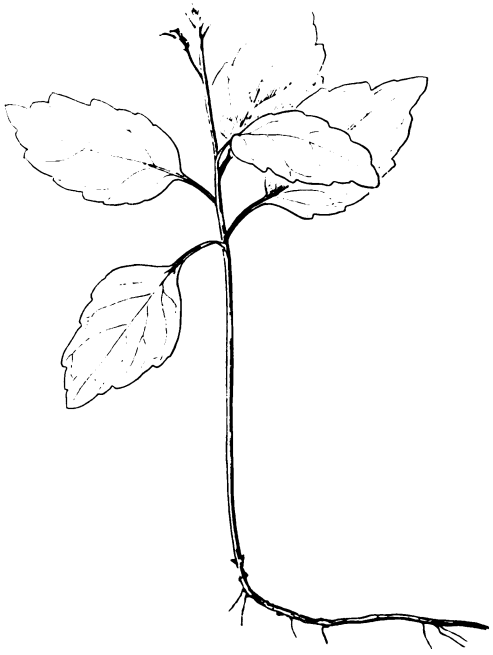
FORM: Deciduous, rhizomatous, perennial forb, 10-80cm (4-31in) tall.

LEAVES: Basal leaves in rosettes, cordate and petiolate, 2cm (1in) long; cauline leaves: alternate, sessile, appearing linear, 1-8cm (1-3in) long.

FLOWERS: Several, erect to nodding, 5-merous, bell-shaped blue, 2-3cm (1in) long, in a lax inflorescence; June-Aug.

FRUIT: Nodding capsule, 5-8mm long.

SIMILAR SPECIES: Young basal rosette may be confused with Viola species, p.190; and some members of Crucifereae.



CRUCIFERAE
Cardamine constancei Detl.
Caco5

Constance's bittercress

FORM: Deciduous, perennial forb, 15-30cm (6-12in) tall, with unbranched stems, from slender rhizomes.

LEAVES: Simple, shallowly lobed, broadly ovate, 5-13cm (2-5in), mostly clustered near stem tip.

FLOWERS: Pink, 4-merous, 2-3cm (1in) long, borne in few-flowered racemes; May-June.

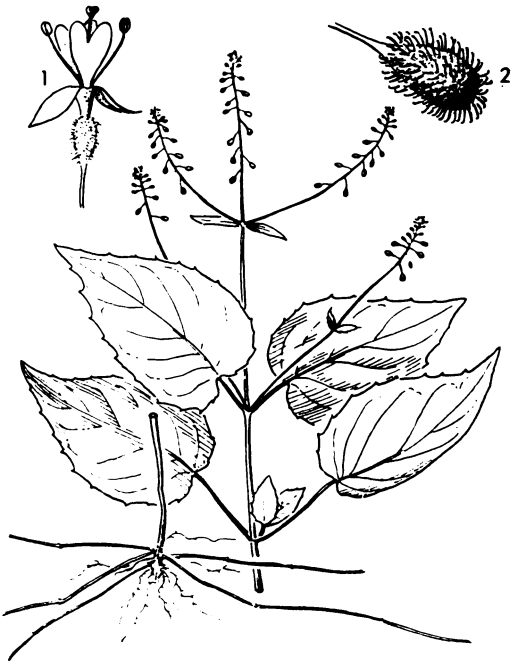
FRUIT: Unknown silique.

HABITAT: Moist shaded stream bottoms of *Thuja plicata* series.

NOTES: An uncommon endemic in Shoshone, Clearwater and Nez Perce Counties, found associated with relic coastal vegetation; presently on the Idaho State Watch List.

	Syal h.t.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
1	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
1	Adpe h.t.		
1	Adpe	Atfi	
	Atfi	h.t.	
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	
	Luhi	h.t.	
	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.		

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 n.t.		
	Xete c.t.		
	Vaca c.t.		



ONAGRACEAE
Circaea alpina L.
Cial

dwarf enchanter's nightshade, alpine circaea

FORM: Slender, perennial forb, 10-50cm (4-20in) tall, rhizomatous or arising from tuberous rhizome.

LEAVES: **Opposite, leaf pairs alternating at right angles to each other,** thin, pale green, cordate-ovate, 2-6cm (1-2in) long, margins entire to sharply toothed, petioles with narrow wings.

FLOWERS: Small, white, **2-merous,** 1mm long, **petals deeply 2-lobed** (1), in short terminal and axillary racemes; May-July.

FRUIT: Interesting capsule, 2mm long, covered with **soft, hooked hairs** (2).

HABITAT: Growing in seasonally wet to moist soil.

C l u n

LILIACEAE
Clintonia uniflora (Schult.) Kunth.
Clun

queen 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, 7-15cm (3-6in) long; **glabrous above, silvery hairs below and on margins,** hairs occasionally very reduced.

FLOWERS: **White, solitary, showy, 3-merous,** about 2cm (1in) long; June-July.

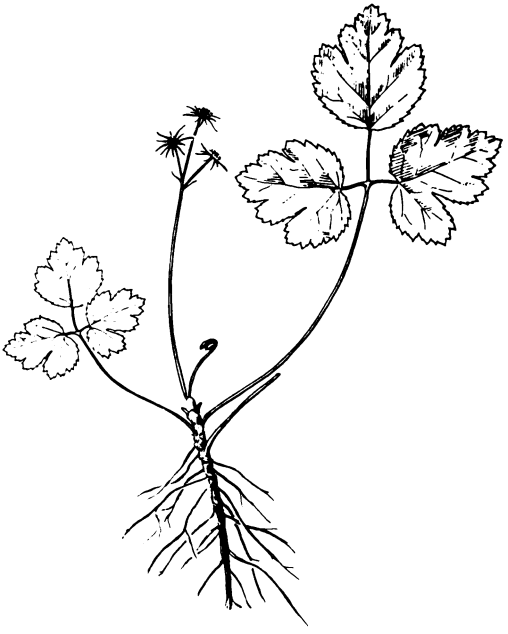
FRUIT: Smooth, blue berry, 6-10mm long.

SIMILAR SPECIES: *Erythronium grandiflorum*, p.135, not hairy.

HABITAT: Indicator of moderate moisture and heat gradients in nothern Idaho.

	Syal h.t.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	Abgr
1	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
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.		
	Vaca c.t.		



RANUNCULACEAE
Coptis occidentalis (Nutt.) T.& G.
Cooc2

western goldthread

FORM: Evergreen, low, perennial forb with widespread, slender, yellowish-gold rhizomes.

LEAVES: Basal, leathery, shiny, petiolate, trifoliolate leaves; leaflets broadly ovate, sharply serrate, 3-6cm (1-2in) long, 3-lobed about half their length.

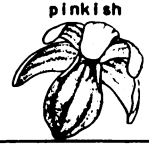
FLOWERS: 2-5 small, regular flowers consisting of 5-7 tubular whitish petals, 6-10mm long; blooming very early, immediately after snowmelt; April-May.

FRUIT: Several seeded follicle, 8-12mm long.

SIMILAR SPECIES: *Anemone piperi*, p.107, leaves deciduous.

NOTES: Common name goldthread refers to its yellow rhizomes.

Table 11.--CORALLORHIZA SPECIES CONSPECTUS

Species	Page	Stem	INFLORESCENCE		
			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 1-3mm long
Corallorhiza striata stripped 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.
Coma3

Pacific coral root, spotted coral root, large coral root

FORM: Stout, purplish, **parasitic forb,** 20-40cm (8-16in) 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, 1-2cm (1in) long.

SIMILAR SPECIES: Corallorhiza Conspectus, p.126.

NOTES: Albino plants quite common. *Corallorhiza* and common name coral root is derived from the coral-like formation of their roots.

CORNACEAE
Cornus canadensis L.
Coca

bunchberry dogwood

FORM: Low, rhizomatous, trailing **subshrub**, largely **herbaceous**, 5-20cm (2-8in) tall.

STEMS: Erect, greenish to reddish stems.

LEAVES: **Evergreen**, elliptic, with prominent, pinnate venation, 2-8cm (1-3in) 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**, 1-2cm (<1in) long; June-Aug.

FRUIT: Tight cluster of **bright red, fleshy, 2-seeded drupes,** 6-8mm long.

NOTES: A widely used ornamental which is easily introduced by seed, or transplanting.

	Syal h.t.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
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	Flower	Fruit
Disporum hookeri Hooker 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 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 bellshape from leaf axils	pebbly yellow-reddish globose berry
Smilacina racemosa 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 starry Solomon-plume 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 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
Diho

Hooker fairy-bell

FORM: Deciduous, branched, hairy, perennial forb, up to 1m (3ft) tall, arising from rhizomes.
STEMS: Branched, brownish to purplish, not green.
LEAVES: Alternate, simple, entire, ovate to ovate-elliptic, acuminate, 5-15cm (2-6in) 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, 9-18mm 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, 7-9mm long, 4-6 seeded, inedible.
SIMILAR SPECIES: Lily Conspectus, p.129.
NOTES: Fruits eaten by Blackfoot Indians but generally considered inedible.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
+	Phma	Phma	
6	Smst	h.t.	
4	Phma	Phma	Abgr
6	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
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.

Ditr

wartberry fairy-bell, Sierra fairy-bell

FORM: Deciduous, perennial, branched, hairy forb, 30-60cm (12-24in) tall, arising from rhizomes.

STEMS: Branched, brownish to purplish, not green.

LEAVES: Alternate, simple, entire, ovate to ovate-oblong, accuminate, 4-12cm (2-5in) 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).

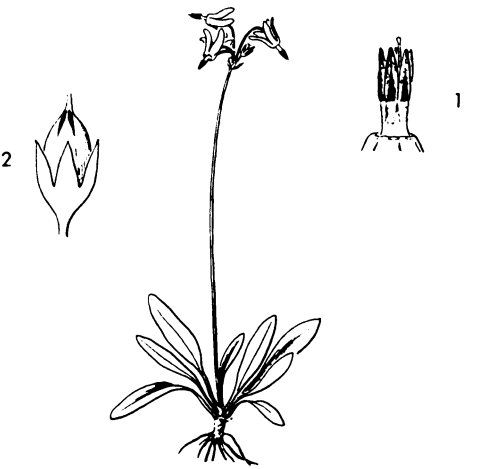
FLOWERS: 1-2 on stout, hairy pedicels; creamy white bell-shaped (2), 8-15mm long, terminal, often concealed by leaves; May-July.

FRUIT: Yellow to reddish, glabrous, round berry, 7-10mm long, with a bumpy surface, 6-12 seeded, inedible.

SIMILAR SPECIES: Lily Conspectus p.129

HABITAT: *D. trachycarpum* drier habitats than *D. hookeri*, but species are often found together.

NOTES: Fruits eaten by Blackfoot Indians but generally considered inedible.



PRIMULACEAE
Dodecatheon jeffreyi Van Houtte
Doje

Jeffrey's shooting star, tall mt. shooting star

FORM: Fleshy, herbaceous, deciduous perennial in large clumps, 10-60cm (4-24in) tall, from slender rootstocks.

LEAVES: Simple, basal, fleshy, generally entire, oblanceolate leaves, with long winged petioles, 5-40cm (2-16in) long by 1-6cm (<2in) broad.

FLOWERS: 3-20 regular flowers in terminal umbel on a naked stalk; nodding, short tubular 4- or 5-merous flowers having reflexed petals, 1-3cm (1in) long; yellow to reddish anthers 6-10mm long; June-Aug(1).

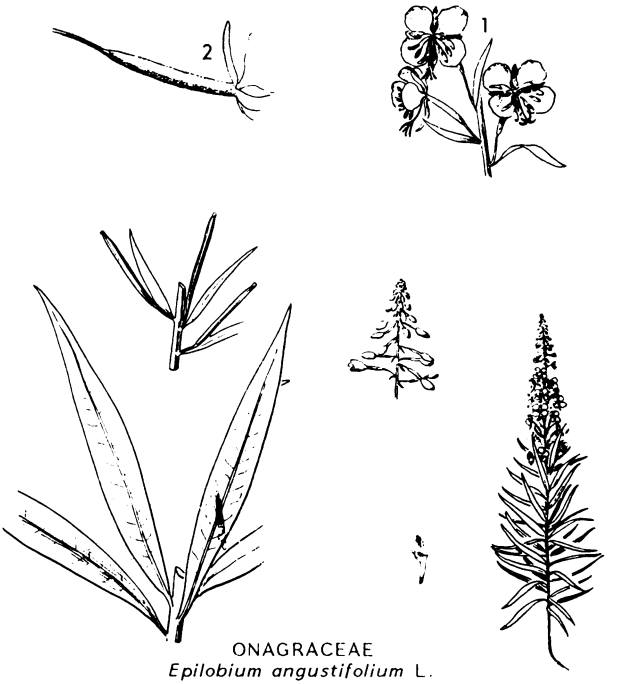
FRUIT: 1-celled, ovoid capsule, 7-11mm long,(2).

SIMILAR SPECIES: *Dodecatheon pulchellum* (dark-throat shooting star), drier and lower elevation.

HABITAT: High elevation wet sites.

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

Plog	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.

Epan

fireweed, blooming Sally

FORM: Glabrous, deciduous, perennial forb from widespread rhizomelike roots, 1-3m (3-10ft) tall.

LEAVES: **Alternate,** sessile, entire, **willowlike,** narrowly lanceolate, 10-15cm (4-6in) long, prominent white midvein, 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, 8-20mm long, in many-flowered, terminal racemes; June-Sept.

FRUIT: Linear, green to red, dehiscent capsule (2), 5-8cm (2-3in) 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 (COMPOSITAE)
Erigeron peregrinus (Pursh) Greene
Erpe

subalpine daisy, wandering daisy, wandering fleabane

FORM: Glabrous, deciduous, leafy perennial forb up to 70cm (28in) tall, from fibrous-rooted, short rhizome.

LEAVES: Basal leaves simple, entire, wide, oblanceolate, tapering to petiole, alternate cauline leaves various.

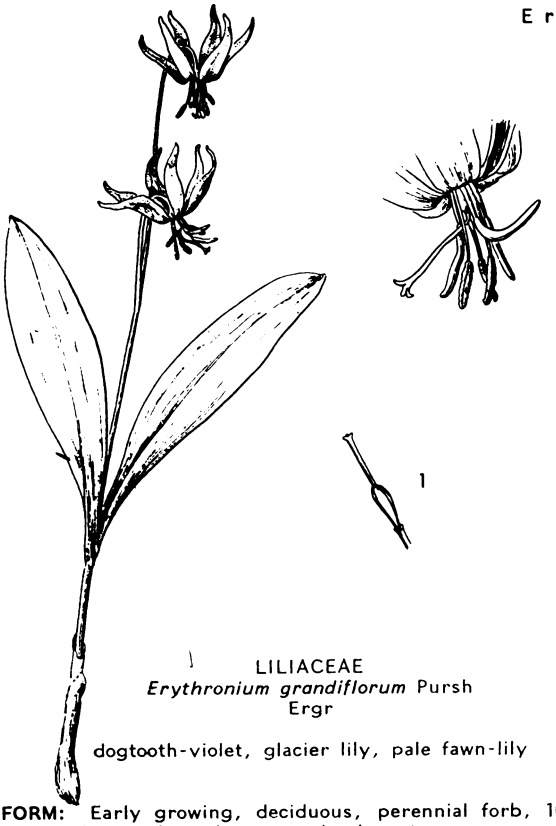
FLOWERS: Solitary or few heads, 30-80 deep rose-purple ray flowers, 8-25mm long, disk flowers, 10-25mm wide; July-Aug.

FRUIT: Symmetrical, 4-7 nerved achene (1).

SIMILAR SPECIES: *Erigeron* and *Aster* species.

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

Pico	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

Ergr

dogtooth-violet, glacier lily, pale fawn-lily

FORM: Early growing, deciduous, perennial forb, 10-20cm (4-8in) 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, 10-20cm (4-8in) long.

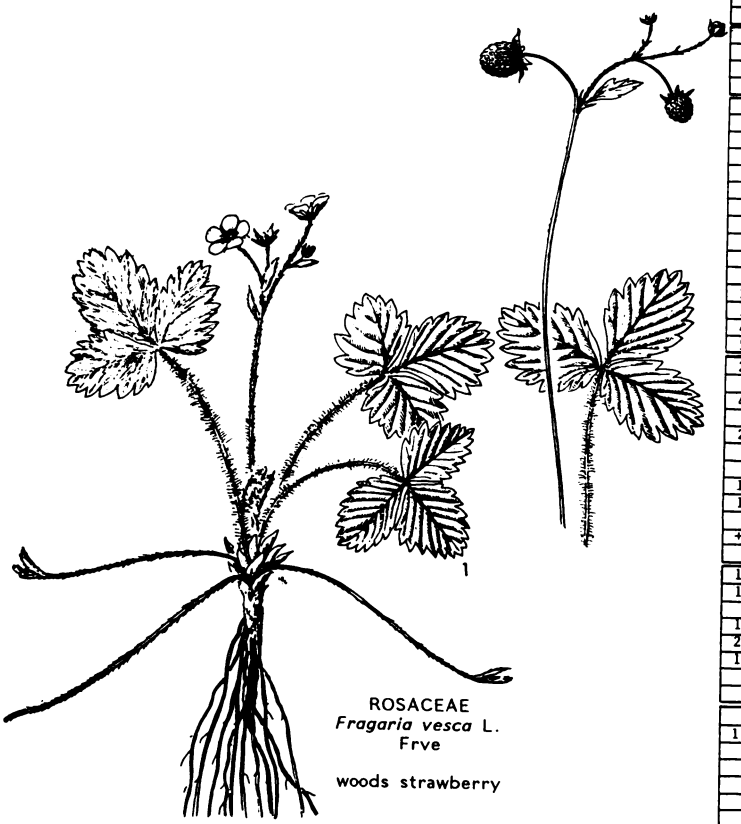
FLOWERS: Solitary or 2-5 in loose racemes, **showy, bright yellow to golden, with reflexed petals,** 2-4cm (1-2in) long, stamens exposed, white, red, or yellow, 10-12mm long; March-Aug.

FRUIT: **Green cylindrical capsule,** 3cm (1in) 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 indians.



ROSACEAE
Fragaria vesca L.
Frve

woods 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 1cm 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		
6	Smst	h.t.		
7	Phma	Phma		Abgr
6	Cooc	h.t.		
7	Libo	Libo		
4	Xete	h.t.		
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.			

Prg	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.		

ROSACEAE
Fragaria virginiana Duchesne
Frvi

strawberry

FORM: **Strongly stoloniferous,** deciduous, perennial forb.
LEAVES: Basal, long petiolate, trifoliolate leaves; leaflets sessile, broadly ovate, 2-7cm (1-3in) 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 1cm 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) Heller
Frfa

clustered frasera

FORM: Stout, glabrous, unbranched, deciduous, perennial forb; flowering stem 5-15dm (2-5ft) tall.

LEAVES: Cauline leaves: lanceolate, whorls of 3-5, reduced upward; basal leaves: thin, acute, obovate, 20-45cm (8-18in) long.

FLOWERS: Regular, blue or bluish-purple, 4-merous, tubular to campanulate (bell-shaped), numerous in large, narrow, congested panicle; May-July.

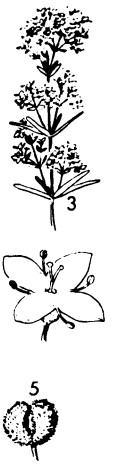
FRUIT: Ovoid, slightly compressed capsule, 12-18mm long.

SIMILAR SPECIES: *Frasera speciosa* (giant frasera), and early stages of *Veratrum* species, p.179-180.

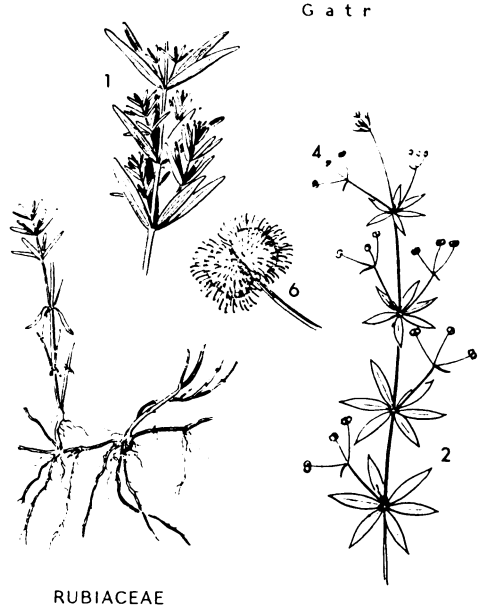
1	Syal h.t.		Ptpo
3	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
+	Phma	Phma	
2	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
1	Setr h.t.		
1	Phma	Clun h.t.	
2	Clun		
	Tabr		
1	Mefe		
	Xete		
	Vagl	Xete h.t.	
1	Cooc		
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	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.		Plco
	Xete c.t.		
	Vaca c.t.		

Ppo	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
		Cooc			1
	Mefe h.t.	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.				

Gabo



Gatr



RUBIACEAE

Galium boreale L.
Gabo

northern bedstraw

Galium triflorum Michx.
Gatr

sweetscented bedstraw

FORM: **Square stemmed,** deciduous, perennial forb with numerous stems from **creeping rhizomes.**
Gabo: erect and stout, 2-8dm (8-32in) tall.
Gatr: usually lax, trails on ground, 2-8dm (8-32in) long.

LEAVES: Simple, entire, **sessile in whorls,** 1-4cm (<2in) long.
Gabo: 4/whorl (1), 3-nerved, lanceolate with rounded tip.
Gatr: 6/whorl (2), 1-nerved, narrowly elliptic, vanilla scented.

