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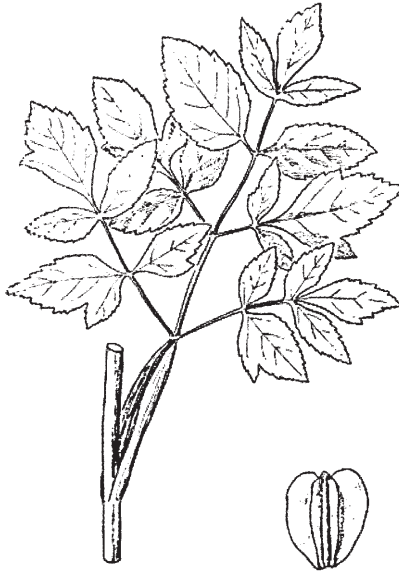


United States
Department
of Agriculture
Forest Service
**Rocky Mountain
Research Station**
General Technical Report
RMRS-GTR-118-CD
June 2004



Field Guide to Forest Plants of Northern Idaho

**Patricia A. Patterson
Kenneth E. Neiman
Jonalea R. Tonn**

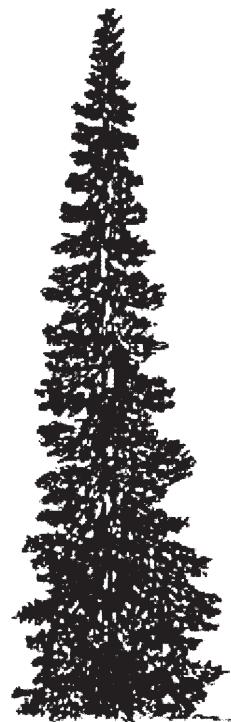


Abstract

Patterson, Patricia A.; Neiman, Kenneth E.;
Tonn, Jonalea R. 2004. **Field guide to forest
plants of northern Idaho**. Gen. Tech. Rep.
RMRS-GTR-118-CD. Fort Collins, CO: U.S.
Department of Agriculture, Forest Service,
Rocky Mountain Research Station. (Revision
of 1985 publication.)

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

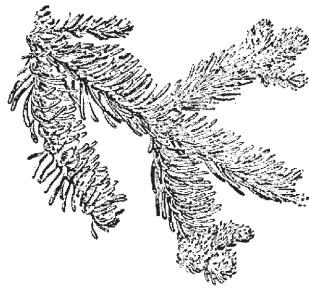


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This guide may be viewed from the CD, or individual pages may be printed. To obtain the best print quality, use the color or grayscale option on your printer.

This manual is also available online at
http://forest.moscowfsl.wsu.edu/rmrs_gtr118



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Patterson, Patricia A.; Neiman, Kenneth E.; Tonn, Jonalea R. 2003. **Field guide to forest plants of northern Idaho**. General Technical Report RMRS-GTR-118-CD. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Revision of 1985 publication.

This manual, available online at http://forest.moscowfsl.wsu.edu/rmrs_gtr118 is a corrected electronic version of:

Patterson, Patricia A.; Neiman, Kenneth E.; Tonn, Jonalea R. 1985. **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. 246 p.

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The Authors

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

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

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

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Major financial support for this guide was provided by Timber Management, Northern Region of the Forest Service, U.S. Department of Agriculture, and the Clearwater National Forest, Nez Perce National Forest, and the Idaho Panhandle National Forests through a cooperative agreement with the Intermountain Forest and Range Experiment Station.

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

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

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

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

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

2004

Permission was granted by the University of Washington Press to reproduce the illustrations from Hitchcock and others in this online version.

Funding for scanning of the field guide was provided by the USDA Forest Service, Rocky Mountain Research Station. Two work units -- RMRS-RWU-4552 (Microbial Processes as Ecosystem Regulators in Western Forests) and RMRS-RWU-4155 (Forest Ecosystem Dynamics in the Interior West) -- shared the costs.

The following people were instrumental in converting the guide into an electronic format: John Byrne, Dennis Ferguson, David Hall, Debbie Page-Dumroese, Jonalea Tonn, and Bill Wykoff. We give a special thanks to Tara Wylie for doing the scanning and compiling.

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Introduction

This field guide has been developed specifically to complement **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.



This guide is not meant to be a comprehensive taxonomy to northern Idaho flora, but rather an identification aid for species having forested habitat type indicator value within this geographic area. Criteria for species selection were: common overall occurrence in mature to old-growth forested stands, special environmental or habitat type indicator value, and special interest within northern Idaho. Additional species have been included that are morphologically similar to and often confused with selected indicator species.

Species descriptions are based on **Flora of the Pacific Northwest** (Hitchcock and Cronquist 1973) and **Vascular Plants of the Pacific Northwest, Parts 1-5** (Hitchcock 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 tables, pseudo-keys using one or more easily determined characteristics, such as leaf arrangement, are used to group species. Final identification must correlate the specimens' characteristics with the species description. The species descriptions and keys were developed for people with a minimum of botanical training. We emphasized characteristics that are useful for field identification of the species within the context of a northern Idaho location. In other geographic areas having a different floristic composition or environment, these distinctive field characteristics may not be usable for identification of a species.

Citations for a number of authoritative floras for northern Idaho are included in the References. 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
Rocky Mountain Research Station
Forestry Sciences Laboratory
1221 S. Main Street
Moscow, ID 83843

The [Species Description Format](#) page illustrates and explains the format used for each of the species described in the guide.

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Species Description Format

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).

(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 Hitchcock and others (1955-1969), Hayes and Garrison (1960), and Anon. (1981). Additional drawings were provided by people listed in the acknowledgments. Scale perspective is provided by a six foot tall forester standing next to a typical plant.

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

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

(D) Standardized 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 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 list of current record trees and forms explaining the process for nominating new record trees, contact:

Ron Mahoney
Idaho Big Tree Program Director
P.O. Box 441140
University of Idaho
Moscow, ID 83843-1140
(208) 885-6356

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

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

(H) More complete lists of species and related data can be found in: *Diseases*: Bega (1978), Fowells (1965), Hepting (1971), Partridge 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, which, due to their rarity or limited distribution, are being monitored. You can learn more about watch lists, as well as threatened and endangered species, by visiting the Idaho Conservation Data Center's web site at www2.state.id.us/fishgame/info/cdc/cdc.htm.

(L) The habitat type constancy table shows the percentage of stands within a habitat type in which one can expect to find the species described. The list of habitat types

and constancy values comes from Cooper 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 environmental gradient of hot-dry to cold-wet. The constancy values are given for midseral to climax stand conditions. Most species have different occurrences and constancy in highly disturbed habitats.

Constancy codes

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

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Trees

Common Name	Scientific Name
alder, red	Abies grandis
aspen, quaking	Abies lasiocarpa
birch, paper	Alnus rubra
birch, water	Betula occidentalis
cottonwood, black	Betula papyrifera
Douglas-fir, Rocky Mountain	Larix lyallii
fir, alpine	Larix occidentalis
fir, grand	Picea engelmannii
fir, red	Pinus albicaulis
fir, subalpine	Pinus contorta
fir, white	Pinus monticola
hemlock, mountain	Pinus ponderosa
hemlock, western	Populus tremuloides
larch, alpine	Populus trichocarpa
larch, Lyall	Pseudotsuga menziesii
larch, subalpine	Taxus brevifolia
larch, western	Thuja plicata
pine, bull	Tsuga heterophylla
pine, jack	Tsuga mertensiana
pine, ponderosa	
pine, western white	
pine, whitebark	
pine, yellow	
red cedar, western	
spruce, Engelmann	
tamarack	
yew, Pacific	
yew, western	

Key to Native Trees and Tall Shrubs
[Betula conspectus](#)

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Shrubs

Common Name	Scientific Name
alder, Sitka	Acer glabrum
alder, thinleaf	Alnus incana
azalea, mock	Alnus sinuata
bearberry	Amelanchier alnifolia
bilberry, dwarf	Arctostaphylos uva-ursi
birch, bog	Berberis aquifolium
birch, swamp	Berberis repens
bittercherry	Betula glandulosa
blueberry, thin-leaf	Ceanothus sanguineus
boxwood, myrtle	Ceanothus velutinus
buckthorn	Chimaphila menziesii
buffaloberry	Chimaphila umbellata
cascara	Cornus stolonifera
ceanothus, evergreen	Crataegus douglasii
ceanothus, redstem	Gaultheria humifusa
ceanothus, shinyleaf	Gaultheria ovatifolia
chittam bark	Holodiscus discolor
chokecherry, common	Ledum glandulosum
currant, prickly	Linnaea borealis
currant, sticky	Lonicera utahensis
currant, swamp	Menziesia ferruginea
devil's club	Oplopanax horridum
dogwood, red-osier	Pachistima myrsinites
elderberry	Philadelphus lewisii
elderberry, blue	Phyllodoce empetrifloris
grouseberry	Physocarpus malvaceus
hawthorn, black	Prunus emarginata
honeysuckle, Utah	Prunus virginiana
huckleberry, big	Rhamnus purshiana
huckleberry, blue	Rhamnus alnifolia
huckleberry, dwarf	Rhododendron albiflorum
huckleberry, fool's	Ribes lacustre
huckleberry, globe	Ribes viscosissimum
kinnikinnick	Rosa gymnocarpa
Labrador tea	Rosa nutkana
maple, Douglas	Rosa woodsii
maple, Rocky Mountain	Rubus parviflorus
mockorange	Rubus pedatus
mountain-ash	Salix scouleriana
mountain-ash, Sitka	Sambucus cerulea
mountain-heath, pink	Sambucus racemosa
mountain-heather, red	Satureja douglasii
mountain lover	Shepherdia canadensis
ninebark	Sorbus scopulina
ocean-spray	Sorbus sitchensis
Oregon grape, creeping	Spiraea betulifolia
Oregon grape, tall	Symphoricarpos albus
pachistima	Symphoricarpos mollis
pipsissewa, little	Vaccinium caespitosum
pipsissewa, western	Vaccinium globulare
prince's pine	Vaccinium membranaceum
prince's pine, Menzies'	Vaccinium myrtillus
rhododendron, white	Vaccinium scoparium

rose, baldhip rose, nootka rose, pearhip rose, wild savory serviceberry snowberry, common snowberry, creeping snowbush soapberry spiraea strawberry bramble syringa thimbleberry, western twinflamer whortleberry, grouse willow, scouler wintergreen, Oregon wintergreen, slender wintergreen, western yerba buena	
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[Shrub characteristics](#)
[Alnus conspectus](#)
[Ribes conspectus](#)
[Rosa conspectus](#)
[Rubus conspectus](#)
[Vaccinium conspectus](#)

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Ferns and Friends

Common Name	Scientific Name
club-moss, stiff	Adiantum pedatum
fern, bracken	Athyrium filix-femina
fern, Christmas	Botrychium virginianum
fern, grape	Cystopteris fragilis
fern, maidenhair	Dryopteris austriaca
fern, male	Dryopteris filix-mas
horsetail, common	Equisetum arvense
horsetail, field	Gymnocarpium dryopteris
ladyfern	Lycopodium annotinum
moonwort	Polystichum munitum
oak-fern	Pteridium aquilinum
swordfern, western	Woodsia oregana
woodsia	
woodfern, mountain	
woodfern, spreading	

Key to Ferns and Friends

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Forbs

Common Name	Scientific Name
anemone	Achillea millefolium
angelica, Lyall's	Aconitum columbianum
angelica, sharptooth	Actaea rubra
alumroot, lava	Adenocaulon bicolor
alumroot, roundleaf	Anaphalis margaritacea
arnica, broadleaf	Anemone piperi
arnica, heartleaf	Angelica arguta
arnica, mountain	Antennaria racemosa
aster, showy	Apocynum androsaemifolium
balsamroot, arrowleaf	Aquilegia formosa
baneberry	Aquilegia flavescens
beadlily, queen cup	Aralia nudicaulis
beargrass	Arenaria macrophylla
bedstraw, northern	Arnica cordifolia
bedstraw, sweetscented	Arnica latifolia
bellflower, Scotch	Asarum caudatum
bittercress, Constance's	Aster conspicuus
bluebells, panicle	Balsamorhiza sagittata
bluebells, tall	Caltha biflora
bride's bonnet	Calypso bulbosa
bugbane, false	Campanula rotundifolia
buttercup, little	Cardamine constancei
cinquefoil	Circaea alpina
cinquefoil, gland	Clintonia uniflora
cinquefoil, sticky	Coptis occidentalis
circaea, alpine	Corallorhiza maculata
columbine, red	Cornus canadensis
columbine, Sitka	Disporum hookeri
columbine, yellow	Disporum trachycarpum
coral root, large	Dodecatheon jeffreyi
coral root, Pacific	Epilobium angustifolium
coral root, spotted	Erigeron peregrinus
cow parsnip	Erythronium grandiflorum
daisy, subalpine	Fragaria vesca
daisy, wandering	Fragaria virginiana
dogbane, flytrap	Frasera fastigiata
dogbane, spreading	Galium boreale
dogwood, bunchberry	Galium triflorum
everlasting	Geranium viscosissimum
everlasting, pearly	Goodyera oblongifolia
fairy-bell, Hooker	Habenaria unalascensis
fairy-bell, Sierra	Heracleum lanatum
fairy-bell, wartberry	Heuchera cylindrica
fairy slipper	Hieracium albertinum
false bugbane	Hieracium albiflorum
false hellebore, green	Hypericum perforatum
false hellebore, American	Lathyrus nevadensis
false hellebore, California	Ligusticum canbyi
false mitrewort	Ligusticum verticillatum
false Solomon's seal	Listera caurina
foamflower, coolwort	Lomatium dissectum
fireweed	Lomatium triternatum
fleabane, wandering	Mertensia paniculata
frasera, clustered	Mitella breweri
geranium, sticky purple	Mitella pentandra
ginger, wild	Mitella stauropetala

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[golden pea, Montana](#)
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[groundsel, arrowleaf](#)
[hawkweed, western](#)
[hawkweed, white-flowered](#)
[heliotrope, mountain](#)
[hellebore, American false](#)
[hellebore, California false](#)
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[Indian potato](#)
[Jacob's-ladder](#)
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[lady's-thimble](#)
[licorice-root, Canby's](#)
[licorice-root, verticillate-umbel](#)
[lily, glacier](#)
[lily, pale fawn](#)
[lomatium, fern-leaved](#)
[lomatium, nine-leaved](#)
[lousewort, bracted](#)
[lousewort, leafy](#)
[lousewort, sickletop](#)
[marigold, twinflower marsh](#)
[marigold, white marsh](#)
[marsh marigold, twinflower](#)
[marsh marigold, white](#)
[meadowrue, Western](#)
[mitrewort, alpine](#)
[mitrewort, Brewer's](#)
[mitrewort, cross-shaped](#)
[mitrewort, false](#)
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[montia, broadleaved](#)
[nightshade, dwarf enchanter's](#)
[parsley, desert](#)
[parsnip, cow](#)
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[phacelia, virgate](#)
[pinedrops](#)
[polemonium, skunk-leaved](#)
[pussy-toes](#)
[pyrola, alpine](#)
[rattlesnake-plantain](#)
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[sandwort, bigleaf](#)
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strawberry
strawberry, woods
sweet-cicely, mountain
synthyris, evergreen
thermopsis, mountain
trail-plant
trillium, white
twayblade, northwestern
twayblade, western
twisted-stalk
valerian, Sitka
vetch, American
violet, dogtooth
violet, hook
violet, pioneer
violet, round-leaved
wake-robin, western
windflower
wintergreen, common pink
wintergreen, one-sided
yarrow, common

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Liliaceae conspectus
Habenaria conspectus
Mitella conspectus
Pyrola conspectus
Viola conspectus

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Rocky Mountain
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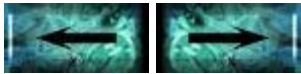


Graminoids

Common Name	Scientific Name
Ag spic	Agropyron spicatum
cheatgrass	Bromus tectorum
bluegrass, Kentucky	Bromus vulgaris
brome, Columbia	Calamagrostis canadensis
brome, downy	Calamagrostis rubescens
fescue, Idaho	Carex concinnoides
fescue, western	Carex geyeri
orchard grass	Carex rossii
Junegrass	Cinna latifolia
oniongrass, Alaska	Dactylis glomerata
pinegrass	Elymus glaucus
reedgrass, bluejoint	Elytrigia spicata
sedge, elk	Festuca idahoensis
sedge, northwestern	Festuca occidentalis
sedge, Ross	Koeleria nitida
timothy	Luzula campestris
trisetum, tall	Luzula hitchcockii
wheatgrass, bluebunch	Luzula parviflora
wildrye, blue	Melica subulata
woodreed, drooping	Phleum pratense
woodrush, field	Poa pratensis
woodrush, millet	
woodrush, smooth	

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Collecting and pressing methods

Collecting and pressing plants is an excellent way to learn the various species of an area. We suggest that each Forest Supervisor's Office and Ranger District have a collection of indicator species, similar "confuser" species, and other common species. Mounted specimens, along with color photographs, make ideal visual teaching aids when fresh material is not available. Dried specimens and collection site habitat data also serve as a source of information about geographical distribution, species variation, habitat and miscellaneous information,

When collecting plants, especially on private property, seek the permission of the landowner. All National Parks and Monuments require a permit. Be discrete with the number of plants you collect; never take the only plant, leave a healthy population behind. Rare and endangered plants exist in northern Idaho and should NOT be collected. 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 Manager, Stillinger Herbarium, Dept. of Biological Sciences, University of Idaho or to 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. Because presses are not standard field gear, a dampened specimen can be kept in a plastic bag until it can be placed in a press. The plastic bag should be inflated slightly for added protection during travel.

A plant press is used to quickly dry and preserve fresh material. A good press consists of blotters separated by corrugated cardboard sheets, held between wooden lattices and tightly bound with straps. The corrugated sheets allow for air circulation and permit drying of the plants without discoloration or spoilage. A temporary press can be improvised out of an absorptive book, e.g., 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 a herbarium for identification. Specimens may be sent to the University of Idaho Herbarium for identification or verification.

*Herbarium Manager
Stillinger Herbarium
Dept. of Biological Sciences
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 are often instrumental in species identification. They are recorded on a herbarium label which is retained with the mounted specimen for future reference. The herbarium label below 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: _____

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Glossary

achene, akene

A dry, indehiscent, one-seeded fruit.

acuminate

Gradually tapering to a narrow tip or sharp point.

acute

Sharp pointed.

alternate

Borne singly along a stem, not opposite.

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.

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.

awn

Slender, generally terminal bristle.

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.

bi-

Latin prefix, meaning two.

biennial

A plant that completes its life cycle and dies in two years.

bilabiate

Two-lipped.

bipinnate

Twice pinnate, the pinnae again pinnate.

blade

The expanded part of leaf or petal.

bloom

A waxy powder covering a surface.

boreal

Northern.

bract

A very small or modified leaf, usually growing at the base of a flower or flower cluster.

branch

A lateral division of the stem.

bud

An undeveloped leafy shoot or flower.

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.

capsule

A dry, dehiscent fruit composed of more than 1 carpel.

catkin, ament

A scaly, bracted spike of usually unisexual flowers, frequently deciduous in one piece.

caudex

A short vertical, often woody, persistent stem at or just beneath the ground surface.

cauline

Of or pertaining to the stem.

ciliate

Fringed with hairs on the margin.

ciliolate

Diminutive of ciliate.

clasping (leaf)

Partially surrounding the stem.

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.

compound leaf

A leaf with two or more distinct leaflets.

cone

(1.) A fruit with woody, overlapping scales.

(2.) A cluster of sporophylls or ovuliferous scales on an axis.

cool season

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

cordate

Shaped like a stylized heart, notched at the base.

corm

A short, vertical, underground stem that is thickened as a storage organ.

corolla

The inner circle of flowering parts, collectively, all of the petals of a flower.

corymb

A flat-topped or round-topped flower cluster, the flowers opening from the outside inward.

corymbose

In a corymb.

creeping

Running along the ground, prostrate.

crenate

Provided with rounded teeth; scalloped.

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.

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.

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.

dehiscent

A fruit that splits open.

dentate

With spreading pointed teeth.

dimorphic

Of two forms.

dioecious

Producing male and female flowers on separate plants.

disjunct

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

dissected

Deeply and often repeatedly divided into numerous smaller or slender parts.

drupe

A fleshy fruit with a solitary seed.

drupelet

Diminutive of drupe.

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.

endemic

Confined to a particular geographic area; native.

entire (margin)

Not toothed or otherwise cut.

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.

floret

In grasses, the flower parts with the subtending bracts.

foliolate

Having leaflets.

follicle

Dry fruit of one carpel, which opens along seed-bearing suture at maturity.

forb

Herbaceous plant that is not a graminoid.

frond

A leaf, especially of a fern.

galea

The strongly concave or helmet-like upper lip of certain bilabiate corollas.

geniculate

Abruptly bent or twisted.

genus (plural: genera)

A group of closely related species. The genus is designated by the first word in the scientific name of a 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.

graminoid

All grasses (Poaceae) and grass-like plants, including sedges (Cyperaceae) and rushes (Juncaceae).

habit

The general appearance or manner of growth of a plant.

habitat

The environmental conditions or generalized kind of place in which a plant

grows.

habitat type

(1.) Expression of the biological potential of an area.

(2.) Collective term for those physical areas (environments) that support or can support the same plant association, or did support it prior to its destruction or modification by fire, flood, grazing, logging, or epidemics, etc.

(3.) A taxonomic unit and a mapping unit.

head

Many flowers joined together in a short, dense, terminal cluster (Asteraceae).

herb

A plant, either annual, biennial, or perennial, with the stems dying back to the ground at the end of the growing season.

herbaceous

Adjectival form of herb; also, leaf like in color or texture, or not woody.

hips (of a rose)

A floral cup that usually becomes enlarged and fleshy at fruiting time; the true fruits are achenes inside the hip.

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.

inflorescence

A flower cluster; the arrangement of the flowers on the axis.

involucre

A set of bracts surrounding a flower cluster.

involute

With edges rolled inward toward the upper surface.

keel

A sharp or conspicuous longitudinal ridge; also the two partly united lower petals of many Fabaceae.

lanceolate

Lance-shaped, broader toward one end and tapering to the other.

leaflet

One of the small blades of a compound leaf.

lemma

One of the two bracts (lemma and palea) subtending the individual flowers in grass spikelets; may be awned.

lenticel

A slightly raised area in the bark of a stem or root.

ligule

Term applied to the flattened part of the ray corolla in Asteraceae and to the appendage on the inner (upper) side of the leaf at the junction of blade and sheath in many Poaceae and some Cyperaceae.

linear

Long and narrow, with parallel edges.

lip

The upper or lower petal of many irregular flowers.

lobe

A projecting segment of an organ.

low shrub

A shrub 15-90cm (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.

ob-

Greek prefix, meaning in a reverse direction.

oblanceolate

Widest well above midlength, inversely lanceolate.

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.

orbicular

Essentially circular in outline.

oval

Broadly elliptic.

ovate

Egg shaped in outline.

ovoid

Solid ovate or solid oval.

palmate

With three or more lobes, nerves, leaflets, or branches arising from a common point.

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.

papilionaceous flower

One with a banner petal, two wing petals, and two partly connate keel petals.

parasite

A plant that derives its food or water chiefly from another plant to which it is attached.

pedicel

The stalk of an individual flower.

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.

perigynium

A special bract which encloses the achene of Carex species.

persistent

Remaining attached.

petal

One of the segments of the corolla, generally colored or white and serving to attract pollinators.

petiolate

With a petiole.

petiole

A leaf stalk.

phase

A subdivision of a plant association or a habitat type representing minor differences in climax vegetation or environmental conditions, respectively.

pinna

One of the primary divisions of a pinnately compound leaf.

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.

pinnule

Diminutive of pinnae; an ultimate leaflet of a leaf that is pinnately two or more times compound.

pistillate

A flower with one or more pistils, but no stamens.

pith

The softer, central part of a twig or stem.

pod

Any kind of dry, dehiscent fruit.

pome

A fruit with a core, like an apple.

prickle

A small, sharp, usually slender outgrowth of the young bark.

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.

rachilla

Diminutive of rachis; the axis of the spikelet in the grasses and sedges.

rachis

A main axis, such as that of a compound leaf.

reflexed

Bent backward or downward.

reniform

Kidney-shaped.

revolute

Rolled back from the margin toward bottom surface.

rhizomatous

Bearing rhizomes.

rhizome

A creeping, underground stem.

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; rhizome.

rosette

A circular cluster of leaves, usually at ground level.

rotate

Flat and circular in outline; saucer-shaped.

rotund

Round or rounded.

rudimentary

Imperfectly developed.

samara

A dry, indehiscent, generally one-seeded, winged fruit.

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.

schizocarp

A fruit that splits into separate carpels at maturity.

secund

With the flowers or branches all on one side of the axis.

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.

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.

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.

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.

simple leaf

A single leaf blade, not compound.

sorus (plural: sori)

A cluster of sporangia, as in ferns.

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 designates the species.

spicate

Arranged in a spike.

spike

An elongate flower cluster with sessile flowers arranged along a central stem.

spine

A firm, slender, sharp-pointed structure, representing a modified leaf or stipule.

spinulose

Provided with small spines.

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.

sporophyte

Produces spores as reproductive bodies.

spur

A hollow, tubular projection of a flower petal.

stamen

The male organ of a flower, consisting of a slender stalk (filament) and a knoblike, pollen-bearing tip (anther).

staminate

A flower with one or more stamens, but no pistil.

sterile

Unproductive or infertile.

stipe

A stalk supporting a single organ; the leaf stalk of a fern.

stipule

A small leaflike growth at the base of a leaf stalk.

stolon

An elongate, creeping stem on or above the surface of the ground.

stoloniferous

Bearing stolons.

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.

taproot

The primary descending, usually fleshy root.

tendrils

A slender, coiling organ used for climbing or support.

tepal

A sepal or petal, or member of an undifferentiated perianth.

terete

Cylindrical; round in cross-section.

ternate

In threes.

thorn

A stiff, woody, modified stem with a sharp point.

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.

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.

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.

urceolate

Urn-shaped or pitcherlike, contracted at or just below the mouth.

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.

xeric

Characterized or pertaining to conditions of scant moisture supply.

Definitions for this glossary were derived from

Hitchcock and Cronquist 1973; Johnson, F. D. 1983; Lee and Pfister 1978;
and Newcomb 1977.

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Field Guide to Forest Plants of Northern Idaho



United States
Department of
Agriculture

Forest Service

Rocky Mountain
Research Station
Ft. Collins, CO

General Technical Report
RMRS-GTR-118-CD

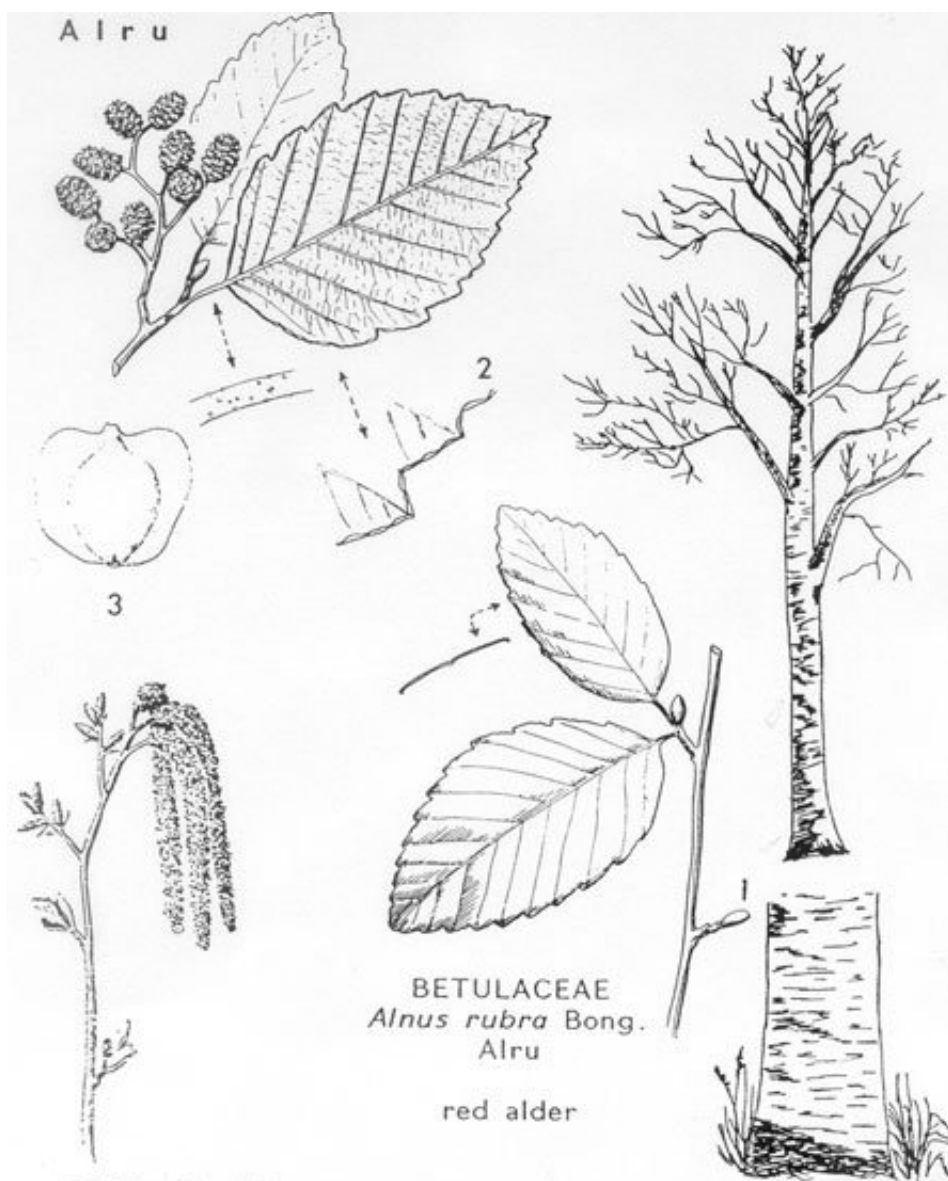
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Keys, Characteristics, & Conspectuses

Key to Native Trees and Tall Shrubs	
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<i>Viola</i> conspectus	



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

IDAHO CHAMPION: 1985. 22in dbh; 70in circum.; 110ft tall;

11ft crown=191 pts; 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.

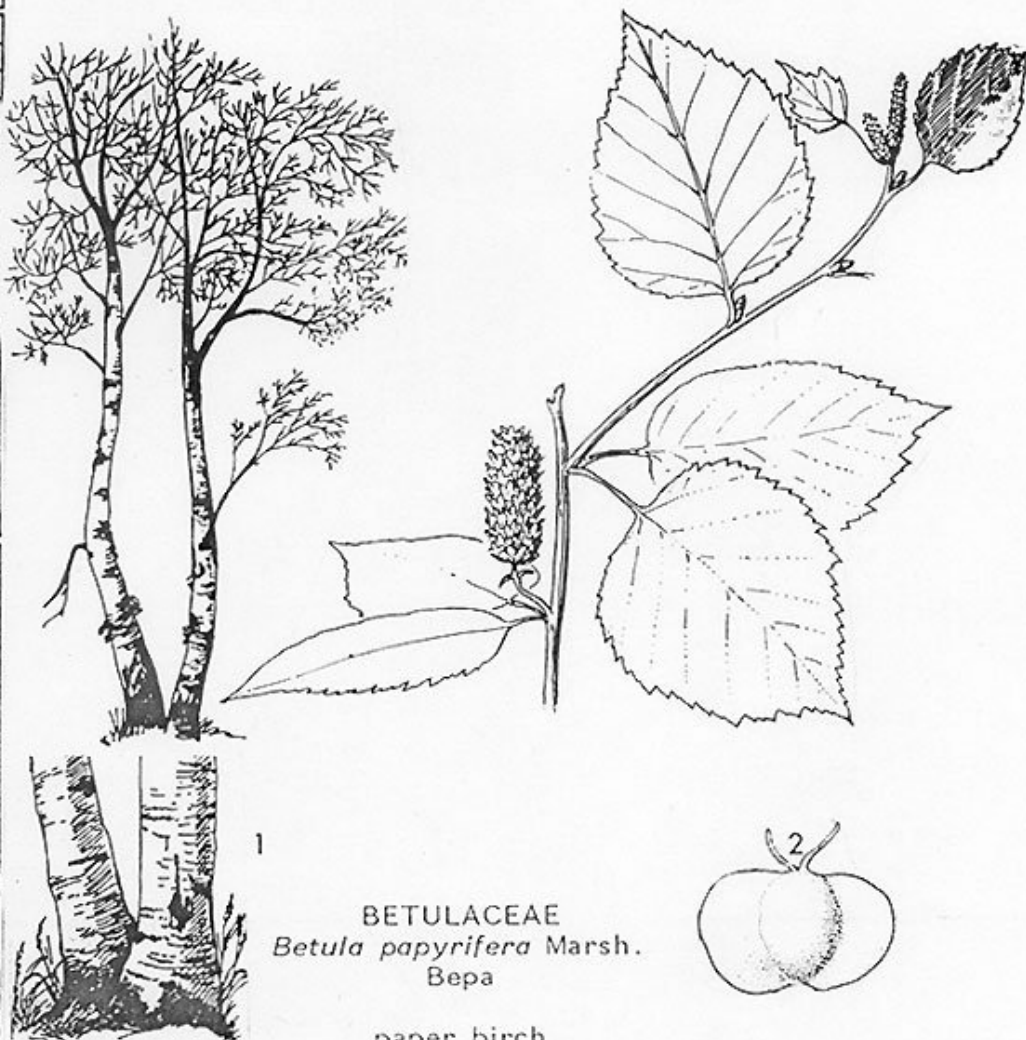
FRUIT: Winged, tiny nutlet (3), in semi-woody cone (4), 1-2cm long.

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.		Ptco
Phma h.t.		
Caru	Caru	Psmc
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	Thp1
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.	Tshe
Clun		
Arnu	Clun	
Mefe	h.t.	
Xete		
Asca	Asca	
Arnu	h.t.	Tsmc
3 Mefe		
Gydr	h.t.	
Mefe	Clun	
Xete	h.t.	
Xete	Mefe	
Luhi	h.t.	Ab1a
Mefe	Stam	
Luhi	h.t.	
Vagl	Xete	
Luhi	h.t.	
Clun		
Mefe	Clun	Pico
Xete	h.t.	
Cooc		
Xete	Mefe	
Vasc	h.t.	
Luhi		
Mefe	Stam	Pico
Lica	h.t.	
Caca	Caca	
Vaca	h.t.	
Legl		
Cooc		
Vagl	Xete	Pico
Vasc	h.t.	
Luhi		
Vasc	h.t.	Pico
Xete	c.t.	
Vaca	c.t.	

Pipo	Syal h.t.	
Phma h.t.		
Caru h.t.	Caru	
Aruv		
Phma h.t.	Phma	
Smst		+
Phma h.t.	Phma	
Cooc		
Libo h.t.	Libo	
Xete		
Asca h.t.	Asca	+
Tabr		
Mefe		
Setr h.t.		
Phma		+
Clun h.t.	Clun	
Tabr		
Mefe		
Xete		
Vagl		
Cooc		
Clun h.t.	Clun	1
Tabr		
Mefe		
Xete		
Asca h.t.	Asca	1
Tabr		
Mefe		
Gydr h.t.		
Adpe h.t.		1
Atfi		1
h.t.	Atfi	+
Opho h.t.		
Clun h.t.	Clun	1
Arnu		2
Mefe		
Xete		
Asca h.t.	Asca	+
Arnu		4
Mefe		
Gydr h.t.		1
Clun h.t.	Mefe	
Xete		
Mefe		
Xete		
Luh		
Stam h.t.	Mefe	
Luh		
Xete		
Vagl		
Luh		
Clun h.t.	Clun	
Mefe		
Xete		
Cooc		
Mefe h.t.	Xete	
Vasc		
Luh		
Stam h.t.	Mefe	
Lica		
Caca h.t.	Caca	
Vaca		
Legl		
Cooc		
Vagl		
Xete h.t.	Vasc	
Luh		
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*: 1991. 52in dbh; 163in circum; 75ft tall; 15 ft. crown=253 pts.; 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.

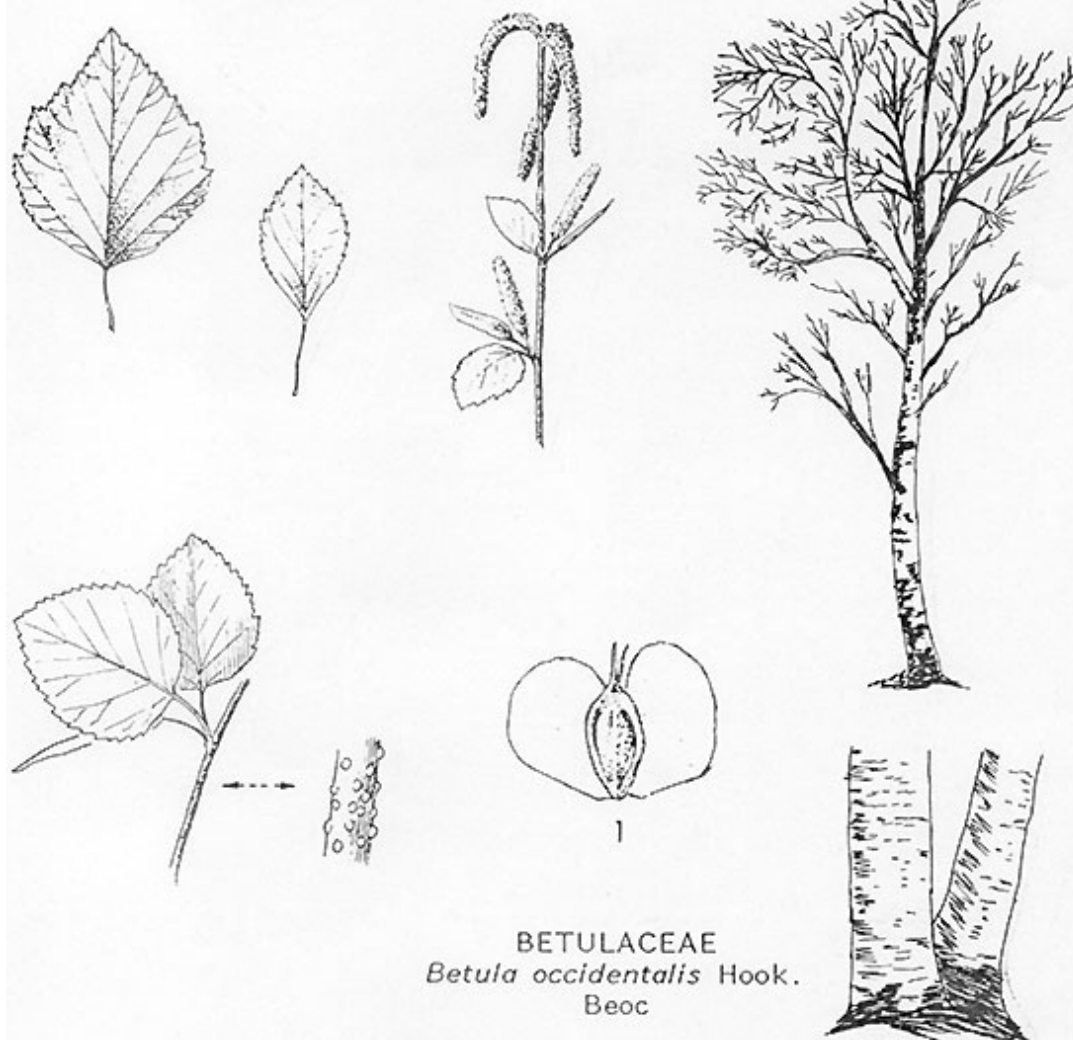
FLOWERS: Cylindrical catkin 2-4cm (1-2in) long; flowering with or before leaves, breaking up at maturity; April-June.

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.



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.		Pp
Phma h.t.		Pp
Caru	Caru	Psme
Aruv	h.t.	
Phma	Phma	
+ Smst	h.t.	
1 Phma	Phma	
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		
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		
Arnu	Clun	
Mefe	h.t.	
Xete		
Asca		
1 Arnu	Asca	
Mefe	h.t.	
Gydr	h.t.	
Mefe	Clun	
Xete	h.t.	
Xete	Mefe	
Luh	h.t.	
Mefe	Stam	
Luh	h.t.	
Vagl	Xete	
Luh	h.t.	
Clun		
Mefe	Clun	
Xete	h.t.	
Cooc		
Xete	Mefe	
Vasc	h.t.	
Luh		
Mefe	Stam	
Lica	h.t.	
Caca		
Vaca	Caca	
Legl	h.t.	
Cooc		
Vagl	Xete	
Vasc	h.t.	
Luh		
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	



SALICACEAE

Populus trichocarpa T. & G. ex Hook.

Potr2

black cottonwood

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

IDAHO CHAMPION: 1991. 96in dbh; 302in circum; 113ft tall; 20ft crown=435pts. Bonner Co., ID

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.

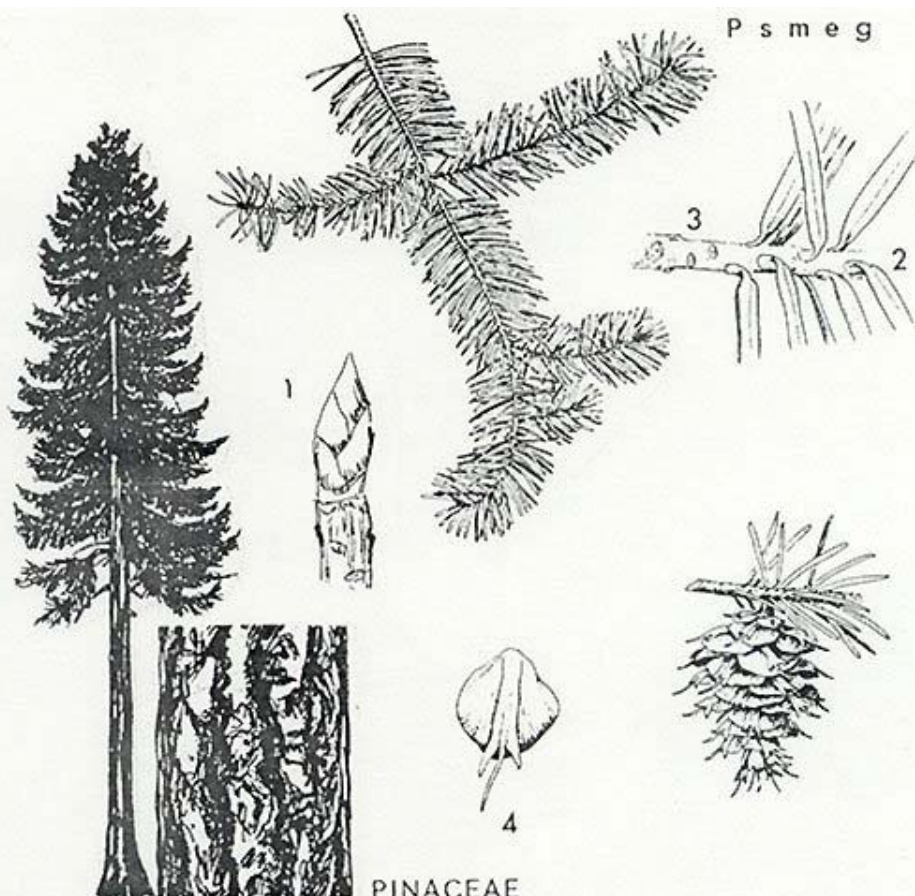
FLOWER: Catkins drooping; appearing before the leaves; April-June.