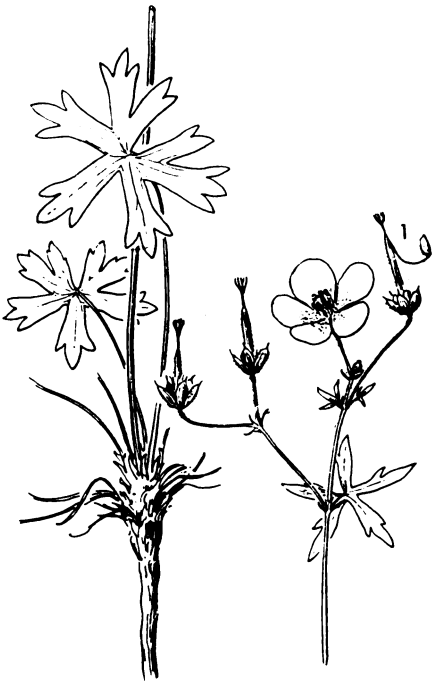
FLOWERS: White, 4-merous, tubular.
Gabo: Showy, numerous in terminal cymose panicle, (3); June-Aug.
Gatr: usually borne in **threes at ends of axillary peduncles** (4); June-Aug.

FRUIT: Dry capsule, 2mm long.
Gabo: glabrous or with straight hairs, 2mm long (5).
Gatr: covered with **hooked hairs, 1-2mm long (6).**

SIMILAR SPECIES: *Galium aparine* (goose-grass) weedy, **clinging annual** from short taproot, **leaves 6-(8)/whorl,** narrow, 1-nerved; small hooks on stems.

NOTES: A member of the coffee family, seeds roasted and ground can be used for coffee; roots make yellow dye.

G e v i



GERANIACEAE
Geranium viscosissimum F. & M.
Gevi

sticky purple geranium

FORM: Glandular-hairy, deciduous, perennial forb, 40-90cm (16-35in) tall, with several stems.

LEAVES: Sharply toothed, densely glandular-hairy, 5(7) palmately-lobed blades, 5-12cm (2-5in) broad.

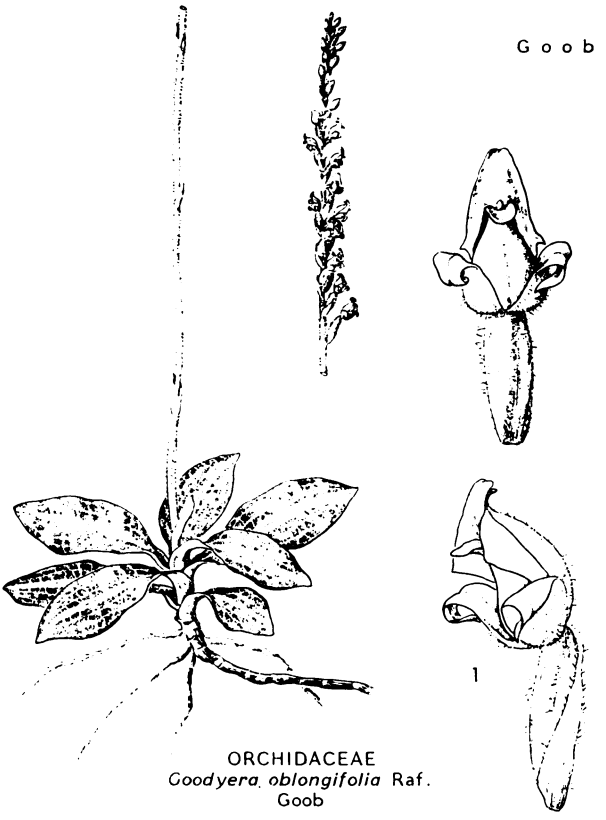
FLOWERS: **Showy, sticky, opposite,** 5-merous, pink to deep purplish-red (rarely white), **petals hairy at base,** generally only two cymose inflorescences; May-Aug.

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.		Phpo
6	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
+	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
	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	Caru	4
	h.t.	Aruv	2
	Phma	Phma	3
	h.t.	Smst	4
Abgr	Phma	Phma	4
	h.t.	Cooc	4
	Libo	Libo	5
	h.t.	Xete	6
	Asca	Asca	4
	h.t.	Tabr	7
		Mefe	9
	Setr h.t.		4
	Clun h.t.	Phma	3
		Clun	6
		Tabr	10
		Mefe	7
		Xete	7
	Xete	Vagl	5
	h.t.	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	Adpe	4
	h.t.	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	Mefe	7
	h.t.	Xete	5
	Mefe	Xete	5
	h.t.	Luhi	3
	Stam	Mefe	5
	h.t.	Luhi	2
	Xete	Vagl	5
	h.t.	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.		
	Vaca c.t.		



ORCHIDACEAE

Goodyera oblongifolia Raf.

Goob

western rattlesnake-plantain, rattlesnake-plantain

FORM: **Evergreen**, perennial forb from short rhizomes.

LEAVES: Basal rosette of thick, simple, entire, elliptic-lanceolate leaves with wide petioles, 3-7cm (1-3in) long, **mottled or white striped especially along midrib.**

FLOWERS: Many small, dull white to greenish, hood-shaped, glandular pubescent, 3-merous, flowers, 6-10mm long, borne in tight one-sided spike or in loose spiral up to 10cm (4in) long, **lip not saccate, spur lacking** (1); July-Aug.

FRUIT: Erect capsule, 1cm long.

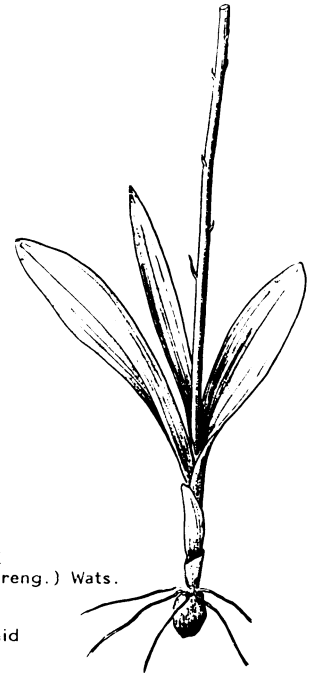
SIMILAR SPECIES: **Habenaria Conspectus, p.142.**

NOTES: Most common orchid in northern Idaho forests. Indians 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 hillside rein-orchid Hael	N/A	1-3 near basal oblanceolate	withering at flowering	slightly fragrant white spur 8-18mm long reduced upwards subsessile	Haun
Habenaria orbiculata large 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 slender bog orchid Hasa	N/A	cauline oblong reduced upward	withering with stem	fragrant greenish spur with enlarged tip reduced upward	
Habenaria unalascensis Alaska 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.		
Tshe 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.

Haun

Alaska rein-orchid

FORM: Glabrous, deciduous, perennial forb, 20-60cm (8-24in) tall, from fleshy-fibrous roots with 1-3 rounded tubers.

STEMS: Single, leafy at base, bracteate above.

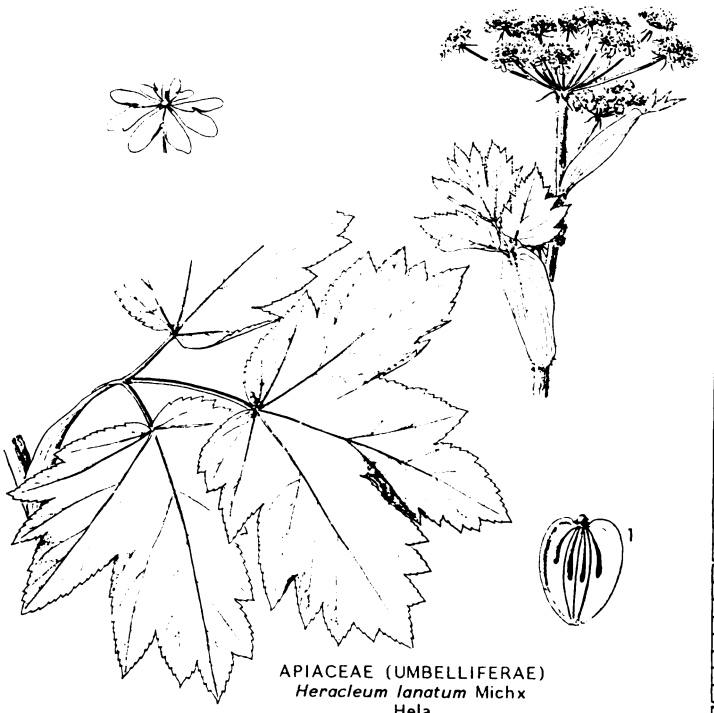
LEAVES: **Basal cluster** of 2-4 simple, entire, oblanceolate to lanceolate leaves, 8-15cm (3-6in) long, **withering before or during flowering.**

FLOWERS: Numerous, fragrant, white, greenish or yellowish green, spirally arranged in a narrow, rather densely flowered raceme, 10-40cm (4-12in) long, 3-merous with a short narrowly cylindric spur, 3-8mm long; late June-Aug.

FRUIT: Erect, ellipsoid capsule up to 10mm long.

SIMILAR SPECIES: Habenaria Conspectus, p.142

HABITAT: Dry woods to gravelly streambanks and open mountain sides.



APIACEAE (UMBELLIFERAE)
Heracleum lanatum Michx
Hela

cow parsnip

FORM: **Robust,** single-stemmed, deciduous, perennial forb, 1-3m (3-10ft) 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, **10-30cm (4-12in) long and wide.**

FLOWERS: White in **compound umbels** on terminal or axillary stalks, 10-20cm (4-8in) wide; June-Aug.

FRUIT: Glabrous to slightly hairy obovate to obcordate, strongly dorsally flattened schizocarp (1), 7-12mm long by 5-9mm wide.

HABITAT: Streambanks and moist, low ground, from lowlands to mid-montane.

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

Pipo	Syal h.t.		3
Pihy	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 Dougl. ex Hook.
Hecy

roundleaf alumroot, lava alumroot

FORM: **Evergreen**, perennial forb, flowering **stem naked** or with 1-3 brownish bracts, 15-90cm (6-35in) **tall**, from short, thick rhizomes.

LEAVES: Numerous, **basal leaves**, ovate to nearly reniform, margins crenate-dentate, smooth to hairy, **generally longer than broad**, 1-6cm (<2in) long, all but smaller leaves with deeply cordate base.

FLOWERS: White to greenish-yellow, 5-merous, tubular-campanulate, 10mm long, in open panicle, 3-12cm (1-5in) long; April-Aug.

FRUIT: Many seeded capsule, 6-10mm long.

SIMILAR SPECIES: *Heuchera grossularifolia* (gooseberry leaved alumroot) and possibly Mitella Conspectus, p.156.

H i a l 2

ASTERACEAE (COMPOSITAE)
Hieracium albertinum Farr
Hial2

western hawkweed

FORM: Deciduous, perennial forb, densely hairy throughout with long, white bristles drying yellow, 3-13dm (1-4ft) tall from short rhizomes, milky sap throughout.

LEAVES: Firm, entire, variously hairy, lower cauline leaves elongate, persistent, 10-25cm (4-10in) long; middle and upper leaves gradually reduced.

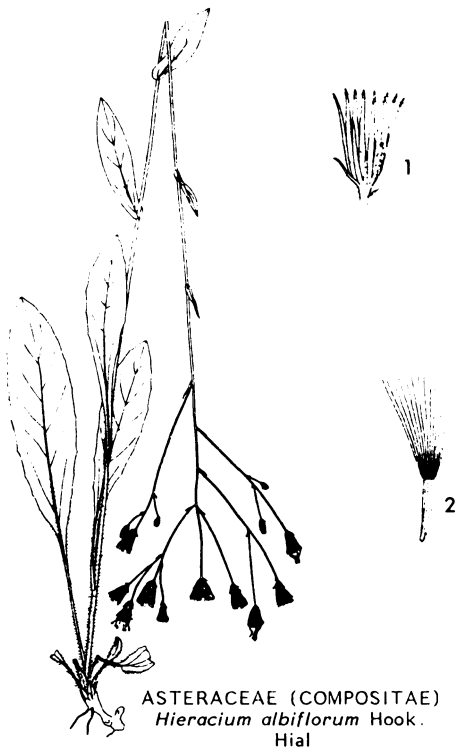
FLOWERS: Yellow, heads few to many, 15-50 flowered, involucre densely covered with long, white bristles, drying yellow (1); July-Aug.

FRUIT: Achene.

SIMILAR SPECIES: *Hieracium cynoglossoides*, (hounds-tongue hawkweed), glandular; and *Hieracium albiflorum*, p.147, white flowers.

2	Syal h.t.		Pipo
3	Phma h.t.		
4	Caru	Caru	Psme
4	Aruv	h.t.	
3	Phma	Phma	
2	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
+	Phma	Clun h.t.	
+	Clun		
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete	
	Cooc	h.t.	
+	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
+	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	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.		6
	Xete c.t.		
	Vaca c.t.		



ASTERACEAE (COMPOSITAE)
Hieracium albiflorum Hook.
Hial

white-flowered hawkweed

FORM: Deciduous, perennial forb, long-hairy at base becoming glabrous upwards, 3-12dm (1-4ft) tall, from a short rhizome; milky sap throughout.

LEAVES: Slightly to moderately hairy, margin entire or slightly wavy, 4-17cm (2-7in) long; basal and lowest cauline leaves: persistant; middle and upper leaves: sessile, reduced, and generally less hairy.

FLOWERS: White, usually 13-34 in several to many heads on slender peduncles; involucre 6-11mm high (1), narrow, blackish-green, glabrous to hairy; June-Aug.

FRUIT: Achene (2).

SIMILAR SPECIES: *Hieracium albertinum*, p.146, yellow flowers; and *Hieracium cynoglossoides* (houndstongue hawkweed), very hairy.

H y p e

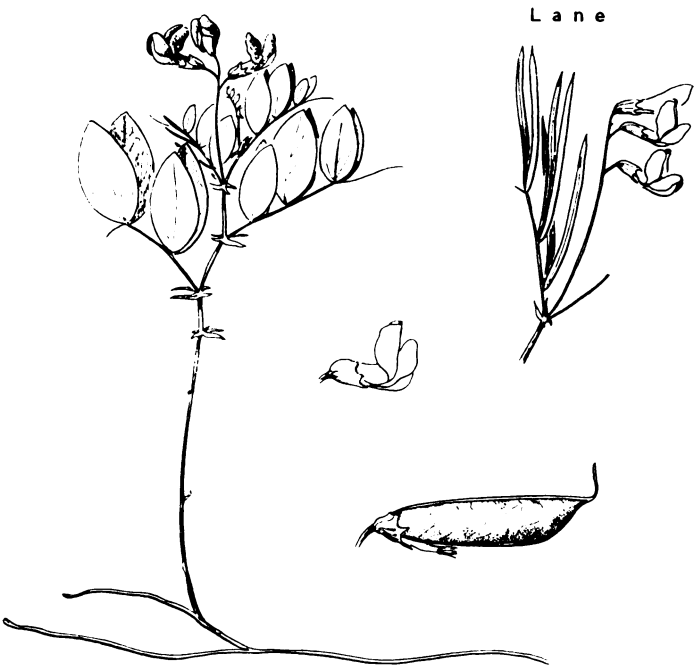
CLUSIACEAE (HYPERICACEAE)
Hypericum perforatum L.
Hype

Klamath weed, common St. John's wort, goatweed

FORM: Erect, deciduous, freely branching, perennial forb 30-80cm (12-32in) tall, from a taproot with short rhizomes.
LEAVES: **Opposite,** simple, entire, sessile, elliptic to oblanceolate, 1-3cm (<1in) 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 10-15mm wide; in large, compound cymes; June-July.
FRUIT: Acute, 3-celled capsule, 5-8mm long.
ENEMIES: *Chrysolina quadrigemina* and *Chrysolina hyperici* (Klamath weed beetles) exert **effective biological control** (Furniss and Carolin 1977).
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	Psme
2	Aruv	h.t.	
+	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
+	Phma	Clun	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	Opho h.t.		
	Clun	Clun	Tshe
	Arnu	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc	Mefe	
	Xete	h.t.	
	Vasc		
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc	Xete	
	Vagl	h.t.	
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

Phog	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 (LEGUMINOSAE)
Lathyrus nevadensis Wats
Lane

Cusick's peavine

FORM: Deciduous, rhizomatous, perennial forb, erect to climbing, 15-80cm (6-32in) 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, 13-20mm long in a **raceme;** May-July.

FRUIT: Glabrous pod, 3-7cm (1-3in) long.

SIMILAR SPECIES: *Lathyrus ochroleucus* (cream-flower peavine) white flowers, glabrous leaflets; and *Vicia americana*, p.189.

Lica2

APIACEAE (UMBELLIFEREAE)
Ligusticum canbyi Coult. & Rose
Lica2

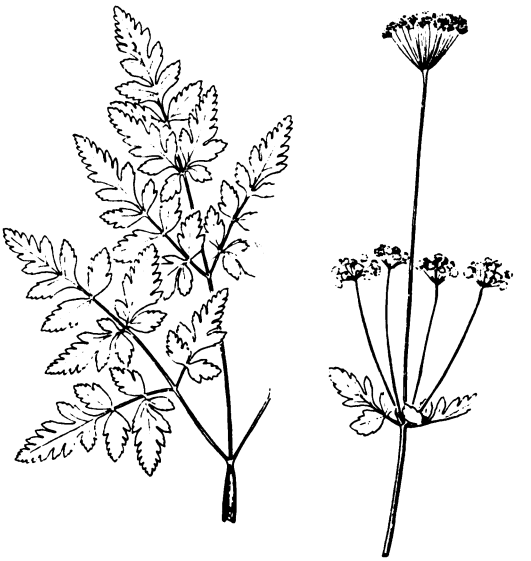
Canby's licorice-root

FORM: Deciduous, leafy, perennial forb 5-15dm (20-59in) 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 1-5cm (<2in) long and <2cm (<1in) 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, 4-5mm 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	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
	Phma	Clun	
	Clun	h.t.	
	Tabr		
	Mefe		
+	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun	Thpl
	Tabr	h.t.	
	Mefe		
	Xete		
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
1	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
1	Atfi	h.t.	
	Opho h.t.		
+	Clun	Clun	Tshe
	Arnu	h.t.	
1	Mefe		
	Xete		
+	Asca	Asca	
1	Arnu	h.t.	
3	Mefe		
+	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
5	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
1	Mefe	h.t.	
	Xete		
1	Cooc	Mefe	
	Xete	h.t.	
	Vasc		
	Luhi		
4	Mefe	Stam	
5	Lica	h.t.	
5	Caca	Caca	
7	Vaca	h.t.	
2	Legl		
	Cooc	Xete	
	Vagl	h.t.	
	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.		

Live



APIACEAE (UMBELLIFEREAE)
Ligusticum verticillatum (Geyer) Coult. & Rose
Live

verticillate-umbel licorice-root

FORM: **Robust,** deciduous, soft-stemmed perennial, 1-2m (3-7ft) tall, from fibrous root-crowns.

LEAVES: Glabrous, 1-2 ternate-pinnate; mostly basal, large, long petiolate toothed or lobed, leaflets ovate to oblong, 3-8cm (1-3in) 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, 4-6mm long, with narrowly winged ribs.

SIMILAR SPECIES: *Angelica arguta,* p.108, prefruit stages; and *Ligusticum canbyi,* p.151, more dissected leaves.

NOTES: Relatively scarce in northern Idaho, generally found in the Selway and Clearwater River drainages. Flathead Indians smoked the root for relief of sore throats.

L i c a 3

ORCHIDACEAE
Listera caurina Piper
Lica3

western twayblade, northwestern twayblade

FORM: Deciduous, perennial forb, 10-35cm (4-14in) tall.

STEMS: Slender, glandular-pubescent above leaves, glabrous below.

LEAVES: Two, **nearly opposite,** simple, entire, **sessile with a clasping base,** lanceolate-ovate, 2-6cm (1-2in) long; positioned well above midlength of stem.

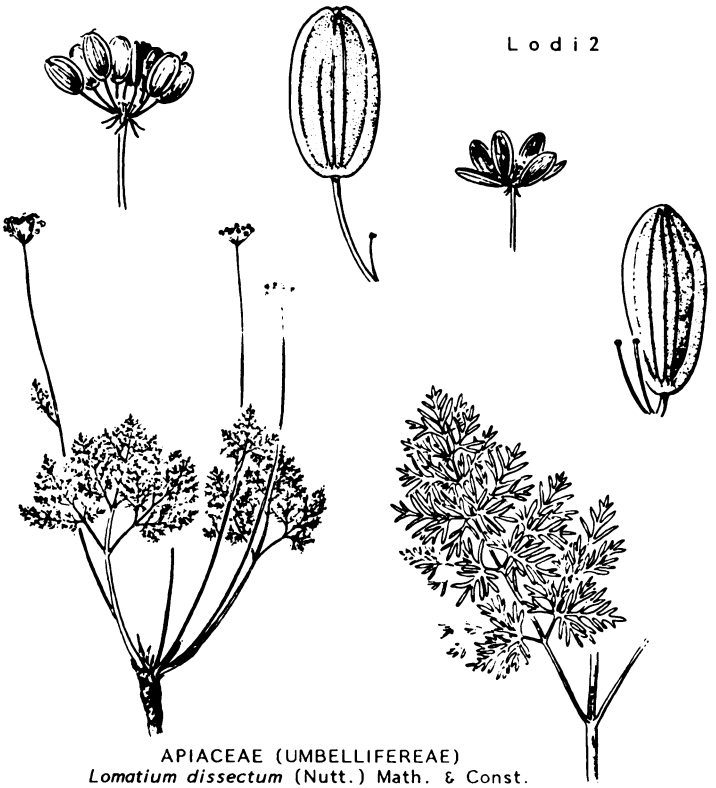
FLOWERS: Small, 3-merous, greenish to purplish-green, 3-4mm long; **lip angled down, narrow not clawed;** 5-25 flowers in a slender, lax raceme; June-early Aug.

FRUIT: Green ovoid, glabrous capsule not longer than 5-6mm.

SIMILAR SPECIES: *Listera cordata* (heartleaf listera), forked lip and *L. convallarioides* (broad-lipped listera), horizontal lip clawed.

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



Lodi2

APIACEAE (UMBELLIFEREAE)
Lomatium dissectum (Nutt.) Math. & Const.
Lodi2

fern-leaved lomatium, desert-parsley

FORM: Robust, deciduous, leafy, perennial forb, 5-15dm (20-59in) tall, several stems from a large woody root.