HABITAT: Mostly along streams and lake shores.

NOTE: Largest hardwood native to Idaho.

Pip	Syal h.t.	
Pip	Phma h.t.	
Psm	Caru h.t.	Caru
	Aruv	
	Phma h.t.	Smst
Phma h.t.	Phma	
	Cooc	
	Libo h.t.	Xete
	Asca h.t.	Asca
	Tabr	Mefe
Abgr	Setr h.t.	
	Phma	
	Clun h.t.	Clun +
	Tabr	
	Mefe	
Xete h.t.	Xete	
	Vagl	
	Cooc	
Thp	Clun h.t.	Clun
	Tabr	
	Mefe	
	Xete	
	Asca h.t.	Asca
Gydr h.t.	Tabr	
	Mefe	
	Gydr h.t.	
	Adpe h.t.	
	Atfi h.t.	Atfi +
Opho h.t.	Opho h.t.	
	Clun	
	Arnu	1
	Mefe	
	Xete	
Tshe	Asca h.t.	Asca 1
	Arnu	
	Mefe	
	Gydr h.t.	+
Tsm	Clun h.t.	Mefe
	Xete	1
	Mefe	
	Xete	
	Luh	
Abla	Stam h.t.	Mefe
	Lica	
	Caca h.t.	Caca
	Vaca	
	Legl	
Xete h.t.	Cooc	
	Vagl	
	Vasc	
	Luh	
Pico	Vasc h.t.	
Pico	Xete c.t.	
Pico	Vaca c.t.	

Pip	Syal h.t.	1
Pip	Phma h.t.	
Psme	Caru	10
	h.t.	Aruv 9
	Phma	10
	h.t.	Smst 10
Abgr	Phma	10
	h.t.	Cooc 10
	Libo	8
	h.t.	Xete 9
	Asca	9
	h.t.	Tabr 4
	Mefe	5
	Setr h.t.	2
	Phma	10
	Clun	9
Thpl	Clun	7
	h.t.	Tabr 6
	Mefe	7
	Xete	8
	Asca	6
	h.t.	Tabr 2
	Mefe	9
	Gydr h.t.	2
	Adpe h.t.	3
	Atfi	1
Tshe	h.t.	Atfi 1
	Opho h.t.	
	Clun	5
	h.t.	Arnu 5
	Mefe	8
	Xete	5
	Asca	5
	h.t.	Arnu 4
	Mefe	3
	Gydr h.t.	2
Tsme	Clun	6
	h.t.	Mefe 7
	Mefe	Xete 1
	h.t.	Luh 1
	Stam	Mefe 2
	h.t.	Luh 1
	Xete	Vagl 5
	h.t.	Luh 1
	Clun	7
	h.t.	Mefe 4
Abia	Xete	8
	h.t.	Cooc 6
	Mefe	Xete 2
	h.t.	Vasc 3
	Luh	1
	Stam	Mefe 2
	h.t.	Lica 2
	Caca	3
	h.t.	Vaca
	Legl	
Pico	Cooc	7
	Xete	Vagl 7
	h.t.	Vasc 3
	Luh	1
	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: 1998. 70in dbh; 221in circum; 209ft tall; 7ft crown=437 pts.; Clearwater Co., Pollatch Corp., ID.

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.

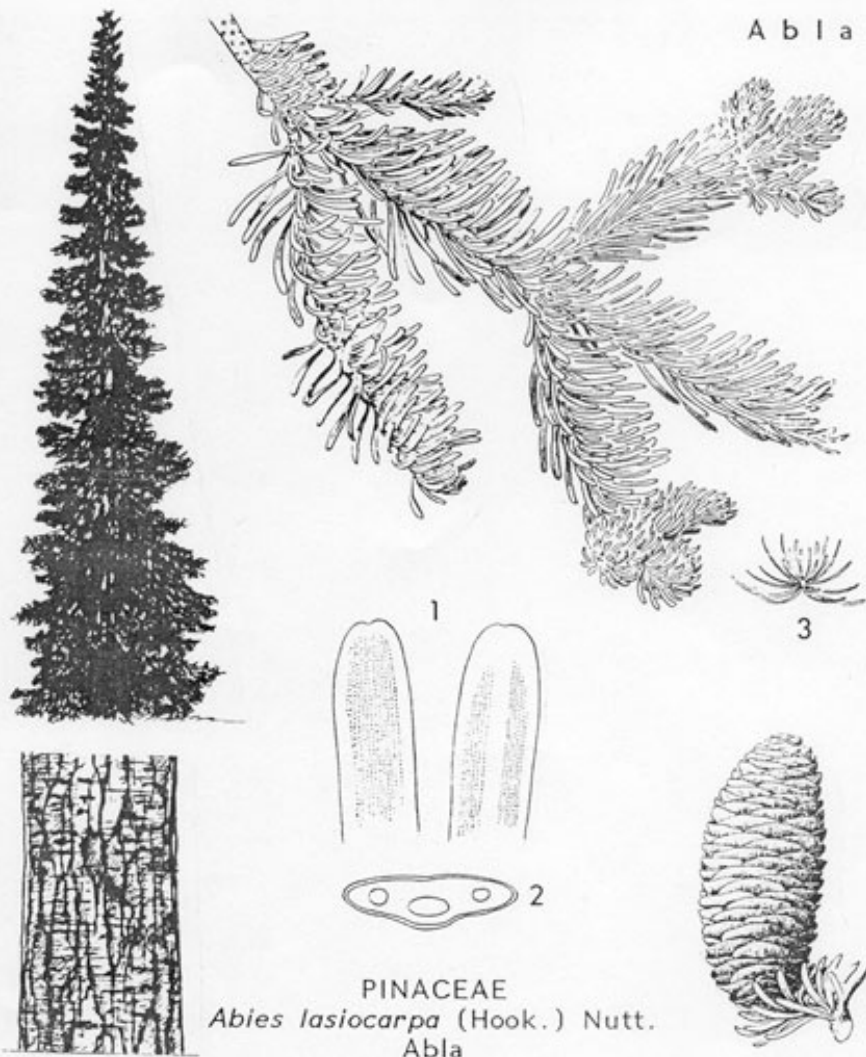
BUDS: Shiny, reddish-brown, sharp-pointed, 6mm long (1).

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.

po	Syal h.t.	
Phma h.t.		
Caru h.t.	Caru	4
Aruv		
Phma h.t.	Phma	
Smsst		
Phma h.t.	Phma	
Cooc		
Libo h.t.	Libo	2
Xete		4
Asca h.t.	Asca	1
Tabr		1
Mefe		2
Setr h.t.		3
Phma		+
Clun h.t.	Clun	1
Tabr		3
Mefe		4
Xete		3
Vagl		6
Cooc		5
Clun h.t.	Clun	1
Tabr		1
Mefe		5
Xete		3
Asca h.t.	Asca	1
Tabr		1
Mefe		6
Gydr h.t.		
Adpe h.t.		1
Atfi h.t.	Atfi	2
Opho h.t.		1
Clun h.t.	Clun	2
Arnu		
Mefe		4
Xete		5
Asca h.t.	Asca	1
Arnu		
Mefe		10
Gydr h.t.		2
Clun h.t.	Mefe	10
Xete		7
Mefe h.t.	Xete	10
Luh		10
Stam h.t.	Mefe	10
Luh		10
Xete h.t.	Vagl	10
Luh		10
Clun h.t.	Clun	10
Mefe		10
Xete		9
Cooc		10
Mefe h.t.	Xete	10
Vasc		10
Luh		10
Stam h.t.	Mefe	10
Lica		10
Caca h.t.	Caca	10
Vaca		10
Legl		10
Cooc		10
Xete h.t.	Vagl	10
Vasc		10
Luh		10
Vasc h.t.		6
Xete c.t.		
Vaca c.t.		



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.

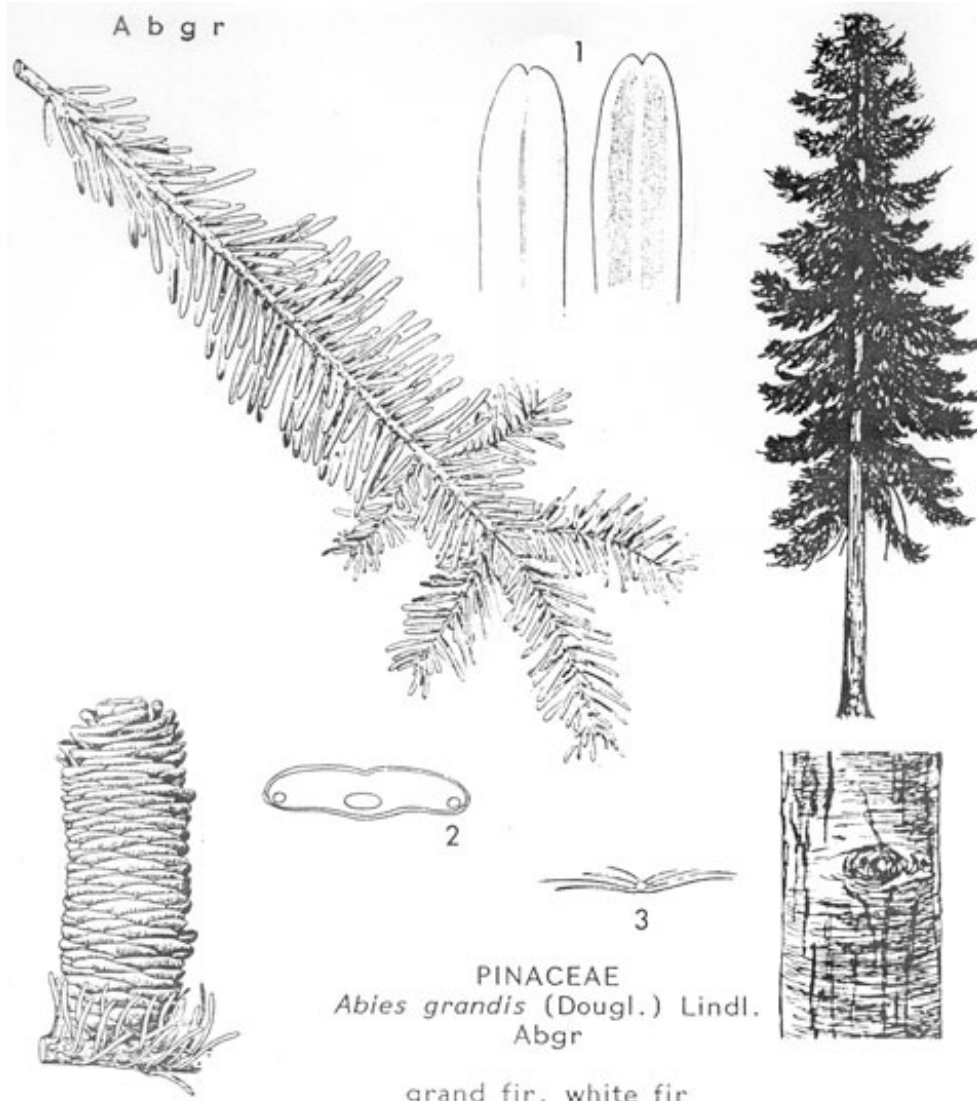
BUDS: Rounded, light brown, 6mm long.

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.



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).

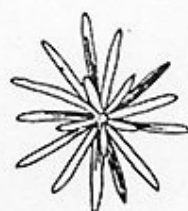
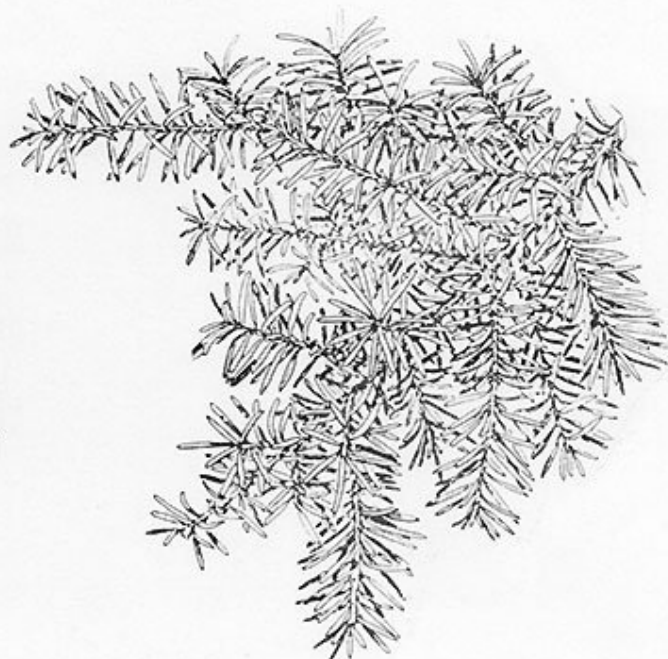
CONES: Cylindrical, 6-11cm (2-4in); borne upright, high in crown and disintegrating on tree; ripens Aug.; seed shed early Sept.

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.		Pho
	Phma	h.t.		
	Caru		Caru	Pme
	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			
10	Mefe			
9	Setr	h.t.		
10	Phma		Clun	
10	Clun			
10	Tabr			
10	Mefe			
10	Xete			
10	Vagl		Xete	
10	Cooc		h.t.	
9	Clun		Clun	
10	Tabr			
9	Mefe			
9	Xete		Asca	
10	Asca			
10	Tabr			
10	Mefe			
9	Gydr	h.t.		
8	Adpe	h.t.		
9	Adpe		Atfi	
6	Atfi		h.t.	
3	Opho	h.t.		
7	Clun		Clun	
7	Arnu			
6	Mefe			
7	Xete		Asca	
9	Asca			
9	Arnu			
7	Mefe			
5	Gydr	h.t.		
3	Mefe		Clun	
1	Xete		h.t.	
1	Xete		Mefe	
	Luhi		h.t.	
	Mefe		Stam	
	Luhi		h.t.	
1	Vagl		Xete	
	Luhi		h.t.	
7	Clun		Clun	
4	Mefe		h.t.	
5	Xete		Mefe	
3	Cooc			
2	Xete			
4	Vasc			
	Luhi		Stam	
2	Mefe			
4	Lica		h.t.	
	Caca		Caca	
7	Vaca		h.t.	
4	Legl		Xete	
7	Cooc			
2	Vagl			
2	Vasc			
	Luhi		h.t.	
	Vasc	h.t.	Pico	
	Xete	c.t.		
	Vaca	c.t.		

Pipo	Syal h.t.	
Phma	h.t.	
Caru	Caru	
h.t.	Aruv	
Phma	Phma	
h.t.	Smst	
Phma	Phma	
h.t.	Cooc	
Libo	Libo	
h.t.	Xete	
Asca	Asca	
h.t.	Tabr	
	Mefe	
Setr	h.t.	
Clun	Phma	
h.t.	Clun	
	Tabr	
	Mefe	
Xete	Vagl	1
h.t.	Cooc	
Clun	Clun	
h.t.	Tabr	
	Mefe	5
	Xete	2
Asca	Asca	1
h.t.	Tabr	
	Mefe	1
Gydr	h.t.	
Adpe	h.t.	
Atfi	Adpe	
h.t.	Atfi	+
Opho	h.t.	
Clun	Clun	
h.t.	Arnu	
	Mefe	1
Xete	Xete	
Asca	Asca	
h.t.	Arnu	
	Mefe	
Gydr	h.t.	
Clun	Mefe	10
h.t.	Xete	10
Mefe	Xete	10
h.t.	Luh1	10
Stam	Mefe	10
h.t.	Luh1	10
Xete	Vagl	10
h.t.	Luh1	10
Clun	Clun	
h.t.	Mefe	
	Xete	1
Mefe	Cooc	
h.t.	Xete	2
	Vasc	1
Luh1		
Stam	Mefe	
h.t.	Lica	
Caca	Caca	
h.t.	Vaca	
	Legl	1
Cooc		
Xete	Vagl	
h.t.	Vasc	
	Luh1	
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: 1984. 64in dbh; 202in circum; 136ft tall; 9ft crown=347 pts., Shoshone Co., Coeur d'Alene BLM, ID

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

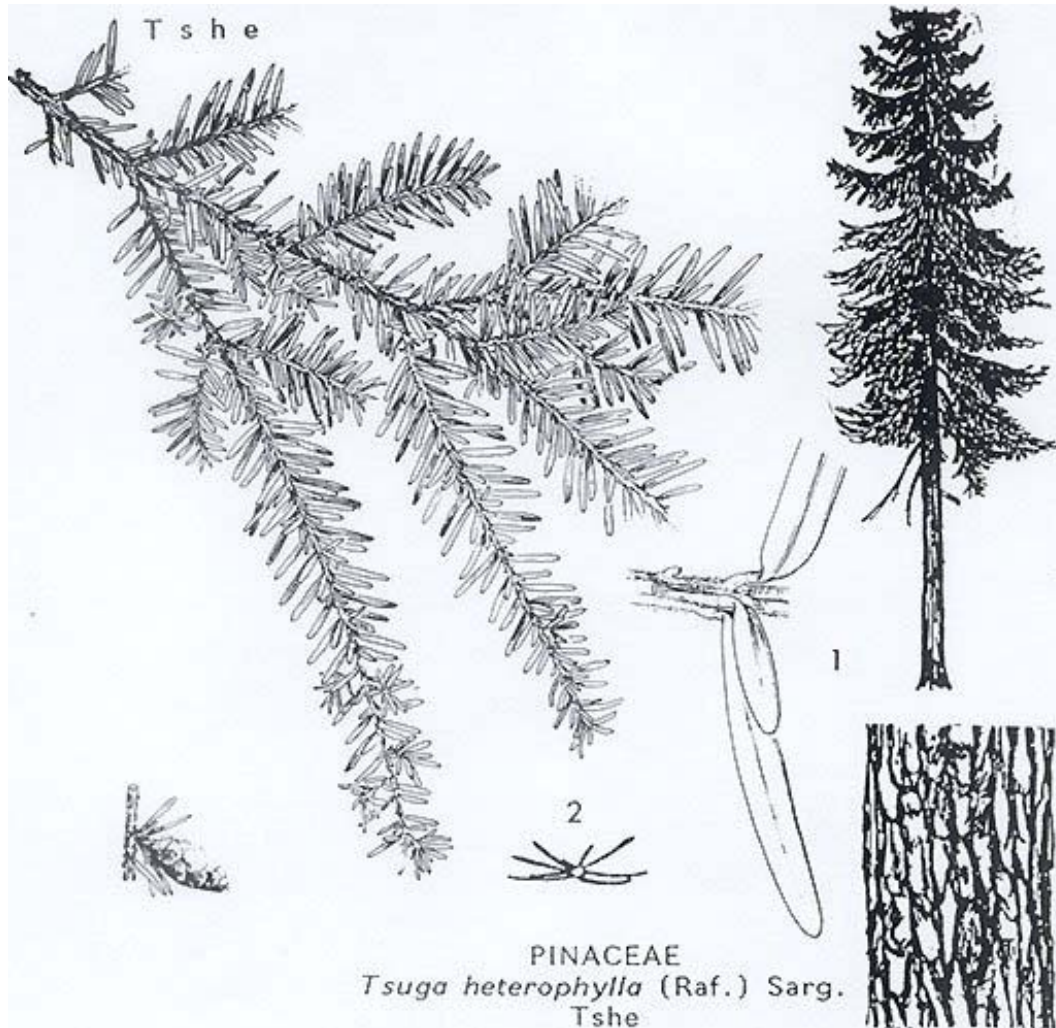
BUDS: Brown, sharp pointed, 3mm long.

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 (1).

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.



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

ID CHAMPION: 1985; 58in dbh; 182in circum; 165ft tall; 14ft crown=361pts.

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).

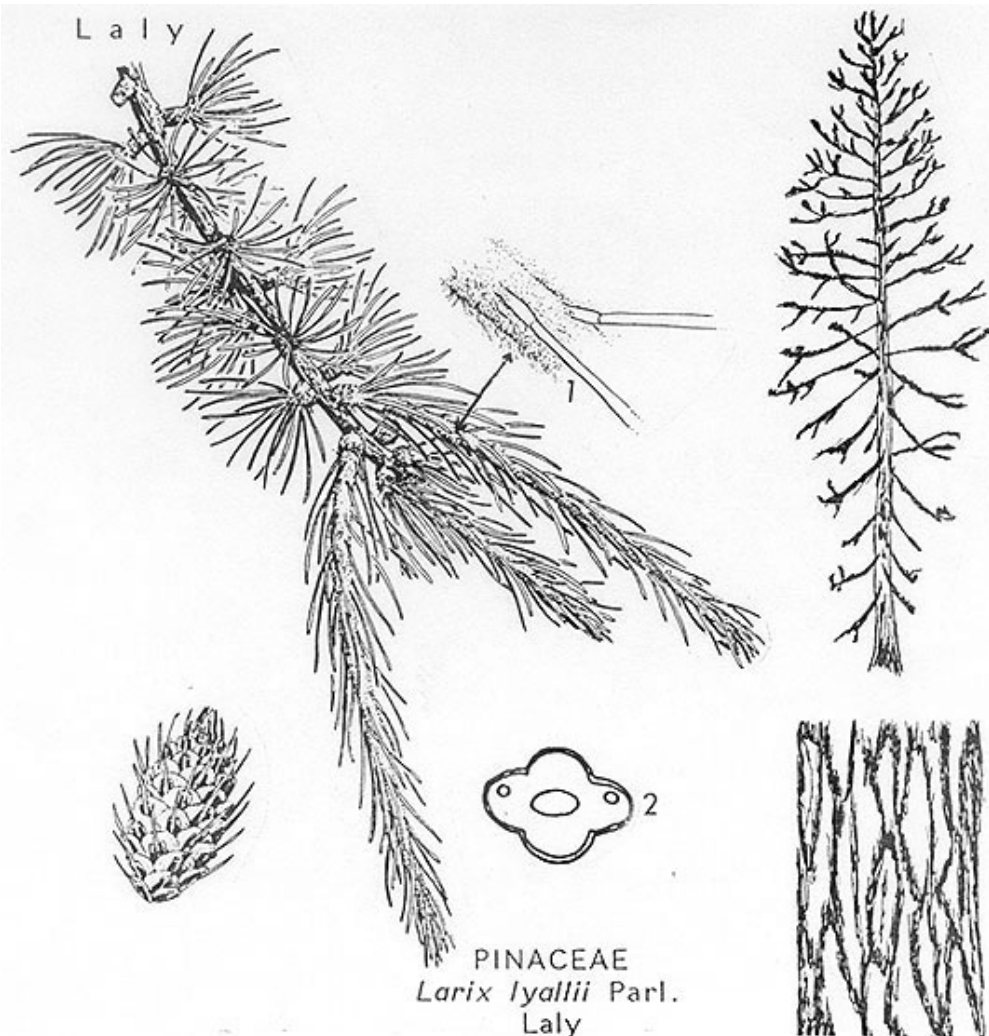
CONES: Light brown, 2cm (<1in) long, thin scales narrow with wavy margin; ripens first year, Aug.-Oct.; seed shed Sept.-Jan., after seed release cones remain on trees until the next summer.

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 sapling *Taxus brevifolia*, p.24.

NOTE: Largest hemlock native to the United States.

	Syal h.t.	Pt
	Phma h.t.	Pt
	Caru	Caru
	Aruv	Aruv
	Phma	Phma
	Smst	Smst
1	Phma	Phma
	Cooc	Cooc
	Libo	Libo
	Xete	Xete
1	Asca	Asca
	Tabr	Tabr
	Mefe	Mefe
	Setr h.t.	Setr h.t.
	Phma	Phma
1	Clun	Clun
	Tabr	Tabr
	Mefe	Mefe
1	Xete	Xete
	Vagl	Vagl
	Cooc	Cooc
1	Clun	Clun
	Tabr	Tabr
1	Mefe	Mefe
	Xete	Xete
	Asca	Asca
	Tabr	Tabr
	Mefe	Mefe
	Gydr h.t.	Gydr h.t.
3	Adpe	Adpe
1	Adpe	Adpe
2	Atfi	Atfi
6	Opho	Opho
10	Clun	Clun
9	Arnu	Arnu
9	Mefe	Mefe
10	Xete	Xete
10	Asca	Asca
10	Arnu	Arnu
10	Mefe	Mefe
9	Gydr h.t.	Gydr h.t.
+	Mefe	Mefe
	Xete	Xete
	Xete	Xete
	Luhi	Luhi
	Mefe	Mefe
	Luhi	Luhi
	Vagl	Vagl
	Luhi	Luhi
3	Clun	Clun
	Mefe	Mefe
2	Xete	Xete
	Cooc	Cooc
2	Xete	Xete
	Vasc	Vasc
	Luhi	Luhi
	Mefe	Mefe
1	Lica	Lica
	Caca	Caca
	Vaca	Vaca
	Legl	Legl
	Cooc	Cooc
	Vagl	Vagl
	Vasc	Vasc
	Luhi	Luhi
	Vasc h.t.	Vasc h.t.
	Xete c.t.	Xete c.t.
	Vaca c.t.	Vaca c.t.



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 occidentalis*.

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*.

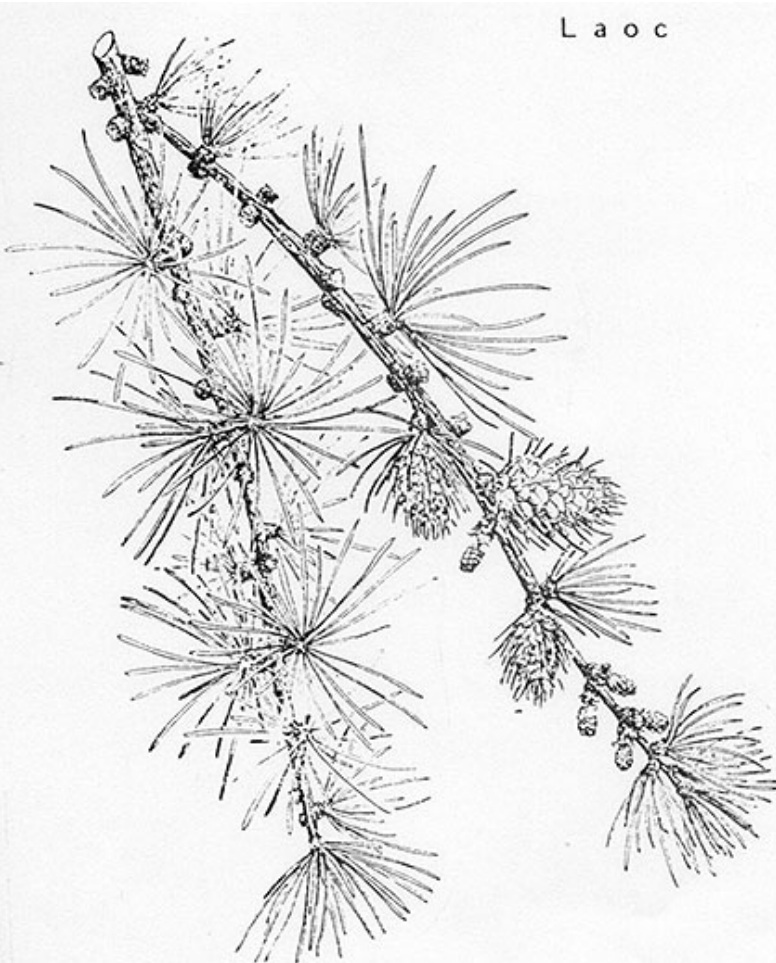
SIMILAR SPECIES: *Larix occidentalis*, p.15.

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	Clun	
Tabr	h.t.	
Mefe		Thp1
Xete	Xete	
Vagl	h.t.	
+ Cooc	h.t.	
Clun	Clun	
Tabr	h.t.	
Mefe		
Xete		
Asca	Asca	
Tabr	h.t.	
Mefe		Tshe
Gydr	h.t.	
Adpe	h.t.	
Adpe	Atfi	
Atfi	h.t.	
Opho	h.t.	
Clun	Clun	
Arnu	h.t.	
Mefe		
Xete		
Asca	Asca	
Arnu	h.t.	Tme
Mefe		
Gydr	h.t.	
Mefe	Clun	
Xete	h.t.	
Xete	Mefe	
Luhi	h.t.	
Mefe	Stam	
Luhi	h.t.	
Vagl	Xete	
Luhi	h.t.	
Clun	Clun	Abia
Mefe	h.t.	
Xete		
Cooc	Mefe	
Xete	h.t.	
Vasc		
Luhi	Stam	
Mefe	h.t.	
Lica		
Caca	Caca	
Vaca	h.t.	
Legl		Pico
Cooc	Xete	
Vagl	h.t.	
Vasc		
Luhi		
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	

Pico	Syal h.t.	
Pico	Phma h.t.	
Pisme	Caru h.t.	Caru 4
	Phma h.t.	Phma 1
	Smst h.t.	Smst 2
Abgr	Phma h.t.	Phma 2
	Cooc h.t.	Cooc 2
	Libo h.t.	Libo 3
	Xete h.t.	Xete 6
	Asca h.t.	Asca 4
	Tabr h.t.	Tabr 3
	Mefe h.t.	Mefe 2
	Setr h.t.	Setr 3
	Phma h.t.	Phma 3
	Clun h.t.	Clun 4
Thpl	Clun h.t.	Clun 4
	Tabr h.t.	Tabr 6
	Mefe h.t.	Mefe 6
	Xete h.t.	Xete 6
	Asca h.t.	Asca 3
	Tabr h.t.	Tabr 4
	Mefe h.t.	Mefe 9
	Gydr h.t.	Gydr 2
	Adpe h.t.	Adpe 2
	Atfi h.t.	Atfi 1
Tshe	Opho h.t.	Opho 1
	Clun h.t.	Clun 6
	Arnu h.t.	Arnu 6
	Mefe h.t.	Mefe 4
	Xete h.t.	Xete 7
	Asca h.t.	Asca 5
	Arnu h.t.	Arnu 4
	Mefe h.t.	Mefe 7
	Gydr h.t.	Gydr 3
	Clun h.t.	Clun 6
Tsme	Mefe h.t.	Mefe 7
	Xete h.t.	Xete 1
	Luh1 h.t.	Luh1 2
	Stam h.t.	Stam 5
	Luh1 h.t.	Luh1 5
	Xete h.t.	Xete 5
	Luh1 h.t.	Luh1 1
	Clun h.t.	Clun 7
	Mefe h.t.	Mefe 1
	Xete h.t.	Xete 5
Abia	Cooc h.t.	Cooc 1
	Xete h.t.	Xete 1
	Vasc h.t.	Vasc 1
	Luh1 h.t.	Luh1 1
	Stam h.t.	Stam 1
	Lica h.t.	Lica 1
	Caca h.t.	Caca 2
	Vaca h.t.	Vaca 2
	Legl h.t.	Legl 2
	Cooc h.t.	Cooc 2
Pico	Xete h.t.	Xete 2
	Vasc h.t.	Vasc 2
	Luh1 h.t.	Luh1 2
	Vasc h.t.	Vasc 2



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.



PINACEAE

Pinus ponderosa Dougl.
Pipo

ponderosa pine, yellow pine, bull pine



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

IDAHO CHAMPION: 1989. 73in dbh; 228in circum; 172ft tall; 9ft. crown= 409pts: Boise Co., IDL

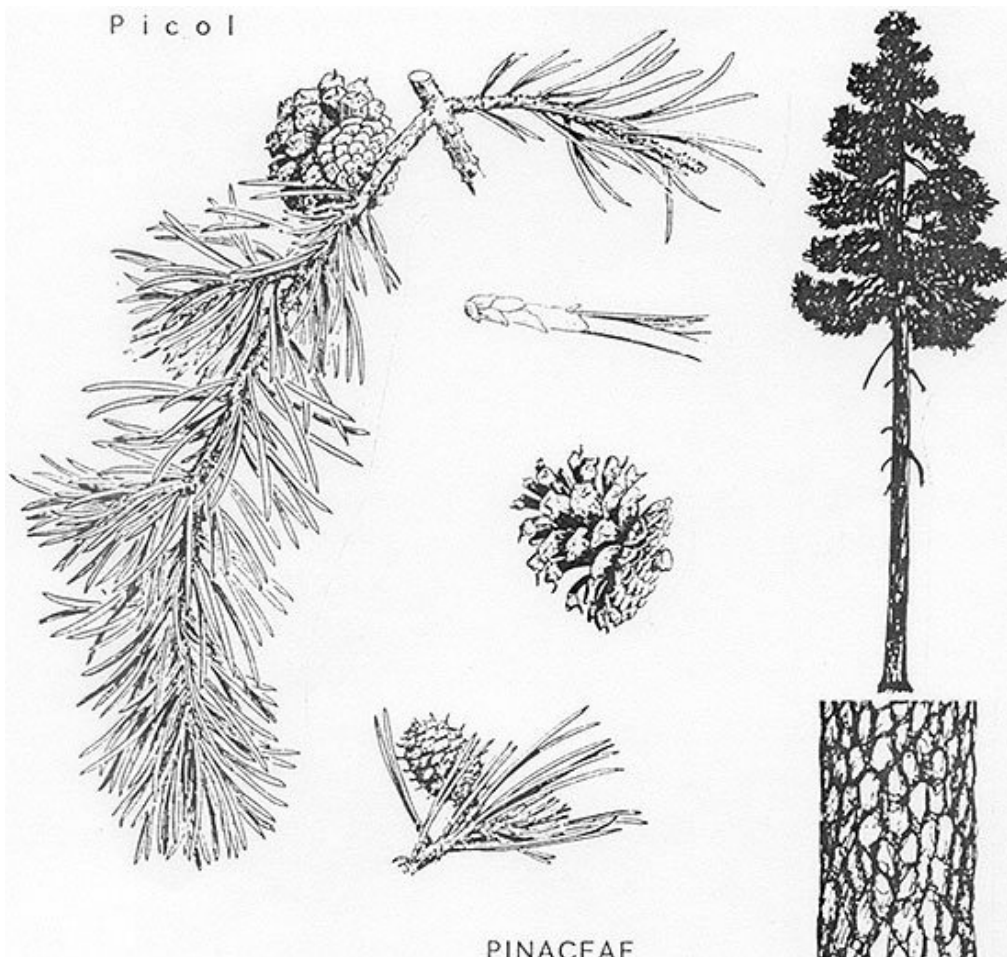
BARK: Brownish-black on vigorous young trees, turning to an orange or cinnamon color as diameter growth slows; always scaly with deep furrows on mature tree.

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
4	Aruv h.t.	Psmc
8	Phma	Phma
9	Smst h.t.	
7	Phma	Phma
3	Cooc h.t.	
6	Libo	Libo
4	Xete h.t.	
2	Asca	Asca
	Tabr h.t.	
2	Mefe	Mefe
	Setr h.t.	Abgr
7	Phma	
4	Clun	Clun
	Tabr h.t.	
1	Mefe	Mefe
3	Xete	Xete
4	Vagl	Vagl
3	Cooc h.t.	
2	Clun	Clun
	Tabr h.t.	
2	Mefe	Mefe
	Xete	Xete
1	Asca	Asca
	Tabr h.t.	
	Mefe	Mefe
	Gydr h.t.	Thpl
+	Adpe h.t.	
	Adpe	Adpe
+	Atfi h.t.	
	Opho h.t.	
1	Clun	Clun
+	Arnu	Arnu
	Mefe	Mefe
1	Xete	Xete
1	Asca	Asca
	Arnu h.t.	
	Mefe	Mefe
	Gydr h.t.	Ishe
	Mefe	Mefe
	Xete	Xete
	Xete	Xete
	Luhi	Luhi
	Mefe	Mefe
	Luhi	Luhi
1	Vagl	Vagl
	Luhi	Luhi
	Clun	Clun
	Mefe	Mefe
1	Xete	Xete
	Cooc	Cooc
	Xete	Xete
	Vasc	Vasc
	Luhi	Luhi
	Mefe	Mefe
	Lica	Lica
	Caca	Caca
	Vaca	Vaca
	Legl	Legl
1	Cooc	Cooc
	Vagl	Vagl
	Vasc	Vasc
	Luhi	Luhi
	Vasc h.t.	Pico
	Xete c.t.	
	Vaca c.t.	



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: 1998. 42in dbh; 132in circum; 155ft tall; 8ft crown= 295pts; 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.

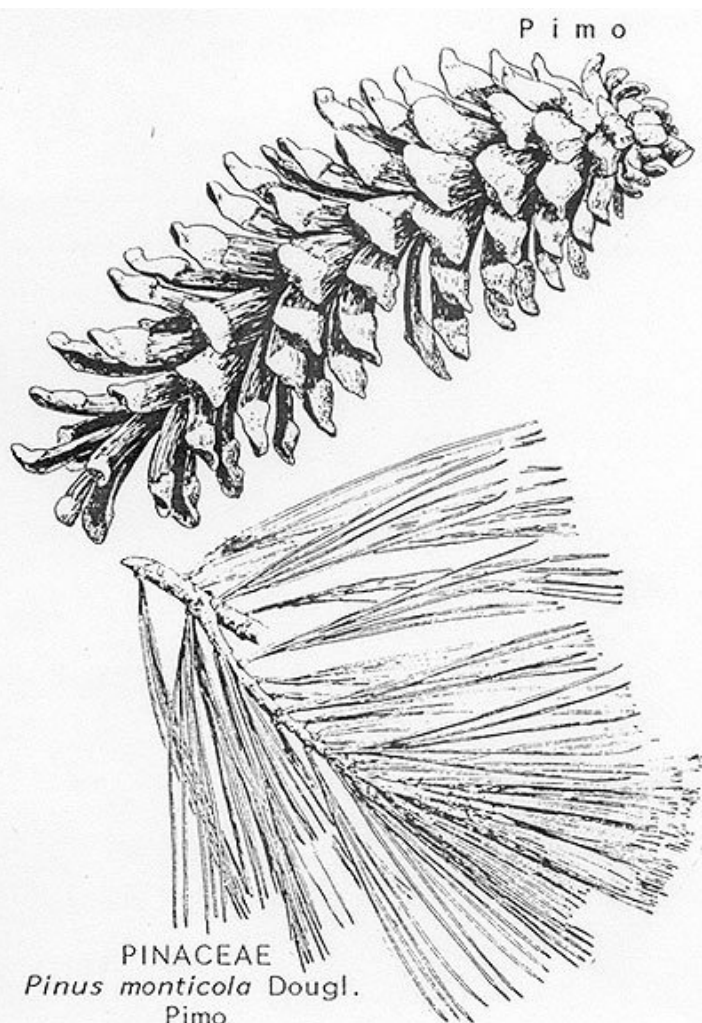
ENEMIES: Diseases: Stalactiform rust, *Phaeolus* (*Polyporus*) *schweinitzii*, *Polyporus tomentosus*, *P. anceps*, *Fomes pini*, *Armillaria* species, *Verticicladiella* species (blackstain), *Atropellis* canker, dwarf mistletoe, and western gall rust; Insects: mountain pine beetle, and tip borers; 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	Pme
7	Aruv	h.t.	
1	Phma	Phma	
	Smst	h.t.	
3	Phma	Phma	Abgr
1	Cooc	h.t.	
5	Libo	Libo	
9	Xete	h.t.	
1	Asca	Asca	
	Tabr	h.t.	
2	Mefe		
	Setr h.t.		
3	Phma		
3	Clun		
1	Tabr	Clun	Thp1
5	Mefe	h.t.	
6	Xete		
9	Vagl	Xete	
6	Cooc	h.t.	
2	Clun		
1	Tabr	Clun	
4	Mefe	h.t.	
3	Xete		
+	Asca	Asca	
1	Tabr	h.t.	Tshe
3	Mefe		
1	Gydr h.t.		
+	Adpe h.t.		
	Adpe	Atfi	
	Atfi	h.t.	
	Opho h.t.		
2	Clun		
3	Arnu	Clun	
4	Mefe	h.t.	
5	Xete		
2	Asca	Asca	
1	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
4	Mefe	Clun	Tsme
7	Xete	h.t.	
5	Xete	Mefe	
5	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
7	Vagl	Xete	
3	Luhi	h.t.	
7	Clun		Ab1a
4	Mefe	Clun	
3	Xete	h.t.	
7	Cooc		
3	Xete	Mefe	
9	Vasc	h.t.	
2	Luhi		
2	Mefe	Stam	
4	Lica	h.t.	
7	Caca	Caca	
10	Vaca	h.t.	
9	Legl		Pico
9	Cooc		
7	Vagl	Xete	
9	Vasc	h.t.	
7	Luhi		
10	Vasc h.t.		
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	
	Phma h.t.	Phma 3
	Cooc	
	Libo h.t.	Libo 1
	Xete	1
	Asca h.t.	Asca 2
	Tabr	
	Mefe	1
Abgr	Setr h.t.	
	Phma	4
	Clun	3
	Tabr	
	Mefe	1
	Xete	2
	Vagl	1
	Cooc	
	Clun	4
	Tabr	2
	Mefe	5
	Xete	4
	Asca	3
	Tabr	5
	Mefe	6
Thp	Gydr h.t.	4
	Adpe h.t.	3
	Atfi	2
	Atfi	3
	Opho h.t.	4
	Clun	6
	Arnu	8
	Mefe	8
	Xete	8
	Asca	6
	Arnu	7
	Mefe	7
	Gydr h.t.	7
	Clun	Mefe 6
	h.t.	Xete 6
	Mefe	Xete 3
	h.t.	Luh 2
	Stam	Mefe 5
	h.t.	Luh 1
	Xete	Vagl 5
	h.t.	Luh 1
	Clun	Clun
	h.t.	Mefe 2
		Xete 3
		Cooc 1
	Mefe	Xete 2
	h.t.	Vasc
		Luh 1
	Stam	Mefe 1
	h.t.	Lica
	Caca	Caca
	h.t.	Vaca
		Legl
		Cooc 1
	Xete	Vagl 2
	h.t.	Vasc
		Luh 1
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: 1992. 79in dbh; 247in circum; 229 ft. tall; 6ft crown=482pts; Floodwood Creek, Clearwater Co., ID.