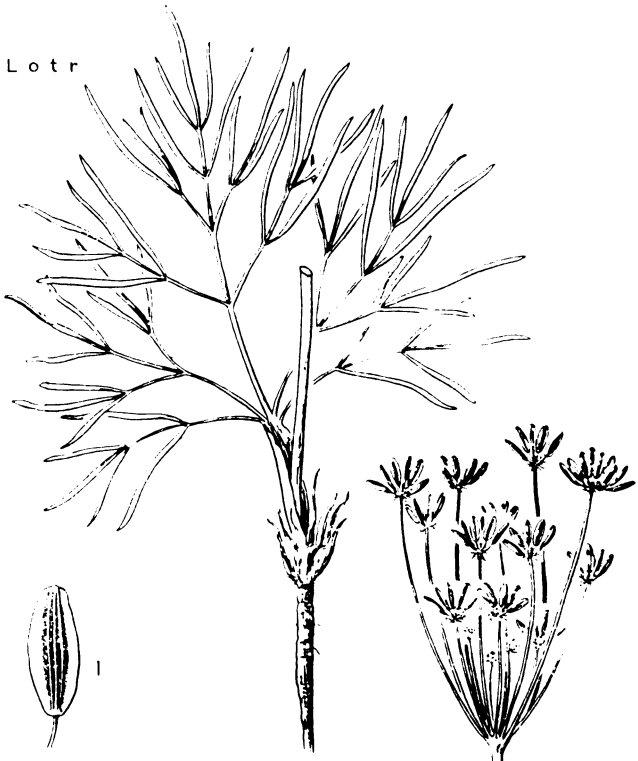
LEAVES: Large, basal and cauline; ternate then 2-4 pinnately dissected into small, narrow fernlike segments; leaves have a spicy fragrance.

FLOWERS: 10-30 yellow or purple flowers in compound umbels; April-June.

FRUIT: Elliptic, dry schizocarp, with corky-thickened wings, 8-17mm long.

SIMILAR SPECIES: Other *Lomatium* species.

NOTES: Indians and early settlers made flour from the roots.



APIACEAE (UMBELLIFEREAE)
Lomatium triternatum (Pursh) Coult. & Rose
Lotr

nine-leaved lomatium

FORM: Perennial forb 20-80cm (8-32in) 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**, 1-10cm (·4in) long, entire or shallowly toothed.

FLOWERS: Yellow or white flowers in **compound umbels**; May-July.

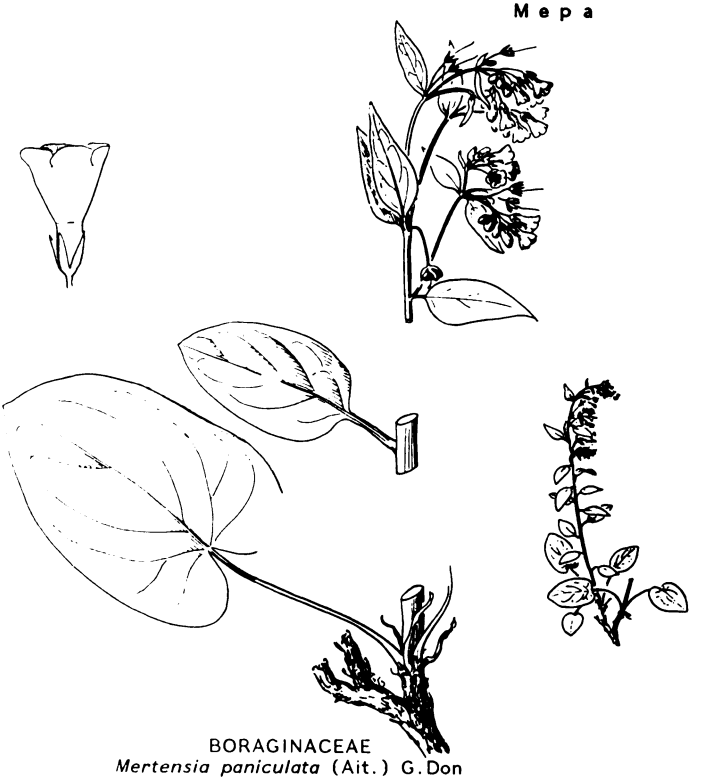
FRUIT: Oblong to elliptic, broadly winged, dry schizocarp (1).

SIMILAR SPECIES: *Lomatium ambiguum* (desert-parsley).

NOTES: Indians and early settlers baked biscuits and large cakes from flour made from the roots.

2	Syal h.t.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	Abgr
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	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	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	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.		

Hypo	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 (Ait.) G.Don
Mepa

tall bluebells, panicle bluebells

FORM: Erect, deciduous, perennial forb, 2-15dm (8-59in) 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, 3-14cm (1-6in) long; basal leaves when present, long petiolate, cordate.

FLOWERS: Blue, sometimes white or pink, 5-merous, tubular 9-16mm long, in branched, open, terminal cymes; May-Aug.

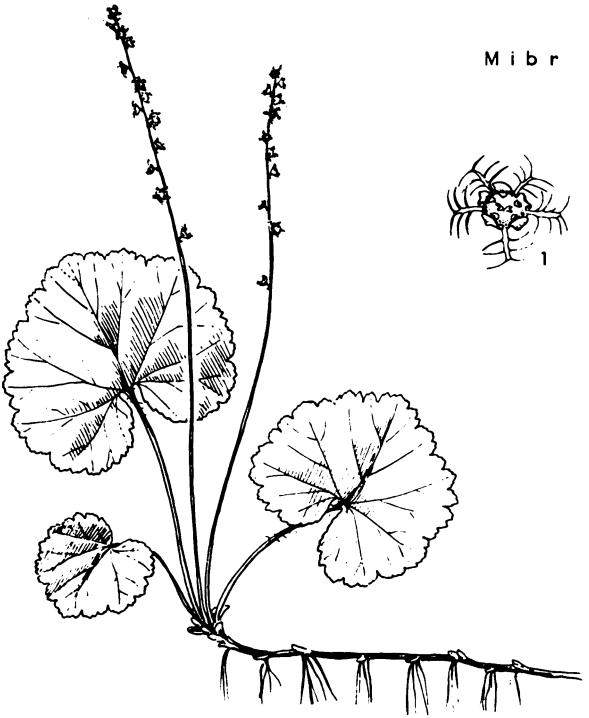
FRUIT: Nutlet.

HABITAT: Streamsides and wet meadows.

Table 14.--MITELLA SPECIES CONSPECTUS

Species	Page	Leaves	Leaf Shape	Flowers	Petals	Stamens
Mitella breweri 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	stamens 5 alternate with the petals
Mitella caulescens 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	stamens 5 leafy alternate with the petals
Mitella pentandra alpine 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	stamens 5 opposite the petals
Mitella 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	stamens 5 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
Mibr

Brewer's mitrewort

FORM: Rhizomatous, deciduous, perennial forb with leafless flowering stem, 10-30cm (4-12in) tall.

LEAVES: Basal, cordate to reniform, 4-8cm (2-3in) broad, shallowly 7-11 lobed, slightly round-toothed with few brownish hairs on upper surface.

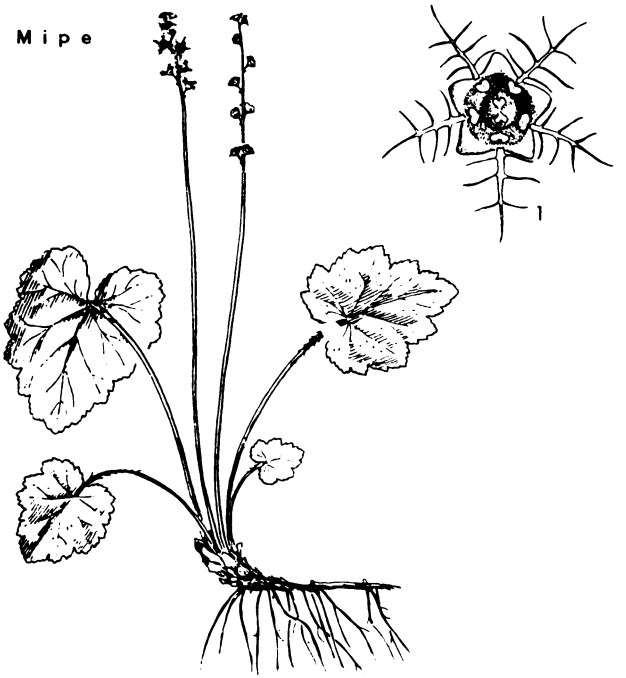
FLOWERS: Calyx saucer-shaped, greenish-yellow petals pinnately dissected into 5-9 lateral paired segments (1), stamens 5, alternate with petals; in 20-60 flowered racemes, blossoming upward; May-Aug.

FRUIT: Numerous, small, shiny, black seeds contained in the saucer-shaped dehiscent capsule.

SIMILAR SPECIES: Mitella Conspectus, p.156; *Tiarella trifoliata*, p.183; and *Heuchera* species, p.145.

HABITAT: High elevation, cold, very moist to wet sites.

Mipe



SAXIFRAGACEAE
Mitella pentandra Hook.
Mipe

alpine mitrewort, five-stamened mitrewort

FORM: Low, occasionally stoloniferous, deciduous, perennial forb; flower stems 20-30cm (8-12in) tall.

LEAVES: Basal, ovate-cordate, 2-5cm (1-2in) broad, hairy and glandular, shallowly 5 to 9-lobed, with round-teeth, doubly crenate, **puberulent on upper surface.**

FLOWERS: **Calyx saucer-shaped,** 3-4mm broad, petals **greenish, pinnately dissected into 4-10 lateral segments** (1), 2-3mm long, stamens 5, **opposite the petals;** 6-25 flowers in **raceme to panicle;** June-Aug.

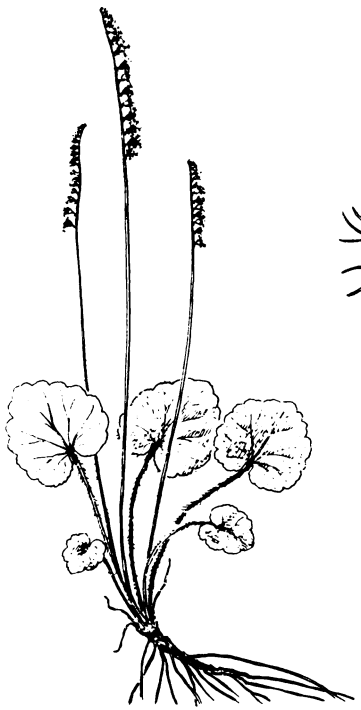
FRUIT: Numerous, small, shiny, black seeds contained in the saucer-shaped dehiscent capsule.

SIMILAR SPECIES: Mitella 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.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
1	Setr h.t.		
	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
+	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		Thpl
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
+	Asca	Asca	
1	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
1	Adpe h.t.		
2	Adpe	Atfi	
2	Atfi	h.t.	
1	Opho h.t.		
	Clun		Tshe
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
5	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun		Abla
1	Mefe	Clun	
	Xete	h.t.	
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
2	Luni		
4	Mefe	Stam	
2	Lica	h.t.	
3	Caca	Caca	
2	Vaca	h.t.	
2	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
1	Luhi		
	Vasc h.t.		Plco
	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.		



Mist2

1

SAXIFRAGACEAE
Mitella stauropetala Piper
Mist2

side-flowered mitrewort, cross-shaped mitrewort

FORM: Rhizomatous, deciduous, perennial forb; flower stems slender, several, up to 50cm (20in) tall.

LEAVES: Cordate to kidney-shaped, often purplish-tinged, 2-8cm (1-3in) broad, shallowly 5-7 lobed, 1 or 2-times crenate, **puberulent on upper surface.**

FLOWERS: Calyx **bell-shaped,** 4-6mm long; petals 3-lobed, whitish or purplish-tinged 3-4mm long; 5 stamens,(1) **alternate with petals;** 10-35 flowers in **simple one-sided racemes;** May-June.

FRUIT: Numerous, small, shiny, black seeds contained in the saucer-shaped dehiscent capsule.

SIMILAR SPECIES: Mitella Conspectus, p.156; *Tiarella trifoliata*, p.183; and *Heuchera* species, p.145.

Moco

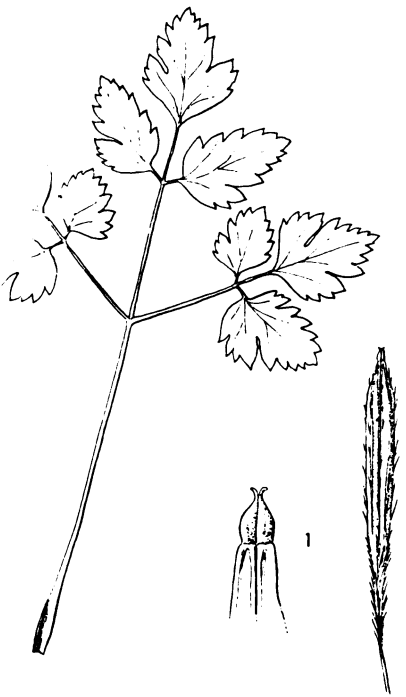
PORTULACACEAE
Montia cordifolia (Wats.) Pax & Hoffm. in E.& P.
Moco

broadleaved montia

FORM: Succulent, perennial forb, without fleshy taproots.
LEAVES: Several basal leaves, simple, entire triangular-ovate to somewhat cordate, 3-6cm (1-2in) broad; **two cauline leaves, opposite,** broadly lanceolate, 1-5cm (<2in) wide.
FLOWERS: Regular, 5-merous, white, 3 to 10-flowered, in lax racemes **not subtended by bracts;** May-Sept.
FRUIT: Smooth to worty, shiny black, acutely margined capsule (1).
SIMILAR SPECIES: *Montia sibirica* (Siberian montia) flowers subtended by bracts, and *Montia perfoliata* (miner's lettuce), cauline leaves form a disc.
NOTES: Leaves and stems are eaten boiled, steamed or raw as salad greens.

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

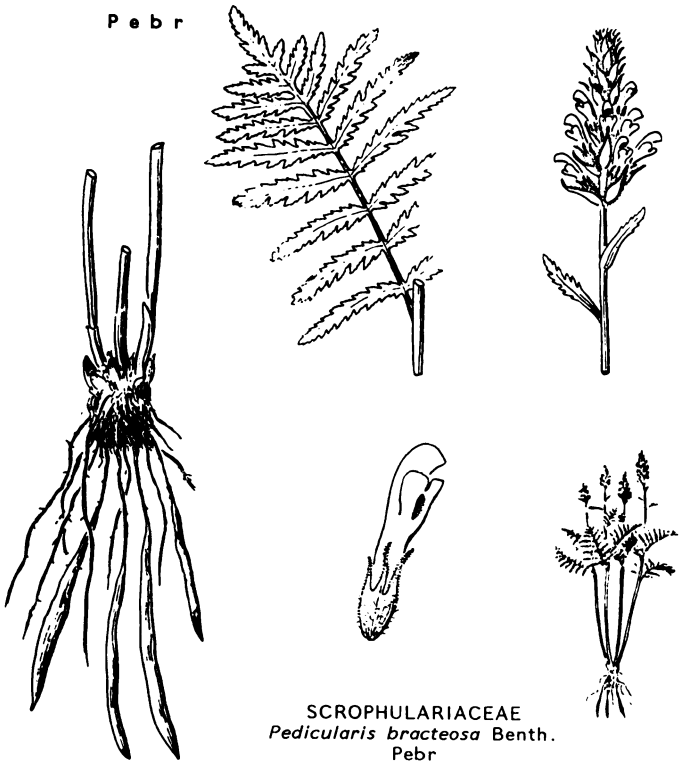


APIACEAE (UMBELLIFEREAE)
Osmorhiza chilensis H.& A.
Osch

mountain sweet-cicely

FORM: Deciduous, perennial forb 3-10dm (1-3ft) tall, from well-developed taproot.
STEMS: Solitary, rather slender.
LEAVES: Thin, **biternately compound,** leaflets narrow, ovate, coarsely serrate, deeply cut or lobed, 2-7cm (1-3in) long; several basal leaves with long petioles; 1-3 cauline leaves with short petioles.
FLOWERS: Inconspicuous, greenish-white, 0.3-1mm 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.

Pebr



SCROPHULARIACEAE
Pedicularis bracteosa Benth.
Pebr

bracted lousewort

FORM: Erect, deciduous, perennial forb, up to 1m (3ft) tall, coarsely fibrous-rooted often with some tuberous-thickened roots.

LEAVES: Alternate, glabrous, **pinnately divided (fernlike)**, doubly serrate, linear-oblong 1-7cm (<3in) long; basal leaves petiolate or missing, cauline leaves sessile or short petiolate.

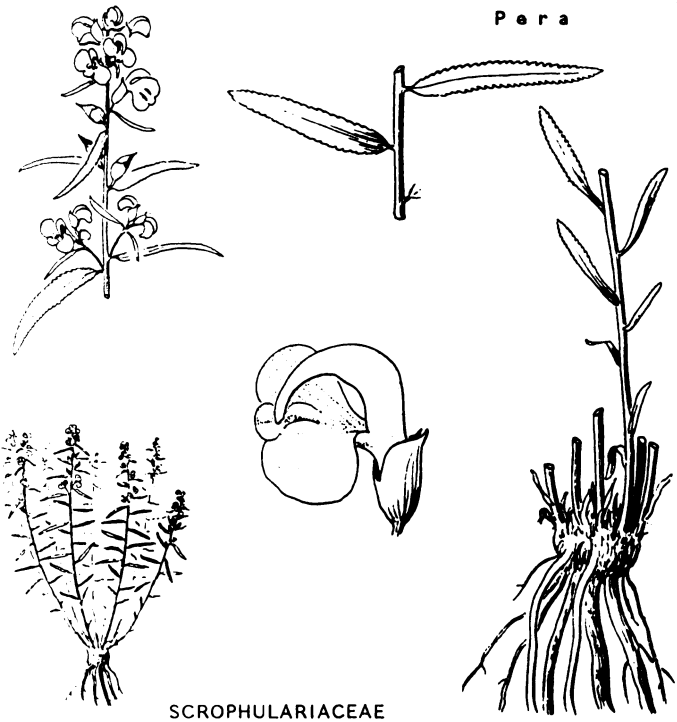
FLOWERS: Purple or red to yellowish, bilabiate, calyx lobes five, 13-21mm long, **galea beakless,** in crowded spike-like raceme; June-Aug.

FRUIT: Capsule.

SIMILAR SPECIES: *Pedicularis contorta* (white coiled-beak lousewort), long white beak, and narrow pinnate leaves; and *P. racemosa*, p.162, long white beak and simple leaves; both have flowers in open racemes.

NOTES: *Pedicularis* is an intermediate host for stalactiform blister rust. This is only *Pedicularis* species native to Idaho with **large, compound cauline leaves.**

	Syal h.t.		Ptpo
	Phma h.t.		
2	Caru	Caru	Psme
1	Aruv	h.t.	
+	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
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.	Tspl
	Tabr		
2	Mefe		
1	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
1	Atfi	h.t.	
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	
4	Luhi	h.t.	
2	Mefe	Stam	
2	Luhi	h.t.	
3	Vagl	Xete	
1	Luhi	h.t.	
	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.		



SCROPHULARIACEAE

Pedicularis racemosa Dougl. ex Hook.

Pera

leafy lousewort, sickletop lousewort

FORM: Deciduous, glabrous, perennial forb, 15-50cm (6-20in) tall, from a woody caudex.

LEAVES: **Simple**, alternate, all cauline, **short-petiolate,** linear to lanceolate, **doubly serrate, not dissected,** 4-10cm (2-4in) 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. This is only *Pedicularis* species native to Idaho with **simple leaves.**

P h h e

HYDROPHYLLACEAE
Phacelia heterophylla Pursh
Phhe

varileaf phacelia, virgate phacelia

FORM: Erect, deciduous biennial or short-lived perennial forb from a taproot.

STEMS: Stout stems, 2-12dm (8-47in) 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;** cauline leaves reduced upward; basal leaves longer petiolate and generally larger than the upper cauline leaves.

FLOWERS: Dull whitish to occasionally purplish, rotate, 3-6mm long, in **hairy, branched, open cymes;** May-July.

FRUIT: Capsule.

SIMILAR SPECIES: *Phacelia hastata* (whiteleaf phacelia), and *P. linearis* (threadleaf phacelia).

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

Popu

skunk-leaved polemonium, Jacob's-ladder, sky pilot

FORM: Deciduous, perennial forb, with several loose, erect stems, 30-50cm (12-20in) tall from a branched woody base.

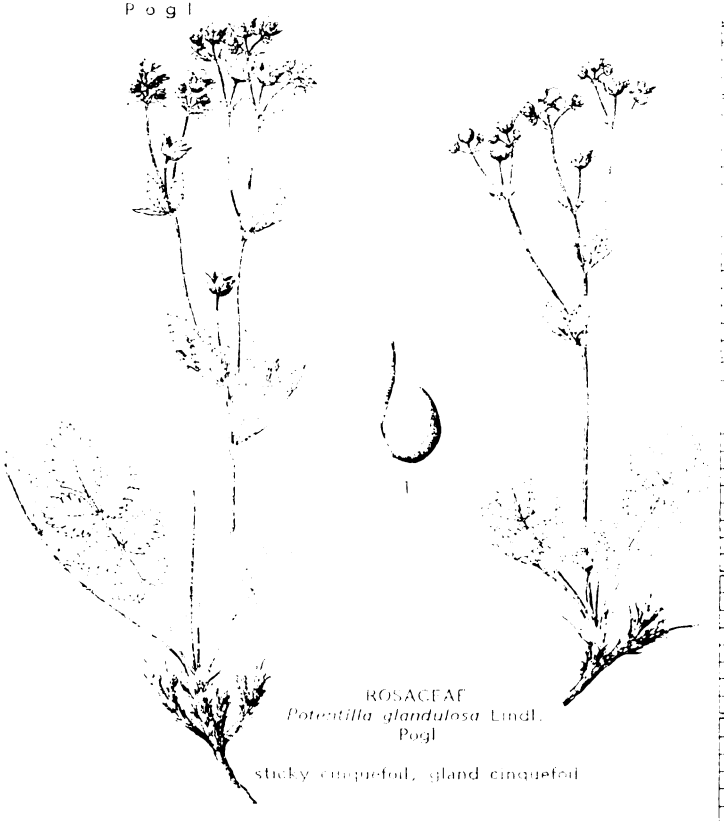
LEAVES: **Foul mephitic (skunklike) odor,** pinnately compound with 11-25 opposite or offset leaflets; basal leaves well-developed and often tufted; alternate, cauline leaves reduced.