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.

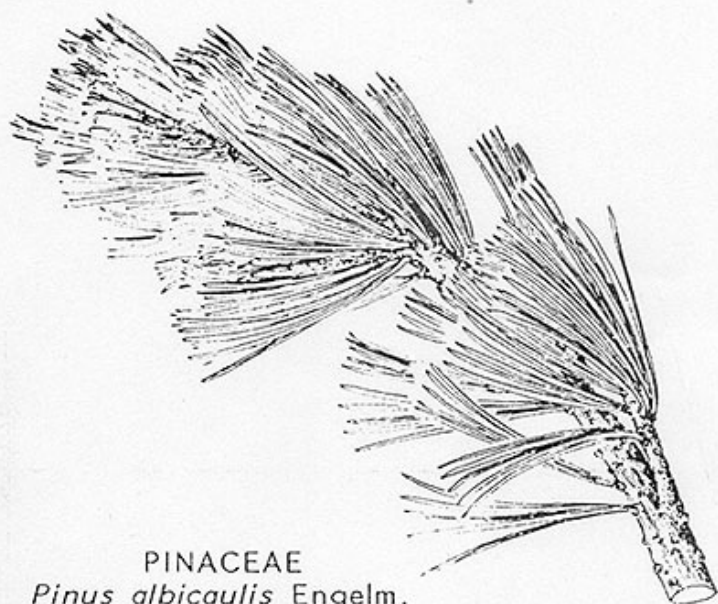
CONES: Narrow and curved, 12-38cm (5-15in) long, thin unarmed scales; mature mid-Aug. of second year; seed shed Aug.-Sept.

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	Syal h.t.	
Pipo	Phma h.t.	
Psmc	Caru	Caru
	h.t.	Aruv
	Phma	Phma
Abgr	h.t.	Smst
	Phma	Phma
	h.t.	Cooc
Libo	h.t.	Libo
	h.t.	Xete
	h.t.	Asca
Tabr	h.t.	Tabr
	h.t.	Mefe
	h.t.	Setr
Clun	h.t.	Phma
	h.t.	Clun
	h.t.	Tabr
Xete	h.t.	Mefe
	h.t.	Xete
	h.t.	Vagl
Cooc	h.t.	Cooc
	h.t.	Clun
	h.t.	Tabr
Mefe	h.t.	Mefe
	h.t.	Xete
	h.t.	Asca
Thp	h.t.	Tabr
	h.t.	Mefe
	h.t.	Gydr
Adpe	h.t.	Adpe
	h.t.	Atfi
	h.t.	Opho
Clun	h.t.	Clun
	h.t.	Arnu
	h.t.	Mefe
Xete	h.t.	Xete
	h.t.	Asca
	h.t.	Arnu
Mefe	h.t.	Mefe
	h.t.	Gydr
	h.t.	
Clun	h.t.	Mefe
	h.t.	Xete
	h.t.	Xete
Luh	h.t.	Luh
	h.t.	3
	h.t.	6
Stam	h.t.	Mefe
	h.t.	Luh
	h.t.	4
Xete	h.t.	Vagl
	h.t.	Luh
	h.t.	6
Clun	h.t.	Clun
	h.t.	Mefe
	h.t.	Xete
Mefe	h.t.	Cooc
	h.t.	Xete
	h.t.	Vasc
Stam	h.t.	Luh
	h.t.	5
	h.t.	6
Caca	h.t.	Mefe
	h.t.	Lica
	h.t.	2
Vasc	h.t.	Vasc
	h.t.	Legl
	h.t.	2
Xete	h.t.	Cooc
	h.t.	Vagl
	h.t.	3
Luh	h.t.	Vasc
	h.t.	Luh
	h.t.	10
Vasc	h.t.	
	h.t.	
	h.t.	
Pico	h.t.	
	h.t.	
	h.t.	

P i a l



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.

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

Thpl



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.

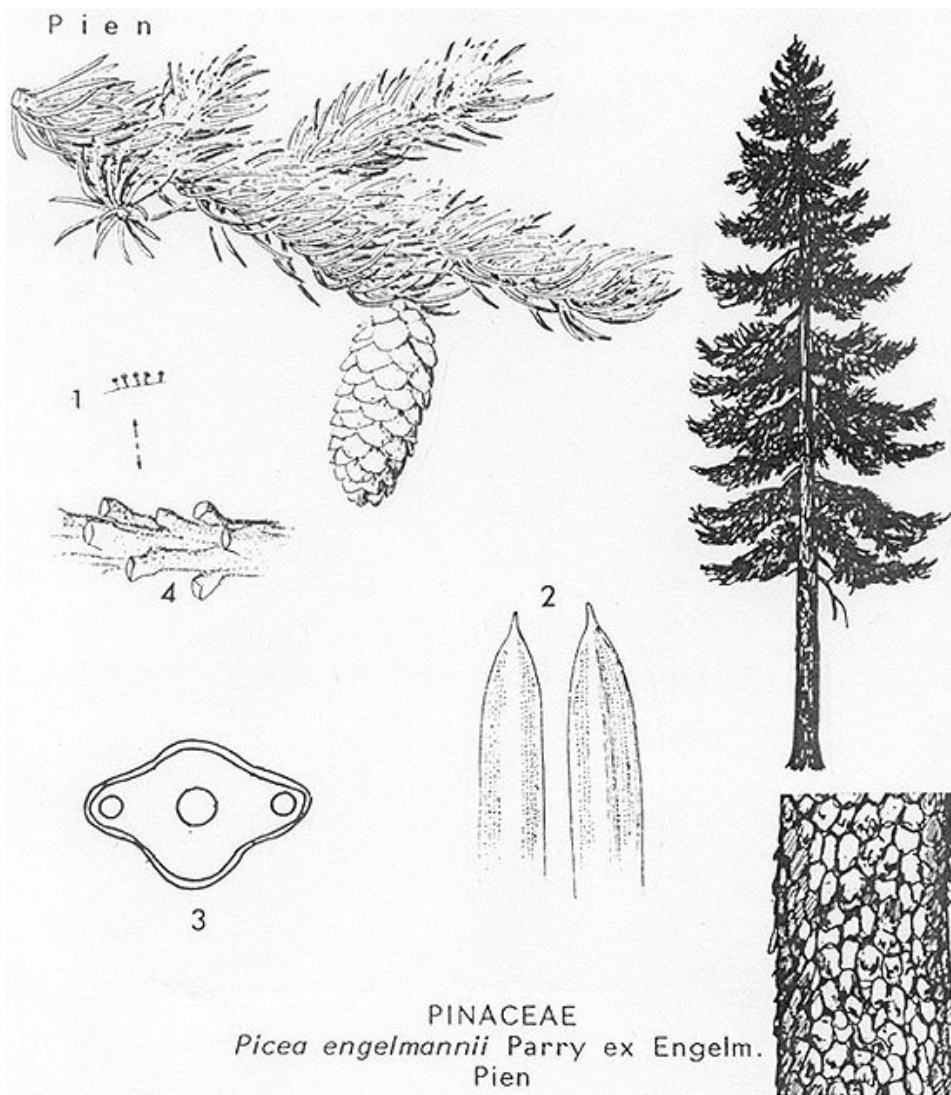
IDAHO CHAMPION: 1979. 216in dbh; 680in circum. + 177ft tall + 9.9ft crown = 867pts; Palouse RD, Clearwater NF.

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

Picea engelmannii Parry ex Engelm.
Pien

Engelmann spruce

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

NATIONAL CHAMPION: The champion Engelmann spruce died in 1994 from bark beetles and, as of June 2003, had not been replaced.

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.

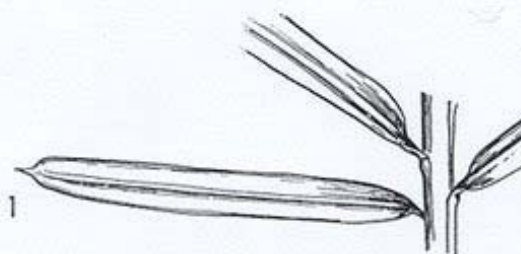
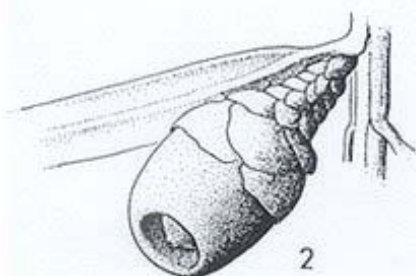
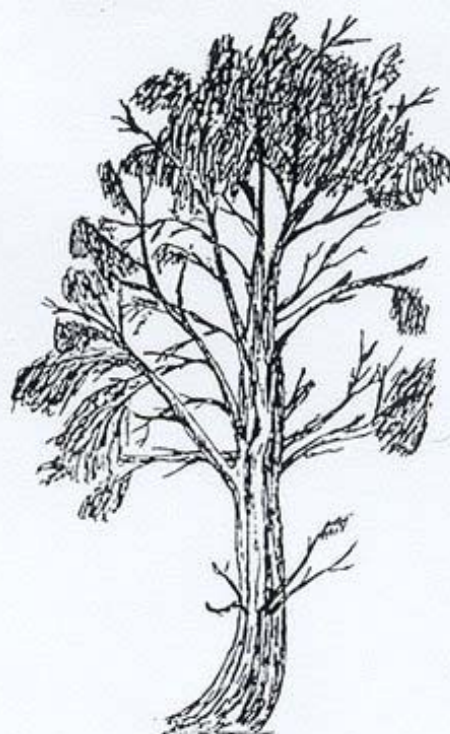
ENEMIES: Diseases: *Armillaria* species, *Fomes annosus*, *Phaeolus* (*Polyporus*) *schweinitzii*, *Fomes pini*, broom rust, and dwarf mistletoe; Insects: western budworm, and tip weevil; Fire: very susceptible.

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

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

	Syal h.t.	Pp
	Phma h.t.	Pp
	Caru	Caru
	Aruv	h.t.
	Phma	Phma
	Smst	h.t.
	Phma	Phma
	Cooc	h.t.
5	Libo	Libo
6	Xete	h.t.
2	Asca	Asca
8	Tabr	h.t.
8	Mefe	h.t.
8	Setr	h.t.
	Phma	
2	Clun	Clun
5	Tabr	h.t.
8	Mefe	h.t.
6	Xete	Xete
4	Vagl	h.t.
3	Cooc	h.t.
2	Clun	Clun
9	Tabr	h.t.
9	Mefe	h.t.
8	Xete	Asca
4	Asca	h.t.
5	Tabr	h.t.
9	Mefe	h.t.
7	Gydr	h.t.
+	Adpe	h.t.
2	Adpe	Atfi
6	Atfi	h.t.
2	Opho	h.t.
3	Clun	Clun
3	Arnu	h.t.
6	Mefe	h.t.
3	Xete	Asca
2	Asca	h.t.
	Arnu	h.t.
10	Mefe	h.t.
3	Gydr	h.t.
10	Mefe	Clun
9	Xete	h.t.
7	Xete	Mefe
6	Luh	h.t.
10	Mefe	Stam
2	Luh	h.t.
7	Vagl	Xete
5	Luh	h.t.
10	Clun	Clun
10	Mefe	h.t.
8	Xete	Mefe
10	Cooc	h.t.
10	Xete	h.t.
9	Vasc	Stam
9	Luh	h.t.
9	Mefe	h.t.
10	Lica	h.t.
10	Caca	Caca
10	Vaca	h.t.
10	Legl	h.t.
9	Cooc	Xete
6	Vagl	h.t.
7	Vasc	h.t.
7	Luh	h.t.
	Vasc	h.t.
	Xete	c.t.
	Vaca	c.t.

T a b r



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: 1987. 39in dbh; 112in circum; 44ft tall; 6ft crown=172 pts. NezPerce NF, ID.

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

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United States
Department of
Agriculture

Forest Service

Rocky Mountain
Research Station
Ft. Collins, CO

General Technical Report
RMRS-GTR-118-CD

February 2004

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Key to Native Trees and Tall Shrubs

1. LEAVES LINEAR OR SCALE-LIKE; EVERGREEN OR DECIDUOUS	
2. Leaves flat, scalelike, overlapping	<i>Thuja plicata</i>
2. Leaves linear or needlelike	
3. Deciduous, cluster of 15-40 leaves borne on short spur	<i>Larix lyallii</i> <i>Larix occidentalis</i>
3. Leaves evergreen	
4. Leaves in bundles	<i>Pinus</i> spp.
5. Leaves usually in bundles of 5	<i>Pinus albicaulis</i> <i>Pinus monticola</i>
5. Leaves in bundles of 2 or 3	
6. Leaves usually in bundles of 2	<i>Pinus contorta</i>
6. Leaves usually in bundles of 3	<i>Pinus ponderosa</i>
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)	<i>Picea engelmannii</i>
8. Leaves flat with rounded or notched tip	<i>Abies grandis</i> <i>Abies lasiocarpa</i>
7. Leaves with petiole	
9. Leaves with sharp apex, 2-ranked, fleshy fruit	<i>Taxus brevifolia</i>
9. Leaves blunt or with slight pointed tip; fruit: cone	
10. Buds: large (6mm) pointed, red-brown	<i>Pseudotsuga menziesii</i>
10. Buds: small (3mm) rounded light colored	<i>Tsuga heterophylla</i> <i>Tsuga mertensiana</i>
1. LEAVES BROAD, THIN, FLAT; DECIDUOUS	
11. Leaves opposite	
12. Leaves compound	<i>Sambucus</i> spp.
12. Leaves simple	
13. Leaves palmately lobed ("maplelike")	<i>Acer glabrum</i>
13. Leaves entire, not lobed	<i>Cornus</i> spp.
11. Leaves alternate	
14. Leaves compound	<i>Sorbus</i> spp.
14. Leaves simple	
15. Older twigs armed with stout woody thorns	<i>Crataegus douglasii</i>
15. Older twigs unarmed	
16. Buds naked, without scales	<i>Rhamnus</i> spp.
16. Buds with scales	
17. Flowers in catkins	
18. Female catkins persistent and conelike	<i>Alnus</i> spp.
18. Female catkins deciduous, not conelike	

<u>19.</u> Leaves relatively long and narrow; single bud scale; fruit: hairy capsule	<u><i>Salix</i> spp.</u>
<u>19.</u> Leaves about equal in length and width; multiple bud scales; fruit: winged nutlet	<u><i>Betula</i> spp.</u>
<u>17.</u> Flowers not catkins	
<u>20.</u> Leaves elliptic, finely serrate with glands on leaf	<u><i>Prunus</i> <i>emarginata</i> <i>Prunus virginiana</i></u>
<u>20.</u> Leaves oblong, coarsely toothed, without glands on leaf	<u><i>Amelanchier</i> <i>alnifolia</i></u>

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Key to Betula Species

1. Female catkins cone-like, persistent; pith triangular; twigs slightly angled Alnus conspectus
1. Female catkins tassel-like, not persistent; pith compressed; twigs round, resin-dotted ... Betula conspectus (below)

Betula Conspectus

Species	Form	Bark	Leaf shape	Leaf size	New twigs	Habitat
<u>Betula glandulosa</u> <u>bog birch</u> <u>Begl</u>	shrub	not exfoliating; dark brown	crenate; rounded ovate	3 cm (1 in)	resin dotted; grey; sticky	riparian or bogs
<u>Betula occidentalis</u> <u>water birch</u> <u>Beoc</u>	tree	not exfoliating; reddish brown	serrate; broadly ovate; sticky	5-8 cm (2-3 in)	resin dotted; green; sticky	riparian
<u>Betula papyrifera</u> <u>paper birch</u> <u>Bepa</u>	tree	exfoliating; white-brown	double serrate; round ovate	5-10 cm (2-4 in)	smooth; non-aromatic; glandular	upland

Phma	Syal h.t.	
Phma	h.t.	
Caru	Caru	
h.t.	Aruv	1
Phma	Phma	1
h.t.	Smst	+
Phma	Phma	
h.t.	Cooc	
Libo	Libo	
h.t.	Xete	1
Asca	Asca	+
h.t.	Tabr	
	Mefe	3
Setr	h.t.	1
Phma		+
Clun	Clun	1
h.t.	Tabr	
	Mefe	2
	Xete	2
Xete	Vagl	2
h.t.	Cooc	1
Clun	Clun	1
h.t.	Tabr	
	Mefe	5
	Xete	2
Asca	Asca	1
h.t.	Tabr	
	Mefe	4
Gydr	h.t.	2
Adpe	h.t.	+
Atfi	Adpe	
h.t.	Atfi	2
Opho	h.t.	1
Clun	Clun	+
h.t.	Arnu	1
	Mefe	6
	Xete	1
Asca	Asca	1
h.t.	Arnu	4
	Mefe	7
Gydr	h.t.	+
Clun	Mefe	5
h.t.	Xete	1
Mefe	Xete	1
h.t.	Luh	
Stam	Mefe	5
h.t.	Luh	2
Xete	Vagl	1
h.t.	Luh	
Clun	Clun	10
h.t.	Mefe	4
	Xete	3
	Cooc	3
Mefe	Xete	2
h.t.	Vasc	1
	Luh	1
Stam	Mefe	4
h.t.	Lica	4
Caca	Caca	7
h.t.	Vaca	
	Legl	2
	Cooc	4
Xete	Vagl	
h.t.	Vasc	2
	Luh	
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.

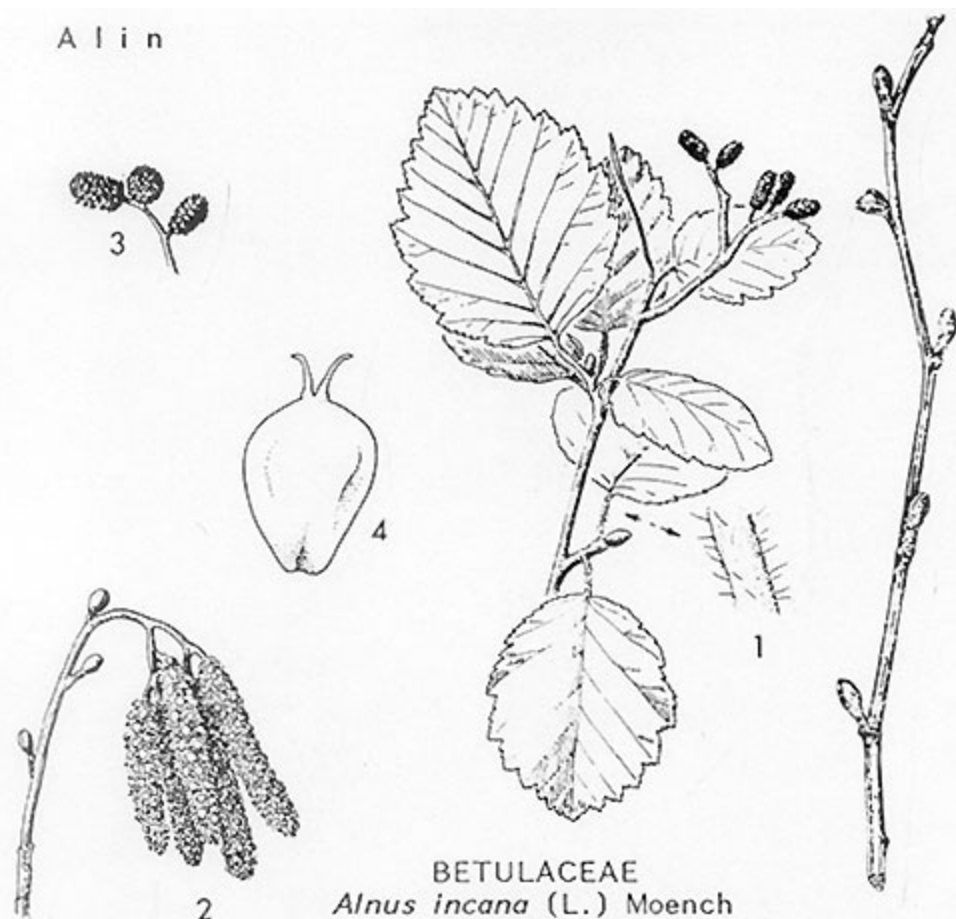
FLOWERS: Male catkins (2) up to 10cm (4in) long, only male catkins are exposed over winter; a cluster of 3-6 persistent, semi-woody, conelike female catkins (3) on thin stalks 15mm long; female catkins developing along with leaves; May-July.

FRUIT: A small winged nutlet (4).

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

HABITAT: Moist montane woods and streambanks.

NOTES: Roots have nitrogen fixing nodules.



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.		Pipo
Phma h.t.		
Caru	Caru	Pme
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	Thp
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.	Tshe
Clun		
Arnu	Clun	
Mefe	h.t.	
Xete		
Asca	Asca	
Arnu	h.t.	
Mefe		
Gydr	h.t.	
4 Mefe	Clun	Tme
2 Xete	h.t.	
1 Xete	Mefe	
Luhi	h.t.	
5 Mefe	Stam	
2 Luhi	h.t.	
1 Vagl	Xete	
Luhi	h.t.	
Clun		Abia
Mefe	Clun	
Xete	h.t.	
Cooc		
Xete	Mefe	
Vasc	h.t.	
Luhi		
Mefe	Stam	
1 Lica	h.t.	
Caca	Caca	
Vaca	h.t.	
Legl		
Cooc		
Vagl	Xete	Pico
Vasc	h.t.	
Luhi		
Vasc	h.t.	
Xete	c.t.	Pico
Vaca	c.t.	



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

Pipo	Syal h.t.	
Phma h.t.		
Caru h.t.	Caru	
Aruv	9	
Phma h.t.	Phma	1
Smst		
Phma h.t.	Phma	
Cooc		
Libo h.t.	Libo	3
Xete		
Asca h.t.	Asca	+
Tabr		
Mefe		
Setr h.t.		
Phma	+	
Clun	1	
Tabr		
Mefe	1	
Xete	1	
Vagl	2	
Cooc		
Clun		
Tabr		
Mefe		
Xete		
Asca h.t.	Asca	
Tabr		
Mefe		
Gydr h.t.		
Adpe h.t.		
Atfi	Adpe	
h.t.	Atfi	
Opho h.t.		
Clun	+	
Arnu	1	
Mefe		
Xete		
Asca h.t.	Asca	
Arnu		
Mefe		
Gydr h.t.		
Clun	Mefe	
h.t.	Xete	
Mefe	Xete	
h.t.	Luh	
Stam	Mefe	
h.t.	Luh	
Xete	Vagl	
h.t.	Luh	
Clun	Clun	
h.t.	Mefe	
Xete		
Cooc		
Mefe	Xete	
h.t.	Vasc	
Luh		
Stam	Mefe	
h.t.	Luh	
Caca	Caca	
h.t.	Vaca	
Luh		
Cooc		
Vagl		
Xete	Vasc	1
h.t.	Luh	2
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.

Pipo	Syal h.t.		
Phma h.t.			
Caru h.t.	Caru		
Aruv	1		
Phma h.t.	Phma		
Smst			
Phma h.t.	Phma		
Cooc			
Libo h.t.	Libo		
Xete			
Asca h.t.	Asca		
Tabr			
Mefe			
Setr h.t.			
Phma			
Clun h.t.	Clun		
Tabr			
Mefe			
Xete			
Vagl			
Cooc			
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.			
Clun h.t.	Clun	+	
Arnu	1		
Mefe			
Xete	1		
Asca h.t.	Asca	+	
Arnu			
Mefe	3		
Gydr h.t.		+	
Clun h.t.	Mefe	+	
Xete			
Mefe	Xete		
h.t.	Luh		
Stam h.t.	Mefe		
Luh	1		
Xete	Vagl		
h.t.	Luh	1	
Clun h.t.	Clun		
Mefe			
Xete	1		
Cooc			
Mefe h.t.	Xete		
Vasc			
Luh	2		
Stam h.t.	Mefe	1	
Lica			
Caca h.t.	Caca	2	
Vaca			
Legl			
Cooc	1		
Xete h.t.	Vagl		
Vasc			
Luh	1		
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.

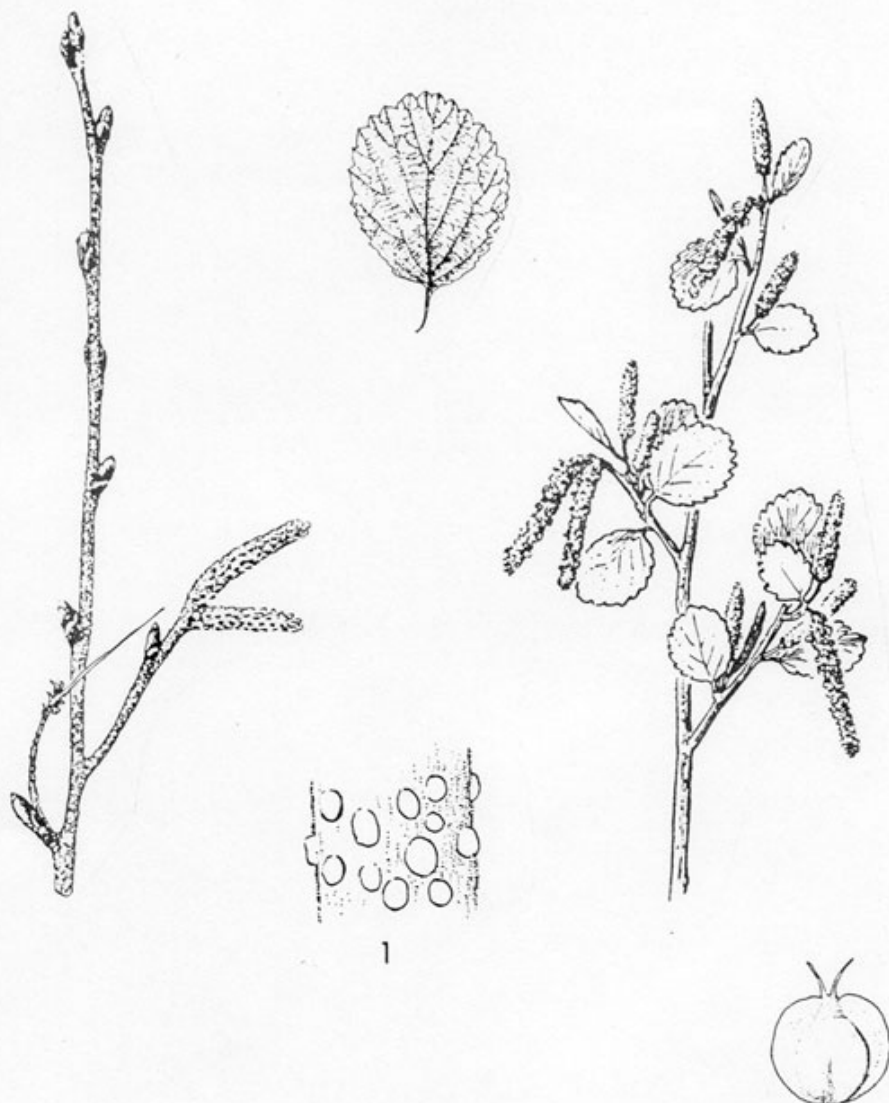
LEAVES: Alternate, deciduous, light green, glabrous ovate, 1-3cm (1in), sharply toothed.

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.

Pipo	Syal h.t.	
Pipo	Phma h.t.	
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.	
		Phma
		Clun
Thpl	Clun	Tabr
	h.t.	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.	Luh
	Stam	Mefe
	h.t.	Luh
	Xete	Vagl
	h.t.	Luh
Abia	Clun	Clun
	h.t.	Mefe
		Xete
		Cooc
	Mefe	Xete
	h.t.	Vasc
		Luh
	Stam	Mefe
Pico	Clun	Clun
	h.t.	Mefe
		Xete
		Cooc
		Vagl
	Xete	Vasc
	h.t.	Luh
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



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.

P r e m



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.	Phma h.t.	Phma
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	h.t.	
	Mefe		
+	Xete	Xete	
	Vagl	h.t.	
	Cooc	h.t.	
	Clun	Clun	Thp1
	Tabr	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr	n.t.	
	Adpe	h.t.	
	Adpe	Atfi	
	Atfi	h.t.	
	Opho	h.t.	
	Clun	Clun	Tsne
	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	Ab1a
	Mefe	h.t.	
	Xete		
	Cooc	Mefe	
	Xete	h.t.	
	Vasc		
	Luhi	Stam	
	Mefe	h.t.	
	Lica		
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	Pico
	Vasc	h.t.	
	Luhi		
	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	

V a g l

V a m e



3



Vaccinium globulare
Rydb.
Vag1

blue huckleberry
globe huckleberry



4



Vaccinium membranaceum
Dougl.
Vame

big huckleberry
thin-leaf blueberry

ERICACEAE

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

STEMS: Older bark greyish and shreddy; young twigs somewhat angled.

Vag1: greenish-yellow.

Vame: yellow-green.

LEAVES: Alternate, deciduous, 2-4cm (1-2in) long, finely serrate.

Vag1: ovate with rounded tip (1).

Vame: ovate with pointed tip (2).

FLOWERS: Single in axils.

Vag1: 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.

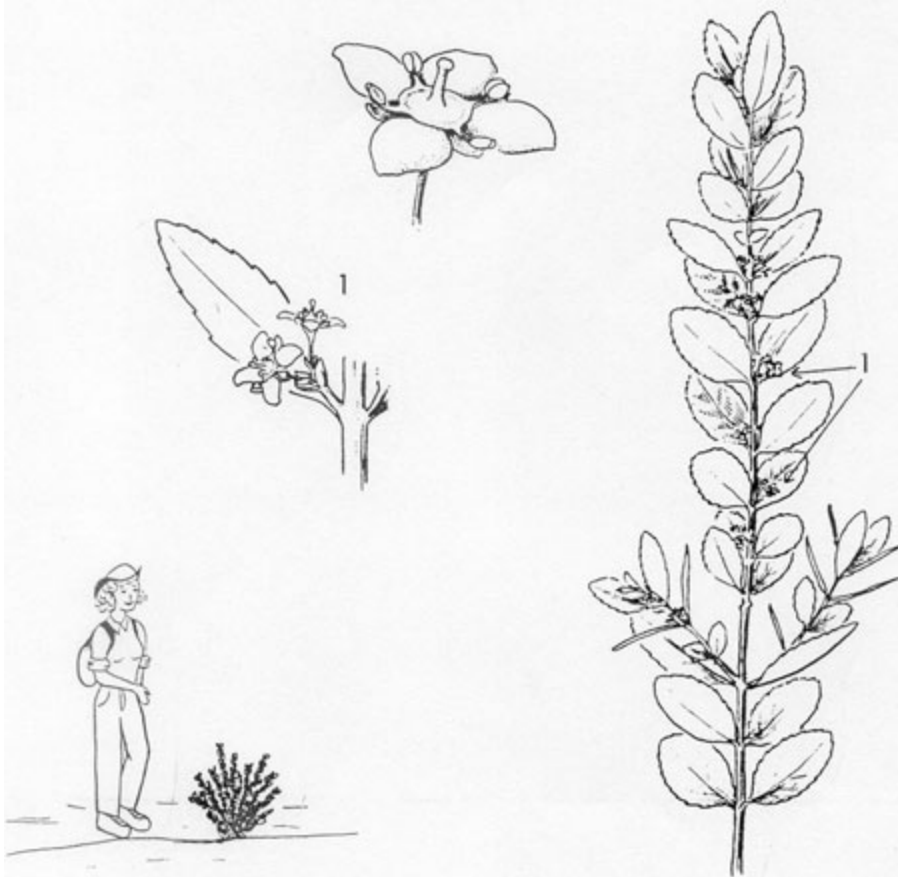
Vag1: glaucous bluish-purple.

Vame: purple or dark purplish-red.

NOTE: Vag1 and Vame are considered ecological equivalents in northern Idaho.

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

	Syal h.t.		
	Phma h.t.		
	Caru	Caru	
2	Aruv	h.t.	
1	Phma	Phma	
	Smst	h.t.	
4	Phma	Phma	
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		
7	Clun		
9	Tabr	Clun	
10	Mefe	h.t.	
10	Xete		
10	Vagl	Xete	
10	Cooc	h.t.	
6	Clun		
9	Tabr	Clun	
10	Mefe	h.t.	
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		
8	Arnu	Clun	
10	Mefe	h.t.	
9	Xete		
10	Asca	Asca	
5	Arnu	h.t.	
10	Mefe		
9	Gydr	h.t.	
10	Mefe	Clun	
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		
10	Mefe	Clun	
10	Xete	h.t.	
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.	
	Xete	c.t.	
	Vaca	c.t.	



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.

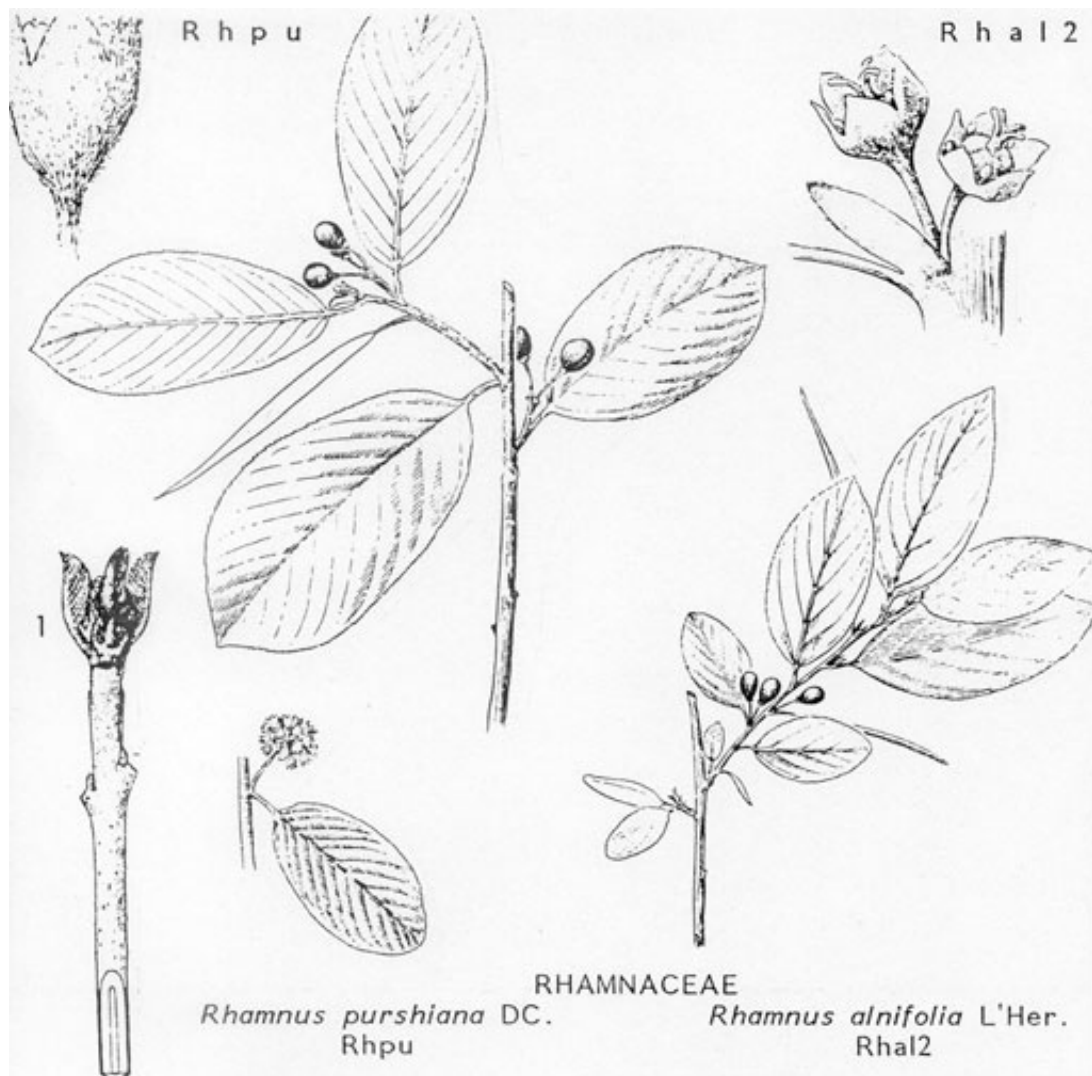
LEAVES: Opposite, evergreen, glossy, simple, oblanceolate, serrate, 1-3cm (1in) long.

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 h.t.	
2	Tabr		
4	Mefe		
3	Setr	h.t.	
4	Phma	Clun h.t.	
2	Clun		
2	Tabr		
4	Mefe		
4	Xete		
2	Vagl	Xete	
2	Cooc	h.t.	
4	Clun	Clun h.t.	
2	Tabr		
5	Mefe		
4	Xete	Asca h.t.	
3	Asca		
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 h.t.	
6	Arnu		
6	Mefe		
9	Xete		
7	Asca		Asca h.t.
7	Arnu		
10	Mefe		
7	Gydr	h.t.	
2	Mefe	Clun	
5	Xete	h.t.	
1	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
2	Vagl	Xete	
	Luhi	h.t.	
3	Clun	Clun h.t.	
1	Mefe		
5	Xete		
1	Cooc	Mefe h.t.	
2	Xete		
	Vasc		
	Luhi	Stam h.t.	
1	Mefe		
1	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
1	Cooc	Xete h.t.	
2	Vagl		
	Vasc		
	Luhi		
	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		



Rhamnus purshiana DC.
Rhpu

cascara, chittam bark

RHAMNACEAE

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.	Pt
Phma h.t.	po
Caru	Caru
Aruv	h.t.
Phma	Phma
Smst	h.t.
Phma	Phma
Cooc	h.t.
Libo	Libo
Xete	h.t.
Asca	Asca
Tabr	h.t.
Mefe	h.t.
Setr	h.t.
Phma	
Clun	
Tabr	Clun
Mefe	h.t.
Xete	
Vagl	Xete
Cooc	h.t.
Clun	
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	
Arnu	Clun
Mefe	h.t.
Xete	
+ Asca	Asca
Arnu	h.t.
Mefe	
Gydr	h.t.
Mefe	Clun
Xete	h.t.
Xete	Mefe
Luhi	h.t.
Mefe	Stam
Luhi	h.t.
Vagl	Xete
Luhi	h.t.
Clun	
+ Mefe	Clun
Xete	h.t.
Cooc	
+ Xete	Mefe
Vasc	h.t.
+ Luhi	
Mefe	Stam
Lica	h.t.
2 Caca	Caca
Vaca	h.t.
Legl	
Cooc	
Vagl	Xete
Vasc	h.t.
Luhi	
Vasc	h.t.
Xete	c.t.
Vaca	c.t.

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

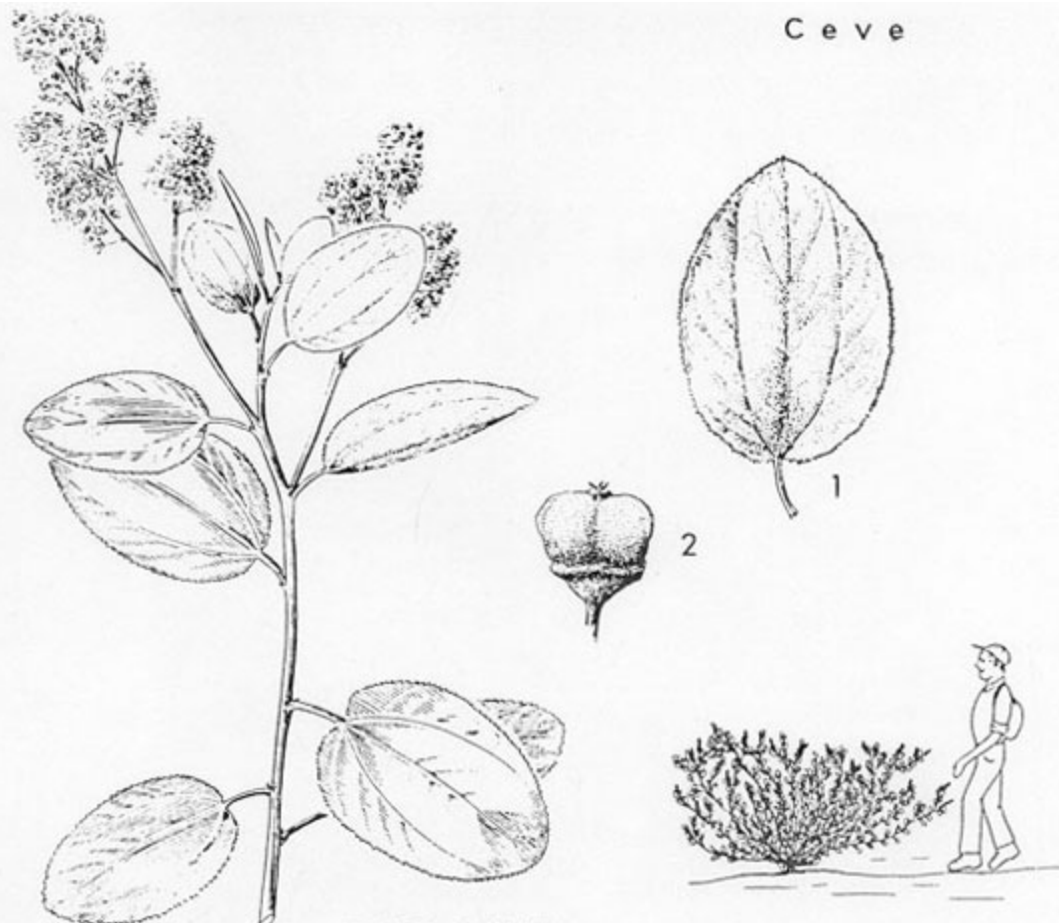
LEAVES: Opposite, deciduous, entire, ovate, 2-6cm (1-2in) long, dark greenish on upper surface with whitish silvery hair and rusty-brown scales on lower surface(2).

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.