FLOWERS: **Showy, blue** with a yellow eye, **bell-shaped,** 7-13mm long in headlike cymes; May-Aug.

FRUIT: Capsule.

HABITAT: Moderate to high elevations in the mountains, often in moist or shaded places.

P o g l



ROSACEAE
Potentilla glandulosa Lindl.
Pogl

sticky cinquefoil, gland cinquefoil

FORM: Erect, glandular, deciduous, perennial forb, 15-40cm (6-16in) 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, 1-3cm (.5-1in) 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), paler flowers and narrow inflorescence; and *Geum triflorum* (prairiesmoke avens).

Pipo	Syal h.t.		+
	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 Dougl. ex Hook.
Pogr

cinquefoil

FORM: Deciduous, generally hairy, perennial forb, with several stout stems, 40-80cm (16-32in) tall from a branched caudex.

LEAVES: Numerous, alternate, mostly basal; **blades digitate (handlike) with long petioles** up to 30cm (12in), leaflets 7-9, cuneate or dissected, margins slightly revolute, lighter and slightly woolly on underside, 3-8cm (1-3in) 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.

P r v u

LAMIACEAE (LABIATAE)
Prunella vulgaris L.
Prvu

self-heal

FORM: Deciduous, fibrous-rooted, hairy to glabrous, perennial forb 10-50cm (4-20in) 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 2-9cm (1-4in) long.

FLOWERS: **Purplish-blue, bilabiate,** 7-10mm long, crowded into short, **dense terminal spikes;** May-Sept.

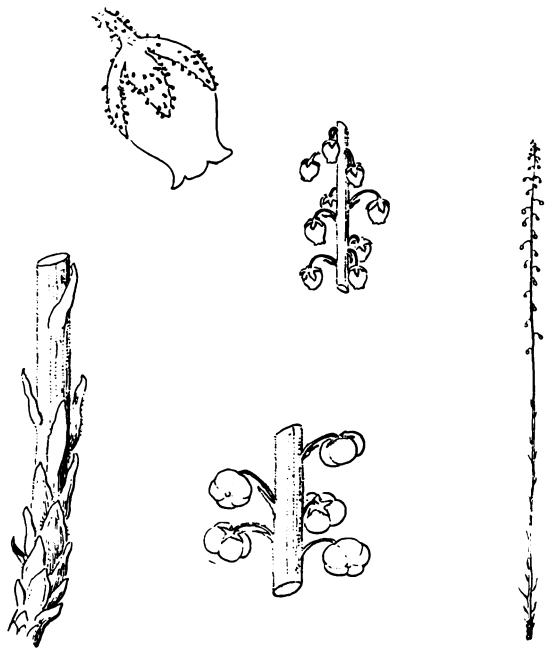
FRUIT: Hard nutlets.

HABITAT: Moist places or **distrubed 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	Psme
	Aruv	h.t.	
+	Phma	Phma	
1	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
+	Phma	Clun	
1	Clun	h.t.	
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun	Tnpl
	Tabr	h.t.	
	Mefe		
	Xete		
1	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
1	Adpe h.t.		
1	Adpe	Atfi	
1	Atfi	h.t.	
	Opho h.t.		
	Clun	Clun	Tshe
	Arnu	h.t.	
1	Mefe		
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc	Mefe	
	Xete	h.t.	
	Vasc		
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
3	Caca	Caca	
2	Vaca	h.t.	
	Legl		
	Cooc	Xete	
	Vagl	h.t.	
	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.		



MONOTROPACEAE (ERICACEAE)
Pterospora andromedea Nutt.
Ptan

pinedrops

FORM: Perennial, sticky-glandular, **parasitic forb,** 3-10dm (1-3ft) tall.

STEMS: Tall, reddish-yellow aging to reddish-brown, **unbranched,** glandular-hairy; **dried stalks persistent for one 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, 1-5dm (4-20in) long; June-Aug.

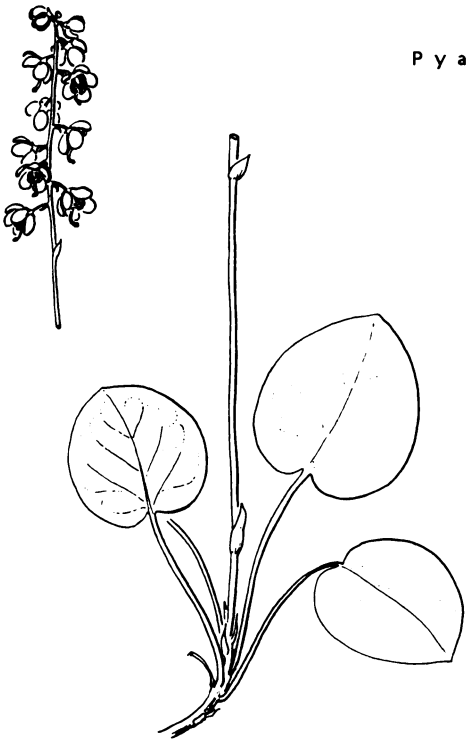
FRUIT: **Depressed-globose, reddish-brown capsule,** 8-12mm broad.

HABITAT: Deep humus in coniferous forests.

Table 15.--PYROLA SPECIES CONSPECTUS

Species	Page	Leaves & Stems	Leaf Shape	Leaf Color	Flowers	Similar Species
Pyrola asarifolia 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 green pyrola 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 sidebells pyrola 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.		



PYROLACEAE (ERICACEAE)
Pyrola asarifolia Michx.
Pyas

common pink wintergreen, alpine pyrola

FORM: **Evergreen,** perennial, rhizomatous forb; glabrous flowering stems 15-40cm (6-16in) 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,** 3-8cm (1-3in) wide, **no white mottling along midveins.**

FLOWERS: **Pink to rose or purplish-red,** 10-15mm broad, with a **strongly curved style,** 5-8mm long, 10 to 25 nodding flowers in elongate terminal racemes; June-Sept.

FRUIT: Capsule, 6-8mm broad.

SIMILAR SPECIES: Pyrola Conspectus, p.170. *Asarum caudatum,* p.116; and *Viola orbiculata,* p.195.

Pyse

PYROLACEAE (ERICACEAE)
Pyrola secunda L.
Pyse

one-sided wintergreen, sidebells

FORM: **Evergreen,** perennial, rhizomatous forb; **single aerial stem leafy toward the base and often woody,** 5-15cm (2-6in) tall with 1-2 small bracts.

LEAVES: Numerous, alternate leaves; crenulate to serrate, dark green above, pale below, ovate to ovate-elliptic blades, 1-6cm (<2in) long on short petioles.

FLOWERS: **White with straight style,** 5-6mm broad; 6-20 nodding flowers **in one-sided racemes; June-Aug.**

FRUIT: Globose capsule, 5mm in diameter.

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

SIMILAR SPECIES: Pyrola Conspectus, p.170.

	Syal h.t.		Pipo
	Phma h.t.		
2	Caru	Caru	Psme
2	Aruv	h.t.	
	Phma	Phma	
+	Smst	h.t.	
1	Phma	Phma	Abgr
1	Cooc	h.t.	
4	Libo	Libo	
4	Xete	h.t.	
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	
1	Atfi	h.t.	
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
	Xete c.t.		
	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.		

Raun2

1

RANUNCULACEAE
Ranunculus uncinatus D. Don in G. Don
Raun2

little buttercup

FORM: Deciduous, annual or perennial; single, erect, hairy to glabrous stem, 20-60cm (8-24in) tall.

LEAVES: Mostly basal, long petiolate blades, simple, cordate-reniform, deeply 3-lobed, glabrous above, hairy and paler below, 3-8cm (1-3in) long; 1-2 alternate, short-petiolate cauline leaves.

FLOWERS: Small, single, yellow, 5-merous, terminal, 2-3mm long; May-Aug.

FRUIT: Papery, achene 3-4mm long, with short hooked style (1).

SIMILAR SPECIES: *Trautvetteria caroliniensis*, p.184; *Trollius laxus* (globe flower); and other *Ranunculus* species.

Sest

1

CRASSULACEAE
Sedum stenopetalum Pursh
Sest

wormleaf stonecrop

FORM: Glabrous, **succulent** perennial up to 19cm (7in) tall, appearing somewhat evergreen.

LEAVES: Alternate, linear, broadened, 15-25mm (<1in) long, **strongly keeled (observed mainly on fresh material)**; persistent on old stems, mostly basal.

FLOWERS: **Yellow**, regular, spreading, 5-merous, 8-14mm, in tight cymes; late May-July.

FRUIT: Follicles widely divergent (1), not glandular.

SIMILAR SPECIES: *Sedum lanceolatum* (lance-leaved stonecrop), leaves not keeled.

NOTES: Young leaves can be used in salads, but excessive amounts may act as a laxative.

	Syal h.t.		Plod
	Phma h.t.		
2	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
+	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
1	Opho h.t.		
	Clun	Clun h.t.	Tste
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Tsme
	Xete		
	Xete	Mefe	
1	Luhi	h.t.	
	Mefe	Stam	
2	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	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.		

Setr

ASTERACEAE (COMPOSITAE)
Senecio triangularis Hook.
Setr

arrowleaf groundsel

FORM: Tall, deciduous, perennial forb, 3-15dm (1-5ft) with several stems arising from fibrous roots.

LEAVES: Numerous, alternate, simple, **distinctly triangular leaves,** 4-20cm (2-8in); 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.
Sime

Menzies' silene

FORM: Low, matted, deciduous, dioecious perennial with numerous, hairy, branched stems, 5-30cm (2-12in) long.

LEAVES: Numerous, opposite, mostly cauline, hairy, lanceolate, 2-6cm (1-2in) long, sessile or subsessile.

FLOWERS: Unisexual, calyx tubular-campanulate, white petals, 5-8mm long, clawed but not divided to base (1) several in a leafy, open cyme; May-Aug.

FRUIT: Dehiscent capsule.

SIMILAR SPECIES: *Arenaria macrophylla*, p.113.

1	Syal h.t.		Pipo
3	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
1	Phma	Phma	
1	Smst	h.t.	
3	Phma	Phma	Abgr
4	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
+	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
Tshe	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.		

Smra

LILIACEAE

Smilacina racemosa (L.) Desf.

Smra

false Solomon's seal

FORM: Strongly rhizomatous, deciduous perennial, 3-9dm (1-3ft) tall.

STEM: **Erect, green,** leafy flower stem unbranched, stiffy arched, ascending, with spreading hairs in the inflorescence.

LEAVES: **Alternate, parallel-veined,** simple, entire, sessile, finely hairy, lanceolate to elliptic, acuminate, 7-20cm (3-8in) long.

FLOWERS: **Numerous,** small, white flowers, 4-7mm long, in a freely branching, **terminal panicle,** 5-12cm (2-5in) long; April-July.

FRUIT: **Globose berry,** 5-7mm in diameter; **immature fruit mottled green and brown, becoming all red.**

SIMILAR SPECIES: Liliaceae Conspectus, p.129.

NOTES: Edible but with strong laxative properties.

S m s t

LILIACEAE
Smilacina stellata (L.) Desf.
Smst

starry Solomon-seal

FORM: Rhizomatous perennial, 20-60cm (8-24in) tall.

STEM: **Erect, green,** flowering stem unbranched, stiffly arched and ascending.

LEAVES: **Alternate, sessile, parallel-veined,** lanceolate to oblong, acuminate, 5-7cm (2-3in) long, glabrous to strongly hairy.

FLOWERS: **5-10 in a terminal raceme,** white, 4-7mm long; **rachis of inflorescence usually zigzag,** flower directly attached to mainstem; May-June.

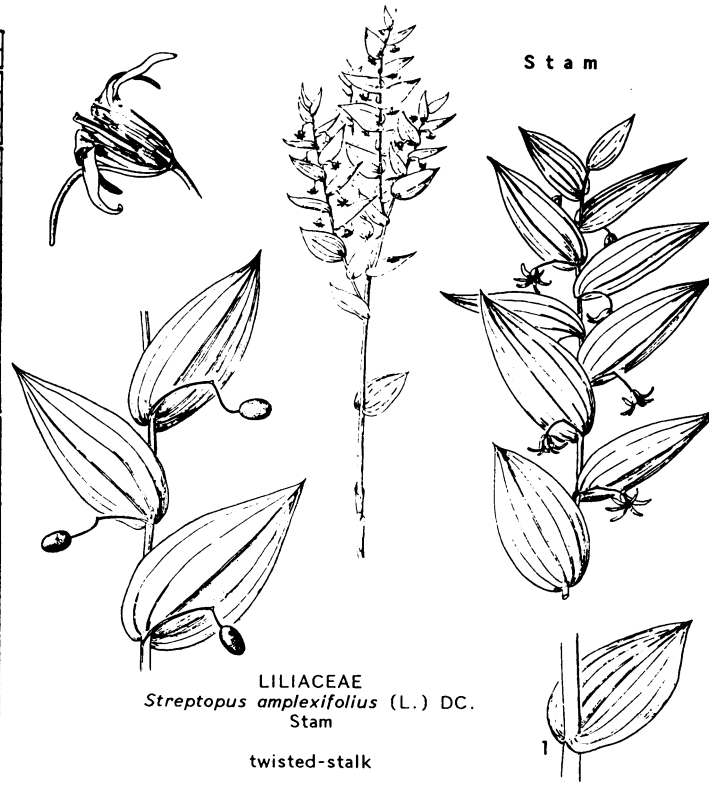
FRUIT: Globose, greenish-yellow berries becoming black; **immature fruit green with 3 red stripes.**

SIMILAR SPECIES: Liliaceae Conspectus, p.129.

NOTES: Edible but with strong laxative properties.

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

twisted-stalk

FORM: Slender, herbaceous, deciduous, rhizomatous perennial, mostly 6-12dm (2-4ft) tall.

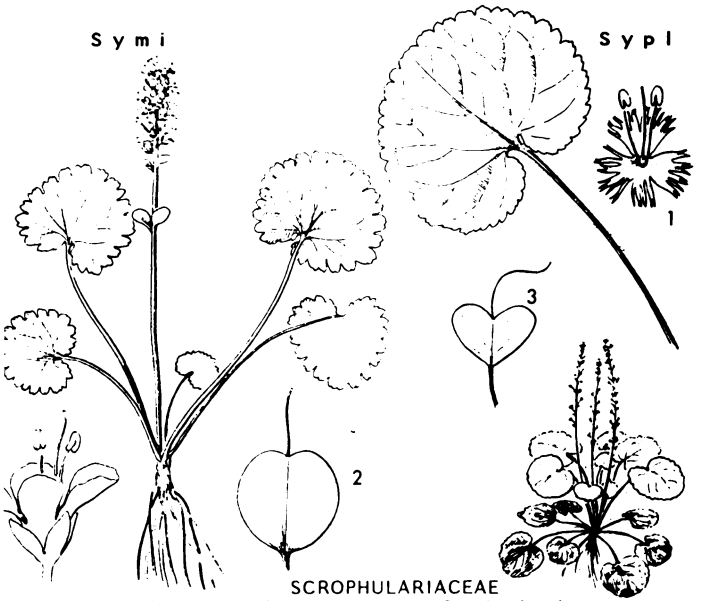
STEMS: Erect, **green**, usually branched below middle stem.

LEAVES: **Alternate, parallel-veined, glabrous,** ovate, acuminate, mostly 5-12cm (2-5in) long, **sessile with cordate clasping bases**(1).

FLOWERS: Greenish-white, 3-merous, bell-shaped 9-15mm 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 transluscent, 10-12mm long.

SIMILAR SPECIES: Liliaceae Conspectus, p.129; and *Streptopus streptopoides* (small twisted-stalk), hairy at nodes, on Idaho State Watch List, found in Bonner and Boundary Counties.



SCROPHULARIACEAE

Synthyris missurica (Raf.) Pennell
Symi

mountain kittentails

Synthyris platycarpa Gail & Pennell
Sypl

evergreen synthyris

FORM: Perennial from short rhizome.
Symi: 1-6dm (4-24in) tall.
Sypl: 1-3dm (4-12in) tall.

LEAVES: Basal leaves, long-petiolate with cordate blade, palmately veined, persistent to 2nd season.
Symi: **glabrous, deeply cordate,** 2-8cm (1-3in) wide.
Sypl: **pubescent, round cordate,** bright green, 1-12cm (1-5in) 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, 4-7mm long; April-July.
Sypl: bluish-violet, **petal lobes incised** (1), 2-4mm long; June-July.

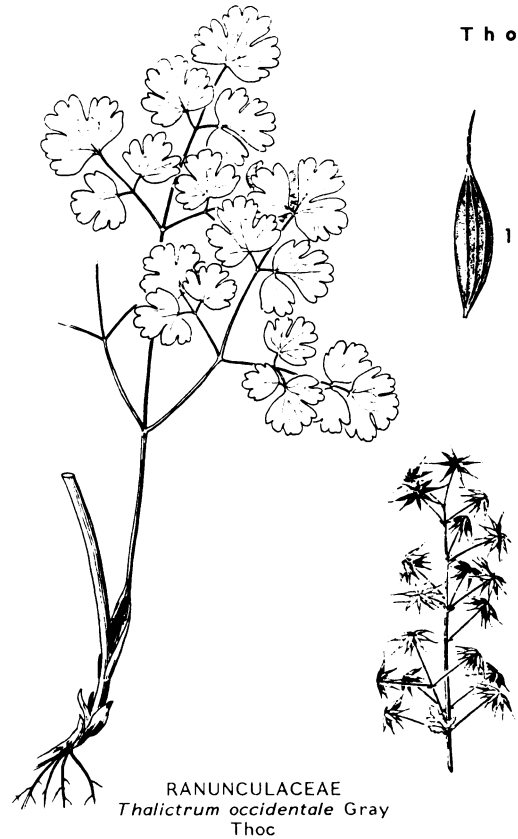
FRUIT: Symi: ovate capsule, 5-7mm high, as wide as high, **shallowly notched** (2).
Sypl: heart-shaped capsule (3), 3-5mm wide, nearly twice as wide as high.

SIMILAR SPECIES: *Viola orbiculata,* p.193; and *Heuchera* species, p.145.

NOTES: Sypl is an endemic of Idaho and Clearwater Counties associated with coastal disjunct species, it is presently on the Idaho State Watch List.

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



RANUNCULACEAE

Thalictrum occidentale Gray

Thoc

western meadowrue

FORM: Glabrous, deciduous, dioecious perennial, 4-10dm (1-3ft) tall.

LEAVES: Mostly cauline, alternate, 3-4 times ternate, leaflets generally **rounded, three-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 (LEGUMINOSAE)
Thermopsis montana Nutt.
Thmo

Montana golden pea, mountain thermopsis

FORM: Rhizomatous, deciduous, perennial forb, 5-10dm (2-3ft) tall.

LEAVES: Alternate, **trifoliolate with large stipules** (1), hairy leaflets broadly ovate, 3-8cm (1-3in) long.

FLOWERS: Golden-yellow, papilionaceous (pea-flower); 10-60 in dense to open raceme; May-Aug.

FRUIT: Erect, straight, hairy pods (2), 4-8cm (2-3in) long.

NOTES: Toxic to cattle and humans. Nitrogen fixer easily grown from seed, transplanting difficult.

	Syal h.t.		Ptpo
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 n.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.
Titr

coolwort foamflower, false mitrewort

FORM: Perennial, deciduous, rhizomatous forb, flowering stems 2-5dm (8-20in) tall.

LEAVES: 1-7cm (<3in) long.
var. *unifoliata*: **simple,** shallowly to deeply **3-5 lobed** (1).
var. *trifoliata*: **compound, trifoliate** with 3 petiolate leaflets, lobed no more than half their length (2).

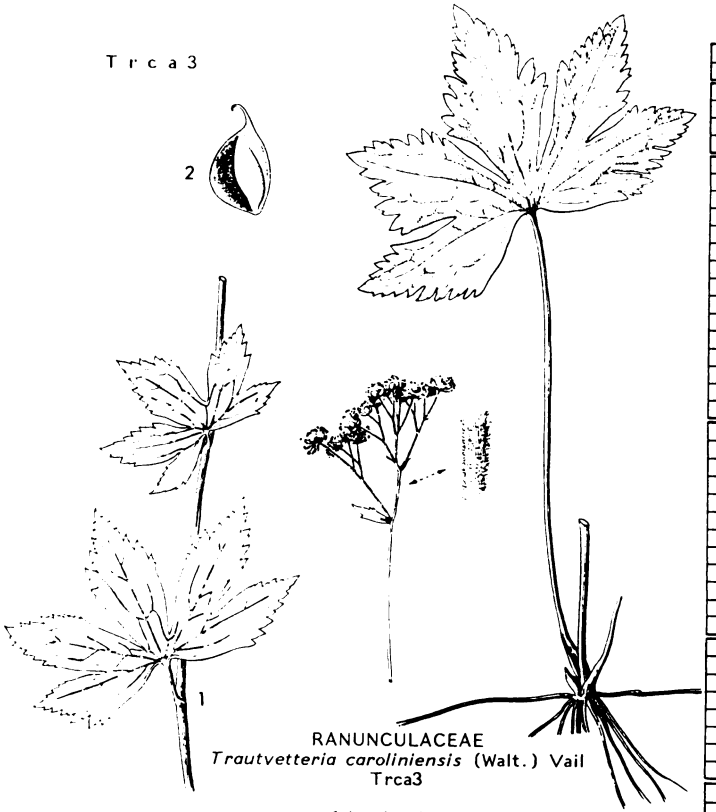
FLOWERS: White, 5-merous, bell-shaped flowers in elongate panicles; May-Aug.

FRUIT: Capsule, 7-10mm long.