Pip	Syal h.t.	
Phma h.t.		
Caru h.t.	Caru	2
Aruv		1
Phma h.t.	Phma	1
Smst		
Phma h.t.	Phma	
Cooc		
Libo h.t.	Xete	
Asca h.t.	Asca	+
Tabr		
Mefe		
Setr h.t.		
Phma	+	
Clun		
Tabr		
Mefe		
Xete	+	
Vagl		
Cooc	1	
Clun		
Tabr		
Mefe		
Xete		
Asca h.t.	Asca	
Tabr		
Mefe		
Gydr h.t.		
Adpe h.t.		
Atfi		
Atfi		
Opho h.t.		
Clun		
Arnu		
Mefe		
Xete		
Asca h.t.	Asca	
Arnu		
Mefe	3	
Gydr h.t.		
Clun	Mefe	
h.t.	Xete	
Mefe	Xete	
h.t.	Luh	
Stam	Mefe	
h.t.	Luh	
Xete	Vagl	
h.t.	Luh	
Clun	Clun	
h.t.	Mefe	
Xete		
Mefe	Cooc	
h.t.	Xete	
Vasc		
Luh		
Stam	Mefe	
h.t.	Lica	
Caca	Caca	
h.t.	Vaca	
Legl		
Cooc		
Xete	Vagl	
h.t.	Vasc	
Luh		
Vasc h.t.		
Xete c.t.		
Vaca c.t.		



RHAMNACEAE

Ceanothus velutinus Dougl. ex Hook.

C e v e

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.

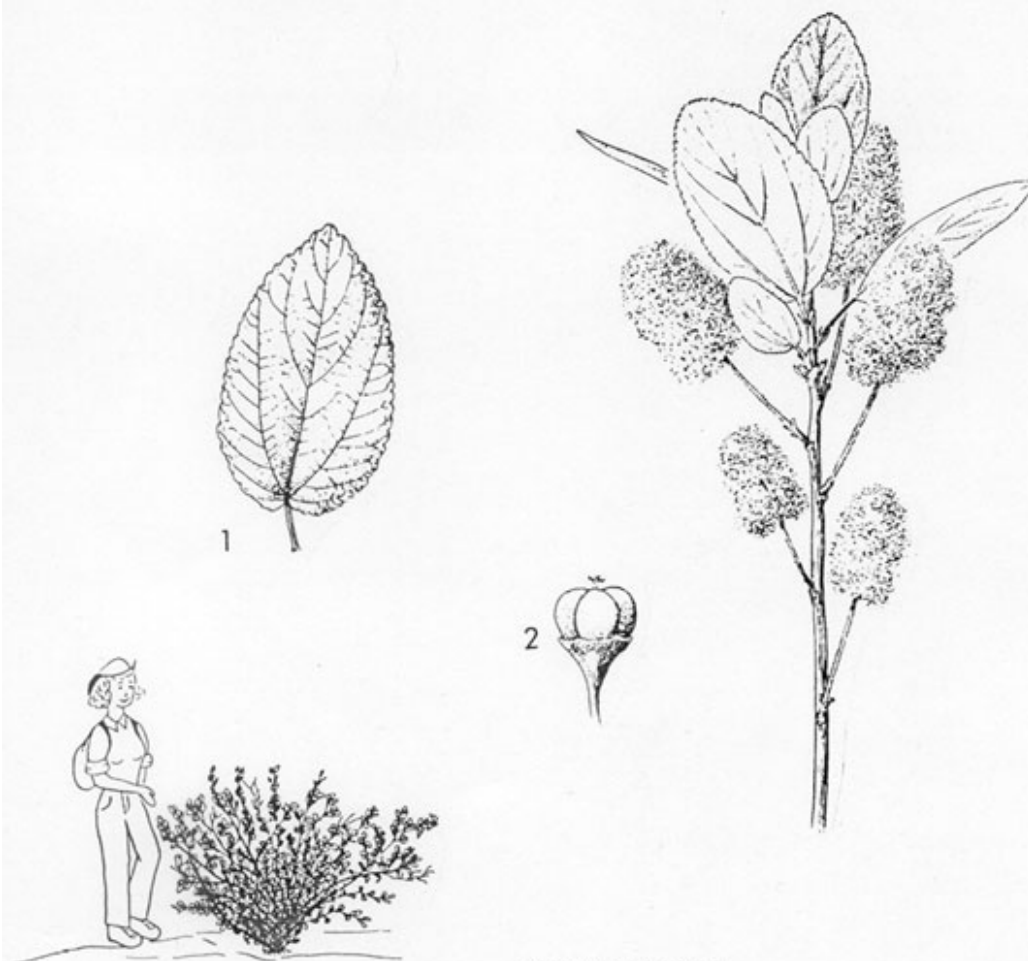
FRUIT: 3-seeded mechanically explosive capsule, containing heavy seed (2).

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.



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.

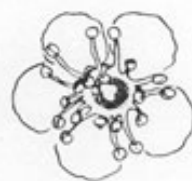
NOTES: Roots have nitrogen fixing nodules.

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

Kipo	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	Mefe
	Setr h.t.	
	Phma	
	Clun	+
Thp	Clun	+
	h.t.	Tabr
	Mefe	
	Xete	
	Asca	+
	h.t.	Tabr
	Mefe	
	Gydr h.t.	
	Adpe h.t.	+
	Atfi	Adpe
Tshe	h.t.	Atfi
	Opho h.t.	
	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.	Luh1
	Stam	Mefe
	h.t.	Luh1
	Xete	Vagl
	h.t.	Luh1
Abia	Clun	Clun 3
	h.t.	Mefe
	Mefe	Xete
	h.t.	Cooc
	Vasc	Xete
	h.t.	Vasc
	Luh1	
	Stam	Mefe
	h.t.	Lica
	Caca	Caca
Pico	h.t.	Vaca
	Legl	Legl
	Cooc	
	Xete	Vagl
	h.t.	Vasc
	Luh1	
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



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).

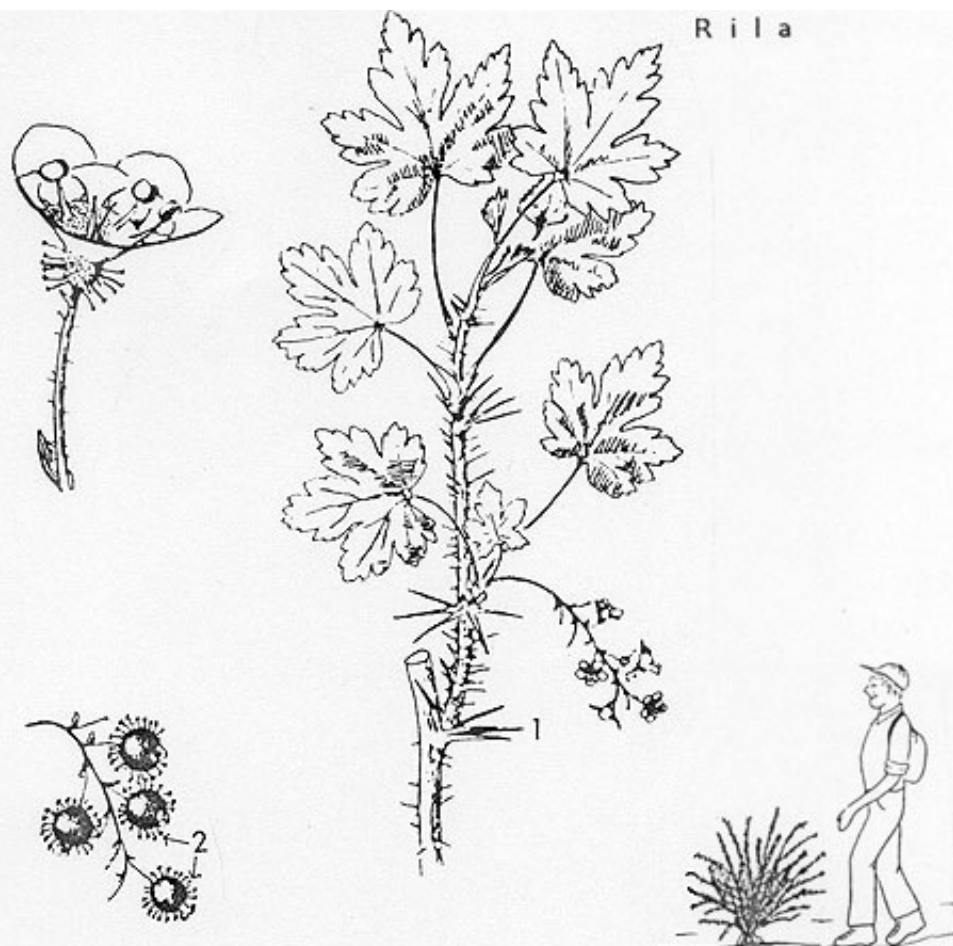
FLOWERS: Numerous white flowers, 4-8mm long, in long terminal racemes.

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.

Syal h.t.		
Phma h.t.		
Caru h.t.	Caru	
Aruv		
Phma h.t.	Phma	
Smst		
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
Phma		
Clun h.t.	Clun	2
Tabr		4
Mefe		1
Xete		1
Vagl		1
Cooc		1
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.	Atfi	1
Atfi		4
Opho h.t.		2
Clun h.t.	Clun	1
Arnu		
Mefe		2
Xete		
Asca h.t.	Asca	1
Arnu		
Mefe		
Gydr h.t.		1
Clun h.t.	Mefe	3
Xete		2
Mefe	Xete	1
Luh		
Stam h.t.	Mefe	2
Luh		2
Xete	Vagl	1
Luh		
Clun h.t.	Clun	3
Mefe		6
Xete		3
Cooc		2
Mefe	Xete	
Vasc		
Luh		
Stam h.t.	Mefe	8
Lica		5
Caca h.t.	Caca	5
Vaca		1
Legl		
Cooc		1
Xete	Vagl	
Vasc		
Luh		1
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.

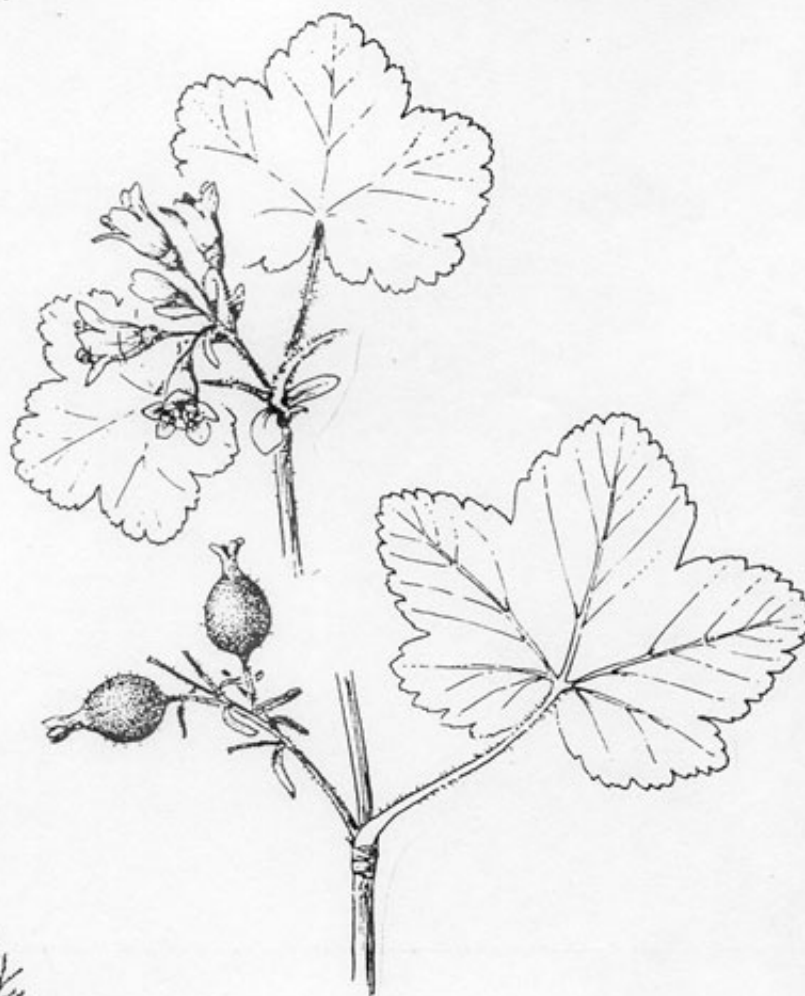
FLOWERS: Yellow-green to reddish, shallow saucer-shaped; 7-15 flowers in an elongate raceme; April-July.

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.

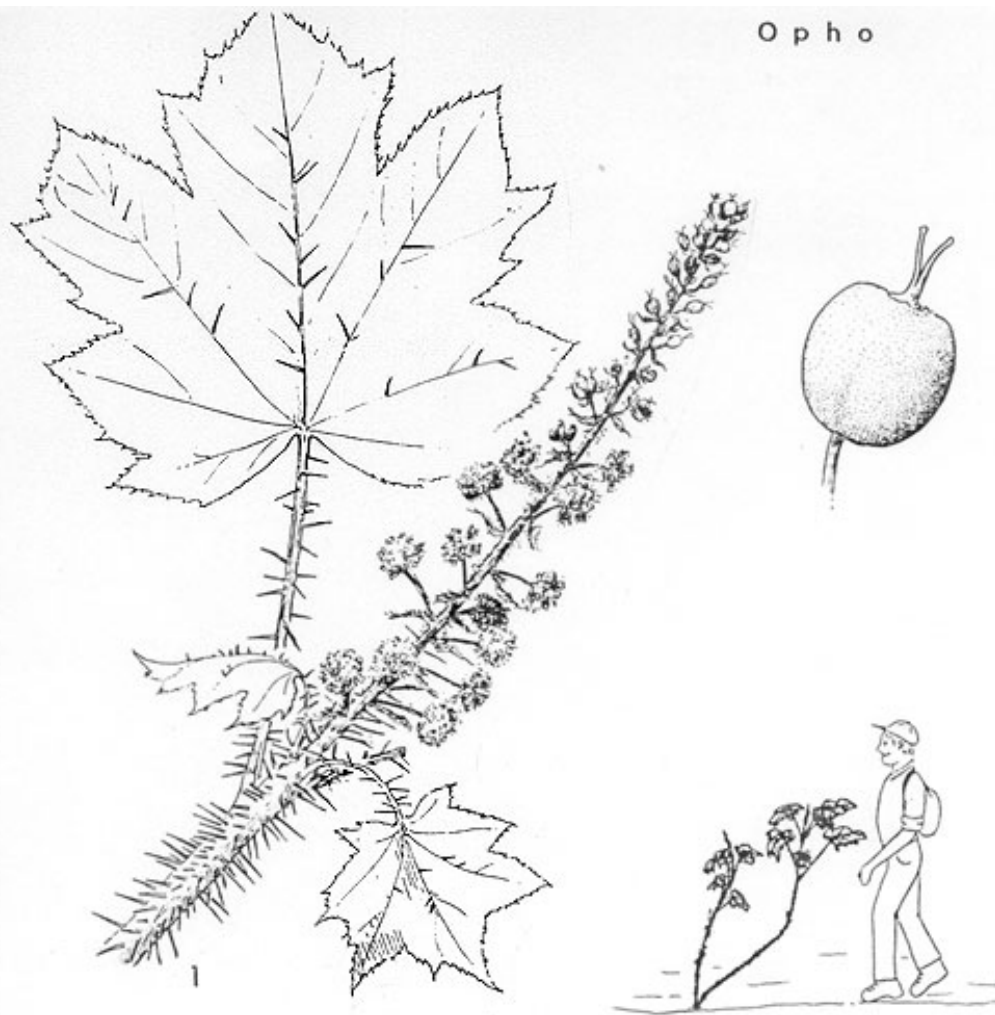
ENEMIES: Fire: moderately resistant, regeneration from seeds and stem sprouts to preburn levels within 2-5 years; common pioneer species.

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

Pho	Syal h.t.	
	Phma h.t.	
Psmc	Caru h.t.	Caru
	Phma h.t.	Aruv
	Phma h.t.	Phma
Abgr	Phma h.t.	Smst
	Phma h.t.	Phma
	Libo h.t.	Cooc
	Libo h.t.	Libo
	Asca h.t.	Xete
	Asca h.t.	Asca
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
	Setr h.t.	
	Clun h.t.	Phma
Thp	Clun h.t.	Clun
	Clun h.t.	Tabr
	Clun h.t.	Mefe
	Clun h.t.	Xete
	Asca h.t.	Asca
	Asca h.t.	Tabr
	Asca h.t.	Mefe
	Gydr h.t.	
	Adpe h.t.	2
	Atfi h.t.	Adpe 5
Tshe	Atfi h.t.	Atfi 1
	Opho h.t.	10
	Clun h.t.	Clun +
	Clun h.t.	Arnu 1
	Clun h.t.	Mefe
	Clun h.t.	Xete 1
	Asca h.t.	Asca 2
	Asca h.t.	Arnu 6
	Asca h.t.	Mefe
	Gydr h.t.	3
Tsmc	Clun h.t.	Mefe
	Clun h.t.	Xete
	Mefe h.t.	Xete
	Mefe h.t.	Luh
	Stam h.t.	Mefe
	Stam h.t.	Luh
	Xete h.t.	Vagl
	Xete h.t.	Luh
Abia	Clun h.t.	Clun
	Clun h.t.	Mefe
	Clun h.t.	Xete
	Mefe h.t.	Cooc
	Mefe h.t.	Xete
	Mefe h.t.	Vasc
	Mefe h.t.	Luh
	Stam h.t.	Mefe 1
	Stam h.t.	Lica
	Caca h.t.	Caca
Pico	Caca h.t.	Vaca
	Caca h.t.	Legl
	Caca h.t.	Cooc
	Xete h.t.	Vagl
	Xete h.t.	Vasc
	Xete h.t.	Luh
	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.

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

Mipo	Syal h.t.		
	Phma h.t.		
Psmc	Caru h.t.	Caru	
	Phma h.t.	Phma	+
	Smst h.t.	Smst	1
Abgr	Phma h.t.	Phma	1
	Cooc h.t.	Cooc	1
	Libo h.t.	Libo	
	Xete h.t.	Xete	
	Asca h.t.	Asca	1
	Tabr h.t.	Tabr	+
	Mefe h.t.	Mefe	1
	Setr h.t.	Setr	3
	Phma h.t.	Phma	+
	Clun h.t.	Clun	
Thp	Tabr h.t.	Tabr	
	Mefe h.t.	Mefe	1
	Xete h.t.	Xete	1
	Asca h.t.	Asca	+
	Tabr h.t.	Tabr	1
	Mefe h.t.	Mefe	3
	Gydr h.t.	Gydr	2
	Adpe h.t.	Adpe	+
	Atfi h.t.	Atfi	1
	Opho h.t.	Opho	2
Ishe	Clun h.t.	Clun	
	Arnu h.t.	Arnu	
	Mefe h.t.	Mefe	
	Xete h.t.	Xete	
	Asca h.t.	Asca	
Isme	Arnu h.t.	Arnu	
	Mefe h.t.	Mefe	
	Gydr h.t.	Gydr	1
	Clun h.t.	Clun	
	Mefe h.t.	Mefe	
Abla	Clun h.t.	Clun	
	Mefe h.t.	Mefe	
	Xete h.t.	Xete	
	Cooc h.t.	Cooc	1
	Vasc h.t.	Vasc	1
Pico	Clun h.t.	Clun	
	Mefe h.t.	Mefe	
	Xete h.t.	Xete	
	Cooc h.t.	Cooc	1
	Vasc h.t.	Vasc	1
Vaca	Vasc h.t.	Vasc	
	Xete c.t.	Xete	
Vaca	Vasc h.t.	Vasc	
	Xete c.t.	Xete	

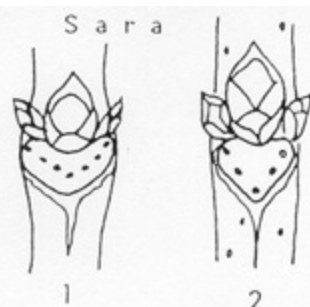
Sace



Sambucus cerulea Raf.
Sace

blue elderberry

Sara



Sambucus racemosa L.
Sara

elderberry

CAPRIFOLIACEAE

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.



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.

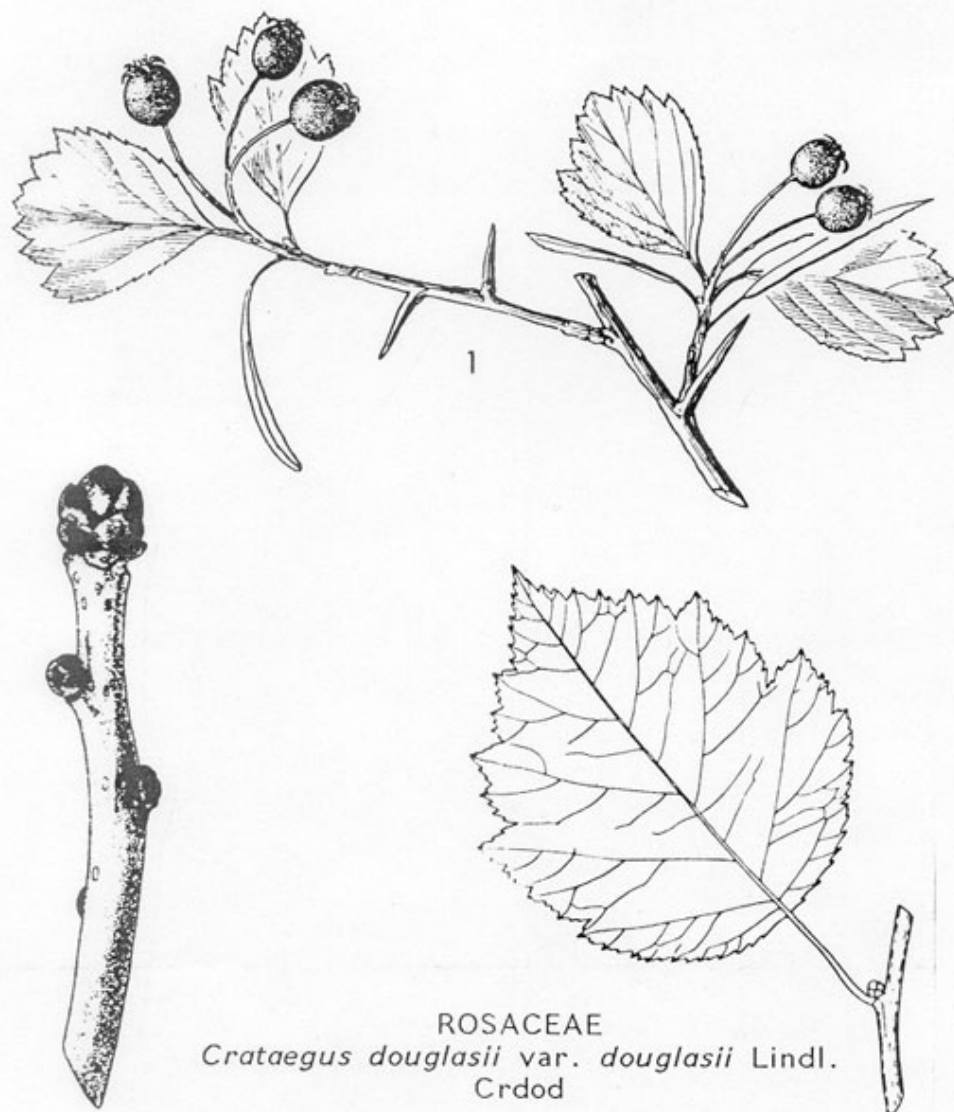
LEAVES: Alternate, deciduous, lanceolate, 8-15mm long, glabrous, shiny light green above, dull below, finely serrate.

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.	Phma h.t.	Phpo
	Caru	Caru	Psmc
1	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
1	Libo	Libo	
3	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe	h.t.	
	Setr	h.t.	
	Phma		
1	Clun	Clun	
	Tabr	h.t.	
3	Mefe	h.t.	
2	Xete		
5	Vagl	Xete	
	Cooc	h.t.	
	Clun	Clun	Thp1
	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.	
1	Clun	Clun	Tshe
	Arnu	h.t.	
	Mefe		
1	Xete		
	Asca	Asca	
	Arnu	h.t.	Tsmc
	Mefe		
1	Mefe	Clun	
2	Xete	h.t.	
7	Xete	Mefe	
8	Luhi	h.t.	Tsmc
	Mefe	Stam	
7	Luhi	h.t.	
5	Vagl	Xete	
9	Luhi	h.t.	
3	Clun	Clun	Ab1a
5	Mefe	h.t.	
1	Xete		
7	Cooc		
5	Xete	Mefe	
10	Vasc	h.t.	
7	Luhi		
1	Mefe	Stam	
4	Lica	h.t.	
8	Caca	Caca	
10	Vaca	h.t.	
10	Legl		Pico
7	Cooc		
6	Vagl	Xete	
10	Vasc	h.t.	
8	Luhi		
10	Vasc	h.t.	Pico
8	Xete	c.t.	
8	Vaca	c.t.	Pico



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.	Pido
9	Phma h.t.	
	Caru	Caru
	Aruv	h.t.
	Phma	Phma
	Smst	h.t.
	Phma	Phma
	Cooc	h.t.
1	Libo	Libo
	Xete	h.t.
	Asca	Asca
	Tabr	h.t.
	Mefe	
	Setr	h.t.
	Phma	
+	Clun	Clun
	Tabr	h.t.
	Mefe	
	Xete	
+	Asca	Asca
	Tabr	h.t.
	Mefe	
	Gydr	h.t.
	Adpe	h.t.
1	Adpe	Atfi
	Atfi	h.t.
	Opho	h.t.
	Clun	Clun
	Arnu	h.t.
	Mefe	
	Xete	
	Asca	Asca
	Arnu	h.t.
	Mefe	
	Gydr	h.t.
	Mefe	Clun
	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.
	Xete	c.t.
	Vaca	c.t.
		Pico

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



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 ciliata* (western trumpet honeysuckle), vine; and *Lonicera involucrata* (bearberry honeysuckle), flowers subtended by two purple bracts.

NOTES: Most widespread upland honeysuckle species in northern Idaho.

Pico	Syal h.t.	1
Phma	h.t.	4
Psme	Caru	Caru
	h.t.	Aruv 2
	Phma	Phma
Libo	h.t.	Smst
	Phma	Phma
	h.t.	Cooc
Abgr	Libo	Libo 3
	h.t.	Xete
	Asca	Asca
Clun	h.t.	Tabr
	h.t.	Mefe
	h.t.	Xete +
Xete	h.t.	Vagl 1
	h.t.	Cooc
Clun	h.t.	Clun 1
	h.t.	Tabr
	h.t.	Mefe
Asca	h.t.	Asca
	h.t.	Tabr
	h.t.	Mefe
Gydr	h.t.	
	h.t.	
	h.t.	
Atfi	h.t.	Atfi
	h.t.	
	h.t.	
Clun	h.t.	Clun +
	h.t.	Arnu 1
	h.t.	Mefe
Asca	h.t.	Asca
	h.t.	Arnu
	h.t.	Mefe
Gydr	h.t.	1
	h.t.	
	h.t.	
Clun	h.t.	Mefe
	h.t.	Xete
	h.t.	Xete
Mefe	h.t.	Luhi
	h.t.	Mefe
	h.t.	Luhi
Xete	h.t.	Vagl
	h.t.	Luhi
Clun	h.t.	Clun
	h.t.	Mefe
	h.t.	Xete
Mefe	h.t.	Cooc
	h.t.	Xete
	h.t.	Vasc
Stam	h.t.	Luhi
	h.t.	Mefe
	h.t.	Lica 1
Caca	h.t.	Caca 3
	h.t.	Vaca 10
	h.t.	Legl 1
Xete	h.t.	Cooc 1
	h.t.	Vagl 1
	h.t.	Vasc 1
Vasc	h.t.	Luhi 1
	h.t.	
	h.t.	
Vaca	h.t.	1
	h.t.	
	h.t.	

V a c a



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.

Pipo	Syal h.t.	
Pipo	Phma h.t.	
Psme	Caru h.t.	Caru
	Aruv	
	Phma h.t.	Phma
Abgr	Phma h.t.	Phma
	Cooc	
	Libo h.t.	Libo
	Xete	
	Asca h.t.	Asca
	Tabr	
	Mefe	
	Setr h.t.	1
	Phma	
	Clun h.t.	1
Thp1	Clun h.t.	Clun
	Tabr	
	Mefe	1
	Xete	
	Asca h.t.	Asca
	Tabr	
	Mefe	
	Gydr h.t.	
	Adpe h.t.	
	Atfi h.t.	Atfi
Tshe	Opho h.t.	
	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
	Luh1	1
	Stam h.t.	Mefe 2
	Luh1	
	Xete	Vagl
	Luh1	
Ab1a	Clun h.t.	Clun
	Mefe	1
	Xete	
	Cooc	4
	Xete	2
	Vasc	
	Luh1	
	Stam h.t.	Mefe 1
	Lica	1
	Caca h.t.	Caca 3
Pico	Vaca	10
	Legl	10
	Cooc	1
	Vagl	
	Vasc	1
	Luh1	1
	Vasc h.t.	1
	Xete c.t.	
	Vaca c.t.	



ERICACEAE

Ledum glandulosum Nutt. var. *glandulosum*

Leglg

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.

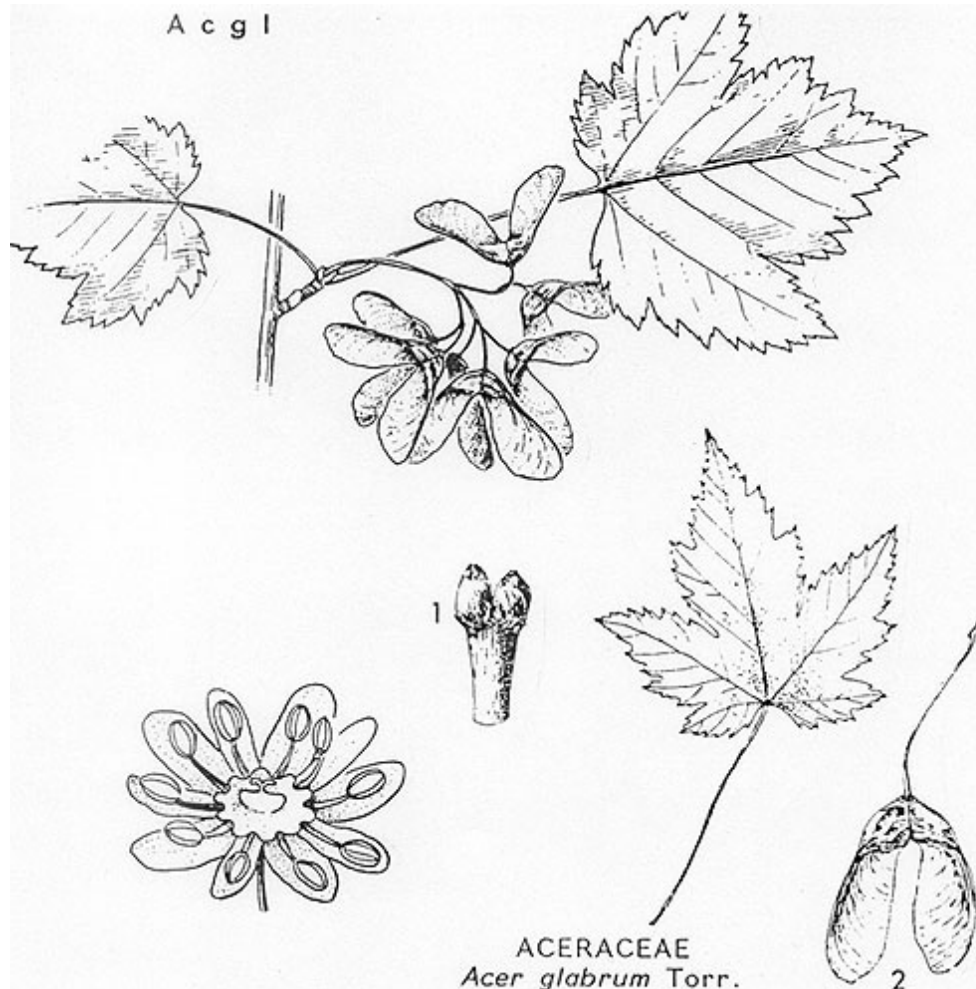
FLOWERS: Small, white or yellowish, in clusters at ends of branches; June-Aug.

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.



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, trifoliate 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	Psmc	
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		
3	Cooc		h. t.		
6	Clun		Clun h. t.	Thpi	
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		Asca h. t.		
4	Asca				
9	Arnu				
3	Mefe				
6	Gydr	h. t.			
2	Mefe		Clun h. t.	Tsmc	
1	Xete				
	Xete		Mefe		
	Luhi		h. t.		
	Mefe		Stam		
	Luhi		h. t.		
1	Vagl		Xete		
	Luhi		h. t.		
	Clun		Clun h. t.	Abia	
2	Mefe				
4	Xete				
	Cooc		Mefe h. t.		
	Xete				
	Vasc				
	Luhi				
3	Mefe		Stam		
1	Lica		h. t.		
	Caca		Caca h. t.		
	Vaca				
	Legl				
	Cooc		Xete h. t.		
1	Vagl				
	Vasc				
	Luhi				
	Vasc	h. t. . .		Pico	
	Xete	c. t.			
	Vaca	c. t.			



ROSACEAE

Sorbus scopulina Greene
Sosc2

Sorbus sitchensis Roemer
Sosi

mountain-ash

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.

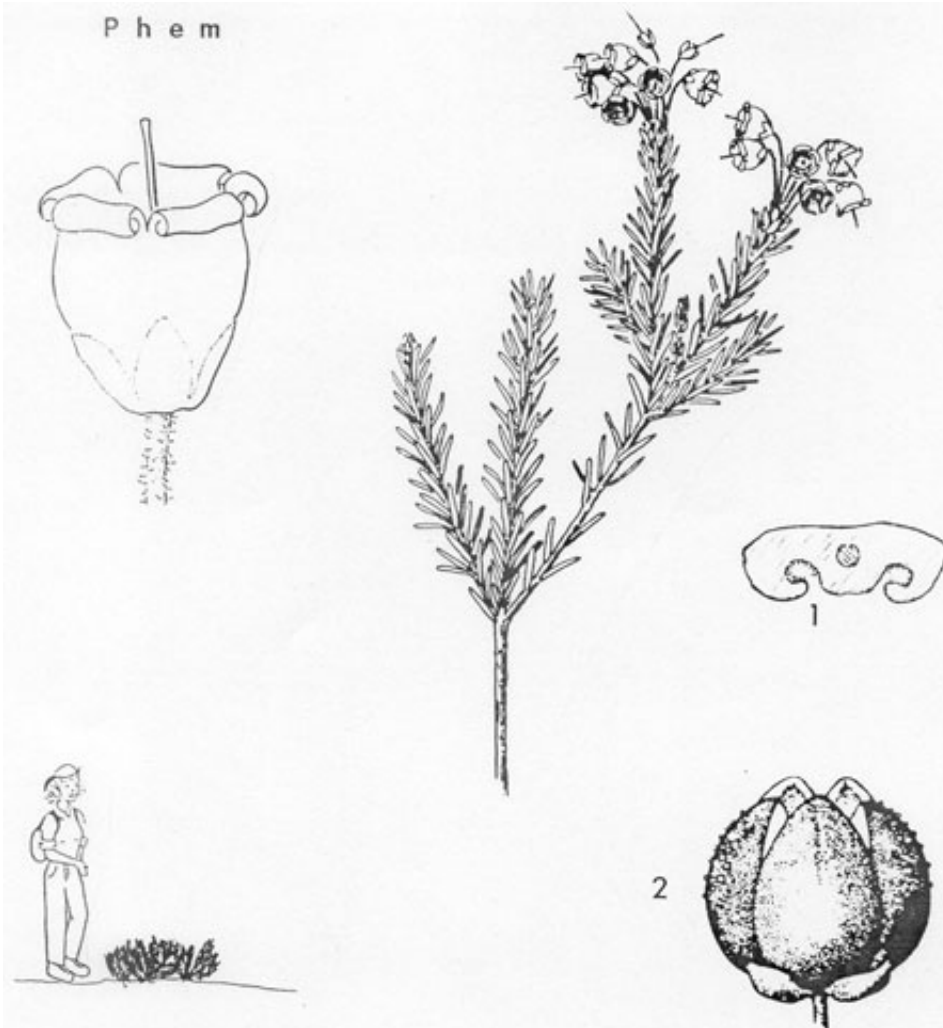
FRUIT: Pome, 1cm.

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.	Pho
		Phma h.t.	
2		Caru	Caru
		Aruv	h.t.
1		Phma	Phma
+	+	Smst	h.t.
1		Phma	Phma
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	
3		Clun	
3		Tabr	Clun
5	1	Mefe	h.t.
2	1	Xete	
4		Vagl	Xete
3	1	Cooc	h.t.
1	+	Clun	
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	
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
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.
4		Clun	
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.
		Xete	c.t.
		Vaca	c.t.



ERICACEAE

Phyllodoce empetriflora (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. empetriflora* and *P. glanduliflora* will freely hybridize.

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

Syal h.t.		Ptpo
Phma h.t.		
Caru	Caru	Psmc
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	Thpl
Mefe	h.t.	
Xete		
Asca	Asca	
Tabr	h.t.	
Mefe		
Gydr	h.t.	
Adpe	h.t.	
Adpe	Atfi	
Atfi	h.t.	
Opho	h.t.	Tshe
Clun		
Arnu	Clun	
Mefe	h.t.	
Xete		
Asca	Asca	
Arnu	h.t.	Tme
Mefe		
Gydr	h.t.	
+	Mefe	Clun
	Xete	h.t.
2	Xete	Mefe
4	Luhi	h.t.
	Mefe	Stam
2	Luhi	h.t.
	Vagl	Xete
6	Luhi	h.t.
	Clun	Clun
	Mefe	h.t.
	Xete	
	Cooc	
	Xete	Mefe
1	Vasc	h.t.
1	Luhi	
	Mefe	Stam
	Lica	h.t.
2	Caca	Caca
	Vaca	h.t.
	Legl	
	Cooc	
	Vagl	Xete
	Vasc	h.t.
3	Luhi	
	Vasc	h.t.
	Xete	c.t.
	Vaca	c.t.
		Pico

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



1



2



ROSACEAE

Physocarpus malvaceus (Greene) Kuntze
Phma

ninebark

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

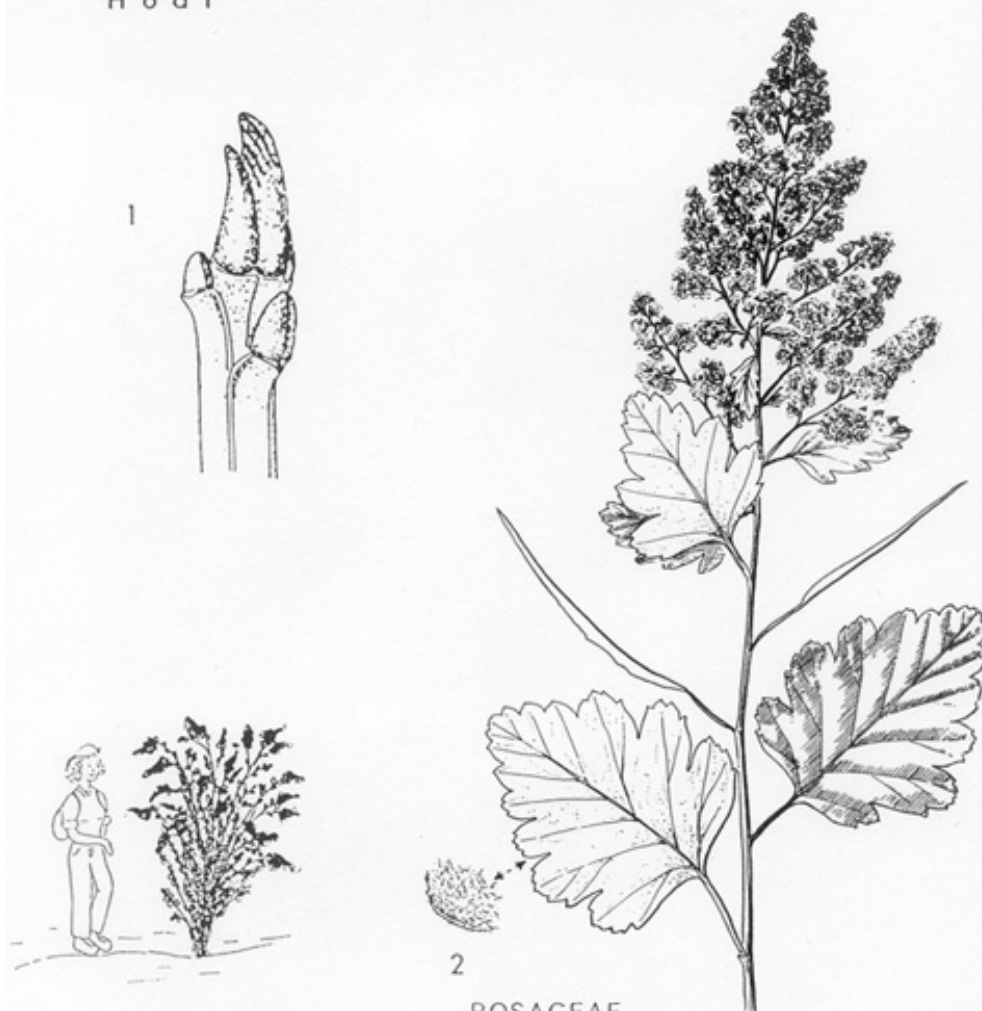
BARK: Loose, shreddy; brown to grey.

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.



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.

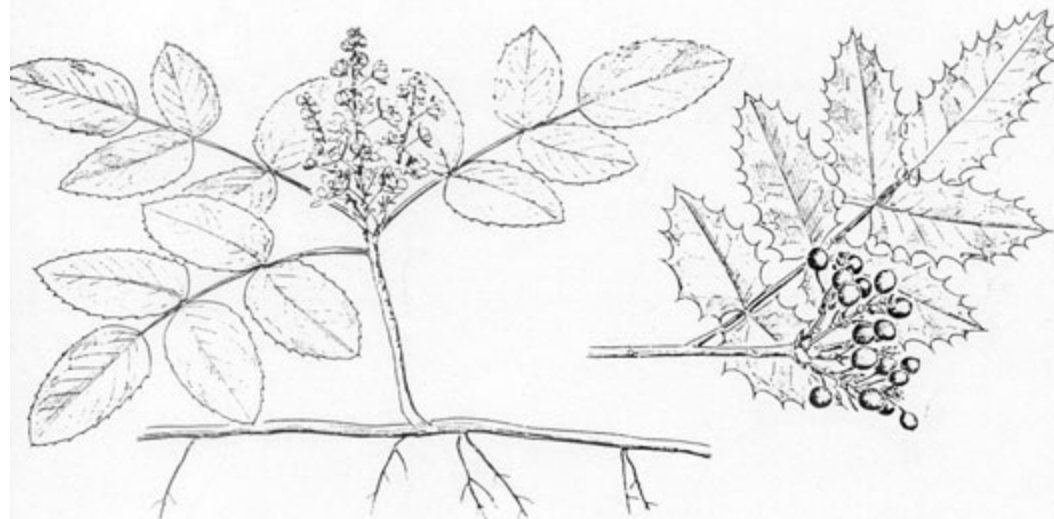
ENEMIES: Fire: moderate resistance, regenerating from basal stem sprouts to preburn level within 5-10 years.