SIMILAR SPECIES: Mitella Conspectus, p.156; and *Tellima grandiflorum* (fringecup).

NOTES: *Tiarella unifoliata* is now considered *T. trifoliata* var. *unifoliata*.

Trca3



RANUNCULACEAE

Trautvetteria caroliniensis (Walt.) Vail

Trca3

false bugbane

FORM: Erect, rhizomatous, deciduous, perennial forb, mostly 5-8dm (20-32in) tall.

LEAVES: Mostly basal, long-petiolate, palmately divided into 5-11 broad serrate-dentate lobes, 10-25cm (4-10in) 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.

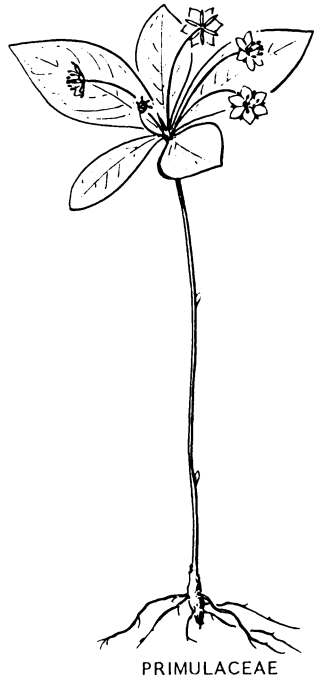
FRUIT: Achene (2).

SIMILAR SPECIES: *Trollius laxus* (globeflower) and *Boykinia major* (mountain boykinia).

HABITAT: Wet seepage sites and along streambanks.

	Syal h.t.		Phpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
1	Setr h.t.		
	Phma	Clun	
1	Clun		
	Tabr	h.t.	
	Mefe		
+	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		Thpl
1	Tabr	Clun	
1	Mefe	h.t.	
1	Xete		
1	Asca	Asca	
2	Tabr	h.t.	
1	Mefe		
2	Gydr h.t.		
2	Adpe h.t.		
7	Adpe	Atfi	
5	Atfi	h.t.	
4	Opho h.t.		
	Clun		Tshe
1	Arnu	Clun	
1	Mefe	h.t.	
	Xete		
+	Asca	Asca	
1	Arnu	h.t.	
	Mefe		
2	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
1	Luhi	h.t.	
2	Mefe	Stam	
2	Luhi	h.t.	
1	Vagl	Xete	
	Luhi	h.t.	
3	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
1	Cooc	Mefe	
	Xete	h.t.	
	Vasc		
1	Luhi		
4	Mefe	Stam	
5	Lica	h.t.	
8	Caca	Caca	
2	Vaca	h.t.	
1	Legl		
	Cooc	Xete	
	Vagl	h.t.	
	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.
Trla2

western starflower, Indian potato

FORM: Rhizomatous, **evergreen,** perennial forb, 10-25cm (4-10in) tall from short, erect tuber.

LEAVES: Erect or ascending stem with **terminal whorl** of 4-8, **entire leaves,** 3-10cm (1-4in) long; inconspicuous bracts present on lower stem.

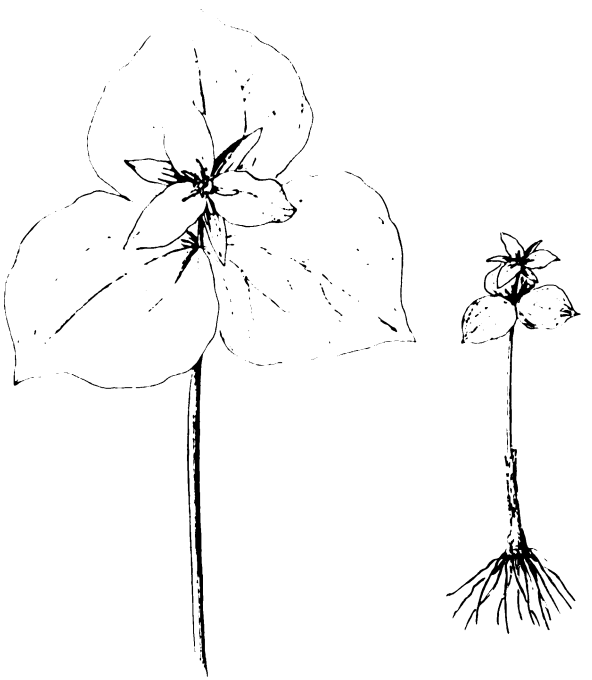
FLOWERS: Solitary on slender pedicels; 6 or 7-merous, pinkish to rose, 8-12mm broad; April-July.

FRUIT: Valvate capsule.

SIMILAR SPECIES: *Cornus canadensis,* p.128.

NOTES: Occurs in Clearwater and Latah Counties as a coastal disjunct, presently on the Idaho State Watch List.

Trov



LILIACEAE
Trillium ovatum Pursh
Trov

white trillium, trillium, western wake-robin

FORM: Glabrous, deciduous, perennial forb, erect stem 10-30cm (4-12in) tall, from short, thick rhizomes.

LEAVES: Sessile, whorl of three, large, simple, entire broadly ovate, 5-15cm (2-6in) long.

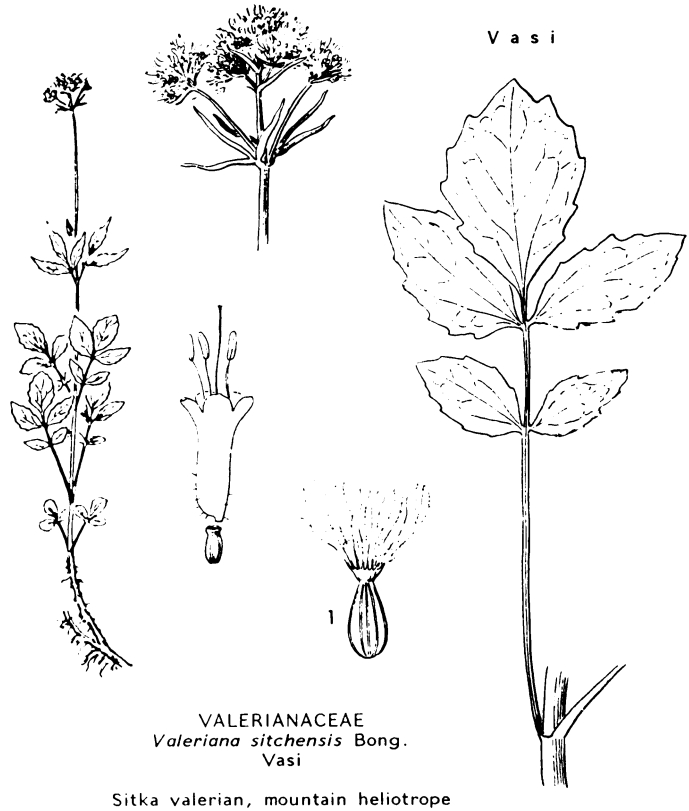
FLOWERS: Solitary, terminal, stalked, 3 white petals aging to pink; March-June, later at high elevations.

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	Psme
	Aruv	h.t.	
1	Phma	Phma	
2	Smst	h.t.	
2	Phma	Phma	Abgr
4	Cooc	h.t.	
5	Libo	Libo	
1	Xete	h.t.	
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 n.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		
	Xete	Mefe h.t.	
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.
Vasi

Sitka valerian, mountain heliotrope

FORM: Robust, deciduous perennial, generally 3-12dm (1-4ft) 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, 5-7mm long in **ball-shaped compact inflorescence;** June-Aug.

FRUIT: Glabrous, mostly ovate or oblong-ovate achene, (1) 3-6mm wide.

NOTES: Dried powdered roots and leaves were added to tobacco as a flavoring by Thompson Indians.

Veca

Vevi

LILIACEAE

Veratrum californicum Durand
Veca

California false hellebore

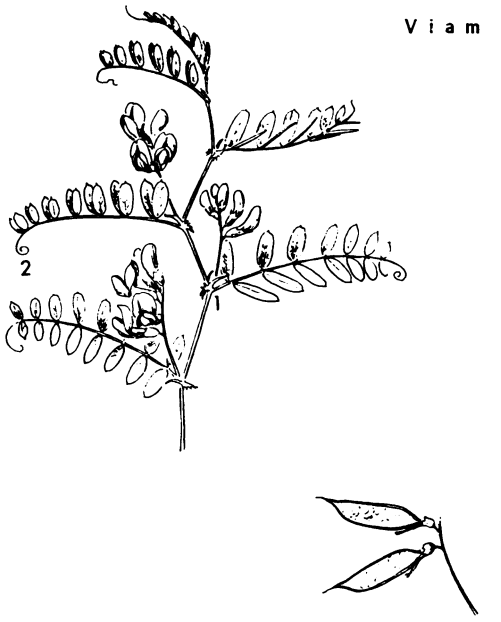
Veratrum viride Ait.
Vevi

American false hellebore
green false hellebore

FORM: Tall, deciduous, perennial forb, 1-2m (3-7ft) 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, 20-30cm (8-12in) long.
Vevi: oblong-elliptic, up to 35cm (14in) long.
FLOWERS: **Veca: panicle dense,** spreading to ascending, **erect not drooping,** 30-60cm (12-24in) long, flowers white or slightly greenish, 10-17mm long; June-Aug.
Vevi: loose and open panicle, 30-70cm (12-28in) long, **drooping, with green flowers,** 6-10mm; late June-Sept.
FRUIT: Veca: glabrous narrowly ovoid, 2-3cm (<1in) long capsule, seeds broadly winged, straw-colored, 10-15mm long.
Vevi: membranous, glabrous capsule, 2-3cm (<1in) long, seeds 8-10mm long.
NOTES: One of the most violently, poisonous plants; causes deformities in lambs.

1		Syal h.t.		Pipo
6		Phma h.t.		
		Caru	Caru	Psme
		Aruv	h.t.	
1	+	Phma	Phma	
1	1	Smst	h.t.	
		Phma	Phma	Abgr
		Cooc	h.t.	
		Libo	Libo	
		Xete	h.t.	
	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	Xete h.t.	
		Cooc		
		Vagl		
	+	Vasc		
	2	Luhi		
		Vasc h.t.		Pico
		Xete c.t.		
		Vaca c.t.		

Ppo	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.		



V i a m

FABACEAE (LEGUMINOSAE)
Vicia americana Muhl.
Viam

American vetch

FORM: Deciduous glabrous, perennial forb, 15-80cm (6-32in) 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, 12-25mm long in loose racemes; May-July.

FRUIT: Glabrous pods, 3cm 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 **Canada violet** **Vica**	N/A	short with slender stolons	cordate acute apex serrate	leafy near tip	white purplish-tinged outside 3 lower 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.		

VIOLACEAE
Viola adunca Sm.
Viad

hook violet

FORM: Deciduous perennial from slender rhizomes.

STEMS: Stemless in early spring, maturing to **leafy, aerial stems,** 10cm (4in) long.

LEAVES: Simple, entire to finely crenate, ovate-lanceolate to kidney shaped, usually cordate at base, 1-3cm (<1in) wide.

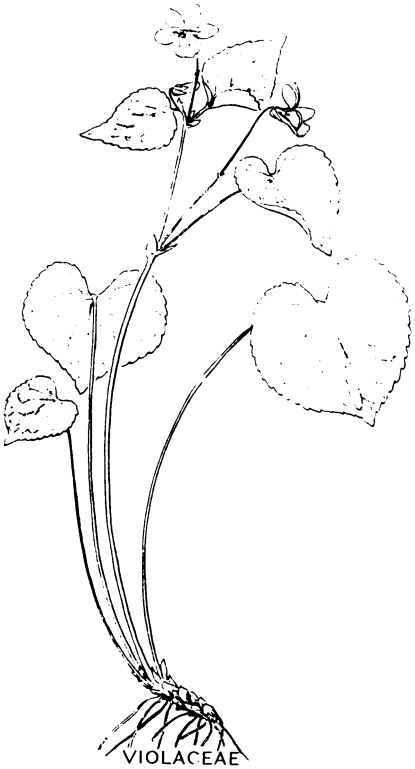
FLOWERS: **Blue or purple to deep violet,** 5-15mm long; lower 3 petals often whitish based, purplish-violet veined; slender spur somewhat hooked, often over half the length of the lowest petals; April-Aug.

FRUIT: Explosively dehiscent capsule.

SIMILAR SPECIES: Viola Conspectus, p.190.

NOTES: Eaten raw or cooked, also used to thicken soup; high in vitamin C.

Vigl



VIOLACEAE

Viola glabella Nutt.

Vigl

pioneer violet

FORM: Perennial with **leafy, aerial flowering stems,** 5-30cm (2-12in) tall, several leaves near the tip, from widely spreading fleshy rootstocks.

LEAVES: Blades reniform to ovate-cordate, 2-7cm (1-3in) wide, apex acute, crenate-serrulate, glabrous or puberulent petiole, 10-20cm long.

FLOWERS: **Bright yellow petals,** 8-14mm long with short spur borne on upper part of stem, the lower 3 petals **purple-veined at the base;** March-July.

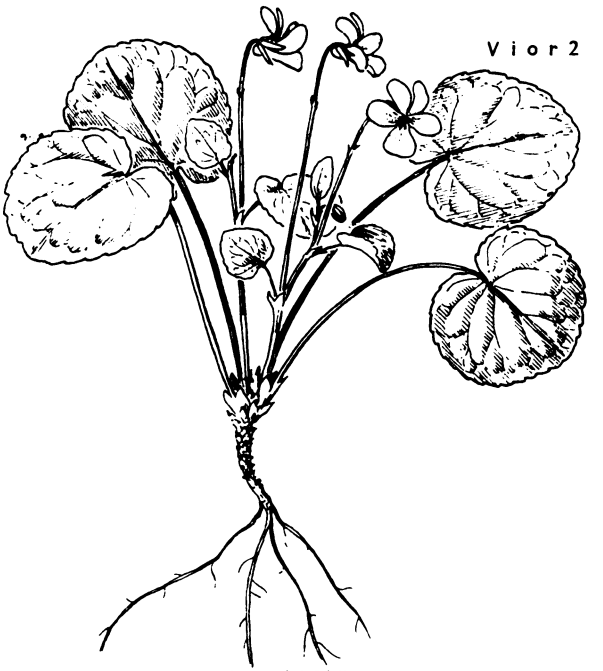
FRUIT: Explosively dehiscent capsule.

SIMILAR SPECIES: Viola Conspectus, p.190.

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	Prma		
	Smst	h.t.		
	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.		
	Vaca c.t.		



VIOLACEAE
Viola orbiculata Geyer ex. Hook.
Vior2

round-leaved violet

FORM: Erect, deciduous, perennial forb with short, **nonleafy, aerial stems,** 5cm (2in) long, short rootstock, **without stolons,** covered with old petiole bases.

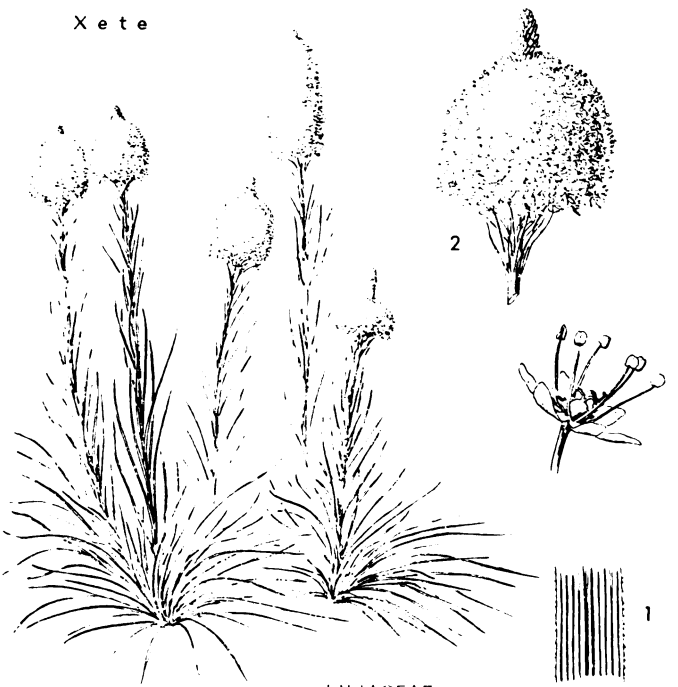
LEAVES: **Orbicular-cordate to reniform,** simple, serrate, 2-4cm (1-2in) broad, thin in texture, usually glabrous, **not purplish-mottled; withering but often persistent.**

FLOWERS: **Lemon-yellow to gold,** 5-15mm 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 Conspectus, p.190; and *Viola sempervirens* (redwoods violet), rare coastal disjunct in Clearwater and Kootenai Counties, on the Idaho State Watch List.

NOTES: Eaten raw or cooked, also used to thicken soup; high in vitamin C.



LILIACEAE

Xerophyllum tenax (Pursh) Nutt.

Xete

beargrass

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), 15-80cm (6-32in) long.

FLOWERS: Fragrant, 3-merous, cream colored to white, borne in a **terminal raceme on persistent flowering stems** (2), up to 15dm (5ft) 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 utilized by the Indians, using 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.	Absgr
	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.		
	Vaca c.t.		

Table 17.--GRAMINOID CHARACTERISTICS

CHARACTERISTICS / SPECIES	PAGE	1 LIFE CYCLE	2 SIZE	3 GROWTH FORM	4 ROOTS	LEAF 5 SHEATH	LEAF 6 BLADE	LEAF 7 AURICLES	LEAF 8 LIGULE	FLOWER 9 INFLORESCENCE	FLOWER 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	199	P	T	S	R	O	F	-	LR	O	SS	wet sites
Calamagrostis rubescens	200	P	T	S	R	O	F	-	LR	C	LB	leaves lax
Cinna latifolia	205	P	T	S	R	O	F	-	LR	O	SS	
Dactylis glomerata	206	P	T	S	F	C	F	-	LR	C	SS	
Festuca idahoensis	209	P	T	C	F	O	I	-	ST	O	LS	leaves tightly inrolled
Festuca occidentalis	210	P	T	C	F	O	I	-	ST	O	LS	
Koeleria nitida	211	P	M	C	F	O	F/I	-	SR	C	-	
Melica subulata	216	P	T	C	R	C	F	-	LR	C	-	bulbous base
Phleum pratense	217	P	T	S	F	O	F	S	ST	C	SS	bulbous base
Poa pratensis	218	P	T	S	R	C	F	-	ST	O	-	webby base on floret
Trisetum canescens	219	P	T	S	F	O	F	-	LR	C	LB	

SEDGES												
Carex concinnoides	202	P	M	S	R	C	F	-	-	S	-	
Carex geyeri	203	P	M	C/S	R	C	F	-	-	S	-	
Carex rossii	204	P	S	C	C	C	F	-	-	S	-	
WOODRUSHES												
Luzula campestris	213	P	M	C	F	C	F	-	-	S	-	blade bases hairy
Luzula hitchcockii	214	P	M	S	R	C	F	-	-	O	-	
Luzula parviflora	215	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

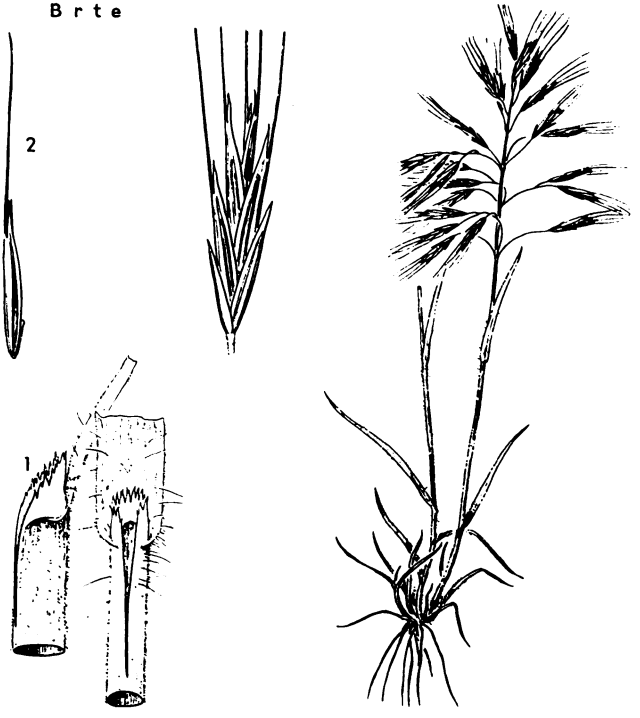
7 AURICLES
S -Small
P -Prominent

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" () = "can also be" GW = greenish-white



POACEAE (GRAMINEAE) Festuceae
Bromus tectorum L.
Brte

cheatgrass, downy brome

FORM: Erect annual with fibrous, nonrhizomatous roots, 30-60cm (1-2ft) tall, with a single hollow culm. Plant turns reddish-brown following flowering.

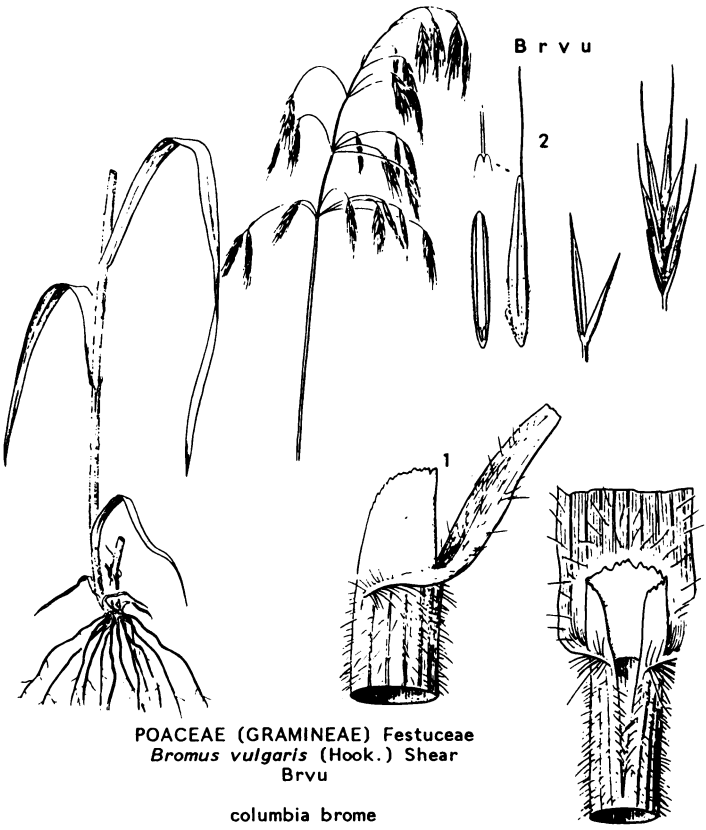
LEAVES: Blades mostly 2-4mm broad with a blunt tip, sheaths closed, blades and sheaths pubescent; auricles lacking; ligules jagged (1), 1-3mm long.