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.		
9	Phma h.t.		
	Caru	Caru	
1	Aruv	h.t.	
7	Phma	Phma	
9	Smst	h.t.	
8	Phma	Phma	
9	Cooc	h.t.	
3	Libo	Libo	
3	Xete	h.t.	
5	Asca	Asca	
	Tabr	h.t.	
	Mefe	h.t.	
	Setr	h.t.	
8	Phma		
4	Clun		
1	Tabr	Clun	
1	Mefe	h.t.	
1	Xete		
1	Vagl	Xete	
2	Cooc	h.t.	
3	Clun	Clun	
	Tabr	h.t.	
	Mefe		
	Xete		
2	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr	n.t.	
2	Adpe	h.t.	
2	Adpe	Atfi	
+	Atfi	h.t.	
	Opho	h.t.	
1	Clun	Clun	
4	Arnu	h.t.	
	Mefe		
2	Xete		
2	Asca	Asca	
1	Arnu	h.t.	
	Mefe		
	Gydr	n.t.	
	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	
	Mefe	h.t.	
1	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.	
	Xete	c.t.	
	Vaca	c.t.	



BERBERIDACEAE

Berberis repens
Lindl.
Bere

Berberis aquifolium
Pursh.
Beaq

creeping oregon grape

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 inconspicuous 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: Glauous, dark blue.

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

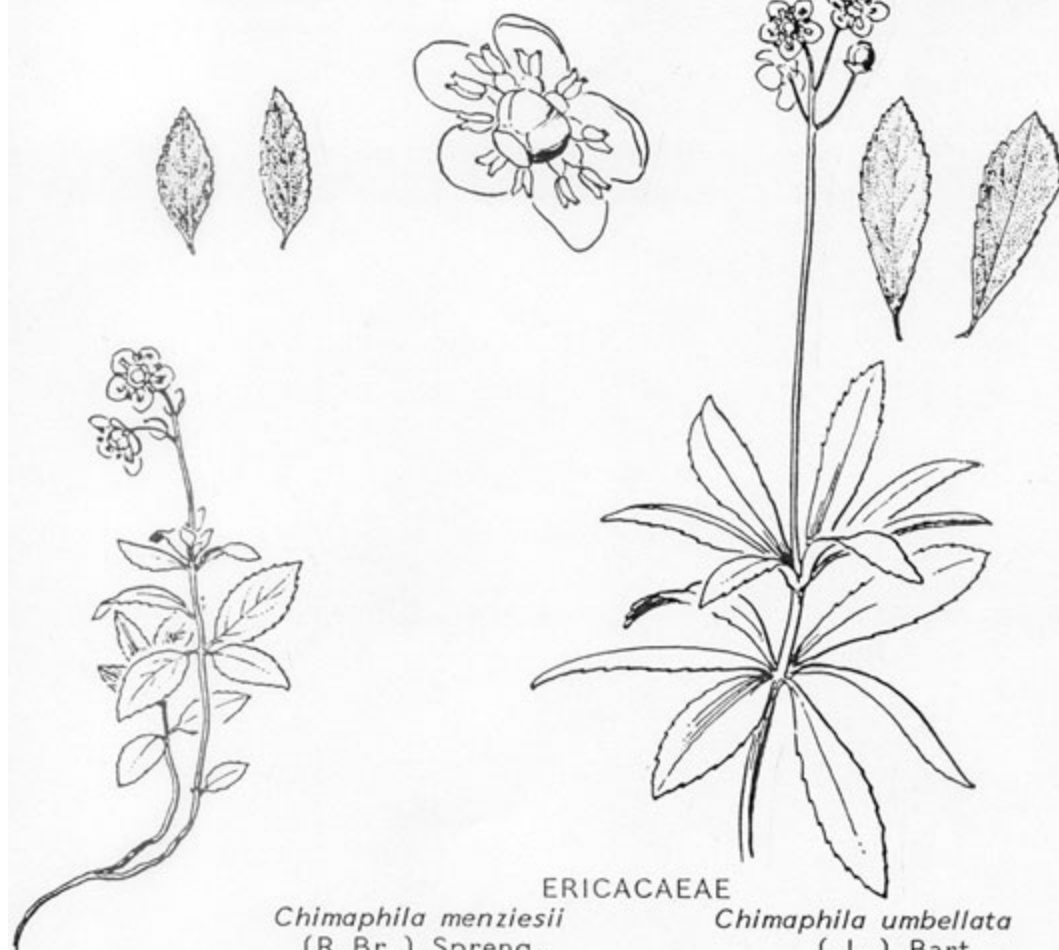
HABITAT: Beaq generally more mesic sites than Bere.

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

4		Syal	h.t.		Pipo
6		Phma	h.t.		
8		Caru	Caru		Psmc
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			
		Tabr	Asca		
1		Mefe	h.t.		
		Setr	h.t.		
8		Phma			
5	+	Clun			
1		Tabr	Clun		
2		Mefe	h.t.		
5		Xete			
6		Vagl	Xete		
3		Cooc	h.t.		
		Clun			Thp)
		Tabr	Clun		
2		Mefe	h.t.		
		Xete			
1		Asca	Asca		
		Tabr	h.t.		
		Mefe			
1		Gydr	h.t.		
+		Adpe	h.t.		
1		Adpe	Atfi		
		Atfi	h.t.		
		Opho	h.t.		
2	+	Clun			Tshe
4	1	Arnu	Clun		
		Mefe	h.t.		
1		Xete			
3	+	Asca	Asca		
1		Arnu	h.t.		
		Mefe			
+		Gydr	h.t.		
		Mefe	Clun		Tsmc
		Xete	h.t.		
		Xete	Mefe		
		Luhi	h.t.		
		Mefe	Stam		
		Luhi	h.t.		
		Vagl	Xete		
		Luhi	h.t.		
		Clun			Abia
		Mefe	Clun		
1		Xete	h.t.		
		Cooc			
		Xete	Mefe		
		Vasc	h.t.		
		Luhi			
		Mefe	Stam		
		Lica	h.t.		
		Caca	Caca		
		Vaca	h.t.		
		Legl			
1		Cooc			
1		Vagl	Xete		
		Vasc	h.t.		
		Luhi			
		Vasc	h.t.		Pico
		Xete	c.t.		
		Vaca	c.t.		

C h m e

C h u m



ERICACEAE

Chimaphila menziesii
(R.Br.) Spreng.
Chme

Chimaphila umbellata
(L.) Bart.
Chum

Menzies' prince's pine
little pipsissewa

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, elliptic, 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.		
	1	Phma h.t.		Phpo
	2	Caru	Caru	
1	3	Aruv	h.t.	
1	1	Phma	Phma	
1	+	Smst	h.t.	
2	3	Phma	Phma	
6	1	Cooc	h.t.	
5	8	Libo	Libo	
3	10	Xete	h.t.	
3	5	Asca	Asca	
5	5	Tabr	h.t.	
2	6	Mefe		
	2	Setr	h.t.	
4	3	Phma		
5	7	Clun		
2	10	Tabr	Clun	
4	9	Mefe	h.t.	
3	9	Xete		
2	9	Vagl	Xete	
4	9	Cooc	h.t.	
4	6	Clun		
5	10	Tabr	Clun	
1	7	Mefe	h.t.	
4	8	Xete		
4	6	Asca	Asca	
5	6	Tabr	h.t.	
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		
1	8	Arnu	Clun	
	4	Mefe	h.t.	
1	7	Xete		
3	7	Asca	Asca	
4	10	Arnu	h.t.	
	3	Mefe		
1	4	Gydr	h.t.	
2	4	Mefe	Clun	
1	7	Xete	h.t.	
1	3	Xete	Mefe	
1	1	Luhi	h.t.	
		Mefe	Stam	
		Luhi	h.t.	
	6	Vagl	Xete	
	1	Luhi	h.t.	
	7	Clun		
3	5	Mefe	Clun	
4	6	Xete	h.t.	
2	9	Cooc		
	2	Xete	Mefe	
	4	Vasc	h.t.	
	4	Luhi		
1	2	Mefe	Stam	
1	1	Lica	h.t.	
		Caca	Caca	
	5	Vaca	h.t.	
	2	Legl		
1	10	Cooc		
2	6	Vagl	Xete	
	5	Vasc	h.t.	
	+	Luhi		
	6	Vasc	h.t.	
		Xete	c.t.	
		Vaca	c.t.	

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



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.	Ppo
10	Phma	h.t.	Ppo
6	Caru	Caru	Pme
2	Aruv	h.t.	Pme
7	Phma	Phma	Pme
8	Smst	h.t.	Pme
7	Phma	Phma	Abgr
9	Cooc	h.t.	Abgr
6	Libo	Libo	Abgr
7	Xete	h.t.	Abgr
6	Asca	Asca	Abgr
4	Tabr	h.t.	Abgr
7	Mefe	h.t.	Abgr
4	Setr	h.t.	Abgr
9	Phma	h.t.	Abgr
9	Clun	Clun	Abgr
4	Tabr	h.t.	Abgr
5	Mefe	h.t.	Abgr
7	Xete	h.t.	Abgr
5	Vagl	h.t.	Abgr
4	Cooc	h.t.	Abgr
5	Clun	Clun	Thp1
4	Tabr	h.t.	Thp1
3	Mefe	h.t.	Thp1
3	Xete	h.t.	Thp1
6	Asca	Asca	Thp1
6	Tabr	h.t.	Thp1
1	Mefe	h.t.	Thp1
5	Gydr	h.t.	Thp1
4	Adpe	h.t.	Thp1
4	Adpe	Atfi	Thp1
2	Atfi	h.t.	Thp1
1	Opho	h.t.	Thp1
4	Clun	Clun	Tshe
5	Arnu	h.t.	Tshe
2	Mefe	h.t.	Tshe
3	Xete	h.t.	Tshe
5	Asca	Asca	Tshe
6	Arnu	h.t.	Tshe
1	Mefe	h.t.	Tshe
3	Gydr	h.t.	Tshe
1	Mefe	Clun	Tsme
2	Xete	h.t.	Tsme
	Xete	Mefe	Tsme
	Luni	h.t.	Tsme
	Mefe	Stam	Tsme
	Luni	h.t.	Tsme
	Vagl	Xete	Tsme
	Luni	h.t.	Tsme
7	Clun	Clun	Ab1a
3	Mefe	h.t.	Ab1a
4	Xete	h.t.	Ab1a
1	Cooc	Mefe	Ab1a
	Xete	h.t.	Ab1a
	Vasc	h.t.	Ab1a
1	Luni	Stam	Ab1a
1	Mefe	h.t.	Ab1a
1	Lica	h.t.	Ab1a
3	Caca	Caca	Ab1a
2	Vaca	h.t.	Ab1a
	Legl	h.t.	Ab1a
1	Cooc	Xete	Ab1a
3	Vagl	h.t.	Ab1a
	Vasc	h.t.	Ab1a
	Luni	h.t.	Ab1a
	Vasc	h.t.	Pico
	Xete	c.t.	Pico
	Vaca	c.t.	Pico

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

G a h u

G a o v



ERICACEAE

Gaultheria humifusa
(Grah.) Rydb.
Gahu

Gaultheria ovatifolia
Gray
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.

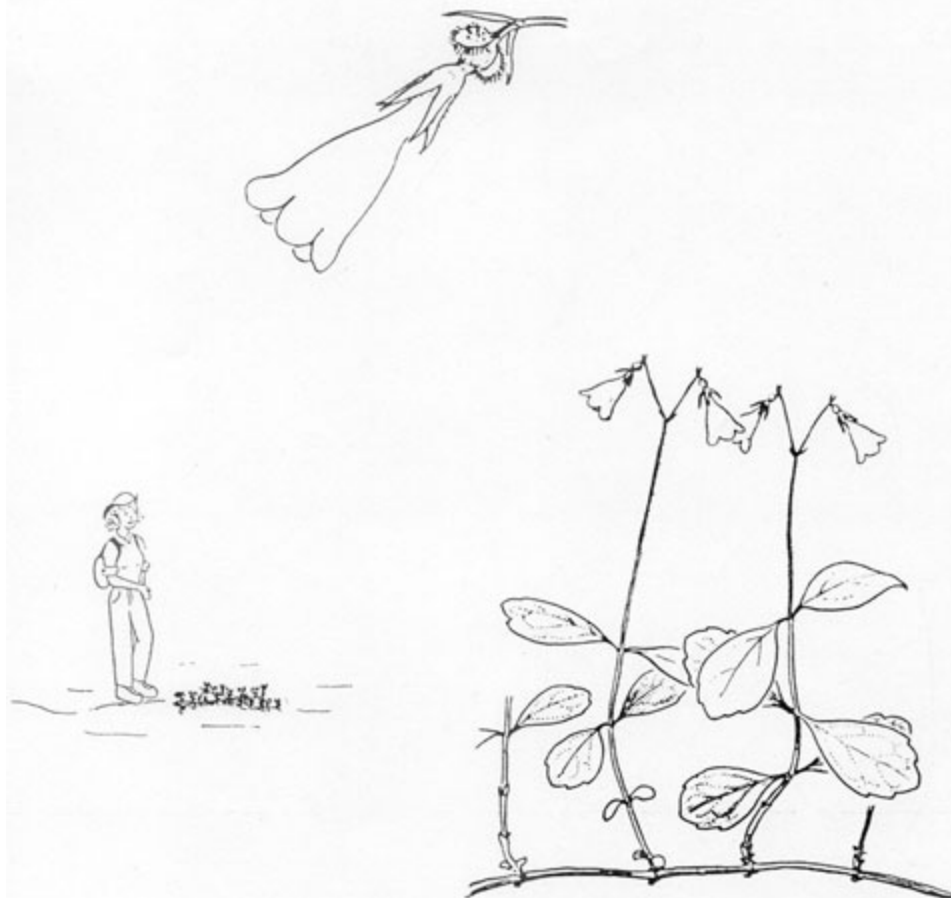
Gaov: calyx covered with long glandular brown hairs; June-Aug.

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.



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.

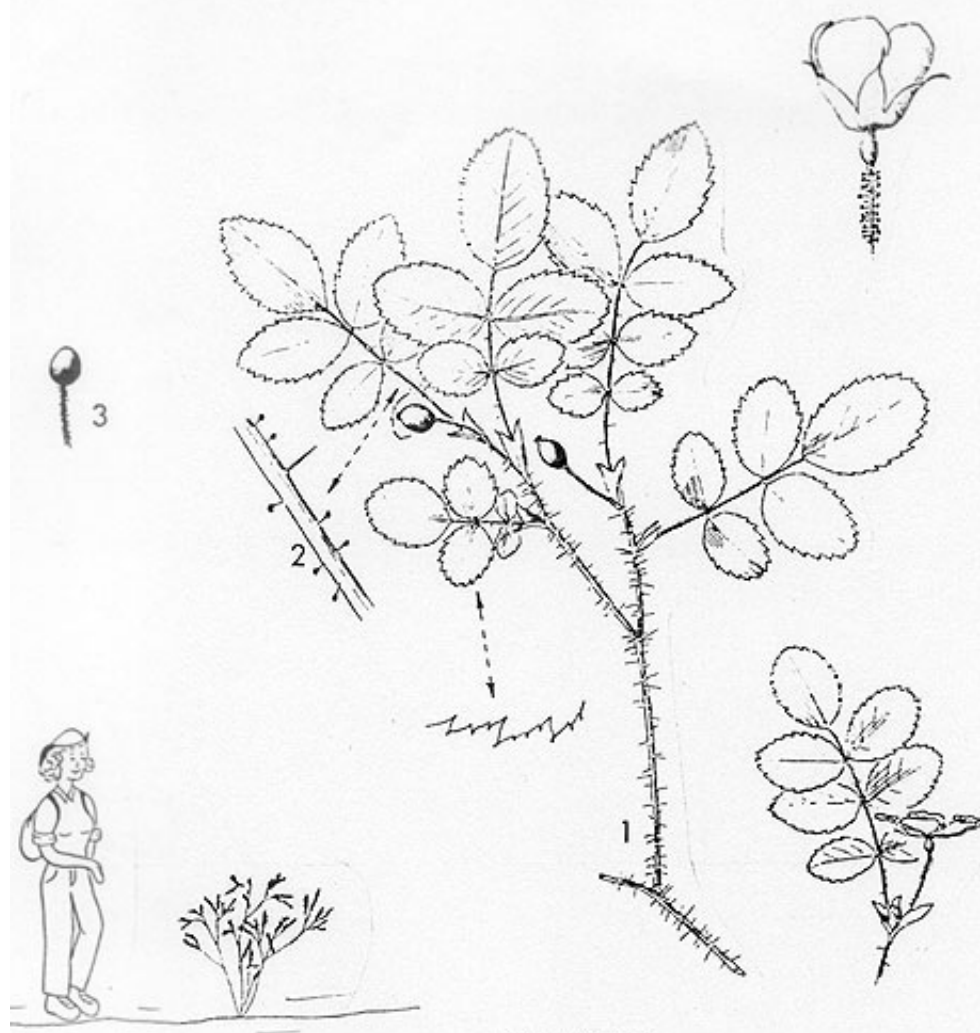
FLOWERS: A pair of tiny, pink, nodding, bell-shaped flowers, 2-5mm long; June-Sept.

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



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.		
	Phma h.t.		
2	Caru	Caru	
2	Aruv	h.t.	
5	Phma	Phma	
8	Smst	h.t.	
9	Phma	Phma	
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		
10	Clun		
8	Tabr	Clun	
8	Mefe	h.t.	
9	Xete		
7	Vagl	Xete	
9	Cooc	h.t.	
9	Clun		
7	Tabr	Clun	
6	Mefe	h.t.	
6	Xete		
8	Asca	Asca	
5	Tabr	h.t.	
3	Mefe		
7	Gydr h.t.		
7	Adpe h.t.		
7	Adpe	Atfi	
4	Atfi	h.t.	
3	Opho h.t.		
5	Clun		
10	Arnu	Clun	
3	Mefe	h.t.	
6	Xete		
8	Asca	Asca	
10	Arnu	h.t.	
	Mefe		
7	Gydr h.t.		
2	Mefe	Clun	
2	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
1	Vagl	Xete	
	Luhi	h.t.	
7	Clun		
1	Mefe	Clun	
5	Xete	h.t.	
2	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
1	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
2	Cooc		
1	Vagl	Xete	
1	Vasc	h.t.	
	Luhi		
	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		

Pipo	Syal h.t.	1
	Phma h.t.	
Psme	Caru	Caru
	h.t.	Aruv 1
	Phma	Phma +
	h.t.	Smst 1
Abgr	Phma	Phma 1
	h.t.	Cooc
	Libo	Libo 1
	h.t.	Xete
	Asca	Asca
	h.t.	Tabr
		Mefe
	Setr h.t.	
		Phma
		Clun
Thp1	Clun	Clun
	h.t.	Tabr
		Mefe
		Xete
	Asca	Asca
	h.t.	Tabr
		Mefe
	Gydr h.t.	
	Adpe h.t.	
	Atfi	Adpe
Tsme	h.t.	Atfi
	Opho h.t.	
	Clun	+
	h.t.	Arnu
		Mefe 1
		Xete
	Asca	+
	h.t.	Arnu 1
		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
		Cooc
	Mefe	Xete
	h.t.	Vasc
		Luhi
	Stam	Mefe 1
	h.t.	Lica
	Caca	Caca
Pico	h.t.	Vaca
		Legl
		Cooc
	Xete	Vagl
	h.t.	Vasc
		Luhi
Pico	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	

R o n u



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).

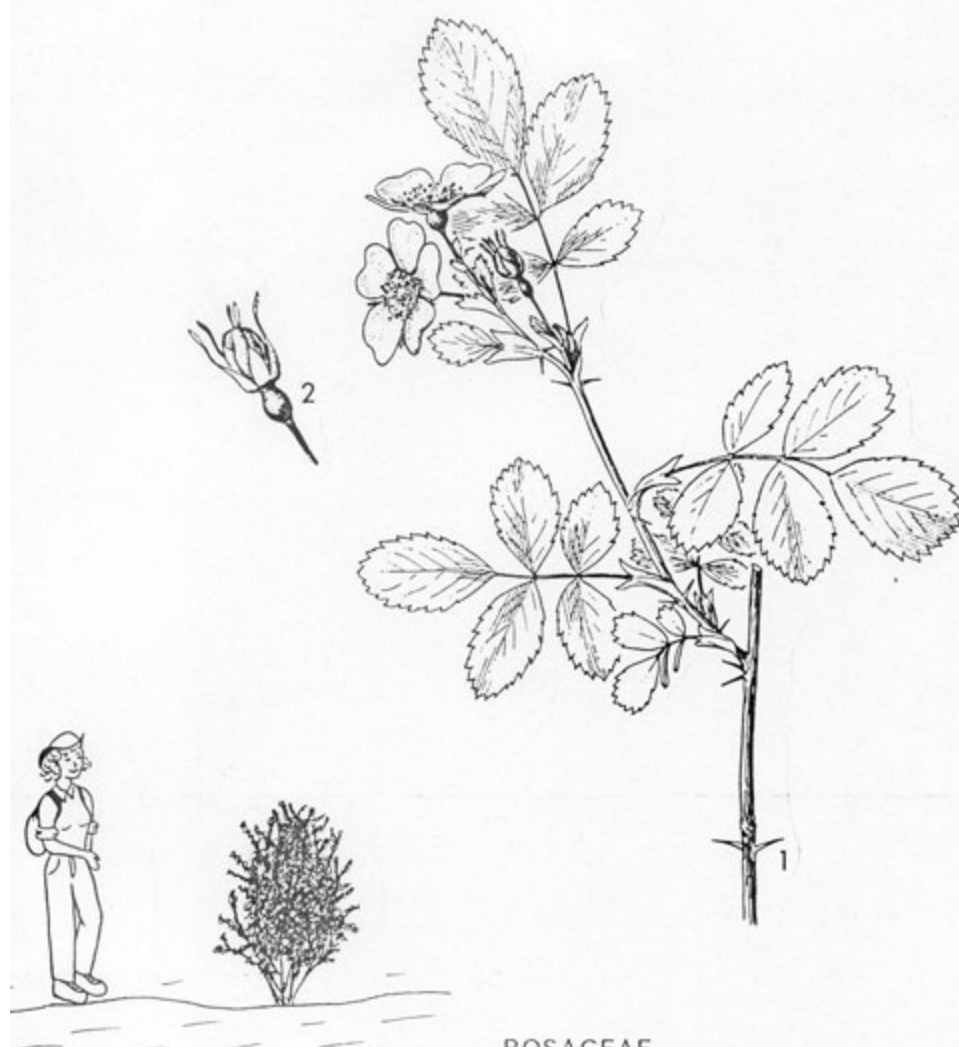
LEAVES: Alternate, deciduous, odd-pinnately compound with 5-7 green leaflets, elliptic 1-7cm (1-3in) long; serrate or doubly serrate.

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.

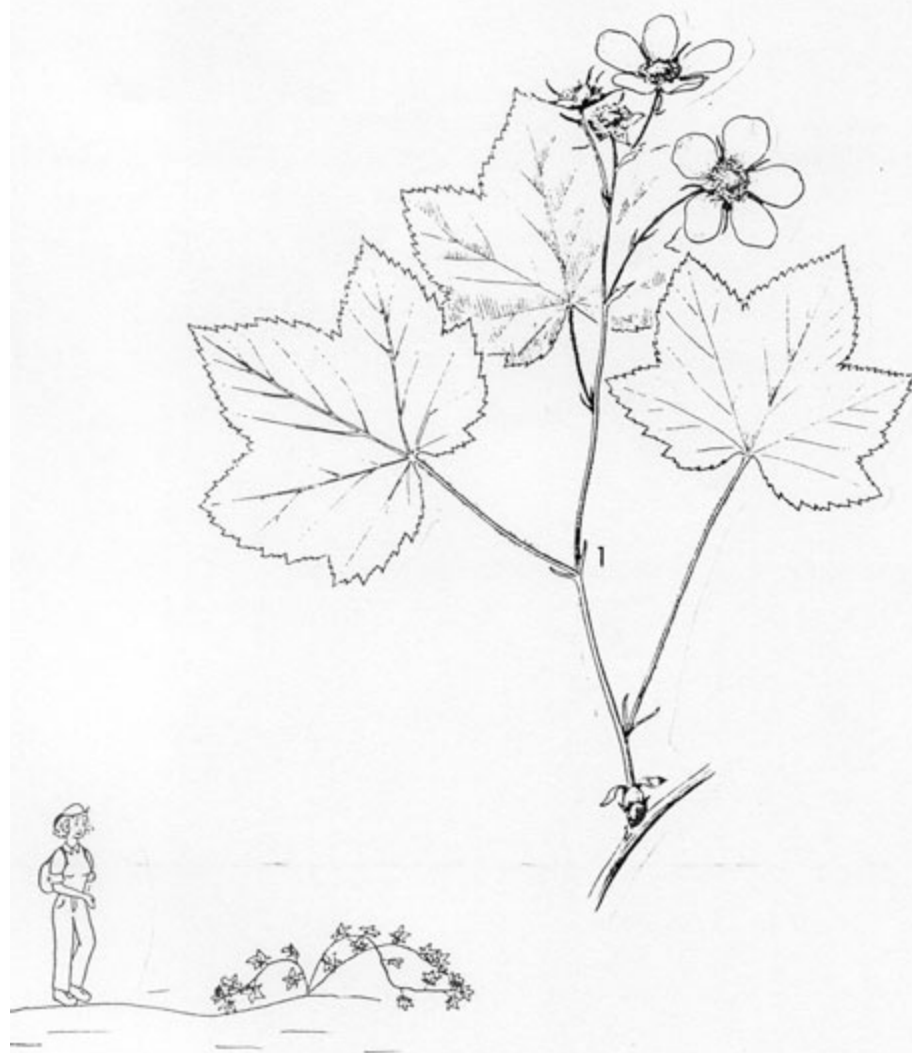
FLOWERS: Small, pink, 3-5cm (1-2in) long in terminal clusters; May-July.

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.		Pipo
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	h.t.	
	Mefe		
	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	Tshe
	Arnu	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
	Mefe	Clun	Tme
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	Abja
	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.	



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.

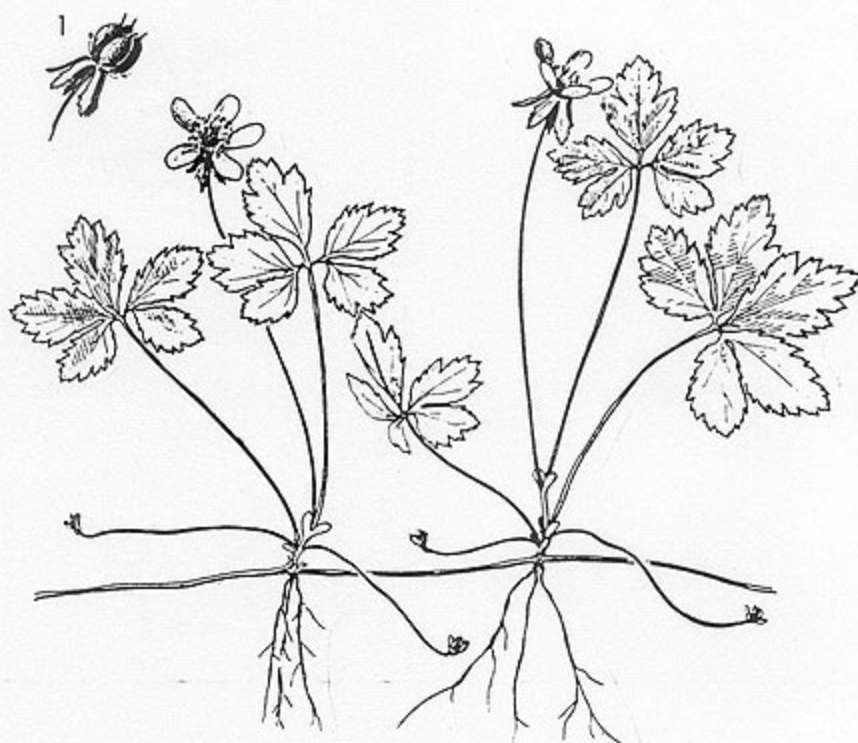
FLOWERS: 2-9 large, white, regular flowers in loose, flat-topped terminal clusters; May-July.

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

SIMILAR SPECIES: *Oplopanax horridum*, p.51, armed.

	Syal h.t.	
1	Phma h.t.	Pipo
	Caru	Caru
	Aruv	h.t.
1	Phma	Phma
3	Smst	h.t.
4	Phma	Phma
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	
6	Clun	Clun
3	Tabr	h.t.
3	Mefe	
5	Xete	
2	Vagl	Xete
6	Cooc	h.t.
5	Clun	Clun
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
6	Arnu	h.t.
4	Mefe	
4	Xete	
5	Asca	Asca
4	Arnu	h.t.
7	Mefe	
5	Gydr	h.t.
3	Mefe	Clun
2	Xete	h.t.
	Xete	Mefe
	Luhi	h.t.
2	Mefe	Stam
	Luhi	h.t.
	Vagl	Xete
	Luhi	h.t.
7	Clun	Clun
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	
	Vagl	Xete
	Vasc	h.t.
	Luhi	
	Vasc	h.t.
	Xete	c.t.
	Vaca	c.t.
		Pico

Pico	Syal h.t.	
	Phma h.t.	
Psme	Caru h.t.	Caru
	Aruv	
	Phma h.t.	Phma
	Smst	
	Phma h.t.	Phma
	Cooc	
	Libo h.t.	Libo
	Xete	
	Asca h.t.	Asca
	Tabr	
	Mefe	
Abgr	Setr h.t.	
	Phma	
	Clun	
	Tabr	
	Mefe	
	Xete	1
	Vagl	
	Cooc	
	Clun	
	Tabr	
	Mefe	
	Xete	
Thp	Asca h.t.	Asca
	Tabr	
	Mefe	
	Gydr h.t.	
	Adpe h.t.	
	Atfi	
	Atfi h.t.	1
	Opho h.t.	3
	Clun	2
	Arnu	1
	Mefe	1
	Xete	3
	Asca	+
	Arnu	
	Mefe	
	Gydr h.t.	2
	Clun	
	Mefe	
	Xete	
	Mefe	
	Xete	
	Luh	
	Stam	
	Mefe	
	Luh	
	Xete	
	Vagl	
	Luh	
	Clun	
	Mefe	
	Xete	
	Cooc	
	Mefe	
	Xete	
	Vasc	
	Luh	
	Stam	1
	Lica	
	Caca	
	Vaca	
	Legl	
	Cooc	
	Vagl	
	Vasc	
	Luh	
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.



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 appressed to stem with a single, caplike bud-scale.

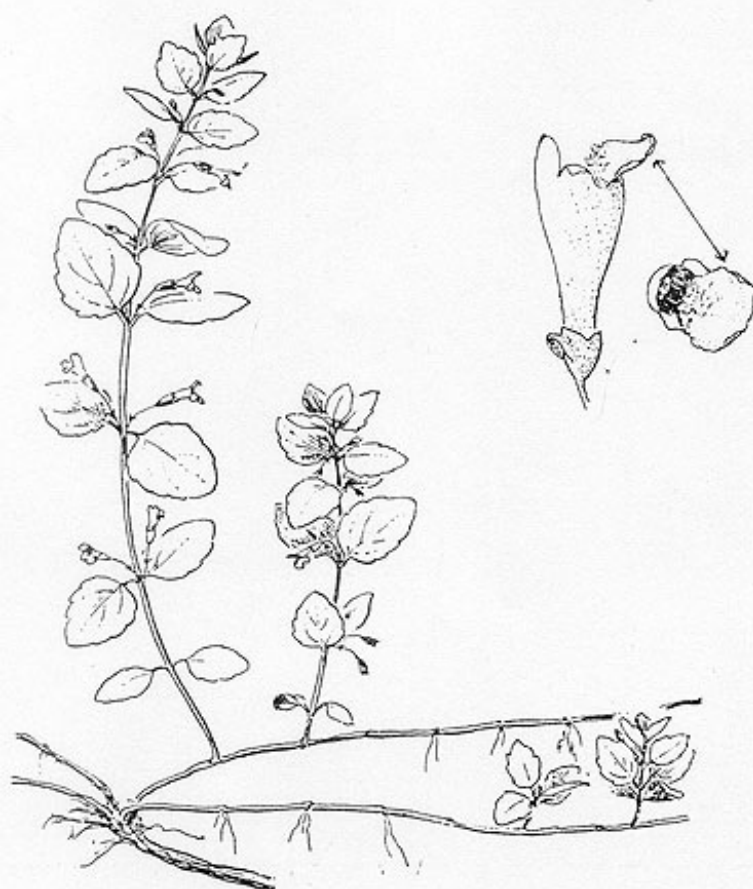
LEAVES: Alternate, deciduous, entire, mostly oblanceolate with cuneate base, 3-8cm (1-3in) long; rounded or broad tip; hairy when young; mature leaves dark green, glabrous above; undersurface whitened (glaucous) and sparsely reddish hairy.

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	Psmc
	Aruv	h.t.	
1	Phma	Phma	
1	Smst	h.t.	
1	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
1	Asca	Asca	
	Tabr	h.t.	
	Mefe		
1	Setr	h.t.	
	Phma		
	Clun		
	Tabr		
1	Mefe	Clun	
1	Xete	h.t.	
2	Vagl	Xete	
1	Cooc	h.t.	
+	Clun		
	Tabr		
2	Mefe	Clun	
	Xete	h.t.	
1	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr	h.t.	
	Adpe	h.t.	
	Adpe	Atfi	
	Atfi	h.t.	
	Opho	h.t.	
	Clun		
	Arnu	Clun	
	Mefe	h.t.	
1	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
1	Mefe	Clun	
1	Xete	h.t.	
1	Xete	Mefe	
2	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
1	Vagl	Xete	
	Luhi	h.t.	
	Clun		
	Mefe	Clun	
1	Xete	h.t.	
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca	Caca	
	Vaca	h.t.	
	Legl		
1	Cooc		
1	Vagl	Xete	
1	Vasc	h.t.	
1	Luhi		
4	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	



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.

Syl	h.t.		
Phma	h.t.		Pipo
Caru	Caru		
Aruv	h.t.		Psme
1 Phma	Phma		
1 Smst	h.t.		
2 Phma	Phma		
Cooc	h.t.		
1 Libo	Libo		
Xete	h.t.		
Asca	Asca		
Tabr	h.t.		
Mefe	h.t.		
Setr	h.t.		Abgr
+ Phma			
+ Clun			
Tabr	Clun		
1 Mefe	h.t.		
+ Xete			
Vagl	Xete		
Cooc	h.t.		
+ Clun			
Tabr	Clun		
Mefe	h.t.		
Xete			
+ Asca	Asca		Thp1
Tabr	h.t.		
Mefe			
Gydr	h.t.		
1 Adpe	h.t.		
Adpe	Atfi		
Atfi	h.t.		
Opho	h.t.		
Clun			
Arnu	Clun		
Mefe	h.t.		
Xete			
Asca	Asca		
Arnu	h.t.		
Mefe			
Gydr	h.t.		
Mefe	Clun		
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.		
Xete	c.t.		
Vaca	c.t.		

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

Spbel



ROSACEAE

Spiraea betulifolia var. *lucida* (Douglas.) Hitchc.

Spbel

spirea, shiny-leaf spirea

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.

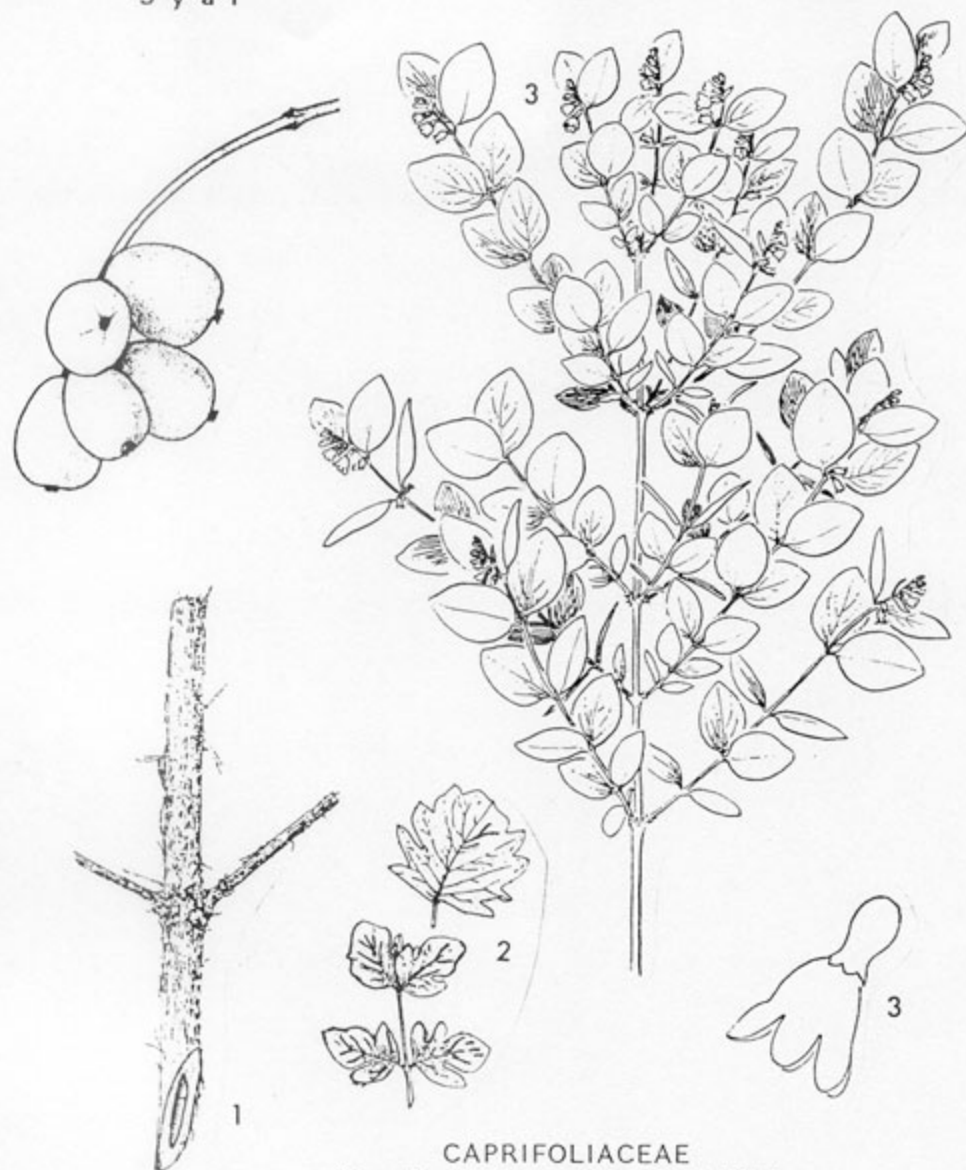
FLOWERS: Dull white in flat-topped corymbs, 3-8cm (1-3in) broad; June-July.

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.

S y a l



CAPRIFOLIACEAE
Symphoricarpos albus (L.) Blake
 Syl

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

Pho	Syal h.t.	
Phma h.t.		
Psme	Caru h.t.	Caru
	Aruv	
	Phma h.t.	Phma
	Smst	
Phma h.t.	Phma	1
Libo h.t.	Cooc	
Xete h.t.	Libo	
Asca h.t.	Xete	
Tabr	Asca	1
Mefe	Tabr	
Setr h.t.	Mefe	
Phma	Phma	+
Clun	Clun	1
Tabr	Tabr	1
Mefe	Mefe	1
Xete	Xete	
Vagl	Vagl	
Cooc	Cooc	
Clun	Clun	
Tabr	Tabr	
Mefe	Mefe	
Xete	Xete	
Asca	Asca	+
Tabr	Tabr	1
Mefe	Mefe	
Gydr h.t.		
Adpe h.t.		3
Atfi	Adpe	1
Atfi	Atfi	
Opho h.t.		1
Clun	Clun	+
Arnu	Arnu	
Mefe	Mefe	
Xete	Xete	
Asca	Asca	
Arnu	Arnu	
Mefe	Mefe	
Gydr h.t.		
Clun	Mefe	
Xete	Xete	
Mefe	Xete	
Luh	Luh	
Stam	Mefe	
Luh	Luh	
Xete	Vagl	
Luh	Luh	
Clun	Clun	
Mefe	Mefe	
Xete	Xete	
Cooc	Cooc	
Vasc	Vasc	
Luh	Luh	
Stam	Mefe	
Lica	Lica	
Caca	Caca	
Vaca	Vaca	
Legl	Legl	
Cooc	Cooc	
Vagl	Vagl	
Vasc	Vasc	
Luh	Luh	
Vasc h.t.		
Xete c.t.		
Vaca c.t.		

S y m o



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; principally on the St. Joe NF and Clearwater NF.