INFLORESCENCE: Large, somewhat compact, often drooping, purple-tinged panicle 5-15cm (2-6in) long; several large spikelets per slender branch, with several florets per spikelet; lemmas have soft awns (2), rarely bent, 10-15mm long; April-June.

HABITAT: Introduced species, readily invades disturbed sites.

3	Syal h.t.		Ptpo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
7	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	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.	Yhpl
	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.	Ysch
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Ysme
	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.		

Ppo	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 (GRAMINEAE) Festuceae
Bromus vulgaris (Hook.) Shear
Brvu

columbia brome

FORM: Robust, hairy, **fibrous-rooted perennial,** nonrhizomatous, culms slender 30-80cm (12-32in) tall, never forms bunches.

LEAVES: Drooping, broad, flat blades 5-10mm wide, **sheaths closed, usually hairy** especially at the throat; auricles lacking; membranous ligules with ragged margins (1), 3-5mm long.

INFLORESCENCE: Narrow, open, often drooping, panicle, 10-15cm (4-6in) long; more than 2 florets per spikelet; lemmas awned (2) 3-8mm 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.

C a c a

POACEAE (GRAMINEAE) Agrostideae
Calamagrostis canadensis (Michx.) Beauv.
Caca

bluejoint reedgrass

FORM: A robust, cool season perennial from creeping rhizomes, sometimes forming tufts; culms hollow, 5-10dm (2-3ft) tall.

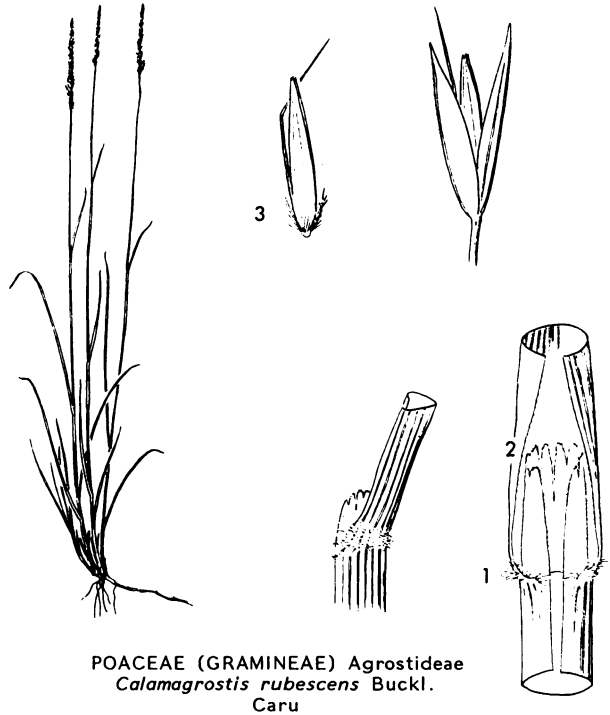
LEAVES: Numerous, flat, blades, dull bluish-green, rather lax, rough to touch, 4-8mm wide, open sheath without hairy collar; auricles lacking; finely ciliolate ligules (1), 3-8mm long.

INFLORESCENCE: Open, diffuse panicle, drooping with age, 10-25cm (4-10in) 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	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		Thpl
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Asca		
	Tabr	Asca	
	Mefe	h.t.	
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
1	Atfi	h.t.	
1	Opho h.t.		
+	Clun		Tshe
	Arnu	Clun	
1	Mefe	h.t.	
	Xete		
	Asca		
	Arnu	Asca	
	Mefe	h.t.	
	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
3	Luni	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun		Abla
	Mefe	Clun	
	Xete	h.t.	
1	Cooc		
	Xete	Mefe	
	Vasc	n.t.	
	Luni		
1	Mefe	Stam	
1	Lica	n.t.	
10	Caca	Caca	
10	Vaca	h.t.	
4	Legl		
1	Cooc		
	Vagl	Xete	
+	Vasc	h.t.	
	Luni		
	Vasc h.t.		Tshe
	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.		
	Vaca c.t.		



POACEAE (GRAMINEAE) Agrostideae
Calamagrostis rubescens Buckl.
Caru

pinegrass

FORM: A common, perennial grass 5-10dm (2-3ft) tall, from creeping rhizomes; culms slender and hollow, usually with reddish bases.

LEAVES: Mostly basal, narrow, flat, generally lax blades 2-4mm 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, 1-5mm long, with ragged margins (2).

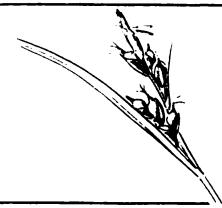
INFLORESCENCE: Narrow, spikelike panicle, pale greenish-white to purple, 8-15cm (3-6in) long; one floret per spikelet and many spikelets per branch; awn bent and twisted, attached near base of lemma, which is hidden by long callus hairs (3); **seldom flowers, except in full sunlight;** late June-Aug.

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

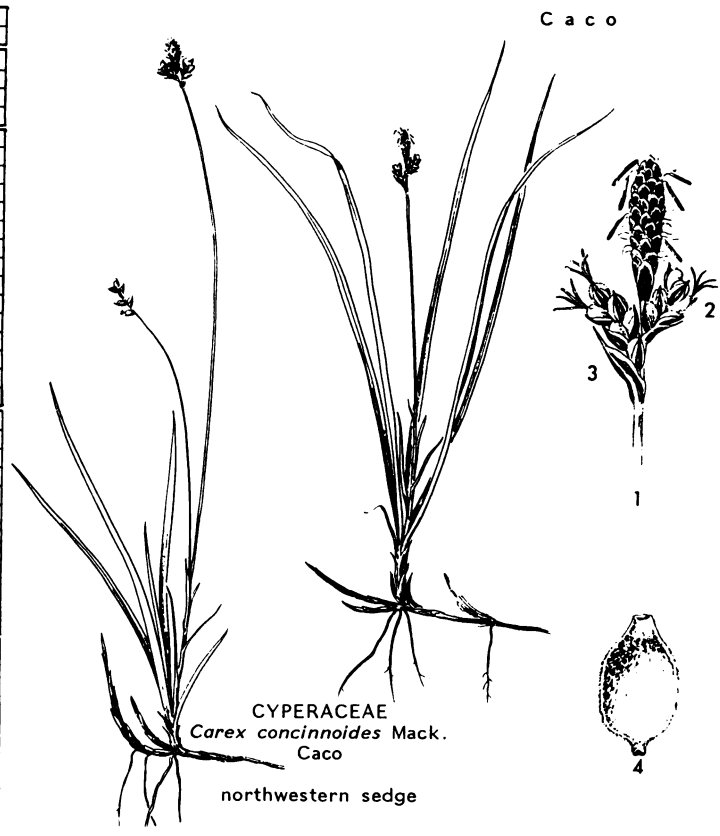
SIMILAR SPECIES: *Carex geyeri*, p.204.

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 groups of single stems	creeping rhizomes	5-12 flowered	Subtending lowest pistillate spike, 1cm	
Carex geyeri elksedge Cage	204	loose group of single stems	branching rhizomes	single flowered	bractless	
Carex rossii Ross' 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.		



CYPERACEAE

Carex concinnoides Mack.

Caco

northwestern sedge

FORM: Grasslike perennial with **3-ranked leaves and solid triangular culms,** 15-35cm (6-14in) tall; loosely tufted from strong, creeping, scaly rhizomes.

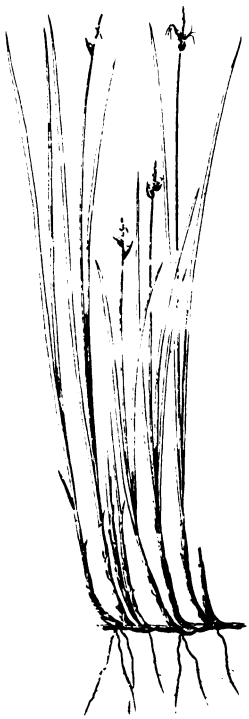
LEAVES: Firm, flat blades, 2-5mm wide, generally longer than the culm, remaining green through winter, **basal sheaths reddish-brown to purplish tinged dark brown.**

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 **1cm long bract (3) subtending the lowest pistillate spike;** culm becomes lax and prostrate as fruit matures; April-July.

FRUIT: Achene, 4-nerved, 2-3mm long; perigynium hairy with short beak (4).

SIMILAR SPECIES: Carex Conspectus, p.202.

Cage



CYPERACEAE
Carex geyeri Boott
Cage

elk sedge

FORM: Strongly rhizomatous, grasslike, perennial with **3-ranked leaves and solid triangular culms,** 20-50cm (8-20in) tall, often appearing loosely bunched.

LEAVES: Flat, evergreen, 1-3mm 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.

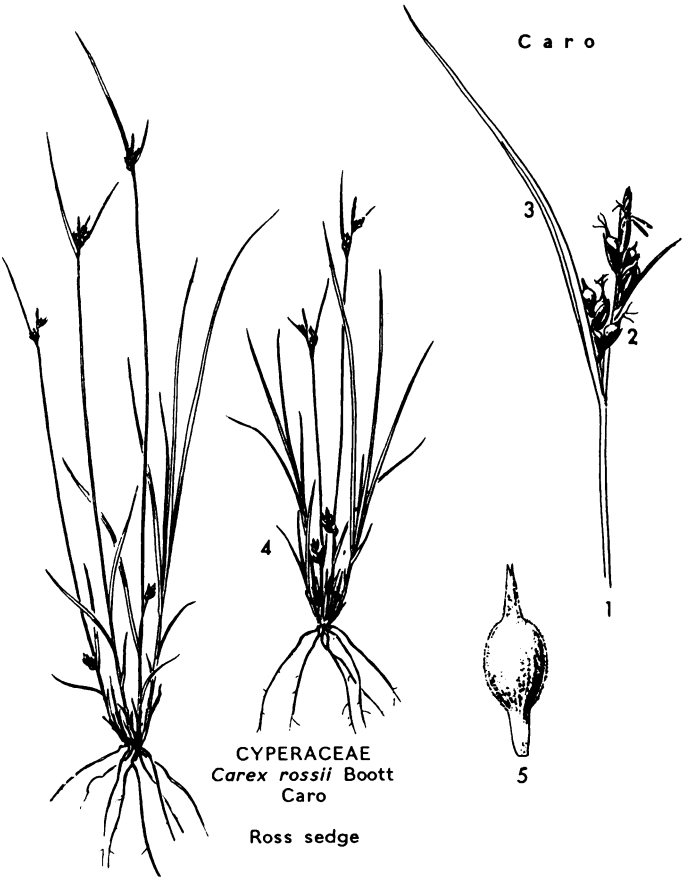
FRUIT: Large 3-sided achene (3), 4-5mm long.

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

SIMILAR SPECIES: *Calamagrostis rubescens,* p.201; and Carex Conspectus, p.202.

1	Syal h.t.		Pipo
6	Phma h.t.		
10	Caru	Caru	Psme
1	Aruv	h.t.	
4	Phma	Phma	
5	Smst	h.t.	
3	Phma	Phma	Abgr
1	Cooc	n.t.	
4	Libo	Libo	
	Xete	h.t.	
2	Asca	Asca	
	Tabr	h.t.	
1	Mefe		
2	Setr h.t.		
3	Phma	Clun h.t.	
2	Clun		
1	Tabr		
2	Mefe		
2	Xete		
4	Vagl	Xete	
3	Cooc	h.t.	
1	Clun	Clun h.t.	Thpl
	Tabr		
1	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr n.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	Opho h.t.		
+	Clun	Clun h.t.	Tsme
	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 n.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	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
Caro

Ross sedge

FORM: Grasslike perennial with **3-ranked leaves and slender, solid, triangular culms,** 1-3dm (4-12in) tall, densely tuft forming from short ascending rhizomes, culms same length or shorter than leaves.

LEAVES: Blades elongate and lax, 1-4mm wide, often longer than culm, **basal sheaths reddish.**

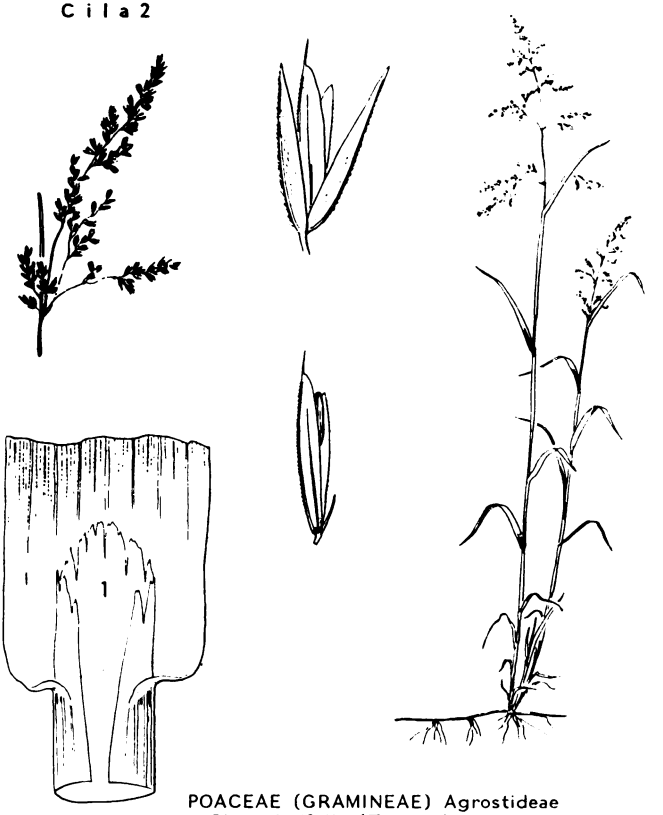
INFLORESCENCE: Terminal, solitary, staminate spike (1); 1-4 short, few-flowered lateral pistillate spikes borne near staminate spike, pistillate flowers (2) with 3 stigmas, **the lowest subtended by a leafy bract** (3) which is longer than the staminate spike, **one or more small pedunculate pistillate spikes often hidden near base of culms** (4); May-Aug.

FRUIT: 3-sided achene, perigynium (5) finely hairy, 2-5mm long, beak 1-2mm long.

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

SIMILAR SPECIES: Carex Conspectus, p.202.

Cila2



POACEAE (GRAMINEAE) Agrostideae
Cinna latifolia (Trevir.) Griseb.
Cila2

drooping woodreed

FORM: A cool season, rhizomatous perennial with hollow culms, 7-20dm (2-7ft) tall.

LEAVES: Blades thin and flat, deep green, 7-15mm wide, veins very unequal in size, sheaths glabrous and open; auricles lacking; ligules (1) ragged, membranous, 3-8mm long.

INFLORESCENCE: Loose, green panicle 15-30cm (6-12in) long, with spreading or drooping branches; spikelets with one floret, 4mm long; lemma awned or awnless; June-Aug.

HABITAT: Generally associated with moist woods, meadows and riparian vegetation.

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

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

POACEAE (GRAMINEAE) Festuceae
Dactylis glomerata L.
Dagl

orchard grass

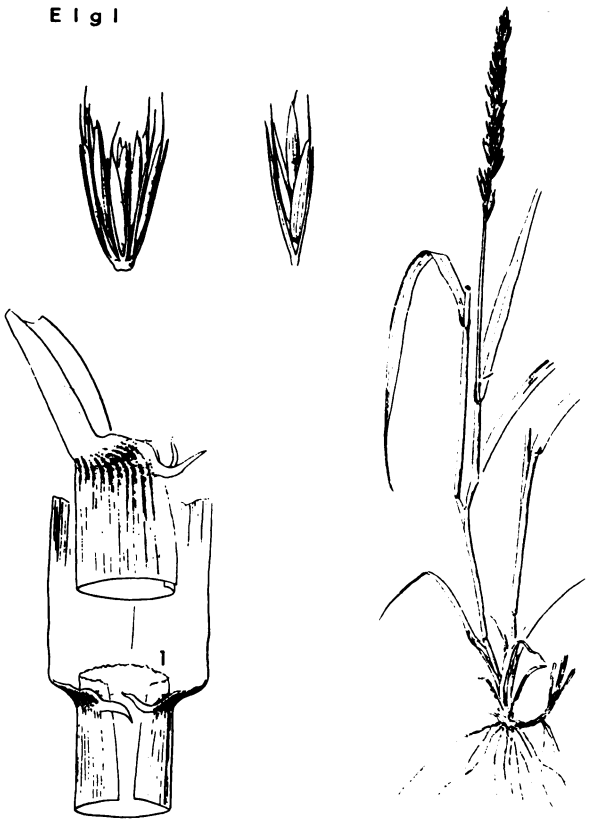
FORM: A tall, strongly, tufted, cool season perennial with hollow culms up to 12dm (4ft) tall.

LEAVES: Blades flat, 3-11mm broad, usually covered by short stiff hairs, **sheaths closed**; auricles lacking; membranous ligules (1), 3-11mm long, with ciliolate margins.

INFLORESCENCE: A dense **secund panicle with compressed spikelets**, 3-15cm (1-6in) long, 3 florets per spikelet, lemma awned from tip (2), 1mm long; June-Aug.

HABITAT: Seeded throughout forested zones, establishes well everywhere except very high elevations.

E l g l



POACEAE (GRAMINEAE) Triticeae
Elymus glaucus Buckl.
Elgl

blue wildrye

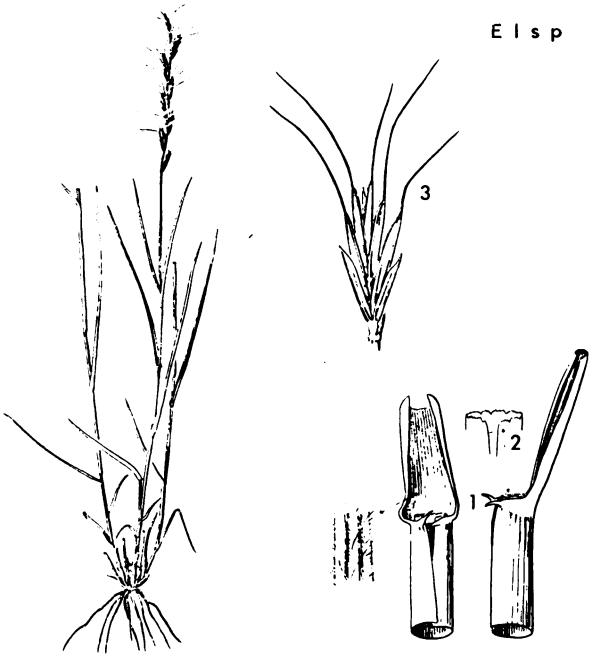
FORM: Dense, tufted, cool season, perennial, without rhizomes, 5-10dm (2-3ft) tall; leaves usually lax and drooping, thus reducing its height.

LEAVES: Broad, flat, blue-green, blades 5-10mm wide; sheaths open, often with purple collar, **well-developed auricles;** short, membranous ligules (1), 1mm long.

INFLORESCENCE: **Long, dense, erect to nodding spike,** 5-15cm (2-6in) long; **2 sessile spikelets per node** and 3-5 florets per spikelet; lemma awned, 1-3cm (1in) long; June-Aug.

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

Poa	Syal h.t.		6
Lup	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 (GRAMINEAE) Triticeae
Elytrigia spicata (Pursh.) D.R. Dewey
previously
Agropyron spicatum (Pursh.) Scribn and Smith
Elsp

bluebunch wheatgrass, Agspic

FORM: A cool season perennial, occurring in rhizomatous and large bunch forms, 5-10dm (2-3ft) tall; culms erect, slender and hollow **with a bluish bloom.**

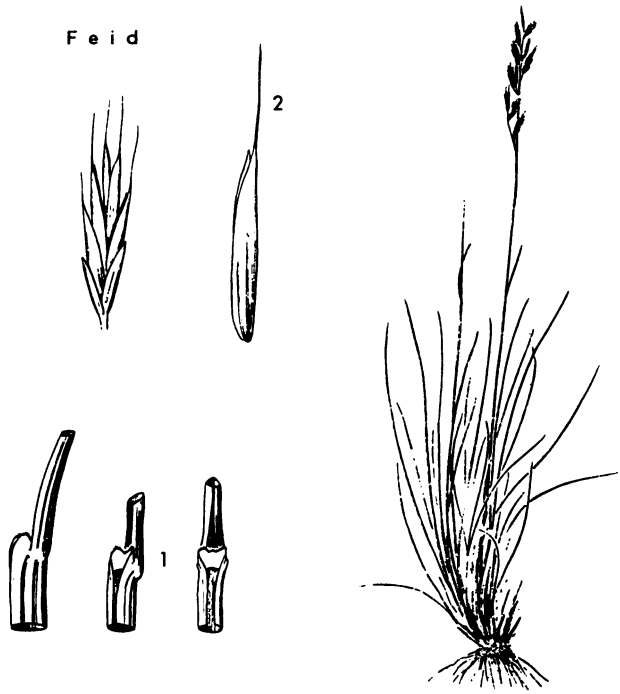
LEAVES: Erect, bluegreen, flat or loosely inrolled, hairy on upper surface, pointed, about 3mm wide and 5-20cm (2-8in) long, often twisting when older; sheaths open; (1) **auricles very small and clawlike;** ligule short and collarlike (2).

INFLORESCENCE: Erect, spike with one sessile spikelet per node; lemma tipped by a **divergent awn** (3) about 2cm (1in) 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 (GRAMINEAE) Festuceae
Festuca idahoensis Elmer
Feid

Idaho fescue

FORM: Erect, cool season, perennial **bunchgrass,** with fibrous, nonrhizomatous roots, 3-10dm (1-3ft) tall.