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Shrub characteristics

Species	Size	Leaf			Flower		Fruit	Comment
		Persistence	Arrangement	Type	Inflorescence	Color		
Whorled --- evergreen								
<i>Chimaphila</i> spp.	Sub	Evergreen	Whorled (alternate)	Simple toothed	Cluster	Pink	Capsule	
Opposite --- evergreen								
<i>Linnaea borealis</i>	Sub	Evergreen	Opposite	Simple toothed	Two	Pink	Capsule	mat forming
<i>Pachistima myrsinites</i>	Low	Evergreen	Opposite	Simple toothed	Cluster	Maroon	Berry	
<i>Satureja douglasii</i>	Sub	Evergreen	Opposite	Simple toothed	Single	White	Nutlet	odor; square stems
Opposite --- deciduous								
<i>Acer glabrum</i>	Tall	Deciduous	Opposite	Simple palmate	Cluster	Green yellow	Samara	Idaho native maple
<i>Cornus stolonifera</i>	Tall	Deciduous	Opposite	Simple entire	Cluster	White	Drupe	red stems
<i>Lonicera</i> spp.	Med	Deciduous	Opposite	Simple entire	Single / two	Yellow / orange	Berry	white pith
<i>Philadelphus lewisii</i>	Tall	Deciduous	Opposite	Simple toothed	Raceme	White	Capsule	Idaho state flower
<i>Sambucus</i> spp.	Tall	Deciduous	Opposite	Pinnate toothed	Cluster / flat	White	Berry	large berrylike clusters
<i>Shepherdia canadensis</i>	Med	Deciduous	Opposite	Simple entire	Single / cluster	Yellow	Berry	reddish scales
<i>Symphoricarpos</i> spp.	Med	Deciduous	Opposite	Simple entire	Raceme	White - pink	Berry	dark pith
Alternate --- evergreen								
<i>Arctostaphylos uva-ursi</i>	Sub	Evergreen	Alternate	Simple entire	Cluster	White - pink	Berry	mat forming
<i>Berberis</i> spp.	Sub - med	Evergreen	Alternate	Pinnate toothed	Raceme	Yellow	Berry	
<i>Ceanothus velutinus</i>	Tall	Evergreen	Alternate	Simple toothed	Pinnate	White	Capsule	spicy smelling
<i>Gaultheria</i> spp.	Sub	Evergreen	Alternate	Simple toothed	Single	White - pink	Berry	mat forming
<i>Ledum glandulosum</i>	Med	Evergreen	Alternate	Simple entire	Cluster	White - yellow	Capsule	yellow glands on leaf bottom
<i>Phyllodoce empetriformis</i>	Sub - low	Evergreen	Alternate	Simple linear inrolled	Single	Pink	Capsule	high elevation
<i>Taxus brevifolia</i>	Tall	Evergreen	Alternate	Simple linear	--	--	Berry	sharp-

				entire				tipped leaf
Alternate --- deciduous								
<i>Alnus</i> spp.	Tall	Deciduous	Alternate	Simple toothed	Ament	Greenish white	Nutlet	persistent semiwoody ament
<i>Amelanchier alnifolia</i>	Tall	Deciduous	Alternate	Simple toothed	Raceme	White	Pome	early blooming
<i>Betula glandulosa</i>	Med - tall	Deciduous	Alternate	Simple toothed	Ament	Greenish white	Samara	glandular stems
<i>Ceanothus sanguineus</i>	Tall	Deciduous	Alternate	Simple toothed	Panicle	White	Capsule	red stems
<i>Crataegus douglasii</i>	Tall	Deciduous	Alternate	Simple toothed	Cluster	White	Pome	armed
<i>Holodiscus discolor</i>	Tall	Deciduous	Alternate	Simple toothed	Panicle	Cream	Achene	dried flower sprays
<i>Menziesia ferruginea</i>	Med	Deciduous	Alternate	Simple toothed	Cluster	Pink - white yellow	Capsule	white tipped leaves
<i>Oplopanax horridum</i>	Med	Deciduous	Alternate	Simple palmate	Raceme	Greenish white	Berry	densely armed
<i>Physocarpus malvaceus</i>	Med	Deciduous	Alternate	Simple palmate	Cluster	White	Follicle	shreddy bark
<i>Prunus</i> spp.	Tall	Deciduous	Alternate	Simple toothed	Raceme cluster	White	Drupe	1-3 prominent leaf glands
<i>Rhamnus purshiana</i>	Tall	Deciduous	Alternate	Simple toothed	Cluster	Greenish white	Berry	naked buds
<i>Rhododendron albiflorum</i>	Med	Deciduous	Alternate (whorled)	Simple toothed	Cluster	White	Capsule	high elevation
<i>Ribes</i> spp.	Med	Deciduous	Alternate	Simple toothed lobed - palmate	Raceme	Green / yellow / pink	Berry	glandular fruit
<i>Rosa</i> spp.	Med	Deciduous	Alternate	Compound toothed	Single / cluster	Pink	Hip	armed
<i>Rubus</i> spp.	Sub - med	Deciduous (evergreen)	Alternate	Compound toothed / simple palmate toothed	Single / cluster	White / pink	Drupe	
<i>Salix scouleriana</i>	Tall	Deciduous	Alternate	Simple entire	Ament	Greenish white	Capsule	common upland willow
<i>Sorbus</i> spp.	Tall	Deciduous	Alternate	Compound pinnate toothed	Cluster / flat	White	Pome	
<i>Spiraea betulifolia</i>	Low	Deciduous	Alternate	Simple toothed	Flat	White	Follicle	
<i>Vaccinium</i> spp.	Low - med	Deciduous	Alternate	Simple toothed	Single / cluster	Pink / white / yellow	Berry	
- = "to" / = "or" () = "can also be"								
Size:	Subshrub: 0-20cm (0-8in)		Low shrub: 20-50cm (8-20in)		Medium shrub: 5-20dm (1.7-7ft)		Tall shrub: 2m+ (7ft+)	

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Key to Alnus Species

1. Female catkins tassel-like, not persistent; pith compressed; twigs round, resin-dotted ... Betula conspectus
1. Female catkins cone-like, persistent; pith triangular; twigs slightly angled
Alnus conspectus (below)

Alnus Conspectus

Species	Form	Pith	Buds	Leaves	Cones
<u>Alnus incana</u> leaf alder Alin	tall shrub or small tree	rusty	rounded; stalked	broadly elliptic; sharp tip; large teeth	short thin; stout stalk
<u>Alnus rubra</u> red alder Alru	tree	orange to bright red	rounded; stalked	broadly elliptic; INROLLED; sharp tip; small teeth	medium; stout stalk
<u>Alnus sinuata</u> Sitka alder Alsi	shrub	whitish	sharp; not stalked	ovate; sharp tip; large teeth	long; thin stalk
<u>Alnus rhombifolia</u> white alder Alrh	tree	whitish	rounded; stalked	elliptic; rounded tip; small teeth	medium; stout stalk

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Ribes Conspectus

Species	Arming	Bark	Leaves	Flowers	Fruit
<i>Ribes cereum</i> wax currant Rice	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
<i>Ribes hudsonianum</i> stinking currant Rihu	unarmed	smooth; yellow glandular	maplelike; 3-5 lobed; glandular to hairy	saucer- shaped; white; many- flowered raceme	smooth; black; 8-16 berries in clusters
<i>Ribes lacustre</i> <u>prickly</u> <u>currant</u> <u>Rila</u>	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
<i>Ribes viscosissimum</i> <u>sticky currant</u> <u>Rivi</u>	unarmed	shreddy; dark reddish- brown	maplelike; 3-5 lobed; hairy both surfaces; coarsely toothed	bell- shaped; greenish- white; 3-8 flowers in a raceme	bad tasting; stiff hairy; few bluish- black berries

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Rosa Conspectus

Species	Arming	Leaf Margins	Flowers		Fruit
<i>Rosa acicularis</i> prickly rose Roac	numerous various-sized bristly prickles	double serrate	large, pink; singular in pairs		persistent calyx; purplish, pearshaped; 1- 2cm (<1in) hip
<i>Rosa gymnocarpa</i> baldhip rose Rogy	numerous soft; same size slender prickles	double serrate	small, pink; singular (occ. 2- 3)		deciduous calyx; red, pearshaped; 12-cm (<1in) hip
<i>Rosa nutkana</i> Nootka rose Ronu	2 stout prickles; on stem; below leaves	single or double serrate	large, pink; singular (occ. 2- 3)		persisten calyx; purplish-red, round; 1-2cm (<1in) hip
<i>Rosa woodsii</i> pearhip rose Rowo	2 stout prickles; on stem; below leaves	coarsely serrate	small, pink; in clusters		persistent calyx; red, round; 6-12mm hip

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Rubus Conspectus

Species	Form	Arming	Leaves	Flowers	Fruits	Notes
<i>Rubus idaeus</i> red raspberry Ruid	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
<i>Rubus nivalis</i> snow dewberry Runi	prostrate; trailing subshrub	armed; small hooked prickles, leaves and stems	evergreen; simple; 3 lobed; ovate dentate- serrate	pink to purple; single or paired	red drupelets	coastal disjunct, easy to cultivate
<i>Rubus parviflorus</i> thimbleberry Rupa	erect shrub up to 2m (7ft) tall	unarmed	deciduous; simple; maplelike; double serrate	white; 5-23cm (2-9in) clusters	red aggregate thimblelike drupelets	widespread
<i>Rubus pedatus</i> strawberry bramble Rupe	mat- forming; herbaceuos perennial <10cm (4in) tall	unarmed	deciduous; compound; 3-5 foliate; double serrate	white; singular	3-6 red drupelets	easy to cultivate
<i>Rubus ursinus</i> blackberry Ruur	prostrate trailing shrub	armed slender prickles	deciduous; compound; 3 leaflets; double serrate	large white or pink in flat-top clusters	blackberry	coastal disjunct

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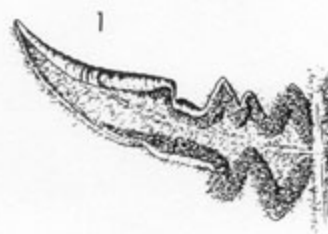


Vaccinium Conspectus

Species	Form	Stems	Leaves	Flowers	Fruit	Notes
<u><i>Vaccinium caespitosum</i></u> dwarf huckleberry Vaca	low shrub	light green; round; angled usually; white hairy	oblanceolate; light green; serrate	white-pink; narrowly urn-shaped; single axil	glaucus-blue berry	similar to <u><i>Vaccinium scoparium</i></u>
<u><i>Vaccinium globulare</i></u> blue huckleberry Vagl	medium shrub	yellow-green; slightly angled; smooth	oblanceolate; rounded tip; serrate	pale pink; globular; urn-shaped	bluish-purple spherical berry	ecologically similar to <u><i>Vaccinium membranaceum</i></u>
<u><i>Vaccinium membranaceum</i></u> big huckleberry Vame	medium shrub	greenish-yellow; slightly angled; smooth	ovate; pointed tip; serrate	pink yellow; elongate; urn-shaped	purplish-black spherical berry	ecologically similar to <u><i>Vaccinium globulare</i></u>
<u><i>Vaccinium myrtillus</i></u> dwarf bilberry Vamy	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 <u><i>Vaccinium scoparium</i></u>
<i>Vaccinium occidentale</i> western huckleberry Vaoc2	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
<i>Vaccinium ovalifolium</i> early blueberry Vaov	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
<i>Vaccinium oxycoccos</i> wild cranberry Vaox	subshrub	slender; glabrous	ovate; shiny green; greyish below; inrolled margins	deep pink; reflexed petals	deep red berry	Idaho State Watch List
<u><i>Vaccinium scoparium</i></u>	low	bright green;	tiny	pinkish;	bright	similar to

	grouse <u>whortleberry</u> Vasc	shrub	slender; strongly angled	lanceolate	urn- shaped	red berry	<i>Vaccinium</i> <i>caespitosum</i>
--	---	-------	--------------------------------	------------	----------------	--------------	--

po	Syal h.t.	1
h	Phma h.t.	
P	Caru	Caru
	h.t.	Aruv 1
	Phma	Phma 1
P	h.t.	Smst 1
	Phma	Phma 3
	h.t.	Cooc 3
Libo	Libo	Libo
	h.t.	Xete 1
	Asca	Asca 5
Abgr	h.t.	Tabr 3
	Mefe	Mefe 1
	Setr h.t.	4
Clun	Phma	5
	h.t.	Clun 2
	Tabr	1
Xete	Mefe	
	Xete	4
	Vagl	3
Cooc	h.t.	Cooc 3
	Clun	4
	Tabr	1
Mefe	h.t.	Mefe 1
	Xete	2
	Asca	4
Thp	h.t.	Tabr 2
	Mefe	3
	Gydr h.t.	1
Adpe	h.t.	4
	Atfi	4
	h.t.	Atfi 4
Opho	h.t.	1
	Clun	2
	Arnu	2
Mefe	h.t.	Mefe 3
	Xete	3
	Asca	4
Arnu	h.t.	Arnu 1
	Mefe	
	Gydr h.t.	3
Clun	h.t.	Mefe 2
	Xete	4
	Mefe	Xete 1
Luh	h.t.	Luh 2
	Stam	Mefe
	h.t.	Luh
Vagl	h.t.	Vagl 1
	Luh	
Clun	h.t.	Clun
	Mefe	1
	Xete	3
Cooc	h.t.	Cooc
	Xete	
	Vasc	
Luh	h.t.	Luh
	Stam	Mefe 2
	h.t.	Lica
Caca	h.t.	Caca 2
	Vaca	
	Legl	
Cooc	h.t.	Cooc
	Vagl	
	Vasc	
Luh	h.t.	Luh
	Vasc h.t.	
	Xete c.t.	
Vaca	c.t.	



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.

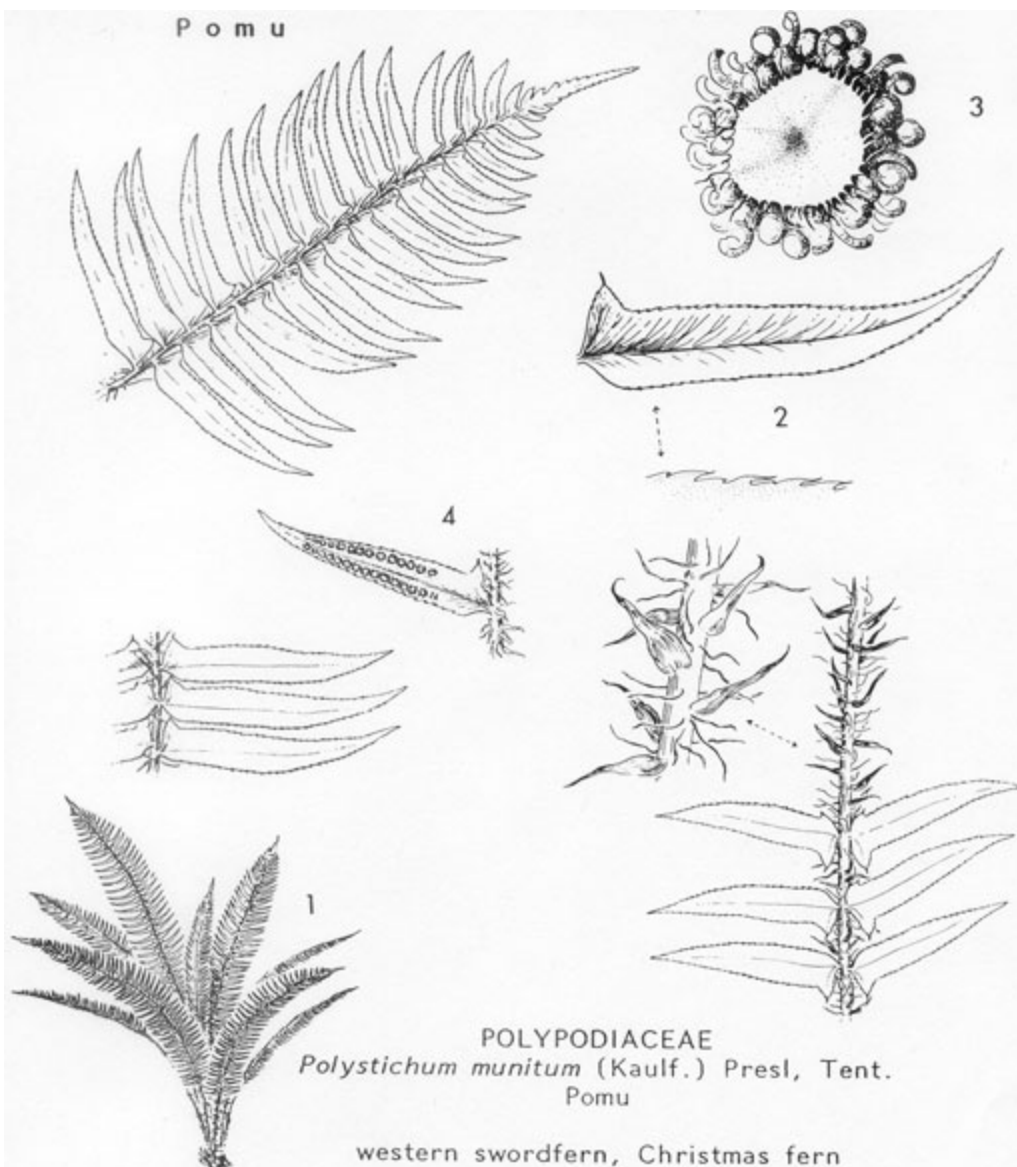
LEAVES: Deciduous but with a firm, leatherlike feel, tripinnate blade 3-10dm (1-3ft) long with alternate, sessile pinnules, edges rolled under and hairy below, petiole erect, hairy and nonscaly, generally shorter than blade.

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.

P o m u



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.

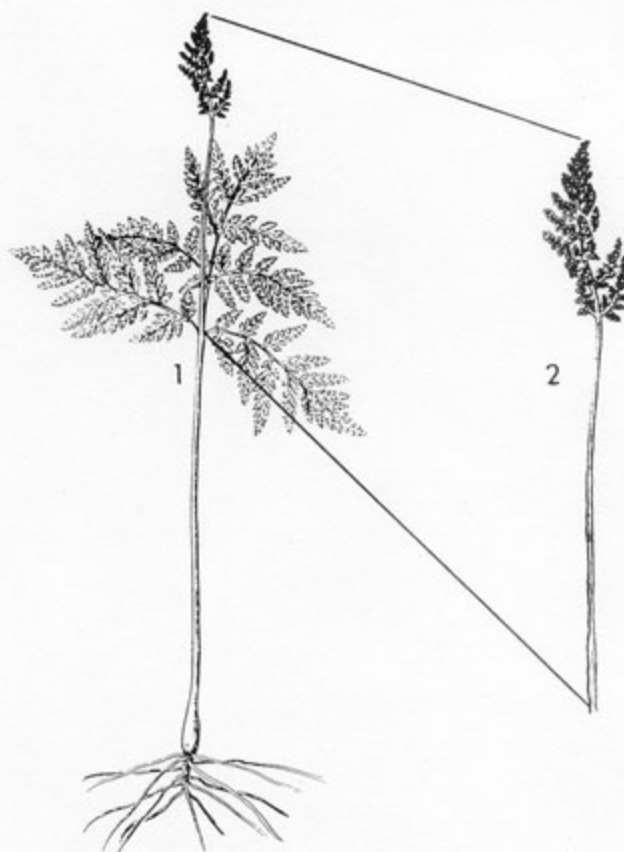
SORI: Large, circular (3), borne mostly on middle and upper pinnae between rib and margins on undersurface (4) sometimes in several rows; hairy indusium.

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

1	Syal h.t.	Phpo
3	Phma h.t.	
-	Caru	Caru
	Aruv	h.t.
	Phma	Phma
2	Smst	h.t.
1	Phma	Phma
7	Cooc	h.t.
	Libo	Libo
	Xete	h.t.
3	Asca	Asca
3	Tabr	h.t.
3	Mefe	
2	Setr h.t.	Abgr
3	Phma	
4	Clun	
2	Tabr	Clun
4	Mefe	h.t.
1	Xete	
	Vagl	Xete
1	Cooc	h.t.
4	Clun	Clun
2	Tabr	h.t.
5	Mefe	
	Xete	
5	Asca	Asca
7	Tabr	h.t.
4	Mefe	
7	Gydr h.t.	
9	Adpe h.t.	
8	Adpe	Atfi
3	Atfi	h.t.
4	Opho h.t.	
2	Clun	Clun
1	Arnu	h.t.
2	Mefe	
1	Xete	
4	Asca	Asca
4	Arnu	h.t.
3	Mefe	
2	Gydr h.t.	
1	Mefe	Clun
1	Xete	h.t.
	Xete	Mefe
	Luhi	h.t.
2	Mefe	Stam
	Luhi	h.t.
1	Vagl	Xete
	Luhi	h.t.
	Clun	Clun
	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	
1	Cooc	Xete
	Vagl	h.t.
	Vasc	
	Luhi	
	Vasc h.t.	Pi co
	Xete c.t.	
	Vaca c.t.	

Kpo	Syal h.t.	
Kpo	Phma h.t.	
Psmc	Caru h.t.	Caru
	Aruv	
	Phma h.t.	Smst
Abgr	Phma h.t.	Phma
	Cooc	
	Libo h.t.	Libo
	Xete	
	Asca h.t.	Asca
	Tabr	
	Mefe	
	Setr h.t.	
	Phma	
	Clun	
Thpl	Clun h.t.	Tabr 1
	Mefe	
	Xete	
	Asca h.t.	Asca
	Tabr	
	Mefe	
	Gydr h.t.	
	Adpe h.t.	3
	Atfi h.t.	Adpe 7
	Atfi	1
Tshe	Clun h.t.	Clun
	Arnu	
	Mefe	
	Xete	
	Asca h.t.	Asca
	Arnu	
	Mefe	
	Gydr h.t.	
Tsmc	Clun h.t.	Mefe
	Xete	
	Mefe h.t.	Xete
	Luh	
	Stam h.t.	Mefe
	Luh	
	Xete	Vagl
	Luh	
Abia	Clun h.t.	Clun
	Mefe	
	Xete	
	Cooc	
	Mefe h.t.	Xete
	Vasc	
	Luh	
	Stam h.t.	Mefe
	Lica	
	Caca h.t.	Caca
Pico	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	

B o v i



OPHIOGLOSSACEAE
Botrychium virginianum (L.) Swartz.
Bovi

grape fern, moonwort

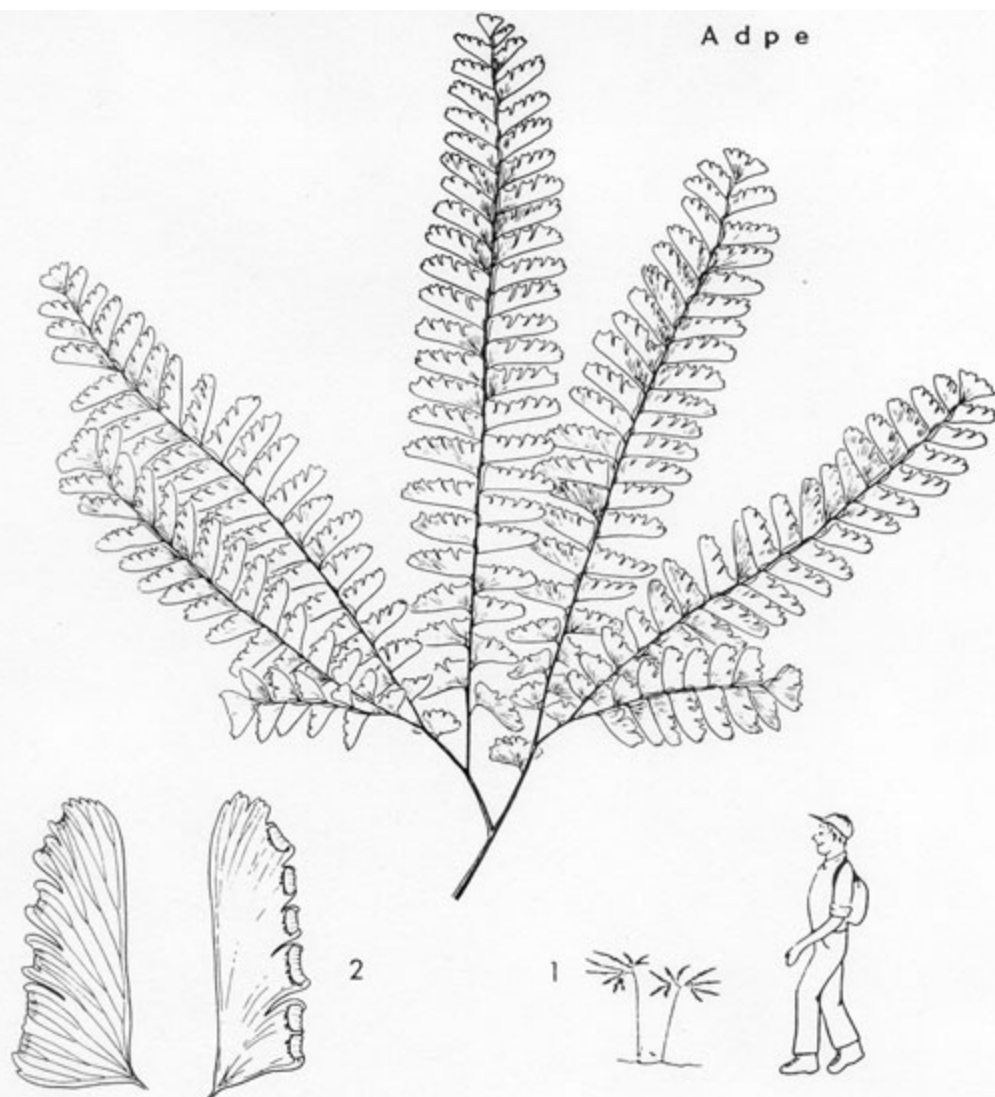
FORM: Erect perennial, 15-50cm (6-20in) tall, consisting of a sterile segment (1) and an elongated fertile blade (2) on a common stalk.

LEAVES: Sterile blade deciduous, thin, and membranous, deltoid, bi to quadripinnately 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.

Adpe	Syal h.t.	
	Phma h.t.	
Psmc	Caru h.t.	Caru
	Aruv	
	Phma h.t.	Phma
Abgr	Phma h.t.	Phma
	Cooc	
	Libo h.t.	Libo
	Xete	
	Asca h.t.	Asca 1
	Tabr	
	Mefe	
Clun	Setr h.t.	
	Phma	
	Clun	
	Tabr	
	Mefe	
	Xete	
	Vagl	
Indi	Cooc	
	Clun h.t.	Clun 1
	Tabr	
	Mefe	
	Xete	
	Asca h.t.	Asca 2
	Tabr	1
Gydr	Mefe	1
	Gydr h.t.	4
	Adpe h.t.	10
	Atfi h.t.	Atfi 3
	Opho h.t.	4
Tshc	Clun h.t.	+
	Arnu	
	Mefe	
	Xete	
	Asca h.t.	Asca
Tshc	Arnu	
	Mefe	
	Gydr h.t.	
	Clun h.t.	Mefe
	Xete	
Tshc	Mefe h.t.	Xete
	Luh	
	Stam h.t.	Mefe
	Luh	
	Xete h.t.	Vagl
Abgr	Luh	
	Clun h.t.	Clun
	Mefe	
	Xete	
	Cooc	
Abgr	Mefe h.t.	Xete
	Vasc	
	Luh	
	Stam h.t.	Mefe
	Lica	
Abgr	Caca h.t.	Caca
	Vaca	
	Legl	
	Cooc	
	Xete h.t.	Vagl
Abgr	Vasc	
	Luh	
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



POLYPODIACEAE
Adiantum pedatum L.
Adpe

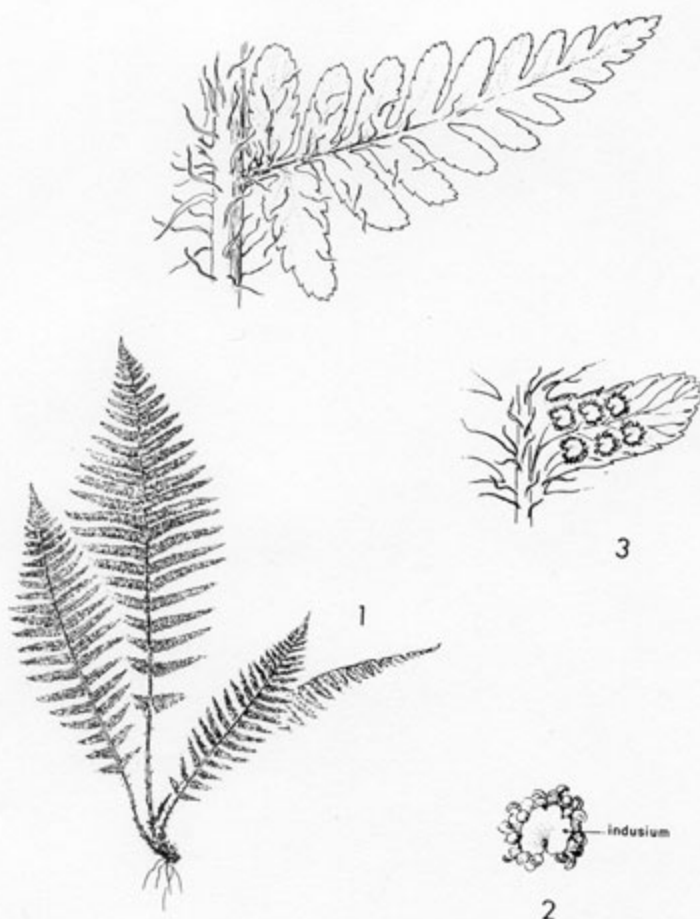
maidenhair fern

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

Dryopteris filix-mas (L.) Schott
Drfi

male fern

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

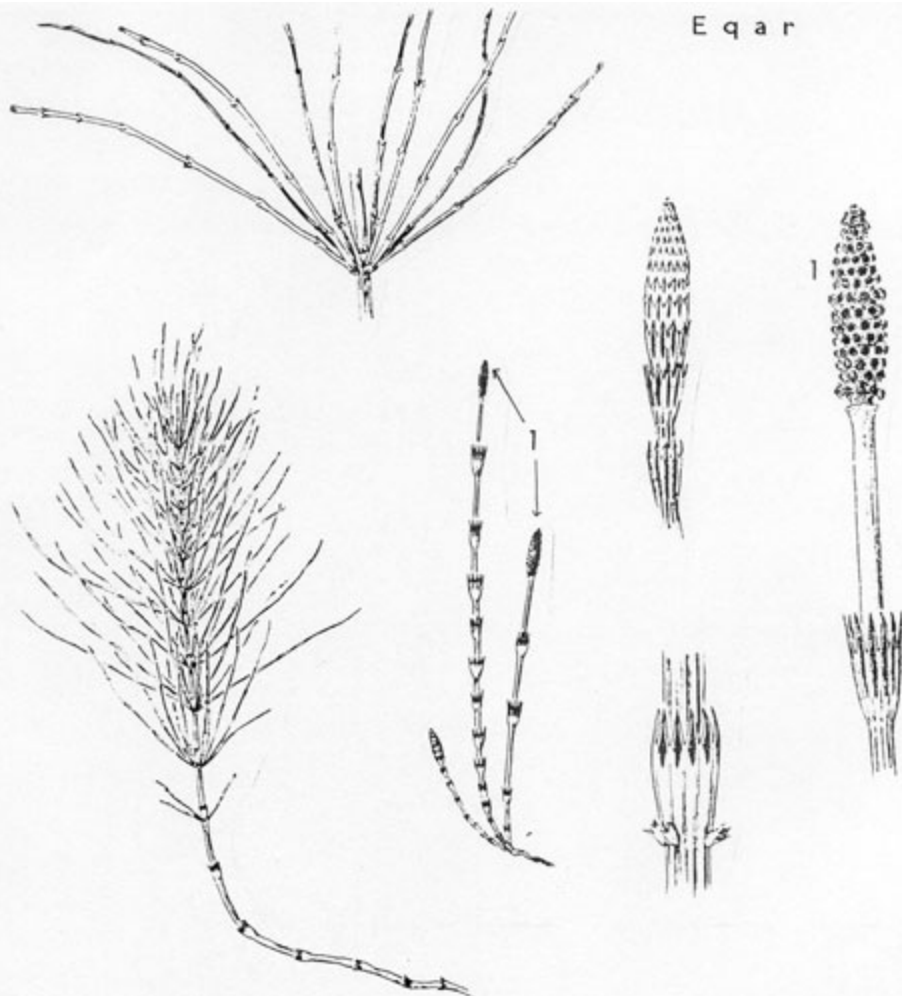
LEAVES: Deciduous, finely serrate, pinnate to bipinnate blade, 2-10dm (1-3ft) long, lanceolate to lance-oblong, slightly narrowed toward the base and tapers to a narrow tip (1).

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.		Po
Phma h.t.		Po
Caru	Caru	Psm
Aruv	h.t.	
Phma	Phma	
+ Smst	h.t.	
Phma	Phma	Abgr
Cooc	h.t.	
Libo	Libo	
Xete	h.t.	
Asca	Asca	Abgr
3 Tabr	h.t.	
1 Mefe		
1 Sctr	h.t.	
Phma		Thp1
+ Clun		
1 Tabr	Clun	
Mefe	h.t.	
Xete		Tshe
Vagl	Xete	
Cooc	h.t.	
Clun		
Tabr	Clun	Tshe
Mefe	h.t.	
Xete		
+ Asca	Asca	
Tabr	h.t.	Tshe
Mefe		
2 Gydr	h.t.	
2 Adpe	h.t.	
5 Adpe	Atfi	Tshe
2 Atfi	h.t.	
2 Opho	h.t.	
+ Clun		
Arnu	Clun	Tshe
Mefe	h.t.	
Xete		
1 Asca	Asca	
Arnu	h.t.	Tshe
Mefe		
+ Gydr	h.t.	
Mefe		Tshe
Xete	Clun	
Xete	h.t.	
Luhi	Mefe	
Mefe	Stam	Abld
Luhi	h.t.	
Vagl	Xete	
Luhi	h.t.	
Clun		Abld
Mefe	Clun	
Xete	h.t.	
Cooc		
Xete	Mefe	Abld
Vasc	h.t.	
Luhi		
1 Mefe	Stam	
Lica	h.t.	Abld
Caca	Caca	
Vaca	h.t.	
Legl		
Cooc		Abld
Vagl	Xete	
Vasc	h.t.	
Luhi		
Vasc	h.t.	Pico
Xete	c.t.	
Vaca	c.t.	

Pipo	Syal h.t.	
Phma h.t.		
Caru h.t.	Caru	
Aruv		
Phma h.t.	Phma	
Smst		
Phma h.t.	Phma	
Cooc		
Libo h.t.	Libo	
Xete		
Asca h.t.	Asca	+
Tabr		
Mefe		
Setr h.t.		
Phma		
Clun h.t.	Clun	
Tabr		
Mefe		
Xete		
Vagl		
Cooc		
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.		
Clun h.t.	Clun	
Arnu		
Mefe		
Xete		
Asca h.t.	Asca	
Arnu		
Mefe		
Gydr h.t.		
Clun h.t.	Mefe	
Xete		
Mefe	Xete	
Luh		
Stam h.t.	Mefe	
Luh		
Xete	Vagl	
Luh		
Clun h.t.	Clun	
Mefe		
Xete		
Cooc		
Mefe	Xete	
Vasc		
Luh		
Stam h.t.	Mefe	
Lica		1
Caca h.t.	Caca	2
Vaca		3
Legl		
Cooc		
Vagl		
Vasc		
Luh		
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.

A t f i



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.

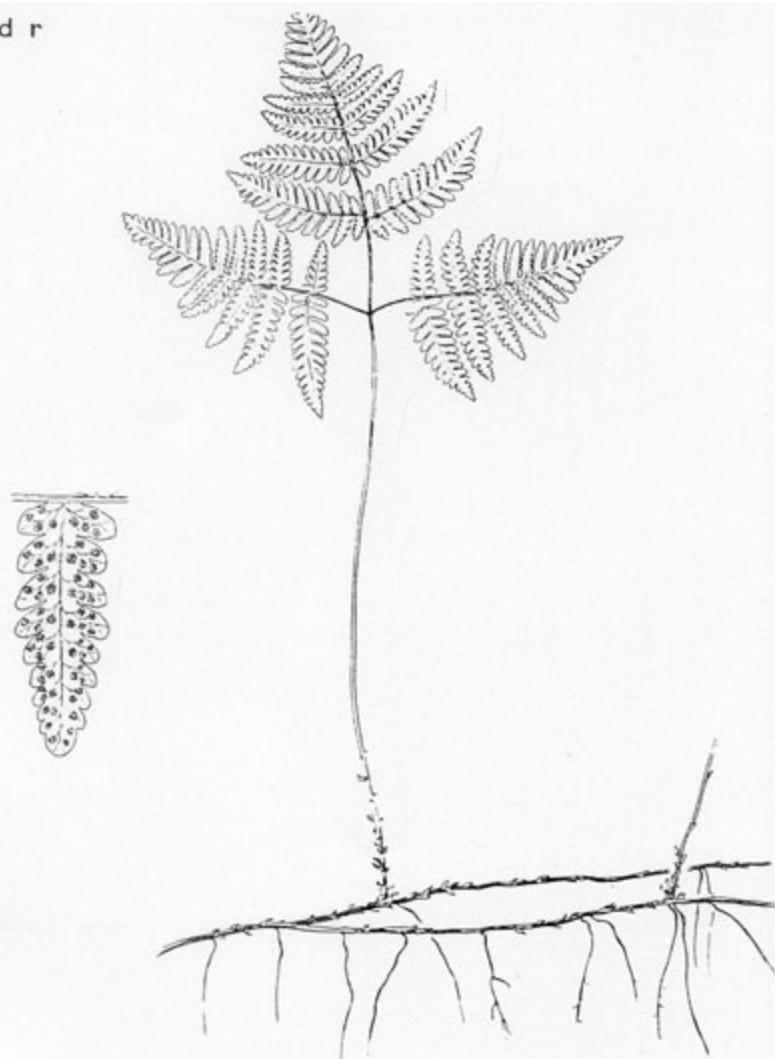
LEAVES: Deciduous, bi to tripinnate blade consisting of 20-35 pairs of offset pinnae, with the upper and lower pinnae progressively reduced, tapering at both ends (1); straw-colored petiole, much shorter than blade, bearing many blackish scales toward the base (2).

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

G y d r



POLYPODIACEAE
Gymnocarpium dryopteris (L.) Newm.
Gydr

oak-fern

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

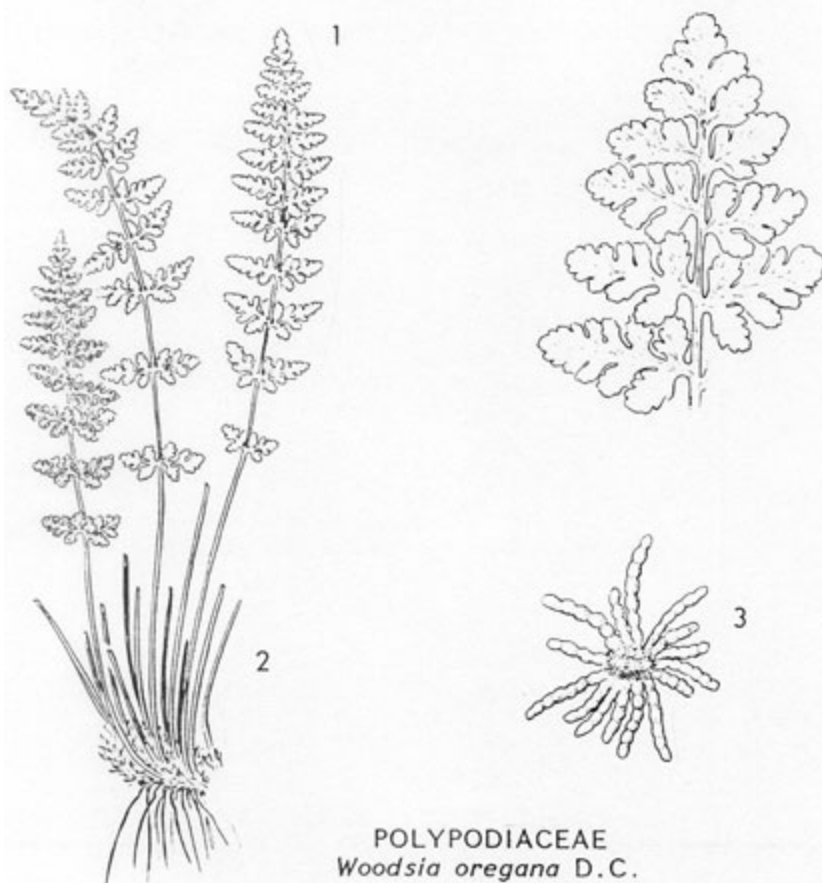
LEAVES: Deciduous, bi or tripinnate, appears as three leaflets, broadly triangular, distinctly asymmetrical, parallel to the ground; pinnae opposite with lowest pair the largest, then tapering to tip.

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	Psmc
	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		
	1 Mefe h.t.		
	Xete		Xete
	Vagl		
	Cooc h.t.		
	+ Clun	Clun	Thpl
	1 Tabr h.t.		
	3 Mefe		
	Xete		
	1 Asca	Asca	
	4 Tabr h.t.		
	4 Mefe		
	10 Gydr h.t.		
	5 Adpe h.t.		Atfi
	9 Adpe		
	6 Atfi h.t.		
	10 Opho h.t.		
	3 Clun	Clun	Tshe
	4 Arnu h.t.		
	3 Mefe		
	2 Xete		
	3 Asca	Asca	
	6 Arnu h.t.		
	3 Mefe		
	10 Gydr h.t.		
	1 Mefe	Clun	Tme
	Xete h.t.		
	1 Xete	Mefe	
	Luhi h.t.		
	5 Mefe	Stam	
	Luhi h.t.		
	Vagl	Xete	
	Luhi h.t.		
	Clun	Clun	Abja
	Mefe h.t.		
	1 Xete		
	Cooc	Mefe	
	Xete h.t.		
	Vasc		
	Luhi		
	2 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.		



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.