LEAVES: Numerous, mostly basal and erect, 5-12cm (2-5in) long, **tightly inrolled,** less than 1.5mm broad, **green to blue-green;** open sheaths; without true auricles; small ciliolate ligules (1), higher on edges than center; late May-July.

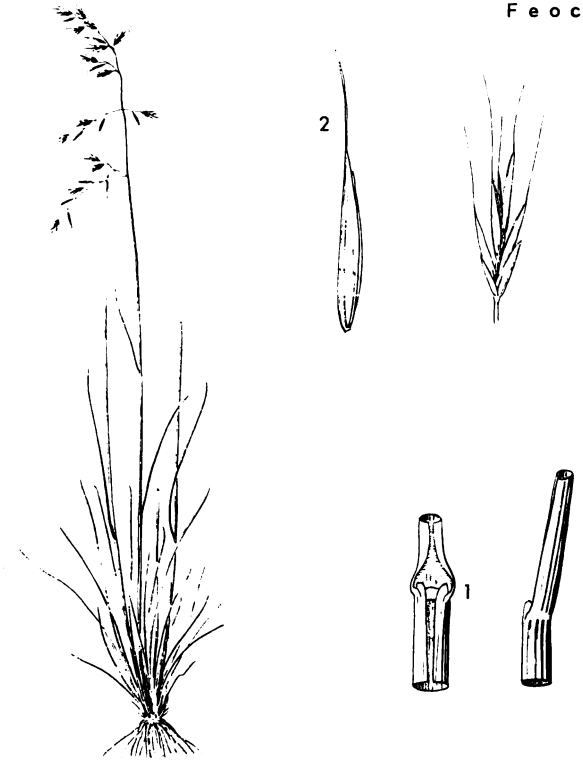
INFLORESCENCE: **Narrow panicle,** with erect branches 10-20cm (4-8in) long, one to several spikelets per branch with 5-7 florets per spikelet, **glumes of unequal length,** lemma with stout, short awn (2), 2-5mm long.

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); and *Festuca rubra* (red fescue).

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



POACEAE (GRAMINEAE) Festuceae
Festuca occidentalis Walt.
Feoc

western fescue

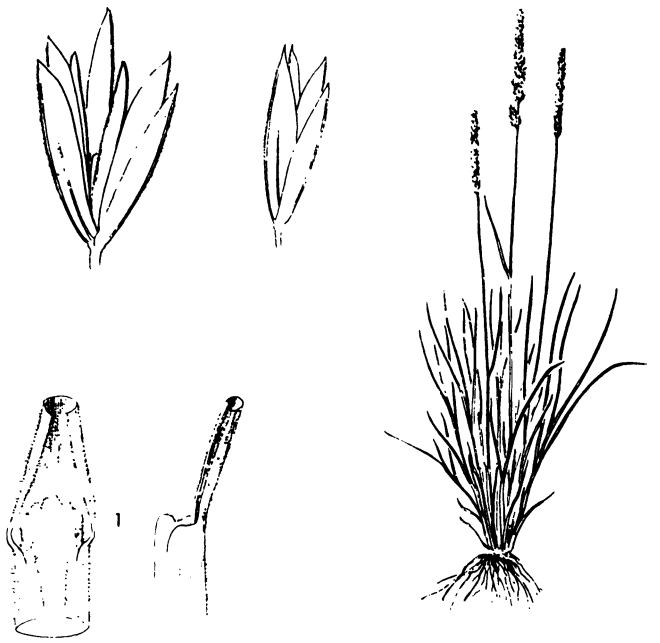
FORM: Large, tufted perennial with erect culms, 6-10dm (2-3ft) tall.

LEAVES: Blades inrolled, sometimes flat, less than 1mm wide, **rather soft, light green, not bluish;** sheaths open; auricles lacking; short ligules (1), 0.5mm long, **highest on sides.**

INFLORESCENCE: **Panicle large and open, usually drooping,** 10-20cm (4-8in) long; few spikelets per panicle, 3-5 florets per spikelet, **glumes of unequal length,** lemma (2) with flexible 6mm long awn; late May-July.

SIMILAR SPECIES: *Festuca idahoensis*, p.210 and *Festuca scabrella* (rough fescue).

K o n i



POACEAE (GRAMINEAE) Aveneae
Koeleria nitida Nutt.
previously
Koeleria cristata Pers.
Koni

Junegrass

FORM: Short, densely tufted, cool season perennial with erect, hollow culms, 30-60cm (1-2ft) tall.
LEAVES: Blades, generally folded to involute 1-3mm broad, **prow-shaped tips**, hairy margins; **auricles lacking**; membranous ligules (1) with hairy edges, 0.5-2mm, higher in front than on sides.
INFLORESCENCE: **Dense, spikelike panicle** 4-13cm (2-5in) 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	Psme
	Aruv	h.t.	
1	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr h.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	Opho h.t.		
	Clun	Clun h.t.	Ysne
	Arnu		
	Mefe		
	Xete		
	Asca	Asca h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun h.t.	Ysme
	Xete		
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun h.t.	Abla
	Mefe		
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	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 Luca	214	tufted	fibrous	cauline leaves hairy pale green	congested clusters of 8-15	dry to moist sites
Luzula hitchcockii smooth woodrush Luhi	215	single stemmed to tufted	rhizomatous	basal leaves hairy red mottled	open panicle deep brown to purplish-brown	high elevation 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

L u c a 2

JUNCACEAE
Luzula campestris (L.) DC.
Luca2

field woodrush

FORM: Tufted grasslike perennial, 10-50cm (4-20in) tall, with round, hollow culms.

LEAVES: Long, flat, pale green, mostly 2-6mm 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, 2-5mm long; April-July.

FRUIT: Ovoid capsule (1), 1-2mm long.

SIMILAR SPECIES: Luzula Conspectus, p.213.

1	Syal h.t.		Pipo
4	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
2	Phma	Phma	
?	Smst	h.t.	
2	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	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		
?	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.		

1

JUNCACEAE

Luzula hitchcockii Hamet-Ahti
previously
Luzula glabrata (Hoppe)Desv.
Luhi

smooth woodrush

FORM: A short, **rhizomatous,** grasslike perennial, 15-50cm (6-20in) tall, with round, hollow culms.

LEAVES: Shiny, 4-10mm broad and 2-6cm (1-2in) 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,** 3-8cm (1-3in) long; July-Sept.

FRUIT: Reddish-brown capsule with three seeds (1).

SIMILAR SPECIES: Luzula Conspectus, p.213.

HABITAT: High elevation sites with deep late-melting snowpack.

1

JUNCACEAE
Luzula parviflora (Ehrh.) Desv.
Lupa

millet woodrush

FORM: A tufted, grasslike perennial, 20-50cm (8-20in) tall; culms hollow, decumbent, and sometimes semi-stoloniferous.

LEAVES: 2-4 linear-lanceolate, cauline leaves, 3-10mm 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), 1-2mm long.

SIMILAR SPECIES: Luzula Conspectus, p.213.

	Syal h.t.		Pipo
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
2	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
	Phma	Clun	
+	Clun		
	Tabr	h.t.	
1	Mefe		
+	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun	Thpl
	Tabr	h.t.	
3	Mefe		
	Xete		
	Asca	Asca	
1	Tabr	h.t.	
	Mefe		
2	Gydr h.t.		
3	Adpe h.t.		
3	Adpe	Atfi	
1	Atfi	h.t.	
3	Opho h.t.		
1	Clun	Clun	Tshe
1	Arnu	h.t.	
2	Mefe		
	Xete		
2	Asca	Asca	
	Arnu	h.t.	
	Mefe		
1	Gydr h.t.		
	Mefe	Clun	Tsme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
2	Luhi	h.t.	
	Vagl	Xete	
2	Luhi	h.t.	
3	Clun	Clun	Abla
	Mefe	h.t.	
	Xete		
	Cooc		
3	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
1	Mefe	Stam	
1	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	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 (GRAMINEAE) Festuceae
Melica subulata (Griseb.) Scribn.
Mesu

Alaska oniongrass

FORM: Tufted, perennial grass, 30-80cm (12-32in) tall; hollow culms enlarged and **bulbous at base** (1), attached to short rhizomes.

LEAVES: Very hairy, flat blades, 2-7mm wide, **sheaths closed to the top**; auricles lacking; membranous ligules (2), 1-5mm long.

INFLORESCENCE: **Narrow panicle** 10-20cm (4-8in) 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).

Phpr

POACEAE (GRAMINEAE) Agrostideae
Phleum pratense L.
Phpr

timothy

FORM: An introduced, tufted, cool season, perennial, with hollow culms and a **bulblike base**, up to 1m (3ft) tall.
LEAVES: Blades flat, 4-8mm wide, tending to droop; open sheaths; **tiny rounded auricles**; entire, membranous ligules (1), 2-3mm long.
INFLORESCENCE: **Cylindrical spikelike panicle,** 5-10cm (2-4in) long; spikelets 1-flowered, glumes awned (2), less than 2mm 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
	Phma h.t.		
	Caru	Caru	Psme
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		
	Phma	Clun	
	Clun		
	Tabr	h.t.	
	Mefe		
	Xete	Xete	
	Vagl	h.t.	
	Cooc		
	Clun	Clun	Tshe
	Tabr	h.t.	
	Mefe		
	Xete	Asca	
	Asca	h.t.	
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	Opho h.t.		
	Clun	Clun	Tsme
	Arnu	h.t.	
	Mefe		
	Xete	Asca	
	Asca	h.t.	
	Arnu		
	Mefe		
	Gydr h.t.		
	Mefe	Clun	Abla
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	
	Mefe	h.t.	
	Xete		
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	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 (GRAMINEAE) Festuceae
Poa pratensis L.
Popr

Kentucky bluegrass

FORM: Introduced, rhizomatous, turf forming, cool season perennial of variable height, erect culms may reach 1m (3ft).

LEAVES: Soft, flat leaves 2-4mm wide with distinct **prow-shaped tips; sheaths closed half their length; auricles lacking;** short and truncate ligules, 2mm long.

INFLORESCENCE: Purplish-tinged, spreading panicle, 3-10cm (1-4in) long, obtaining a nodding appearence 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 (GRAMINEAE) Aveneae
Trisetum canescens Buckl.
Trca

tall trisetum

FORM: Tufted perennial, with erect, hollow culms 5-10dm (2-3ft) tall.

LEAVES: Blades flat and hairy, 4-10mm broad; without auricles; ligules (1) finely serrate, 1-4mm long.

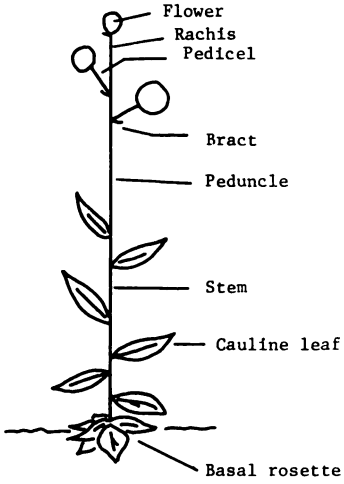
INFLORESCENCE: Loose, **narrow panicle,** 10-20cm (4-8in) long, spikelets 2-3 flowered; lemma with **geniculate awn** (2) 10-14mm long; long pilose hairs on rachilla (3); late May-early July.

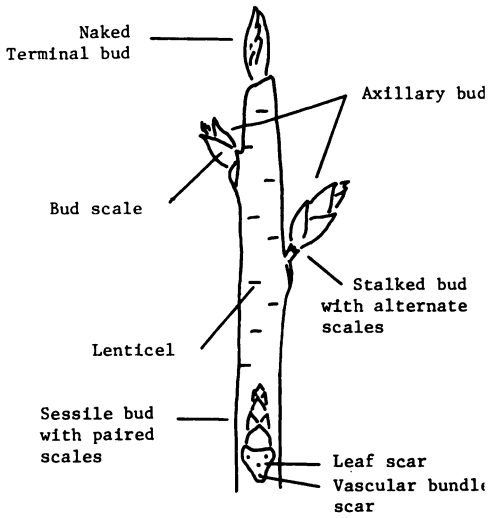
NOTES: Palatable, but not abundant enough to be an important forage species.

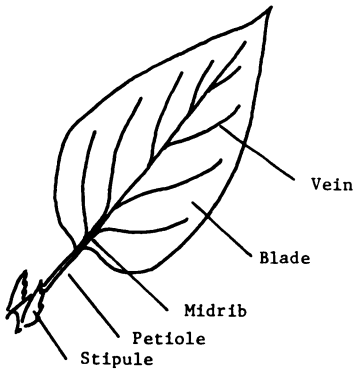
	Svai h.t.		Ptpo
	Phma n.t.		
	Caru	Caru	Psme
	Aruv	n.t.	
	Phma	Phma	
+	Smst	n.t.	
	Phma	Phma	Abgr
	Cooc	n.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Setr n.t.		
	Phma	Clun h.t.	
	Clun		
	Tabr		
	Mefe		
	Xete		
	Vagl	Xete h.t.	
	Cooc		
	Clun	Clun h.t.	Thpl
	Tabr		
	Mefe		
	Xete		
+	Asca	Asca h.t.	
	Tabr		
	Mefe		
	Gydr n.t.		
	Adpe n.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 n.t.	
	Xete		
	Vasc		
	Luhi		
	Mefe	Stam h.t.	
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
	Vasc n.t.		Pico
	Xete n.t.		
	Vaca n.t.		

DESCRIPTIVE DRAWINGS

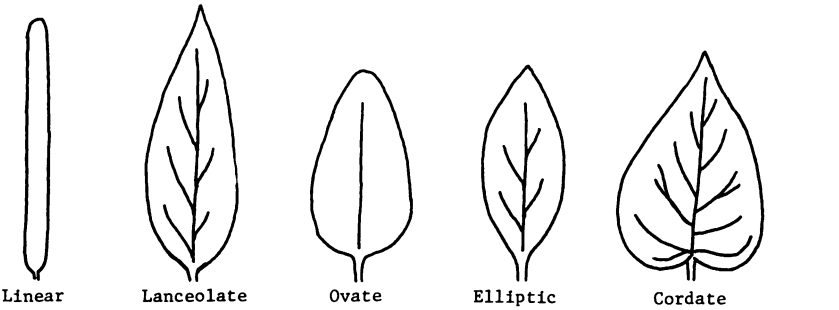
PLANT PARTS AND TERMINOLOGY







LEAF SHAPES



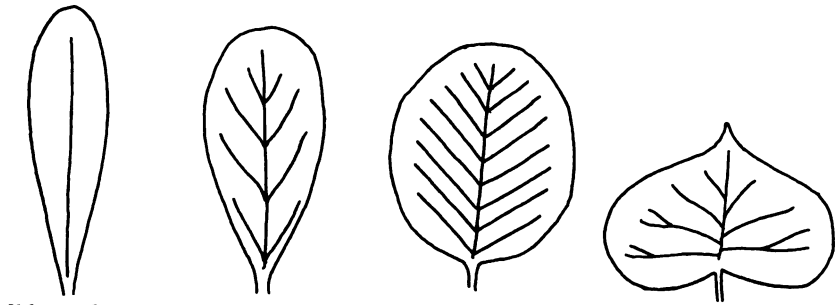
Linear

Lanceolate
Acuminate apex

Ovate
Obtuse apex

Elliptic
Acute apex

Cordate



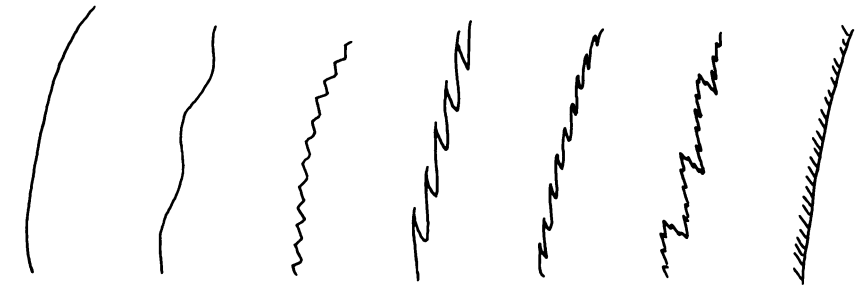
Oblanceolate

Obovate
Rounded apex

Orbicular

Reniform

LEAF MARGINS



Entire

Crenate

Dentate

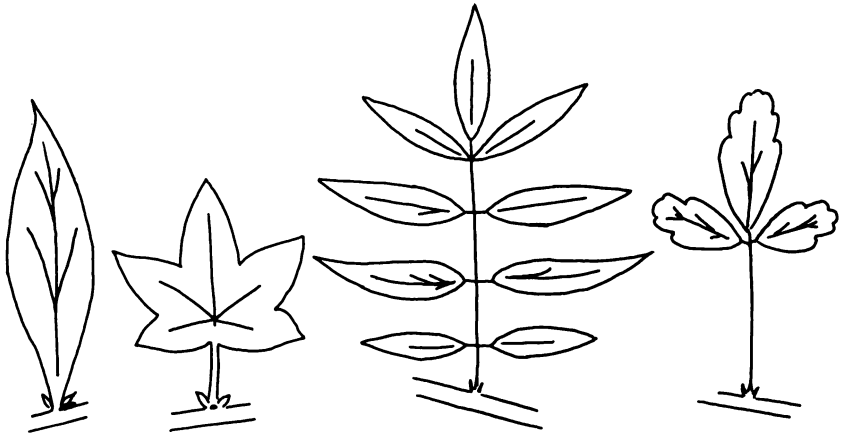
Spinose

Serrate

Doubly-
Serrate

Ciliate

LEAF TYPES



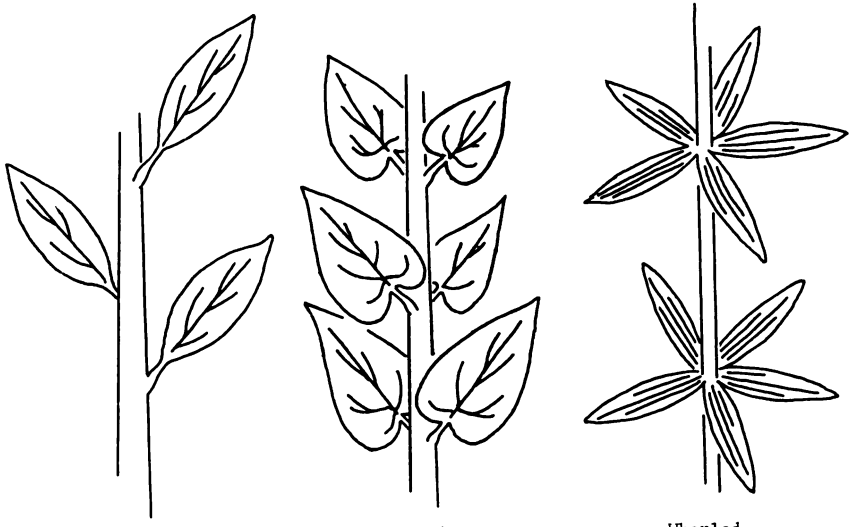
Simple

Simple
Palmately lobed

Pinnately compound

Trifoliolate

LEAF ARRANGEMENT

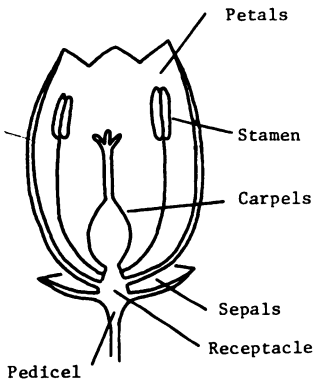


Alternate

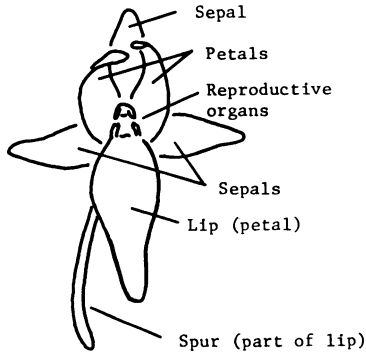
Opposite

Whorled

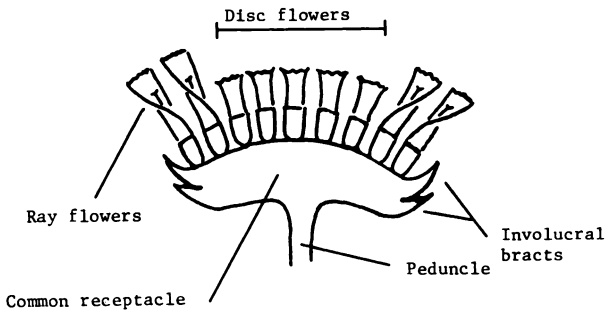
FLOWER PARTS



Regular

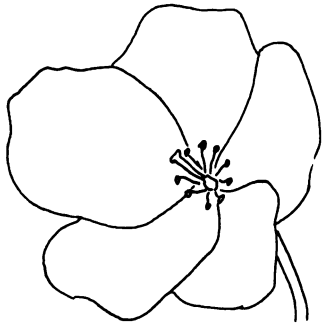


Irregular
(Orchid)



Head type
(Composite family only)

FLOWER SHAPES

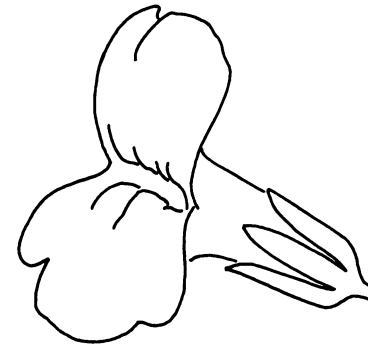


Regular

Campanulate
(bell-shaped)

Urceolate
(urn-shaped)

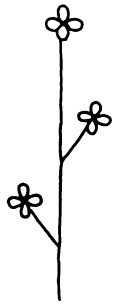
Rotate
(wheel-shaped)



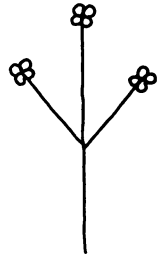
Bilabiate
(two-lipped)

INFLORESCENCE TYPES

Spike

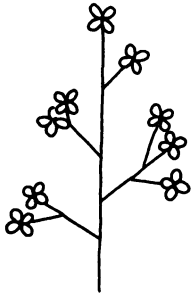


Raceme

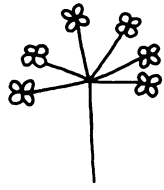


Cyme

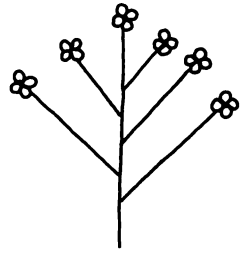
Head



Panicle

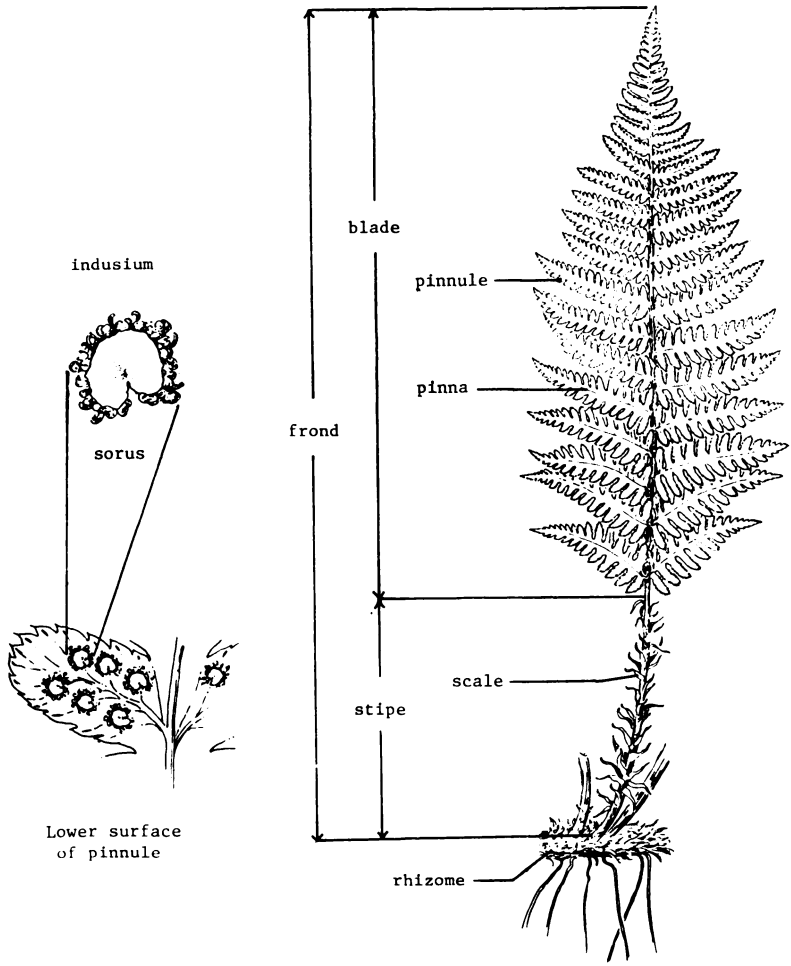


Umbel

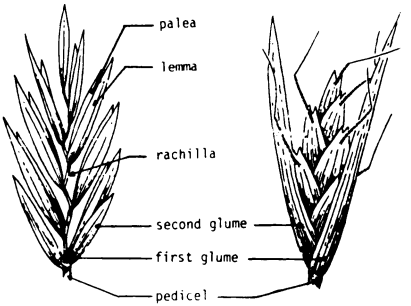


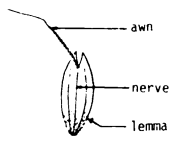
Corymb

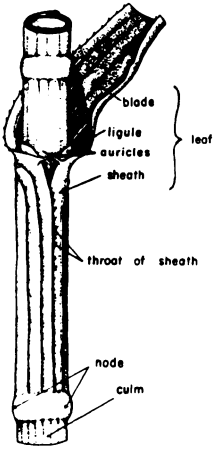
FERN PARTS

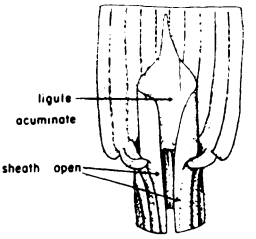

indusium
sorus
Lower surface
of pinnule
blade
frond
stipe
pinnule
pinna
scale
rhizome

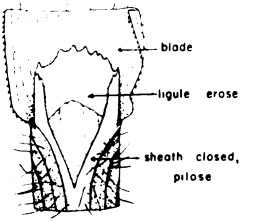
GRAMINOID PARTS

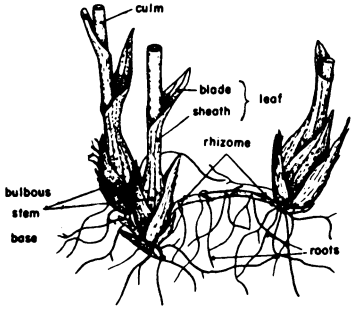


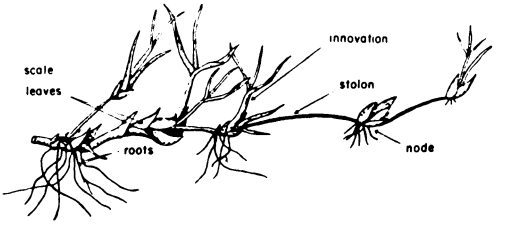












COLLECTING AND PRESSING METHODS

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 seek the permission of the landowner, especially on private property. 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. You can learn 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. Information on their occurrence and location should be sent to the Herbarium Director, Biological Sciences, University of Idaho or any member of the Rare and Endangered Plant Technical Committee.

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. Since 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., 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 which 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 piece 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 an herbarium for identification. Specimens may be sent to the University of Idaho Herbarium for identification or verification.

Herbarium Director
Biological Science
University of Idaho
Moscow, ID 83843

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 is often instrumental in species identification. It is recorded on an 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.

USDA Forest Service
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.

achene, akene: A dry, indehiscent, one-seeded fruit, p.107,114,115,166.
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 leaf or petal, p.221,227.
bloom: A waxy powder covering a surface.
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.
boreal: Northern.
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 1 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 two 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.

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.

cool season: Refers to early flowering or maturing phenology, particularly for grasses, usually from March to June.

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.

deltoid: Shaped like an equilateral triangle.

dentate: With spreading pointed teeth, p.222.

dimorphic: Of two forms.

disjunct: A segment of a population separated by some distance from the main or principal population.

dioecious: Producing male and female flowers on separate plants.

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.103,110,174,183.
forb: An herbaceous plant that is not a graminoid.
frond: A leaf, especially of a fern, p.227.

galea: The strongly concave or helmetlike upper lip of certain bilabiate corollas, p.103.
geniculate: Abruply 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 species 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 grasslike 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, leaflike 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.

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 the 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 15-300cm (6-36in) high.

medium shrub: A shrub 1-2m (3-7ft) 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.33.

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, p.126.
pedicel: The stalk of an individual flower, p.221,226.
perennial: A plant capable of living through more than two growing seasons and producing seeds for more than one 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 an 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.
pistillate: A flower with one or more pistils, but no stamens.
pith: The softer, central part of a twig or stem.
pome: A fruit with a core, like an apple, p.36,74.
pod: Any kind of dry, dehiscent fruit.
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 to the 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; (3.) tap--one main vertical root swollen with stored food.
rootstock: A horizontal, underground stem; same as 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 species has a two-word scientific Latin name, of which the first word designates the genus and the second word 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.
stipule: A small leaflike growth at the base of a leaf stalk, p.221.
stipe: A stalk supporting a single organ; the leaf stalk of a fern, p.227.
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 15cm (6in) high.
succulent: Fleshy and juicy.
succession: The replacement of one community by another, developing toward a climax.

tall shrub: A shrub over 2m (7ft) 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 three's.
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.
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 which 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 Sept.
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 scanty moisture supply.

Definitions for this glossary were derived from: C.L. Hitchcock and Cronquist 1973; Johnson, F. D. 1983; Lee and Pfister 1978; and Newcomb 1977.

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INDEX OF SCIENTIFIC NAMES

Abies grandis 8
Abies lasiocarpa 9
Acer glabrum 32
Achillea millefolium 102
Aconitum columbianum 103
Actaea rubra 104
Adenocaulon bicolor 105
Adiantum pedatum 85
Agropyron spicatum 209
Alnus incana 34
Alnus rubra 10
Alnus sinuata 35
Alnus tenuifolia 34
Amelanchier alnifolia 36
Anaphalis margaritacea 106
Anemone piperi 107
Angelica arguta 108
Antennaria racemosa 109
Apocynum androsaemifolium 110
Aquilegia flavescens 111
Aquilegia formosa 111
Aralia nudicaulis 112
Arctostaphylos uva-ursi 37
Arenaria macrophylla 113
Arnica cordifolia 114
Arnica latifolia 115
Asarum caudatum 116
Aster conspicuus 117
Athyrium filix-femina 86
Balsamorhiza sagittata 118
Berberis aquifolium 38
Berberis repens 38
Betula glandulosa 39
Betula occidentalis 12
Betula papyrifera 13
Botrychium virginianum 87
Bromus tectorum 198
Bromus vulgaris 199
Calamagrostis canadensis 200
Calamagrostis rubescens 201
Caltha biflora 119
Calypso bulbosa 120
Campanula rotundifolia 121
Cardamine constancei 122
Carex concinnoides 203
Carex geyeri 204
Carex rossii 205
Ceanothus sanguineus 40
Ceanothus velutinus 41
Chimaphila menziesii 42
Chimaphila umbellata 42
Cinna latifolia 206
Circaea alpina 123
Clintonia uniflora 124
Coptis occidentalis 125
Corallorhiza maculata 127
Corallorhiza mertensiana 126
Corallorhiza striata 126
Cornus canadensis 128
Cornus stolonifera 43
Crataegus douglasii 44
Cystopteris fragilis 88
Dactylis glomerata 207
Disporum hookeri 130
Disporum trachycarpum 131
Dodecatheon jeffreyi 132
Dryopteris austriaca 89
Dryopteris filix-mas 90
Elymus glaucus 208
Elytrigia spicata 209
Epilobium angustifolium 133
Equisetum arvense 91
Erigeron peregrinus 134
Erythronium grandiflorum 135
Festuca idahoensis 210
Festuca occidentalis 211
Fragaria vesca 136
Fragaria virginiana 137
Frasera fastigiata 138
Galium boreale 139
Galium triflorum 139
Gaultheria humifusa 45
Gaultheria ovatifolia 45
Geranium viscosissimum 140
Goodyera oblongifolia 141
Gymnocarpium dryopteris 92
Habenaria elegans 142
Habenaria orbiculata 142
Habenaria saccata 142
Habenaria unalascensis 143
Heracleum lanatum 144
Heuchera cylindrica 145
Hieracium albertinum 146
Hieracium albiflorum 147
Holodiscus discolor 46
Hypericum perforatum 148
Koeleria cristata 212
Koeleria nitida 212
Larix lyallii 14
Larix occidentalis 15
Lathyrus nevadensis 149
Ledum glandulosum 47

Ligusticum canbyi 150
Ligusticum verticillatum 151
Linnaea borealis 48
Listera caurina 152
Lomatium dissectum 153
Lomatium triternatum 154
Lonicera utahensis 49
Luzula campestris 214
Luzula glabrata 215
Luzula hitchcockii 215
Luzula parviflora 216
Lycopodium annotinum 93
Melica subulata 217
Menziesia ferruginea 50
Mertensia paniculata 155
Mitella breweri 157
Mitella caulescens 156
Mitella pentandra 158
Mitella stauropetala 159
Montia cordifolia 160
Oplopanax horridum 51
Osmorhiza chilensis 161
Pachistima myrsinites 52
Pedicularis bracteosa 162
Pedicularis racemosa 163
Phacelia heterophylla 164
Philadelphus lewisii 53
Phleum pratense 218
Phyllodoce empetriformis 54
Physocarpus malvaceus 55
Picea engelmannii 16
Pinus albicaulis 17
Pinus contorta 18
Pinus monticola 19
Pinus ponderosa 20
Poa pratensis 219
Polemonium pulcherrimum 165
Polystichum munitum 94
Populus tremuloides 21
Populus trichocarpa 22
Potentilla glandulosa 166
Potentilla gracilis 167
Prunella vulgaris 168
Prunus emarginata 56
Prunus virginiana 57
Pseudotsuga menziesii 23
Pteridium aquilinum 95
Pterospora andromedea 169
Pyrola asarifolia 171
Pyrola chlorantha 170
Pyrola picta 170
Pyrola secunda 172
Pyrola virens 170
Ranunculus uncinatus 173
Rhamnus alnifolia 58
Rhamnus purshiana 58
Rhododendron albiflorum 59
Ribes cereum 60
Ribes hudsonianum 60
Ribes lacustre 61
Ribes viscosissimum 62
Rosa acicularis 63
Rosa gymnocarpa 64
Rosa nutkana 65
Rosa woodsii 66
Rubus idaeus 67
Rubus nivalis 67
Rubus parviflorus 68
Rubus pedatus 69
Rubus ursinus 67
Salix scouleriana 70
Sambucus cerulea 71
Sambucus racemosa 71
Satureja douglasii 72
Sedum stenopetalum 174
Senecio triangularis 175
Shepherdia canadensis 73
Silene menziesii 176
Smilacina racemosa 177
Smilacina stellata 178
Sorbus scopulina 74
Sorbus sitchensis 74
Spiraea betulifolia 75
Streptopus amplexifolius 179
Symphoricarpos albus 76
Symphoricarpos mollis 77
Synthyris missurica 180
Synthyris platycarpa 180
Taxus brevifolia 24
Thalictrum occidentale 181
Thermopsis montana 182
Thuja plicata 25
Tiarella trifoliata 183
Trautvetteria caroliniensis 184
Trientalis latifolia 185
Trillium ovatum 186
Trisetum canescens 220
Tsuga heterophylla 26
Tsuga mertensiana 27
Vaccinium caespitosum 79
Vaccinium globulare 80
Vaccinium membranaceum 80
Vaccinium myrtillus 81
Vaccinium occidentale 78
Vaccinium ovalifolium 78
Vaccinium oxycoccos 78
Vaccinium scoparium 82
Valeriana sitchensis 187
Veratrum californicum 188
Veratrum viride 188
Vicia americana 189
Viola adunca 191
Viola canadensis 190
Viola glabella 192
Viola orbiculata 193
Woodsia oregana 96
Xerophyllum tenax 194

INDEX OF COMMON NAMES

Agspic 209
Alaska oniongrass 217
Alaska rein-orchid 143
Alnus Conspectus 33
alpine circaea 123
alpine fir. 9
alpine larch 14
alpine mitrewort 158
alpine pyrola 171
American false hellebore 188
American vetch. 189
anemone 107
arrowleaf balsamroot 118
arrowleaf groundsel 175

baldhip rose 64
baneberry 104
bearberry 37
beargrass 194
Betula Conspectus 11
big huckleberry 80
bigleaf sandwort 113
bittercherry 56
black cottonwood 22
black hawthorn. 44
blackberry 67
blooming Sally 133
blue elderberry 71
blue huckleberry. 80
blue wildrye 208
bluebunch wheatgrass 209
bluejoint reedgrass 200
bog birch 39
bracken fern 95
bracted lousewort 162
Brewer's mitrewort 157
bride's bonnet 124
brittle bladderfern 88
broadleaf arnica 115
broadleaved montia 160
buckthorn 58
buffaloberry 73
bull pine 20
bunchberry dogwood 128

California false hellebore 188
Canada violet. 190
Canby's licorice-root 150
Carex Conspectus 202
cascara. 58
cheatgrass 198
chittam bark 58
Christmas fern 94
cinquefoil 167
clustered frasera 138
columbia brome 199
common chokecherry 57
common horsetail 91
common pink wintergreen 171
common snowberry 76
common St. John's wort 148
common yarrow 102
Constance's bittercress 122
coolwort foamflower. 183
Corallorhiza Conspectus 126
cow parsnip 144
creeping Oregon grape 38
creeping snowberry 77
cross-shaped mitrewort 159
Cusick's peavine 149

desert-parsley 153
Devil's club 51
dogtooth-violet 135
Douglas maple 32
Douglas-fir. 23
downy brome 198
drooping woodreed 206
dwarf bilberry 81
dwarf enchanter's nightshade. . .123
dwarf huckleberry 79

elderberry 71
elk sedge 204
Engelmann spruce 16
evergreen ceanothus 41
evergreen synthyris 180
everlasting 109

fairy slipper 120
false bugbane 184
false mitrewort 183
false Solomon's seal. 177
fern-leaved lomatium 153
field horsetail 91
field woodrush 214
fireweed 133
five-stamened mitrewort 158
flytrap dogbane 110
fool's huckleberry 50
Forb Characteristics 98

glacier lily 135
gland cinquefoil 166
globe huckleberry 80
goatweed 148
Graminoid Characteristics 196
grand fir 8
grape fern 87
green false hellebore 188
grouse whortleberry 82
grouseberry 82

Habenaria Conspectus 142
heartleaf arnica 114
hook violet 191
Hooker fairy-bell 130

Idaho fescue 210
Indian potato 185

jack pine 18
Jacob's-ladder 165
Jeffrey's shooting star 132
Junegrass 212

Kentucky bluegrass 219
Key to Ferns & Friends 84
Key to Native Trees 7
kinnikinnick 37
Klamath weed 148

Labrador tea 47
lady's-thimble 121
ladyfern 86
large coral root 127
lava alumroot 145
leafy lousewort 163
leafy mitrewort 158
Lewis mockorange 53
Liliaceae Conspectus 129
little buttercup 173
little pipsissewa 42
lodgepole pine 18
Luzula Conspectus 213
Lyall larch 14
Lyall's angelica 108

maidenhair fern 85
male fern 90
marsh marigold 119
Menzies' prince's pine 42
Menzies' silene 176
millet woodrush 216
Mitella Conspectus 156
mock azalea 50
mockorange 53
monkshood 103
Montana golden pea 182
moonwort 87
mountain arnica 115
mountain heliotrope 187
mountain hemlock 27
mountain kittentails 180
mountain lover 52
mountain sweet-cicely 161
mountain thermopsis 182
mountain woodfern 89
mountain-ash 74
myrtle boxwood 52

nine-leaved lomatium 154
ninebark 55
Nootka rose 65
northern bedstraw 139
northwestern sedge 203
northwestern twayblade 152

oak-fern 92
ocean-spray 46
one-sided wintergreen 172
orchard grass 207
Oregon wintergreen 45
Oregon woodsia 96

pachistima 52
Pacific coral root 127
Pacific yew 24
pale fawn-lily 135
panicle bluebells 155
paper birch 13
pathfinder 105
pearhip rose 66
pearly everlasting 106
pinedrops 169
pinegrass 201
pink mountain-heath 54
pioneer violet 192
ponderosa pine 20
prickly currant 61
prickly rose 63
prince's pine 42
pussy-toes 109
Pyrola Conspectus 170

quaking aspen 21
queen cup beadlily 124

rattlesnake-plantain 141
red alder 10
red columbine 111
red fir 23
red mountain-heath 54
red raspberry 67
red-osier dogwood 43
redstem ceanothus 40
Ribes Conspectus 60
Rocky Mountain maple 32
Rosa Conspectus 63
Ross sedge 205
round-leaved violet 193
roundleaf alumroot 145
Rubus Conspectus 67

Saskatoon serviceberry 36
savory 72
Scotch bellflower 121
Scouler willow 70
self-heal 168
serviceberry 36
sharptooth angelica 108
shiny-leaf spiraea 75
shinyleaf ceanothus 41
shooting star 132
showy aster 117
sickletop lousewort 163
side-flowered mitrewort 159
sidebells 172
Sierra fairy-bell 131
Sitka alder 35
Sitka columbine 111
Sitka mountain-ash 74
Sitka valerian 187
skunk-leaved polemonium 165
sky pilot 165
slender wintergreen 45
smooth woodrush 215
snow dewberry 67
snowbush 41
soapberry 73
spiraea 75
spotted coral root 127
spreading dogbane 110
spreading woodfern 89
starry Solomon-seal 178
sticky cinquefoil 166
sticky currant 62
sticky purple geranium 140
stiff club-moss 93
stinking currant 60
strawberry 137
strawberry bramble 69
subalpine daisy 134
subalpine fir 9
subalpine larch 14
swamp birch 39
swamp currant 61
sweetscented bedstraw 139
syringa 53

tall bluebells 155
tall oregon grape 38
tall trisetum 220
tamarack 15
thin-leaf blueberry 80
thinleaf alder 34
timothy 218
trail-plant 105
trembling aspen 21
trillium 186
twinflower 48
twinflower marsh marigold 119
twisted-stalk 179

Utah honeysuckle 49

Vaccinium Conspectus 78
varileaf phacelia 164
verticillate licorice-root 151
Viola Conspectus 190
virgate phacelia 164

wandering daisy 134
wandering fleabane 134
wartberry fairy-bell 131
water birch 12
wax currant 60
western fescue 211
western goldthread 125
western hawkweed 146
western hemlock 26
western larch 15
western meadowrue 181
western pipsissewa 42
western rattlesnake-plantain . . .141
western redcedar 25
western starflower 185
western swordfern 94
western thimbleberry 68
western twayblade 152
western wake-robin 186
western white pine 19
western wintergreen 45
western yew 24
white fir 8
white marsh marigold 119
white rhododendron 59
white trillium 186
white vein pyrola 170
white-flowered hawkweed 147
whitebark pine 17
wild ginger 116
wild rose 64
wild sarsaparilla 112
windflower 107
wintergreen 170
woods strawberry 136
woodsia 96
wormleaf stonecrop 174

yellow columbine 111
yellow pine 20
yerba buena 72

METRIC
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

9
5
4
3
2
1

Patterson, Patricia A.; Neiman, Kenneth E.; Tonn, Jonalea R. Field guide to forest plants of northern Idaho. General Technical Report INT-180. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station; 1985. 246 p.

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