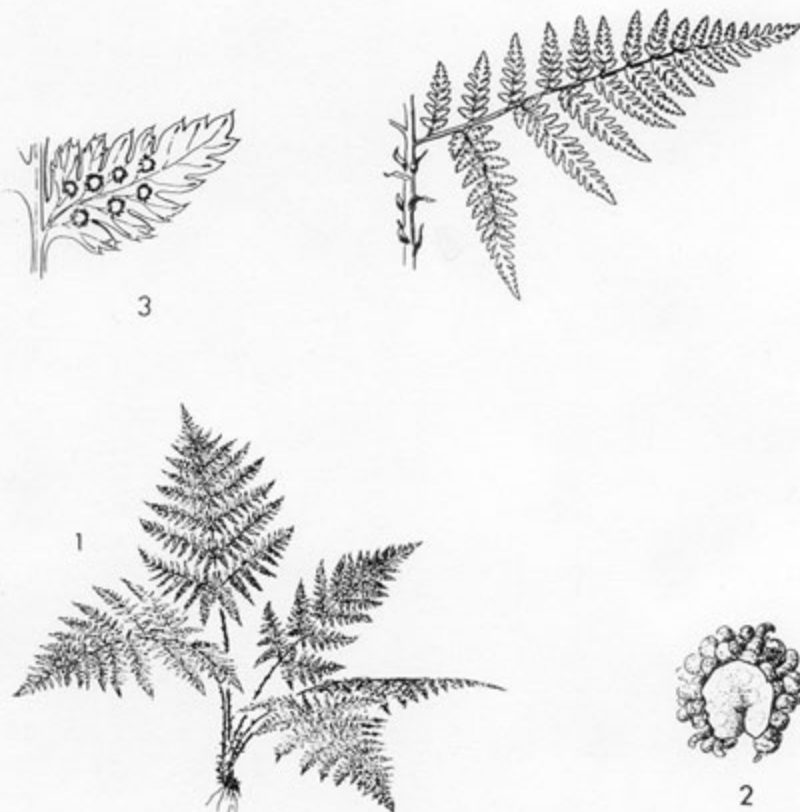
SORI: Borne on lower surface of the leaf removed from the margins; indusium platelike, with radiating, hairlike often somewhat beaded segments (3), partly concealed by the reflexed margins.

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.		
Phma h.t.		Pipo
Caru	Caru	Psme
Aruv	h.t.	
Phma	Phma	
Smst	h.t.	
Phma	Phma	
Cooc	h.t.	
Libo	Libo	
Xete	h.t.	
T Asca	Asca	Abgr
+ Tabr	h.t.	
i Mefe		
Setr	h.t.	
Phma		
T Clun	Clun	
Tabr	h.t.	
i Mefe		
Xete		
Vagl	Xete	
Cooc	h.t.	
T Clun	Clun	Thp1
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	Tsne
Arnu	h.t.	
Mefe		
Xete		
Asca	Asca	
Arnu	h.t.	
Mefe		
Gydr	h.t.	
Mefe	Clun	Tsne
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	Ab1a
Lica	h.t.	
Caca	Caca	
Vaca	h.t.	
Legl		
Cooc		
Vagl	Xete	
Vasc	h.t.	
Luhi		
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	

Hpo	Syal h.t.	
Phma	h.t.	
Caru	Caru	
h.t.	Aruv	
Phma	Phma	
h.t.	Smst	
Phma	Phma	
h.t.	Cooc	
Libo	Libo	
h.t.	Xete	
Asca	Asca	+
h.t.	Tabr	2
Mefe	Mefe	2
Setr	h.t.	1
Phma	Phma	
Clun	Clun	
h.t.	Tabr	
Mefe	Mefe	1
Xete	Xete	
Vagl	Vagl	
Cooc	Cooc	
Clun	Clun	
h.t.	Tabr	
Mefe	Mefe	
Xete	Xete	
Asca	Asca	+
h.t.	Tabr	
Mefe	Mefe	1
Gydr	h.t.	
Adpe	h.t.	2
Atfi	Adpe	5
h.t.	Atfi	4
Ophe	h.t.	6
Clun	Clun	+
h.t.	Arnu	
Mefe	Mefe	
Xete	Xete	1
Asca	Asca	+
h.t.	Arnu	1
Mefe	Mefe	
Gydr	h.t.	2
Clun	Mefe	
h.t.	Xete	
Mefe	Xete	
h.t.	Luh	
Stam	Mefe	
h.t.	Luh	
Xete	Vagl	
h.t.	Luh	
Clun	Clun	
h.t.	Mefe	
Mefe	Xete	
h.t.	Cooc	
Vasc	Xete	
Luh	Vasc	
Stam	Mefe	1
h.t.	Lica	1
Caca	Caca	2
h.t.	Vaca	
Legl	Legl	
Cooc	Cooc	
Vagl	Vagl	
Vasc	Vasc	
Luh	Luh	
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	



POLYPODIACEAE

Dryopteris austriaca (Jacq.) Woytar ex Schinz & Thell.
Drau2

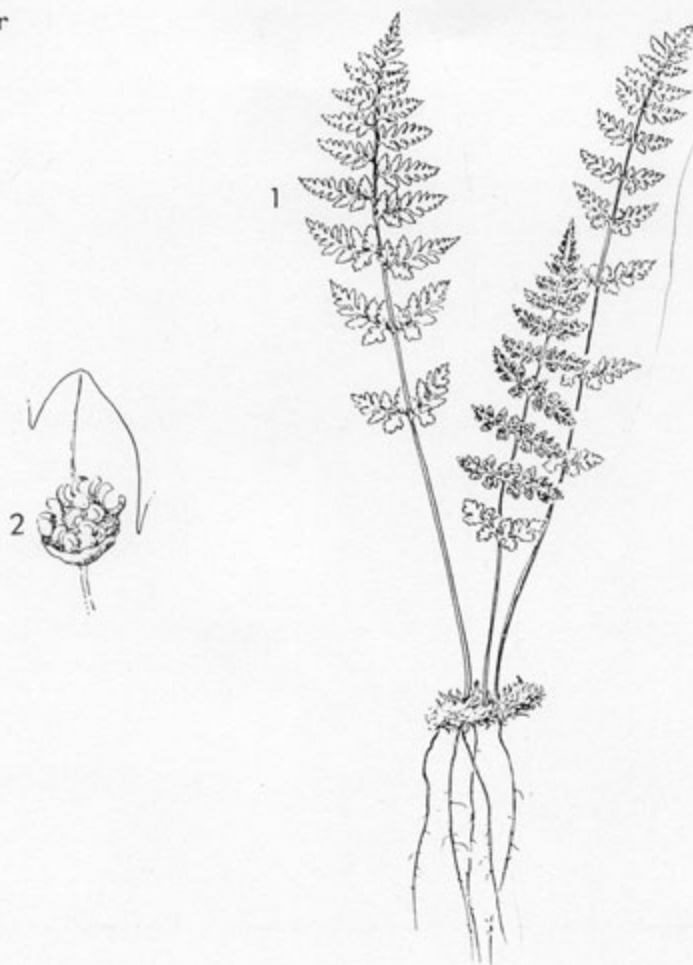
mountain woodfern, spreading woodfern

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

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

L v a n



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

Field Guide to Forest Plants of Northern Idaho



United States
Department of
Agriculture

Forest Service

Rocky Mountain
Research Station
Ft. Collins, CO

General Technical Report
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Acknowledgments
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Key to Ferns and Friends

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
4. Leaves pinnate	
5. Leaves evergreen, sori round	Polystichum munitum
5. Leaves deciduous, sori not round	
6. Leaves generally less than 25cm (10in) long	
7. Sori in cup-shaped indusium	Cystopteris fragilis
7. Sori covering platelike indusium	Woodsia oregana
6. Leaves longer than 25cm (10in)	
8. Sori crescent-shaped	Athyrium filix-femina
8. Sori horseshoe-shaped	Dryopteris austriaca Dryopteris filix-mas
3. Leaves not clustered but arising singly from rhizomes	
9. Rhizome and leaves hairy, lacking scales	Pteridium aquilinum
9. Rhizome and leaves scaly	Gymnocarpium dryopteris
2. Sporangium not borne in sori, but on erect fertile stalk above sterile blade	
1. LEAVES NOT FERN-LIKE, SIMPLE, IN WHORLS OR PSEUDOWHORLS	
10. Aerial, jointed, deciduous stem	Equisetum arvense
10. Prostrate, leafy, evergreen stem	Lycopodium annotinum

Syal h.t.		
	Phma h.t.	1
Caru h.t.	Caru	2
	Aruv	1
	Phma	3
	Smst	5
Phma h.t.	Phma	8
	Cooc	7
	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 h.t.	Xete	9
	Vagl	7
	Cooc	9
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.	Adpe	8
	Atfi	8
	Atfi	6
	Opho h.t.	5
Clun h.t.	Clun	1
	Arnu	
	Mefe	6
	Xete	1
Asca h.t.	Asca	5
	Arnu	4
	Mefe	
	Gydr h.t.	3
Clun h.t.	Clun	7
	Mefe	8
	Xete	7
	Cooc	10
Mefe h.t.	Xete	3
	Vasc	6
	Luhi	
	Stam	Mefe 4
Stam h.t.	Lica	4
	Caca	3
	Vaca	5
	Legl	5
Xete h.t.	Cooc	9
	Vagl	4
	Vasc	6
	Luhi	
Vasc h.t.	Vasc	4
	Xete c.t.	
	Vaca c.t.	



RANUNCULACEAE
Anemone piperi Britt.
 Anpi

windflower, anemone

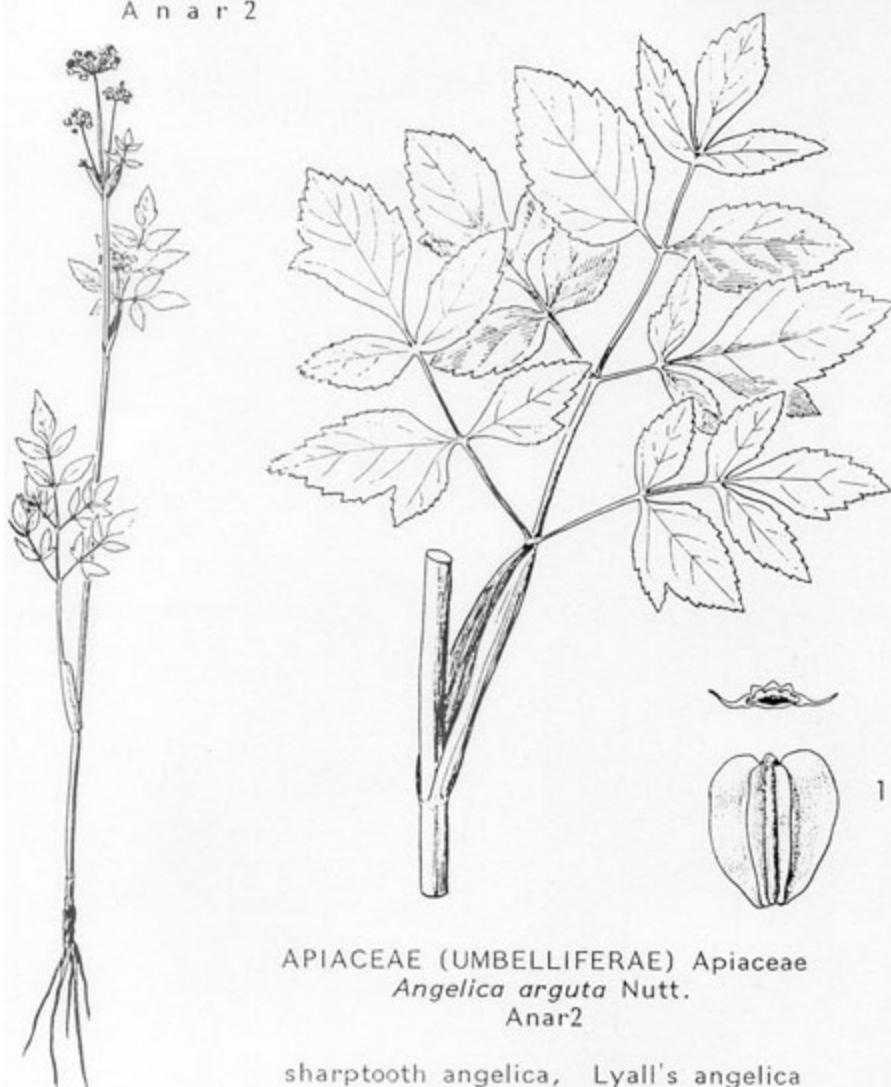
FORM: Erect, deciduous, perennial, 15-35cm (6-14in) tall, from dark-brown fork-tipped rhizomes.

LEAVES: Basal, (if present) single (1), biserrate, trifoliate 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.



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.		
	Phma h.t.		
	Caru	Caru	
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca		
	Tabr	Asca	
	Mefe	h.t.	
2	Setr	h.t.	
+	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
1	Cooc	h.t.	
1	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Gydr	h.t.	
	Adpe	h.t.	
	Adpe	Atfi	
1	Atfi	h.t.	
	Opho	h.t.	
	Clun		
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
+	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun		
	Mefe	Clun	
	Xete	h.t.	
	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.	
	Xete	c.t.	
	Vaca	c.t.	

Hbo	Syal h.t.	3
	Phma h.t.	6
Psmc	Caru h.t.	8
	Aruv	6
	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.	
	Phma	
	Clun	+
Thpl	Clun h.t.	Tabr
	Mefe	
	Xete	
	Asca h.t.	Asca +
	Tabr	
	Mefe	
	Gydr h.t.	
	Adpe h.t.	
	Atfi h.t.	Atfi
	Opho h.t.	
Tshe	Clun h.t.	Clun +
	Arnu	
	Mefe	
	Xete	
	Asca h.t.	Asca 1
	Arnu	
	Mefe	
	Gydr h.t.	
	Clun h.t.	Mefe
	Xete	
Tsmc	Mefe h.t.	Xete
	Xete	
	Luh	
	Stam h.t.	Mefe
	Luh	
	Xete	Vagl
	Luh	
	Clun h.t.	Clun
	Mefe	
	Xete	
Abia	Clun h.t.	Clun
	Mefe	
	Xete	
	Cooc	
	Mefe h.t.	Xete
	Vasc	
	Luh	
	Stam h.t.	Mefe
	Lica	
	Caca h.t.	Caca
Pico	Vaca h.t.	Vaca
	Legl	
	Cooc	
	Xete h.t.	Vagl
	Vasc	
	Luh	
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	

Hecy



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.

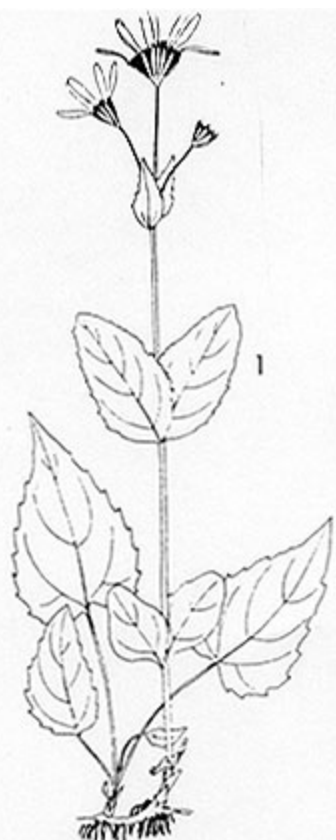
LEAVES: Numerous, basal leaves, ovate to nearly reniform, margins crenate-dentate, smooth to hairy, generally longer than broad, 1-6cm (<2in) long, all but smaller leaves with deeply cordate base.

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.

Pip	Syal h.t.	
Pip	Phma h.t.	
Psm	Caru	2
	h.t.	Aruv
	Phma	+
Psm	h.t.	Smst
	Phma	1
	h.t.	Cooc
Libo	h.t.	3
	Libo	
	h.t.	Xete
Asca	h.t.	2
	Asca	
	h.t.	Tabr
Mefe	h.t.	3
	Mefe	
	h.t.	Xete
Setr	h.t.	
	Phma	1
	Clun	1
Clun	h.t.	Tabr
	Mefe	3
	Xete	4
Vagl	h.t.	2
	Cooc	1
	Clun	
Clun	h.t.	Tabr
	Mefe	
	Xete	
Asca	h.t.	+
	Asca	
	h.t.	Tabr
Mefe	h.t.	
	Mefe	
	h.t.	
Gydr	h.t.	
	Adpe	
	h.t.	
Atfi	h.t.	
	Atfi	
	h.t.	
Opho	h.t.	
	Clun	1
	Arnu	
Clun	h.t.	Mefe
	Xete	6
	Xete	3
Asca	h.t.	2
	Arnu	3
	Mefe	10
Gydr	h.t.	+
	Clun	6
	h.t.	Xete
Mefe	h.t.	4
	Luh	4
	Stam	10
Xete	h.t.	7
	Luh	1
	Vagl	4
Clun	h.t.	Clun
	Mefe	1
	Xete	1
Mefe	h.t.	Cooc
	Xete	
	Vasc	
Stam	h.t.	Luh
	Mefe	1
	Lica	8
Caca	h.t.	Caca
	Vaca	
	Legl	
Xete	h.t.	Cooc
	Vagl	3
	Vasc	3
Luh	h.t.	4
	Vasc	
	Xete	
Vaca	h.t.	
	Xete	
	Vaca	



A r l a

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*.



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	Psmc	
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			
2	Mefe	h.t.		
1	Setr	h.t.		
3	Phma	Clun		
5	Clun			
1	Tabr			
1	Mefe			
1	Xete	Xete		
1	Vagl			
1	Cooc	h.t.		
2	Clun	Clun	Tnpl	
2	Tabr			
2	Mefe			
1	Xete	Asca		
1	Asca			
2	Tabr			
4	Mefe	h.t.		
2	Gydr	h.t.		
1	Adpe	h.t.		
1	Adpe	Atfi		
1	Atfi			
	Opho	h.t.		
+	Clun	Clun		Tshe
1	Arnu			
	Mefe			
	Xete			
	Asca			
	Arnu			
	Mefe	h.t.		
1	Gydr	h.t.		
+	Mefe	Clun	Tsmc	
	Xete			
	Xete			
	Luhi			
	Mefe			
	Luhi			
	Vagl	Xete		
	Luhi			
	Clun	Clun	Abia	
1	Mefe			
	Xete			
2	Cooc			
2	Xete	Mefe		
1	Vasc			
	Luhi	Stam		
1	Mefe			
	Lica	h.t.		
	Caca	Caca		
	Vaca			
	Legl	Xete		
2	Cooc			
	Vagl	h.t.		
1	Vasc			
	Luhi	Pico		
	Vasc			h.t.
	Xete			c.t.
	Vaca	c.t.		

Pico	Syal h.t.	
	Phma h.t.	1
Psmc	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.	
	Phma	5
	Clun	2
	Tabr	
	Mefe	1
Ihp	Xete	2
	Vagl	1
	Cooc	1
	Clun	+
	Tabr	1
	Mefe	
	Xete	1
	Asca	+
	Tabr	
	Mefe	
	Gydr h.t.	+
Iste	Adpe h.t.	
	Atfi	
	Adpe	
	Atfi	
	Opho h.t.	
	Clun	
	Arnu	
	Mefe	
	Xete	
	Asca	1
	Arnu	
	Mefe	
Ismc	Gydr h.t.	
	Clun	Mefe +
	h.t.	Xete 1
	Mefe	Xete
	h.t.	Luhi
	Stam	Mefe
	h.t.	Luhi
	Xete	Vagl
	h.t.	Luhi
Abia	Clun	Clun
	h.t.	Mefe
		Xete 2
		Cooc
	Mefe	Xete
	h.t.	Vasc
		Luhi
	Stam	Mefe
	h.t.	Lica
	Caca	Caca
	h.t.	Vaca
		Legl
Pico		Cooc
	Xete	Vagl 1
	h.t.	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, involucre bracts with acuminate, green tip; July-Sept.

FRUIT: Achene.

NOTES: Most common *Aster* species in forested areas, however, it seldom flowers in natural forested stands.



ASTERACEAE (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.

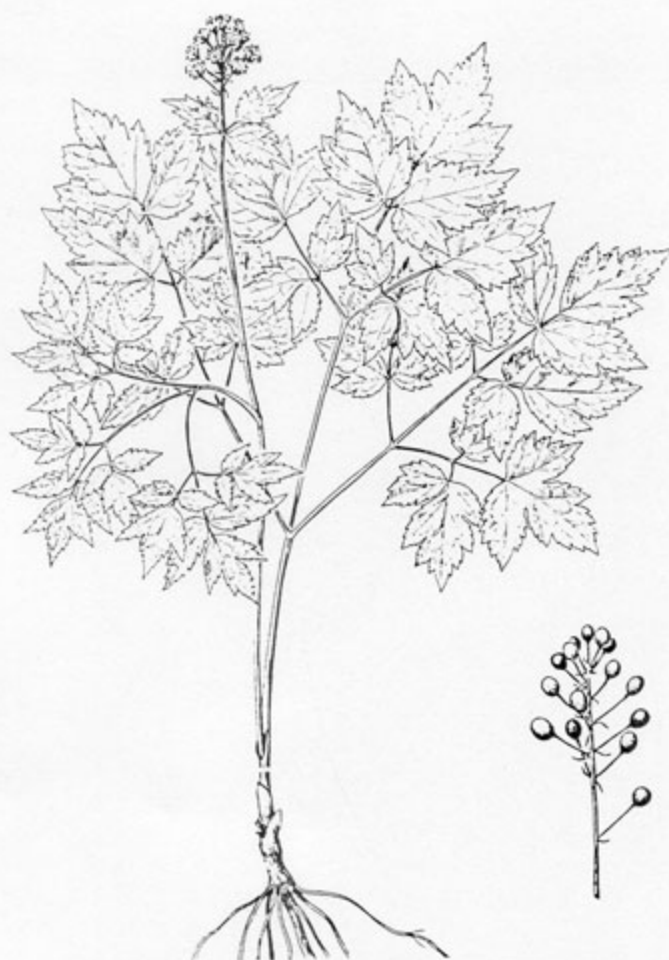
FLOWERS: Showy, yellow, solitary sunflower head, 5-8cm (2-3in) in diameter; April-July.

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.		
	Phma h.t.		Pipoi
2	Caru	Caru	
1	Aruv	h.t.	Pime
2	Phma	Phma	
+	Smst	h.t.	
	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca		
	Tabr	Asca	
	Mefe	h.t.	
	Setr	h.t.	Abgr
	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Asca		
	Tabr	Asca	
	Mefe	h.t.	Thp1
	Gydr	h.t.	
	Adpe	h.t.	
	Adpe		
	Atfi	h.t.	
	Opho	h.t.	
	Clun		
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
	Asca		
	Arnu	Asca	
	Mefe	h.t.	Yshe
	Gydr	h.t.	
	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun		
	Mefe	Clun	
	Xete	h.t.	
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
	Caca		
	Vaca	Caca	
	Legl	h.t.	
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc	h.t.	
	Xete	c.t.	Pico
	Vaca	c.t.	



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.

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



LILIACEAE

Clintonia uniflora (Schult.) Kunth.

Clun

queen cup beadleily, 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.

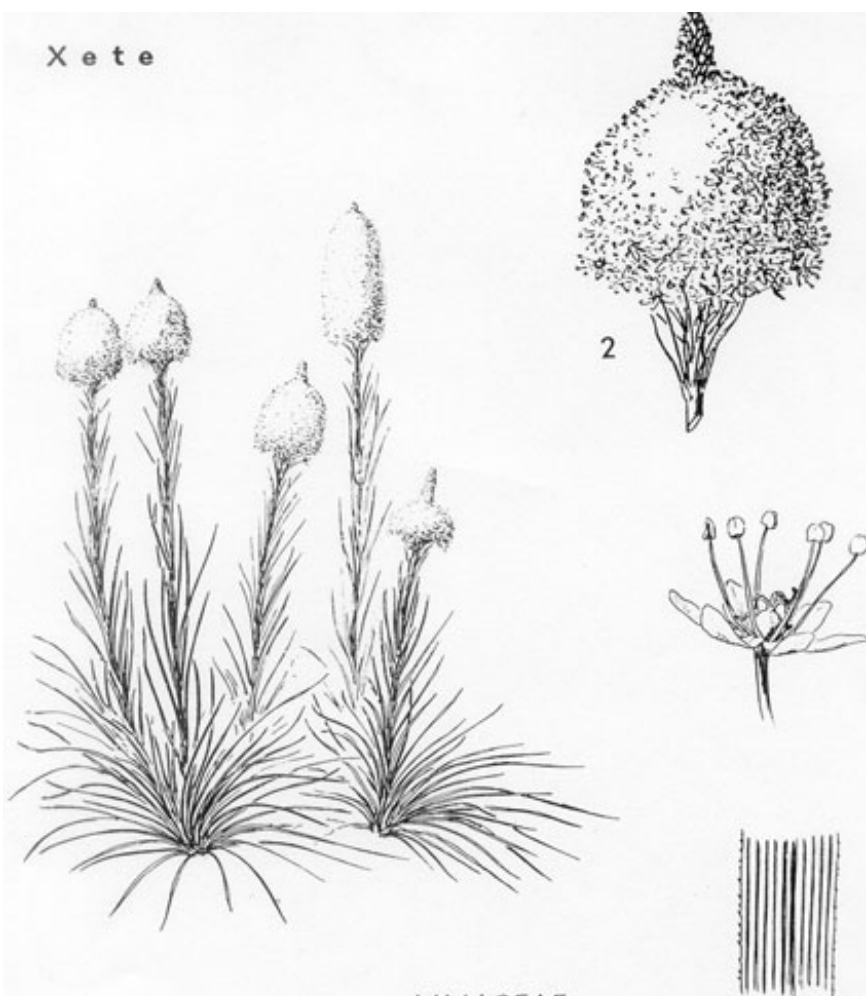
FRUIT: Smooth, blue berry, 6-10mm long.

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

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

	Syal h.t.	Pipo
	Phma h.t.	
	Caru	Caru
	Aruv h.t.	Pisme
	Phma	Phma
	Smst h.t.	
1	Phma	Phma
1	Cooc	h.t.
	Libo	Libo
	Xete	h.t.
10	Asca	Asca
10	Tabr	h.t.
10	Mefe	
10	Setr h.t.	Abgr
10	Phma	
10	Clun	
9	Tabr	Clun
8	Mefe	h.t.
9	Xete	
1	Vagl	Xete
1	Cooc	h.t.
9	Clun	
10	Tabr	Clun
10	Mefe	h.t.
10	Xete	
10	Asca	Asca
10	Tabr	h.t.
10	Mefe	
10	Gydr h.t.	Thp1
10	Adpe h.t.	
10	Adpe	Atfi
9	Atfi	h.t.
10	Opho h.t.	
10	Clun	
10	Arnu	Clun
10	Mefe	h.t.
10	Xete	
10	Asca	Asca
10	Arnu	h.t.
10	Mefe	
10	Gydr h.t.	Yshe
9	Mefe	Clun
9	Xete	h.t.
1	Xete	Mefe
1	Luhi	h.t.
10	Mefe	Stam
	Luhi	h.t.
1	Vagl	Xete
	Luhi	h.t.
10	Clun	
9	Mefe	Clun
9	Xete	h.t.
4	Cooc	
	Xete	Mefe
1	Vasc	h.t.
	Luhi	
8	Mefe	Stam
6	Lica	h.t.
5	Caca	Caca
5	Vaca	h.t.
1	Legl	
1	Cooc	
1	Vagl	Xete
	Vasc	h.t.
	Luhi	
	Vasc h.t.	Pico
	Xete c.t.	
	Vaca c.t.	

Xete



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.

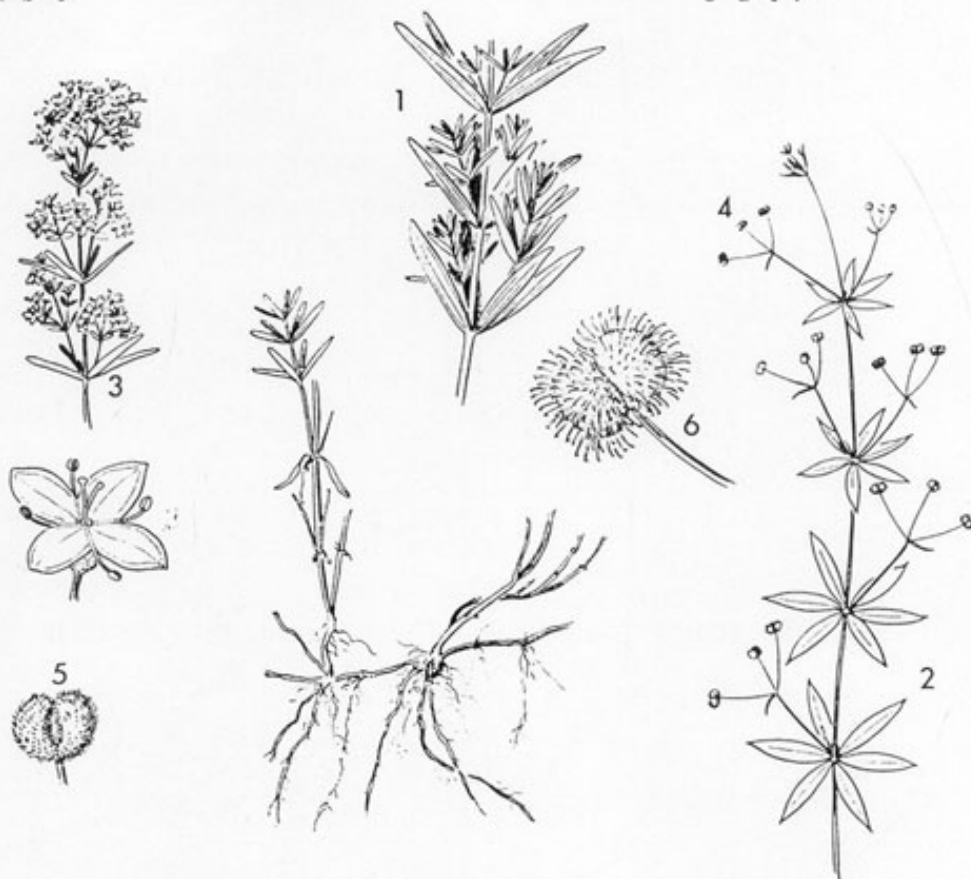
NOTES: Plant was utilized by the Indians, using leaves to make cloth and baskets and roots for food.

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

Syal h.t.	1	1
Phma h.t.	10	1
Caru h.t.	Caru	
Aruv		
Phma h.t.	Phma	2
Smst		9
Phma h.t.	Phma	1
Cooc		10
Libo h.t.	Libo	1
Xete		1
Asca h.t.	Asca	1
Tabr		2
Mefe		1
Setr h.t.	Setr	2
Phma		9
Clun		7
Tabr		1
Mefe		2
Xete		1
Vagl		1
Cooc		1
Clun h.t.	Clun	6
Tabr		1
Mefe		6
Xete		3
Asca h.t.	Asca	7
Tabr		7
Mefe		10
Gydr h.t.	Gydr	9
Adpe h.t.	Adpe	10
Atfi		10
Atfi h.t.	Atfi	9
Opho h.t.	Opho	7
Clun h.t.	Clun	2
Arnu		6
Mefe		7
Xete		1
Asca h.t.	Asca	7
Arnu		4
Mefe		7
Gydr h.t.	Gydr	4
Clun h.t.	Clun	4
Mefe		1
Xete		1
Luh1		
Stam h.t.	Stam	5
Luh1		
Xete		
Vagl		
Luh1		
Clun h.t.	Clun	3
Mefe		7
Xete		5
Cooc		6
Mefe h.t.	Mefe	1
Vasc		
Luh1		
Stam h.t.	Stam	5
Lica		6
Caca h.t.	Caca	2
Vaca		5
Legl		2
Cooc		1
Vagl		1
Vasc		
Luh1		
Vasc h.t.	Vasc	
Xete c.t.	Xete	
Vaca c.t.	Vaca	

G a b o

G a t r



RUBIACEAE

Galium boreale L.
Gabo

Galium triflorum Michx.
Gatr

northern bedstraw

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.

Pip	Syal h.t.	
Pip	Phma h.t.	1
Psmc	Caru h.t.	Caru 3
	Phma h.t.	Phma 3
	Smst h.t.	Smst 1
Abgr	Phma h.t.	Phma 2
	Cooc h.t.	Cooc
	Libo h.t.	Libo 2
	Xete h.t.	Xete
	Asca h.t.	Asca 1
	Tabr h.t.	Tabr 1
	Setr h.t.	
	Phma h.t.	+
	Clun h.t.	Clun 1
	Mefe h.t.	Mefe
Tnpl	Xete h.t.	Xete +
	Vagl h.t.	Vagl
	Cooc h.t.	Cooc
	Clun h.t.	Clun +
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
	Xete h.t.	Xete
	Asca h.t.	Asca
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
Tshe	Gydr h.t.	
	Adpe h.t.	
	Atfi h.t.	Atfi
	Opho h.t.	
	Clun h.t.	Clun +
	Arnu h.t.	Arnu 1
	Mefe h.t.	Mefe
	Xete h.t.	Xete
	Asca h.t.	Asca
	Arnu h.t.	Arnu
Tsmc	Mefe h.t.	Mefe
	Xete h.t.	Xete
	Luh h.t.	Luh
	Stam h.t.	Mefe
	Luh h.t.	Luh
	Xete h.t.	Vagl
	Luh h.t.	Luh
Abia	Clun h.t.	Clun
	Mefe h.t.	Mefe
	Xete h.t.	Xete
	Cooc h.t.	Cooc
	Mefe h.t.	Xete
	Vasc h.t.	Vasc
	Luh h.t.	Luh
	Stam h.t.	Mefe
	Lica h.t.	Lica 1
	Caca h.t.	Caca
Pico	Vaca h.t.	Vaca 5
	Legl h.t.	Legl 1
	Cooc h.t.	Cooc
	Vagl h.t.	Vagl 1
	Vasc h.t.	Vasc 1
	Luh h.t.	Luh 1
	Vasc h.t.	Vasc
	Xete c.t.	Xete
	Vaca c.t.	Vaca

Caro 3



CAMPANULACEAE
Campanula rotundifolia L.
Caro3

Scotch bellflower, lady's-thimble

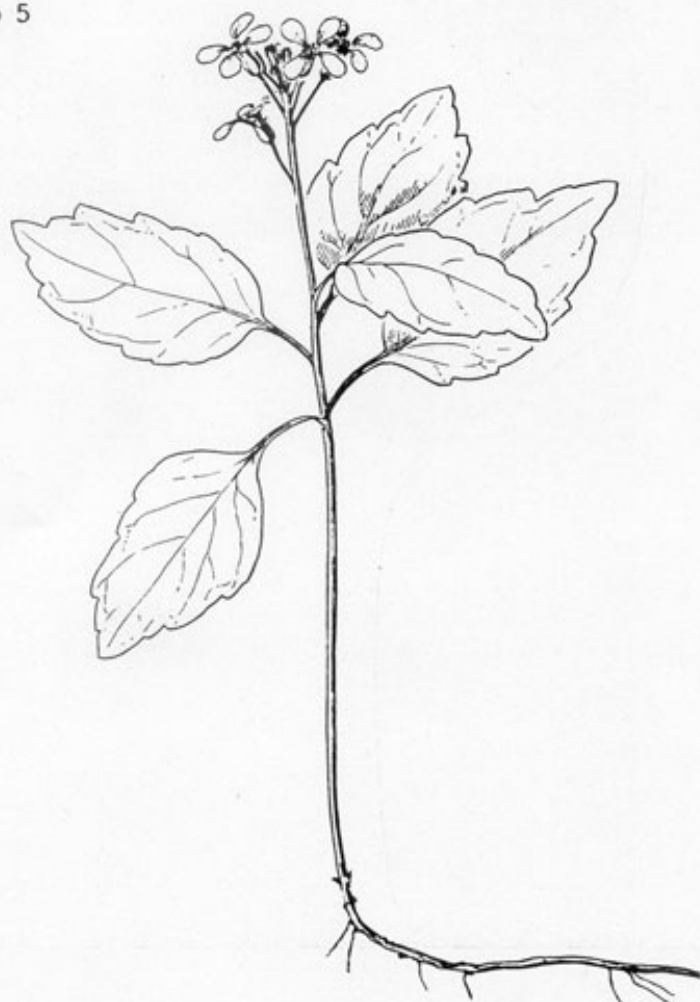
FORM: Deciduous, rhizomatous, perennial forb, 10-80cm (4-31in) tall.

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.

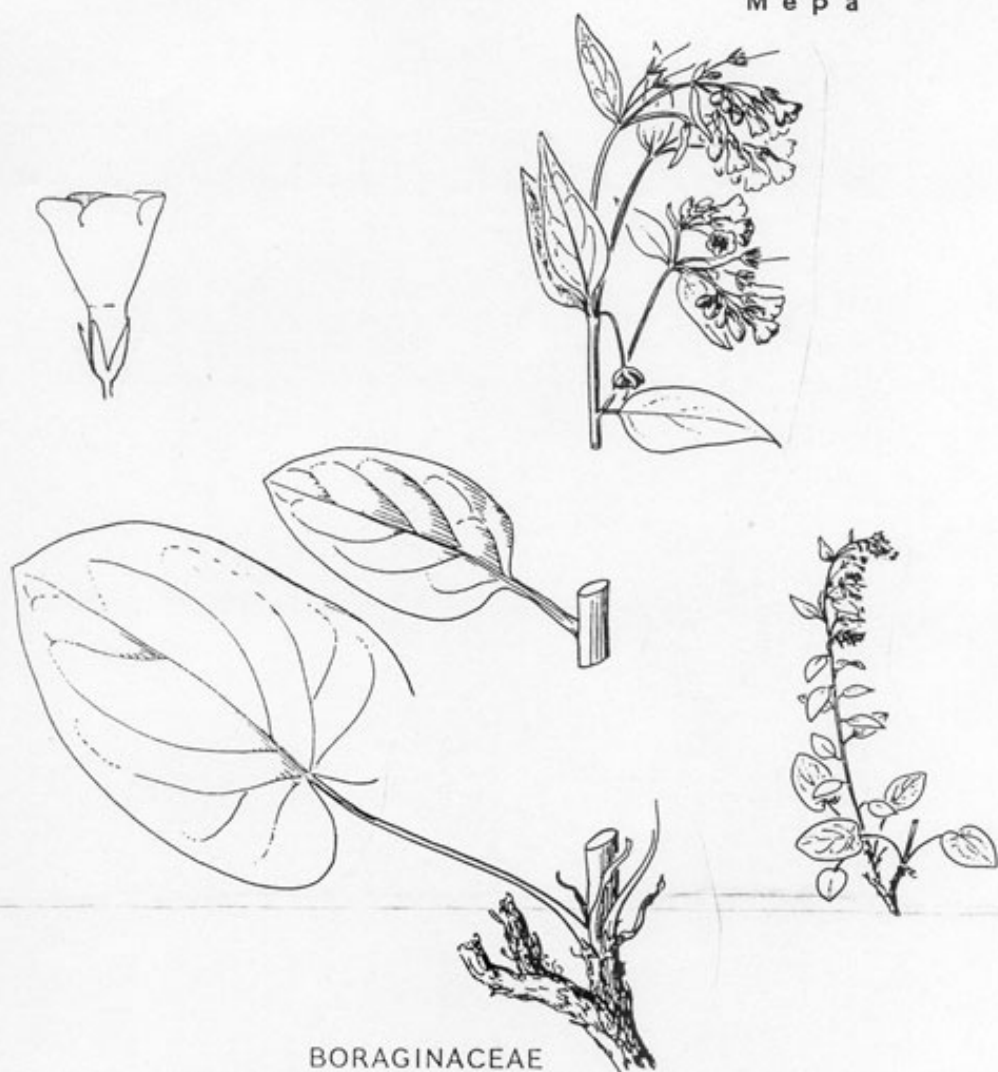
FRUIT: Unknown silique.

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.			
Phma h.t.			
Caru	Caru		
Aruv	h.t.		
Phma	Phma		
Smst	h.t.		
Phma	Phma		
Cooc	h.t.		
Libo	Libo		
Xete	h.t.		
Asca	Asca		
Tabr	h.t.		
Mefe	h.t.		
Setr	h.t.		
Phma			
Clun			
Tabr	Clun		
Mefe	h.t.		
Xete			
Vagl	Xete		
Cooc	h.t.		
Clun			
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			
Arnu	Clun		
Mefe	h.t.		
Xete			
Asca	Asca		
Arnu	h.t.		
Mefe			
Gydr	h.t.		
Mefe	Clun		
Xete	h.t.		
Xete	Mefe		
Luhi	h.t.		
Mefe	Stam		
Luhi	h.t.		
Vagl	Xete		
Luhi	h.t.		
Clun			
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.		
Xete	c.t.		
Vaca	c.t.		

Pipo	Syal h.t.	
	Phma h.t.	
Psme	Caru h.t.	Caru
	Phma h.t.	Aruv
	Phma h.t.	Smst
Abgr	Phma h.t.	Phma
	Libo h.t.	Cooc
	Libo h.t.	Xete
	Asca h.t.	Asca +
	Asca h.t.	Tabr +
	Asca h.t.	Mefe
	Setr h.t.	3
	Clun h.t.	Phma
	Clun h.t.	Clun
	Clun h.t.	Tabr
Thp1	Clun h.t.	Mefe
	Clun h.t.	Xete
	Asca h.t.	Asca
	Asca h.t.	Tabr
	Asca h.t.	Mefe
	Gydr h.t.	1
	Gydr h.t.	2
	Adpe h.t.	
	Atfi h.t.	Adpe 2
	Atfi h.t.	Atfi 3
Tshe	Opho h.t.	1
	Clun h.t.	Clun
	Clun h.t.	Arnu
	Clun h.t.	Mefe 1
	Clun h.t.	Xete
	Clun h.t.	Xete
	Asca h.t.	Asca +
	Asca h.t.	Arnu
	Asca h.t.	Mefe
	Gydr h.t.	+
Tsme	Clun h.t.	Mefe 1
	Clun h.t.	Xete
	Mefe h.t.	Xete
	Mefe h.t.	Luh1
	Stam h.t.	Mefe 2
	Stam h.t.	Luh1
	Xete h.t.	Vagl
	Xete h.t.	Luh1
Ab1a	Clun h.t.	Clun 1
	Clun h.t.	Mefe
	Clun h.t.	Xete
	Mefe h.t.	Cooc
	Mefe h.t.	Xete
	Mefe h.t.	Vasc
	Mefe h.t.	Luh1
	Stam h.t.	Mefe 1
	Stam h.t.	Lica 1
	Caca h.t.	Caca 2
Pico	Caca h.t.	Vaca 2
	Caca h.t.	Legl
	Xete h.t.	Cooc
	Xete h.t.	Vagl
	Xete h.t.	Vasc
	Xete h.t.	Luh1
	Vasc h.t.	
	Xete c.t.	
	Vaca 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.

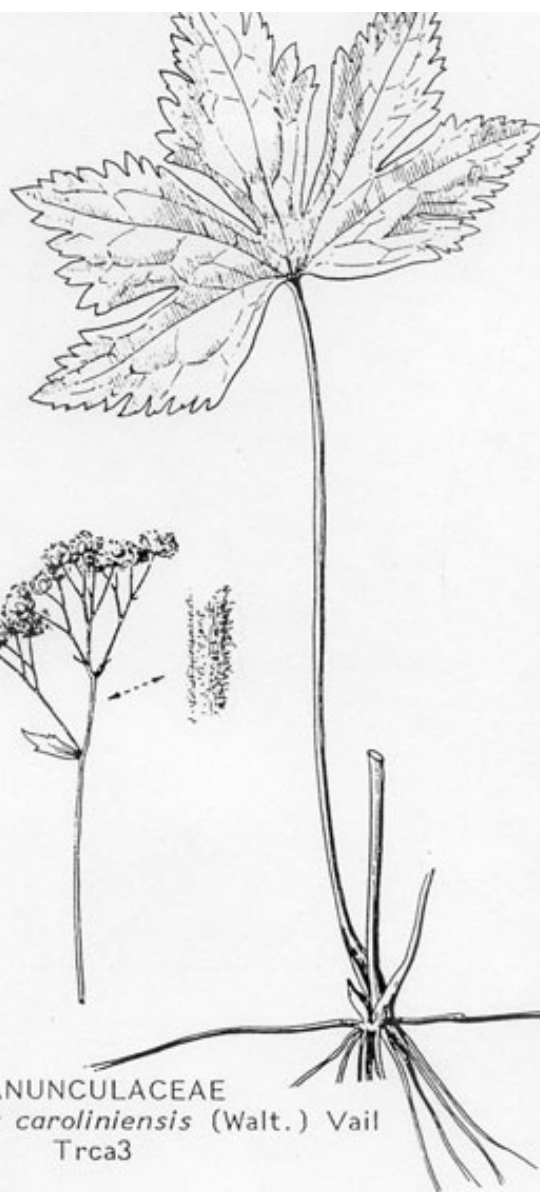
FLOWERS: Blue, sometimes white or pink, 5-merous, tubular 9-16mm long, in branched, open, terminal cymes; May-Aug.

FRUIT: Nutlet.

HABITAT: Streamsides and wet meadows.

Trca3

2



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	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	+ Asca	Asca	
	Tabr	h.t.	
	Mefe		
	1 Sctr	h.t.	Abgr
	Phma		
	1 Clun		
	Tabr	Clun	
	Mefe	h.t.	
	+ Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		
	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		
	1 Arnu	Clun	
	1 Mefe	h.t.	
	Xete		
	+ Asca	Asca	
	1 Arnu	h.t.	
	Mefe		
	2 Gydr	h.t.	
	Mefe	Clun	
	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	
	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		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	
			Pico

Pipo	Syal h.t.	4
Phma	h.t.	4
Psmc	Caru	Caru
	h.t.	Aruv
Phma	Phma	+
	h.t.	Smst
Phma	Phma	
	h.t.	Cooc
Libo	Libo	1
	h.t.	Xete
Asca	Asca	
	h.t.	Tabr
Mefe	Mefe	
	h.t.	
Setr	Setr	h.t.
	h.t.	
Clun	Phma	
	Clun	+
Tabr	Tabr	
	h.t.	Mefe
Xete	Xete	
	h.t.	Vagl
Cooc	Cooc	
	h.t.	
Clun	Clun	
	h.t.	Tabr
Mefe	Mefe	
	h.t.	Xete
Asca	Asca	
	h.t.	Tabr
Mefe	Mefe	
	h.t.	
Gydr	Gydr	h.t.
	h.t.	
Adpe	Adpe	h.t.
	h.t.	
Atfi	Atfi	
	h.t.	Atfi
Opho	Opho	h.t.
	h.t.	
Clun	Clun	
	h.t.	Arnu
Mefe	Mefe	
	h.t.	Xete
Asca	Asca	
	h.t.	Arnu
Mefe	Mefe	
	h.t.	
Gydr	Gydr	h.t.
	h.t.	
Clun	Mefe	
	h.t.	Xete
Mefe	Mefe	
	h.t.	Xete
Luh	Luh	
	h.t.	
Stam	Mefe	
	h.t.	Luh
Xete	Vagl	
	h.t.	Luh
Clun	Clun	
	h.t.	Mefe
Mefe	Mefe	
	h.t.	Xete
Cooc	Cooc	
	h.t.	Xete
Vasc	Vasc	
	h.t.	Luh
Stam	Mefe	
	h.t.	Luh
Caca	Caca	
	h.t.	Vaca
Legl	Legl	
	h.t.	
Cooc	Cooc	
	h.t.	Vagl
Vasc	Vasc	
	h.t.	Luh
Vasc	Vasc	h.t.
	h.t.	
Xete	Xete	c.t.
	h.t.	
Vaca	Vaca	c.t.
	h.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.

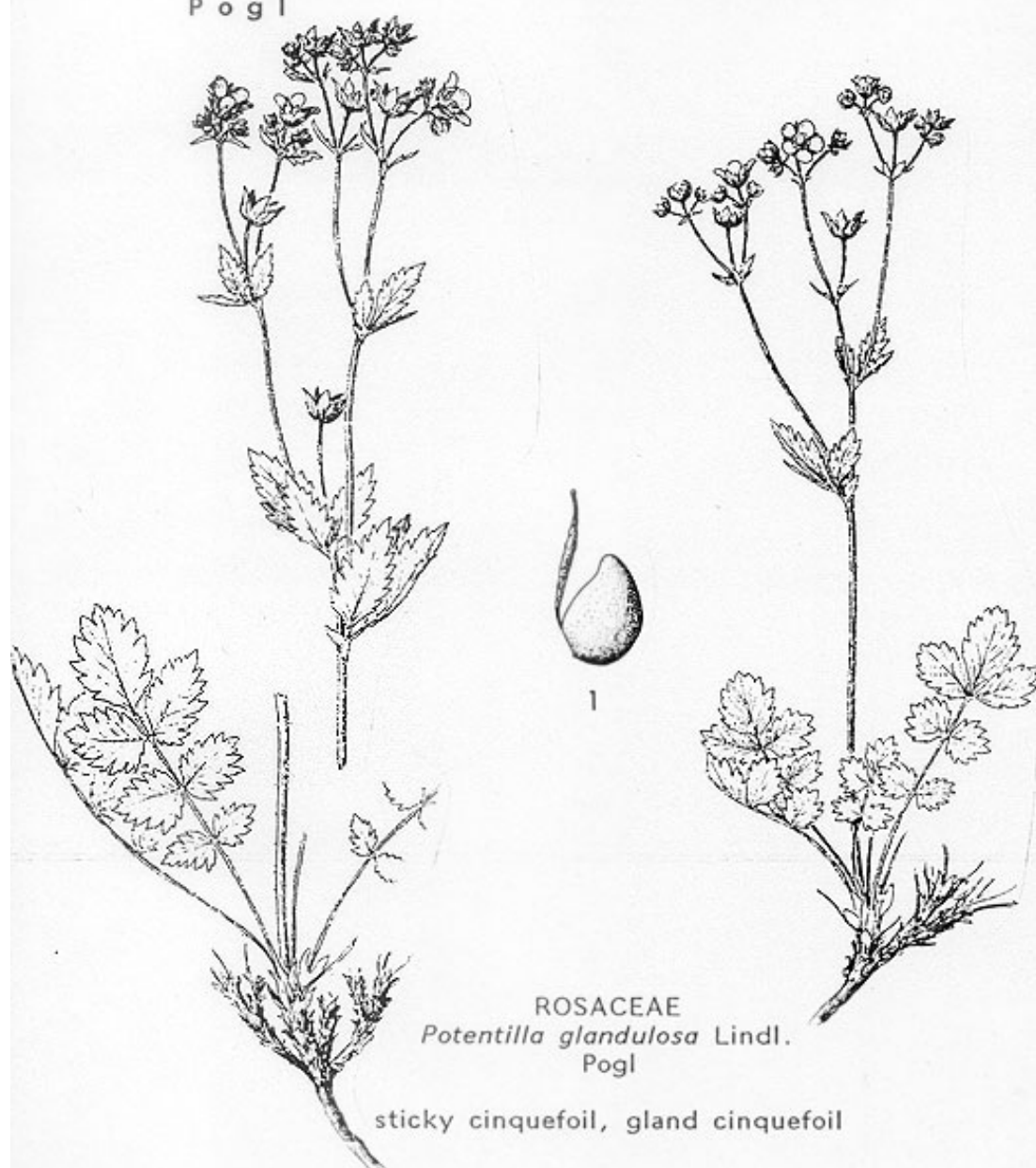
LEAVES: Numerous, alternate, mostly basal; blades digitate (handlike) with long petioles up to 30cm (12in), leaflets 7-9, cuneate or dissected, margins slightly revolute, lighter and slightly woolly on underside, 3-8cm (1-3in) long; 1-2 cauline leaves.

FLOWERS: Numerous, yellow, 5-merous; in large, open, flat-topped, terminal cymes; June-Aug.

FRUIT: Greenish achene.

SIMILAR SPECIES: Other *Potentilla* species.

P 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 (<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).

	Syal h.t.		
	Phma h.t.		
	Caru	Caru	
	Aruv	h.t.	
3	Phma	Phma	
2	Smst	h.t.	
	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca		
	Tabr	Asca	
	Mefe	h.t.	
	Setr	h.t.	
	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		
	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		
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun		
	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.	
	Xete	c.t.	
	Vaca	c.t.	

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

C i a l



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).

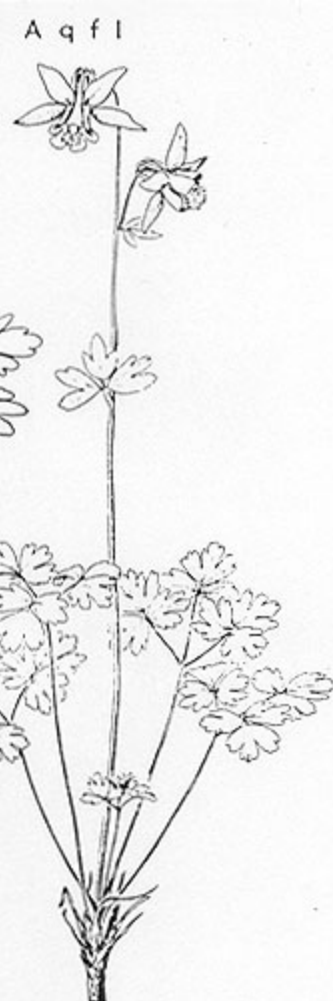
HABITAT: Growing in seasonally wet to moist soil.

Syal h.t.		
Phma h.t.		
Caru h.t.	Caru	
Aruv h.t.	Aruv	
Phma h.t.	Phma	
Sms h.t.	Sms	
Phma h.t.	Phma	
Cooc h.t.	Cooc	
Libo h.t.	Libo	
Xete h.t.	Xete	
Asca h.t.	Asca	1
Tabr h.t.	Tabr	+
Mefe h.t.	Mefe	1
Setr h.t.	Setr	6
Phma h.t.	Phma	
Clun h.t.	Clun	
Tabr h.t.	Tabr	1
Mefe h.t.	Mefe	
Xete h.t.	Xete	
Vagl h.t.	Vagl	
Cooc h.t.	Cooc	
Clun h.t.	Clun	
Tabr h.t.	Tabr	
Mefe h.t.	Mefe	
Xete h.t.	Xete	
Asca h.t.	Asca	
Tabr h.t.	Tabr	
Mefe h.t.	Mefe	
Gydr h.t.	Gydr	1
Adpe h.t.	Adpe	
Atfi h.t.	Atfi	+
Opho h.t.	Opho	
Clun h.t.	Clun	
Arnu h.t.	Arnu	
Mefe h.t.	Mefe	
Xete h.t.	Xete	
Asca h.t.	Asca	
Arnu h.t.	Arnu	
Mefe h.t.	Mefe	
Gydr h.t.	Gydr	
Clun h.t.	Mefe	
Mefe h.t.	Xete	
Xete h.t.	Xete	
Luh h.t.	Luh	1
Stam h.t.	Mefe	
Luh h.t.	Luh	
Xete h.t.	Vagl	
Luh h.t.	Luh	
Clun h.t.	Clun	
Mefe h.t.	Mefe	
Xete h.t.	Xete	1
Cooc h.t.	Cooc	
Mefe h.t.	Xete	
Vasc h.t.	Vasc	
Luh h.t.	Luh	
Stam h.t.	Mefe	1
Lica h.t.	Lica	1
Caca h.t.	Caca	
Vaca h.t.	Vaca	
Legl h.t.	Legl	
Cooc h.t.	Cooc	
Vagl h.t.	Vagl	
Vasc h.t.	Vasc	
Luh h.t.	Luh	1
Vasc h.t.	Vasc	
Xete c.t.	Xete	
Vaca c.t.	Vaca	

A q f o



A q f l



RANUNCULACEAE

Aquilegia formosa Fisch. *Aquilegia flavescens* Wats.
Aqfo Aqfl

red columbine, Sitka columbine

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.

Pipo	Syal h.t.	
	Phma h.t.	
Psmc	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
	Phma	+
	Clun	+
	Tabr	
	Mefe	1
Thp	Xete	1
	Vagl	
	Cooc	1
	Clun	1
	Tabr	1
	Mefe	
	Xete	1
	Asca	1
	Tabr	
	Mefe	
	Gydr h.t.	1
	Adpe h.t.	
Tshe	Atfi	Adpe
	h.t.	Atfi
	Opho h.t.	
	Clun	2
	Arnu	1
	Mefe	1
	Xete	2
	Asca	2
	Arnu	1
	Mefe	
	Gydr h.t.	1
Tsmc	Clun h.t.	Mefe 1
	Xete	2
	Mefe	Xete
	h.t.	Luh
	Stam	Mefe
	h.t.	Luh
	Xete	Vagl
	h.t.	Luh
Abia	Clun h.t.	Clun
	Mefe	1
	Xete	2
	Cooc	
	Xete	
	Vasc	
	Luh	
	Stam h.t.	Mefe 1
	Lica	
	Caca	
	Vaca	
	Legl	
Pico	Cooc	
	Vagl	1
	Vasc	
	Luh	1
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	

Coma 3



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.

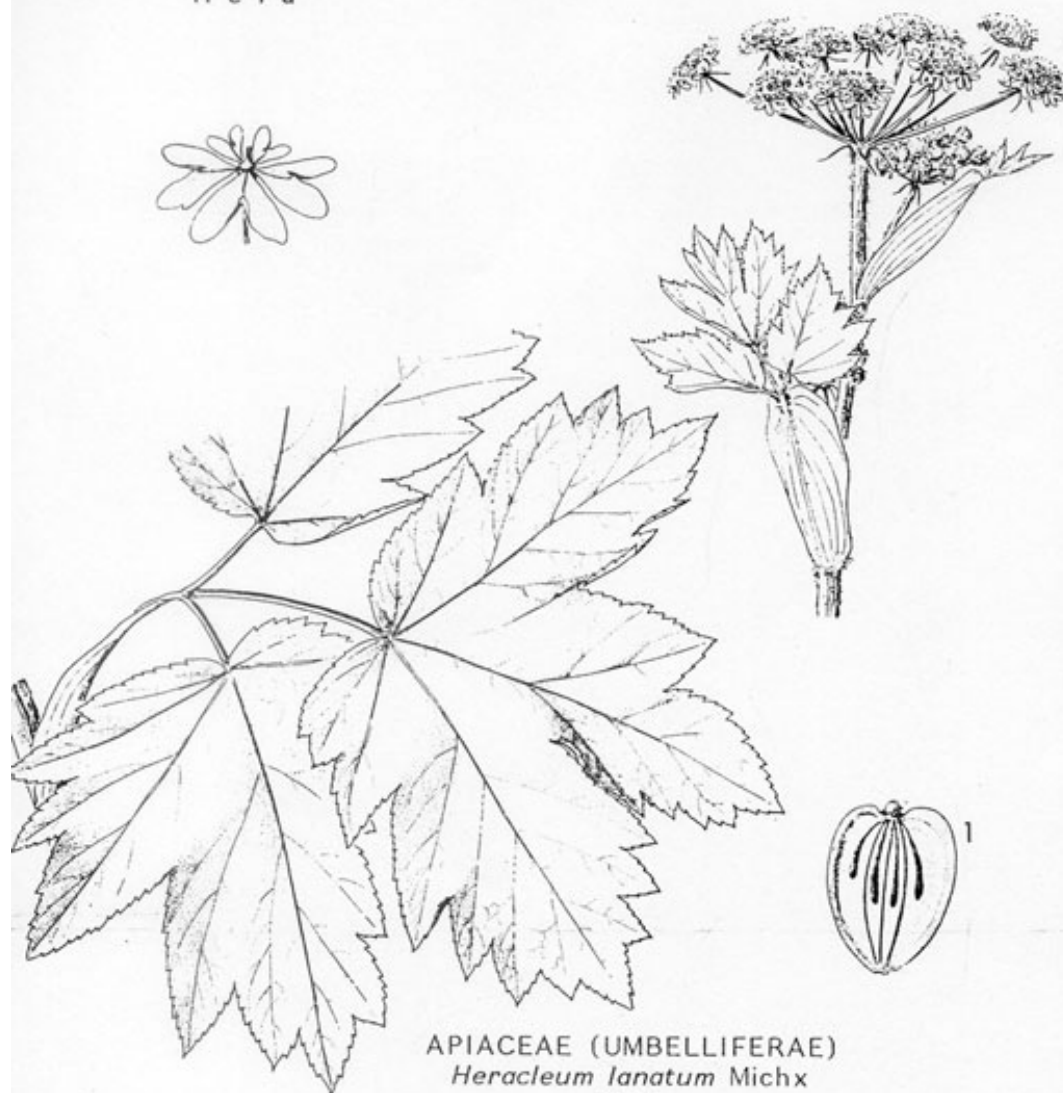
FLOWERS: 10-30 flowers, in a widely spreading raceme; perianth reddish-purple to pinkish, with a poorly developed spur (1), white lip strongly wine-red spotted (2); May-Aug.

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.

H e l a



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.		Kpo	
	Phma h.t.			
	Caru	Caru	Psmc	
	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			
1	Setr h.t.			
	Phma	Clun h.t.		
	Clun			
	Tabr			
	Mefe			
	Xete			
	Vagl	Xete h.t.		
	Cooc	h.t.		
	Clun	Clun h.t.	Thp1	
	Tabr			
	Mefe			
	Xete			
	Asca			
	Tabr	Asca h.t.		
	Mefe			
1	Gydr n.t.			
	Adpe h.t.			
	1 Adpe	Atfi		
	3 Atfi	h.t.		
	1 Opho	h.t.		
+	Clun	Clun h.t.	Tshe	
	Arnu			
	Mefe			
	Xete			
1	Asca			
	Arnu	Asca h.t.		
	Mefe			
+	Gydr h.t.			
	Mefe	Clun h.t.		Tsmc
	Xete	Mefe		
	Xete	h.t.		
	Luhi	Stam		
	Mefe	h.t.		
	Luhi	Xete		
	Vagl	h.t.		
	Luhi	h.t.		
	Clun	Clun h.t.	Ab1a	
	Mefe			
	Xete			
	Cooc	Mefe h.t.		
	Xete			
	Vasc			
	Luhi			
1	Mefe	Stam h.t.		
4	Lica			
3	Caca	Caca h.t.		
2	Vaca			
3	Legl			
	Cooc	Xete h.t.		
	Vagl			
	Vasc			
	Luhi			
	Vasc h.t.		Pico	
	Xete c.t.			
	Vaca c.t.			



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.

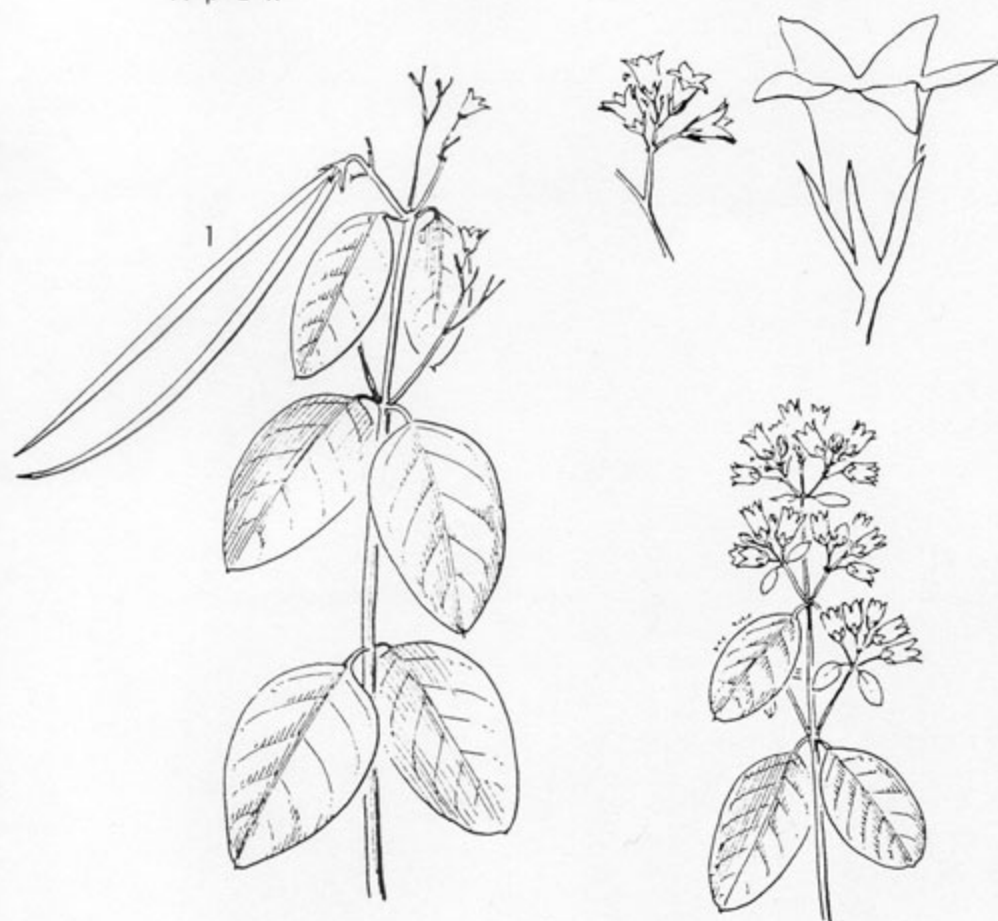
LEAVES: Basal leaves simple, entire, wide, oblanceolate, tapering to petiole, alternate cauline leaves various.

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.		
	Phma h.t.		
	Caru	Caru	
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe	h.t.	
	Setr	h.t.	
	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		
	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		
1	Arnu	Clun	
1	Mefe	h.t.	
1	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
+	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
1	Luhi	h.t.	
	Vagl	Xete	
1	Luhi	h.t.	
	Clun		
	Mefe	Clun	
	Xete	h.t.	
1	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
1	Mefe	Stam	
	Lica	h.t.	
2	Caca	Caca	
2	Vaca	h.t.	
3	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
1	Luhi		
	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	



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
4	Aruv h.t.	Pime
3	Phma	Phma
+	Smst h.t.	
1	Phma	Phma
	Cooc h.t.	
1	Libo	Libo
	Xete h.t.	
	Asca	Asca
	Tabr h.t.	
	Mefe	
	Setr h.t.	Abgr
1	Phma	
+	Clun	
	Tabr	Clun
	Mefe h.t.	
+	Xete	
1	Vagl	Xete
	Cooc h.t.	
1	Clun	
	Tabr	Clun
	Mefe h.t.	
1	Xete	
+	Asca	Asca
	Tabr h.t.	
	Mefe	
	Gydr h.t.	Thpl
	Adpe h.t.	
	Adpe	Atfi
	Atfi h.t.	
1	Opho h.t.	
1	Clun	
1	Arnu	Clun
	Mefe h.t.	
	Xete	
	Asca	Asca
	Arnu h.t.	
	Mefe	
	Gydr h.t.	Tshe
	Mefe	
	Xete	Clun
	Xete h.t.	
1	Luhi	Mefe
	Mefe h.t.	
	Luhi	Stam
	Vagl h.t.	
	Luhi	Xete
	Luhi h.t.	
	Clun	
	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.	



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.

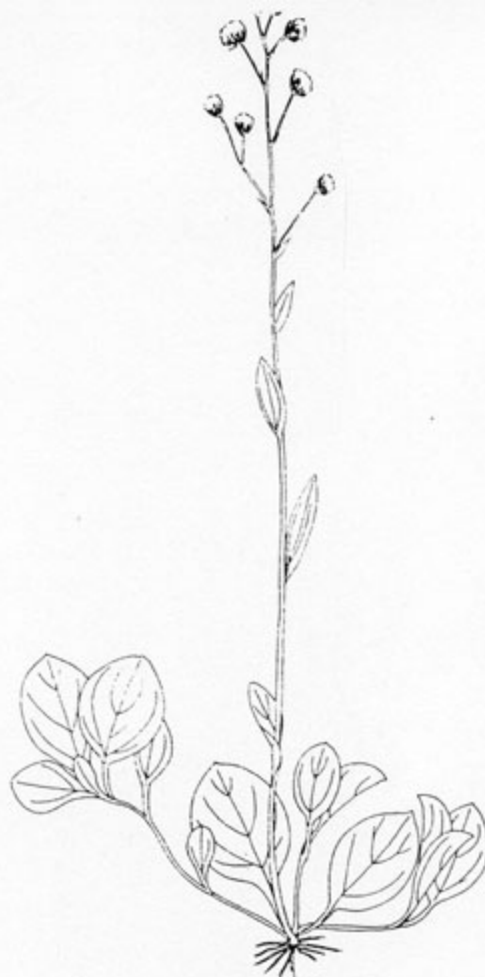
FLOWERS: In solitary, terminal, condensed cymes, greenish-white petals with deep purplish tinge, subtended by 4 white, pinkish or purple-tinged, ovate bracts, 1-2cm (<1in) long; June-Aug.

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.		
	Phma h.t.		Phpo
	Caru	Caru	
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
2	Asca	Asca	
4	Tabr	h.t.	
3	Mefe		
	Setr	h.t.	
1	Phma		
3	Clun		
4	Tabr	Clun	
5	Mefe	h.t.	
4	Xete		
1	Vagl	Xete	
1	Cooc	h.t.	
4	Clun		
6	Tabr	Clun	
4	Mefe	h.t.	
3	Xete		
5	Asca	Asca	
4	Tabr	h.t.	
4	Mefe		
2	Gydr	h.t.	
8	Adpe	h.t.	
9	Adpe	Atfi	
4	Atfi	h.t.	
3	Opho	h.t.	
2	Clun		
5	Arnu	Clun	
4	Mefe	h.t.	
1	Xete		
2	Asca	Asca	
3	Arnu	h.t.	
	Mefe		
3	Gydr	h.t.	
	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
3	Clun	Clun	
1	Mefe	h.t.	
	Xete		
3	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
1	Mefe	Stam	
1	Lica	h.t.	
2	Caca	Caca	
	Vaca	h.t.	
	Legl		
1	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	

Pipo	Syal h.t.	
	Phma h.t.	
Psmc	Caru	6
	h.t. Aruv	6
	Phma	2
	h.t. Smst	2
Abgr	Phma	2
	h.t. Cooc	1
	Libo	4
	h.t. Xete	3
	Asca	+
	h.t. Tabr	
	Mefe	
	Setr h.t.	
	Phma	+
	Clun	1
Thp	Clun	
	h.t. Tabr	
	Mefe	1
	Xete	
	Asca	+
	h.t. Tabr	
	Mefe	1
	Gydr h.t.	
	Adpe h.t.	
	Atfi	
Tshe	h.t. Atfi	
	Opho h.t.	
	Clun	1
	h.t. Arnu	
	Mefe	
	Xete	
	Asca	
	h.t. Arnu	
	Mefe	
	Gydr h.t.	
Tsme	Clun	+
	h.t. Xete	
	Mefe	
	h.t. Xete	
	Stam	1
	h.t. Mefe	
	Luh	
	h.t. Luh	
	Xete	
	h.t. Vag	
Abia	Clun	
	h.t. Mefe	
	Xete	
	Mefe	1
	h.t. Xete	
	Vasc	
	Stam	
	h.t. Mefe	
	Lica	
	Caca	
Pico	h.t. Vaca	
	Legl	
	Xete	
	h.t. Cooc	
	Vag	1
	Vasc	+
	Luh	
	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.



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 involucre bracts, crowded into short broad inflorescences; 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.		
Phma h.t.		Pipo
Caru	Caru	Psmc
Aruv	h.t.	
Phma	Phma	
+ Smst	h.t.	
Phma	Phma	Abgr
Cooc	h.t.	
Libo	Libo	
Xete	h.t.	
+ Asca	Asca	Thpl
Tabr	h.t.	
Mefe		
Setr	h.t.	
Phma		Tshe
1 Clun	Clun	
1 Tabr	h.t.	
Mefe		
+ Xete	Xete	Tsmc
Vagl	h.t.	
Cooc		
+ Clun	Clun	
Tabr	h.t.	Abld
Mefe		
Xete		
+ Asca	Asca	
Tabr	h.t.	Pico
1 Mefe		
Gydr	h.t.	
Adpe	h.t.	
Adpe	Atfi	
Atfi	h.t.	
Opho	h.t.	
Clun	Clun	
Arnu	h.t.	
1 Mefe		
1 Xete		
4 Asca	Asca	
Arnu	h.t.	
Mefe		
Gydr	h.t.	
Mefe	Clun	
Xete	h.t.	
Xete	Mefe	
Luh1	h.t.	
Mefe	Stam	
Luh1	h.t.	
Vagl	Xete	
Luh1	h.t.	
Clun	Clun	
Mefe	h.t.	
1 Xete		
Cooc	Mefe	
Xete	h.t.	
Vasc		
Luh1	Stam	
Mefe	h.t.	
Lica		
2 Caca	Caca	
2 Vaca	h.t.	
3 Legl		
Cooc		
1 Vagl	Xete	
1 Vasc	h.t.	
Luh1		
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	



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

Co	Syal h.t.	
K	Phma h.t.	
Psmc	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	+
Clun	Mefe	
	Xete	1
	Vagl	+
	Cooc	
	Clun h.t.	Clun 1
	Tabr	
Thp	Mefe	
	Xete	
	Asca h.t.	Asca 1
	Tabr	
	Mefe	
	Gydr h.t.	1
Tshe	Adpe h.t.	1
	Atfi h.t.	Atfi 1
	Opho h.t.	
	Clun h.t.	Clun 1
	Arnu	2
	Mefe	
Tsmc	Xete	1
	Asca h.t.	Asca 1
	Arnu	
	Mefe	
	Gydr h.t.	
	Clun h.t.	Clun 1
Abla	Mefe	
	Xete	
	Cooc	
	Xete	
	Vasc	
	Luh	
Pico	Stam h.t.	Mefe
	Lica	
	Caca h.t.	Caca
	Vaca	
	Legl	
	Cooc	
Vasc	Xete c.t.	
	Vagl	
	Vasc	
	Luh	
	Vasc h.t.	
	Xete 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, acuminate, 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.



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.		
1	Phma h.t.		
	Caru	Caru	Pme
1	Aruv	h.t.	
	Phma	Phma	
+	Smsr	h.t.	
	Phma	Phma	Abgr
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	Thp1
1	Tabr	h.t.	
2	Mefe	h.t.	
	Setr	h.t.	
	Phma		Tshe
	Clun		
	Tabr	Clun	
2	Mefe	h.t.	
+	Xete		Tme
2	Vagl	Xete	
	Cooc	h.t.	
+	Clun		Tshe
	Tabr	Clun	
1	Mefe	h.t.	
1	Xete		
1	Asca	Asca	Tme
	Tabr	h.t.	
	Mefe		
1	Gydr	h.t.	
+	Adpe	h.t.	Tshe
	Adpe	Atfi	
	Atfi	h.t.	
	Opho	h.t.	
	Clun		Tshe
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
	Asca	Asca	Tme
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
	Mefe	Clun	Tme
	Xete	h.t.	
	Xete	Mefe	
	Luh1	h.t.	
	Mefe	Stam	Abla
	Luh1	h.t.	
	Vagl	Xete	
	Luh1	h.t.	
3	Clun	Clun	Abla
1	Mefe	h.t.	
1	Xete		
	Cooc		
	Xete	Mefe	Abla
	Vasc	h.t.	
	Luh1		
1	Mefe	Stam	
	Lica	h.t.	Abla
	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		Abla
	Vagl	Xete	
	Vasc	h.t.	
	Luh1		
	Vasc	h.t.	Pico
	Xete	c.t.	
	Vaca	c.t.	

V e c a



LILIACEAE
Veratrum californicum Durand
Veca

California false hellebore

V e v i



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.

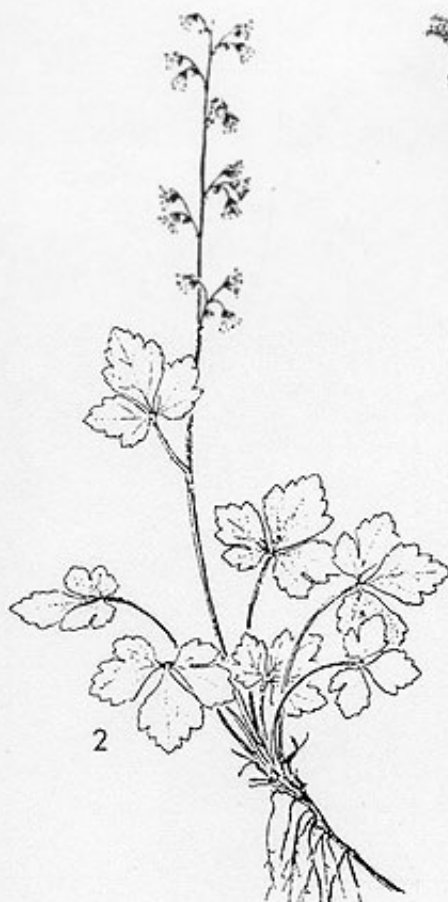
FRUIT: Veca: glabrous narrowly ovoid, 2-3cm (<1in) long capsule, seeds broadly winged, straw-colored, 10-15mm long.

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.		
6	Phma h.t.		
	Caru	Caru	
	Aruv	h.t.	
1	+ Phma	Phma	
1	1 Smst	h.t.	
	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
1	Asca	Asca	
+	Tabr	h.t.	
2	Mefe		
1	1 Setr	h.t.	
+	+ Phma		
1	Clun		
1	Tabr	Clun	
1	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	+ Clun		
	2 Tabr	Clun	
	Mefe	h.t.	
	1 Xete		
	1 Asca	Asca	
	2 Tabr	h.t.	
	3 Mefe		
	2 Gydr	h.t.	
+	1 Adpe	h.t.	
	2 Adpe	Atfi	
	5 Atfi	h.t.	
1	3 Opho	h.t.	
	1 Clun		
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
	1 Asca	Asca	
	1 Arnu	h.t.	
	Mefe		
	1 Gydr	h.t.	
4	1 Mefe	Clun	
	Xete	h.t.	
1	Xete	Mefe	
	3 Luhi	h.t.	
	5 Mefe	Stam	
2	5 Luhi	h.t.	
	Vagl	Xete	
	1 Luhi	h.t.	
	Clun		
	2 Mefe	Clun	
	1 Xete	h.t.	
	1 Cooc		
	3 Xete	Mefe	
	Vasc	h.t.	
	1 Luhi		
	5 Mefe	Stam	
1	5 Lica	h.t.	
2	5 Caca		
2	Vaca	Caca	
	2 Legl	h.t.	
	Cooc		
	Vagl	Xete	
	+ Vasc	h.t.	
	2 Luhi		
	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		

Epo	Syal h.t.	
	Phma h.t.	
Psm	Caru h.t.	Caru
	Aruv	
	Phma h.t.	Phma
Abgr	Phma h.t.	Phma
	Cooc	
	Libo h.t.	Libo
	Xete	
	Asca h.t.	Asca 4
	Tabr	10
	Mefe	7
	Setr h.t.	7
	Phma	
	Clun h.t.	Clun 4
Thp	Tabr	6
	Mefe	6
	Xete	2
	Vagl	
	Cooc	
	Clun	4
	Tabr	9
	Mefe	9
	Xete	6
	Asca h.t.	Asca 8
Tshe	Tabr	10
	Mefe	9
	Gydr h.t.	10
	Adpe h.t.	9
	Atfi	10
	Adpe	10
	Atfi	10
	Opho h.t.	9
	Clun	7
	Arnu	4
Tsm	Mefe	10
	Xete	7
	Asca h.t.	Asca 9
	Arnu	9
	Mefe	10
	Gydr h.t.	9
	Clun	5
	Mefe	2
	Xete	1
	Luh	
Abia	Stam h.t.	Mefe 10
	Luh	2
	Xete	1
	Luh	
	Clun	7
	Mefe	5
	Xete	4
	Cooc	2
	Mefe h.t.	Xete
	Vasc	1
Pico	Luh	
	Stam h.t.	Mefe 7
	Lica	7
	Caca	2
	Vaca	2
	Legl	2
	Cooc	1
	Vagl	1
	Vasc	+
	Luh	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* (fringe cup).

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

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



S m r a



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, stiffly 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.

Mipo	Syal h.t.	
	Phma h.t.	4
Psmc	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 h.t.	Xete 1
	Asca h.t.	Asca 1
	Tabr	+
	Mefe	
	Setr h.t.	1
	Phma	
	Clun	
	Tabr h.t.	1
	Mefe	
Thpl	Xete h.t.	Xete 1
	Vagl	2
	Cooc	1
	Clun	+
	Tabr	
	Mefe h.t.	1
	Xete	2
	Asca	+
	Tabr	
	Mefe	
Tshe	Gydr h.t.	
	Adpe h.t.	
	Atfi	
	Adpe h.t.	
	Atfi	
Tsmc	Opho h.t.	
	Clun	+
	Arnu	1
	Mefe	1
	Xete	1
Tsmc	Asca	
	Arnu	
	Mefe	
	Gydr h.t.	
	Clun	
Tsmc	Mefe	
	Xete	
	Mefe h.t.	1
	Luhi	2
	Stam	
Ala	Mefe	
	Luhi	
	Vagl	1
	Luhi	
	Clun	7
	Mefe	1
	Xete	2
	Cooc	
	Xete	
	Vasc	
Ala	Luhi	
	Mefe	
	Lica	1
	Caca	2
	Vaca	5
Ala	Legl	1
	Cooc	1
	Vagl	2
	Vasc	2
	Luhi	1
Pico	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	

E p a n



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 mid-vein, distinct venation pattern is created by the connection of the lateral veins at the margins.

FLOWERS: Pink to purple, 4-merous, short-clawed (1) petals, 8-20mm 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.



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.		
3	Phma h.t.		
	Caru	Caru	
	Aruv	h.t.	
+	Phma	Phma	
2	Smst	h.t.	
1	Phma	Phma	
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
1	Setr	h.t.	
1	Phma		
2	Clun		
	Tabr	Clun	
1	Mefe	h.t.	
	Xete		
	Vagl	Xete	
1	Cooc	h.t.	
+	Clun	Clun	
	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		
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
2	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	
	Mefe	h.t.	
1	Xete		
	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.	
	Xete	c.t.	
	Vaca	c.t.	



GERANIACEAE

Geranium viscosissimum F. & M.
Gevi

sticky purple geranium

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

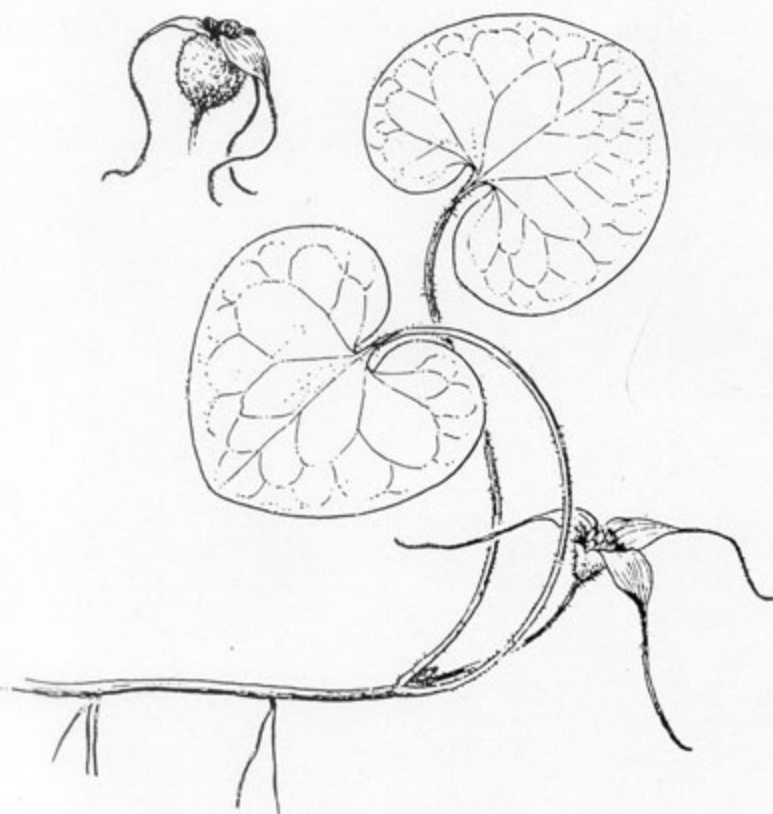
LEAVES: Sharply toothed, densely glandular-hairy, 5(7) palmately-lobed blades, 5-12cm (2-5in) broad.

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.	
6	Phma h.t.	Phpo
	Caru	Caru
	Aruv	h.t.
	+ Phma	Phma
	Smst	h.t.
1	Phma	Phma
	Cooc	h.t.
1	Libo	Libo
	Xete	h.t.
	Asca	
	+ Tabr	Asca
	Mefe	h.t.
	Setr	h.t.
	Phma	
1	Clun	Clun
	Tabr	h.t.
	Mefe	
	Xete	
	Vagl	Xete
	Cooc	h.t.
	Clun	
	Tabr	Clun
	Mefe	h.t.
	Xete	
	Asca	
	Tabr	Asca
	Mefe	h.t.
	Gydr	h.t.
	Adpe	h.t.
	Adpe	Atfi
	Atfi	h.t.
	Opho	h.t.
	Clun	
	Arnu	Clun
	Mefe	h.t.
	Xete	
	Asca	
	Arnu	Asca
	Mefe	h.t.
	Gydr	h.t.
	Mefe	Clun
	Xete	h.t.
	Xete	Mefe
	Luh1	h.t.
	Mefe	Stam
	Luh1	h.t.
	Vagl	Xete
	Luh1	h.t.
	Clun	
	Mefe	Clun
	Xete	h.t.
	Cooc	
	Xete	Mefe
	Vasc	h.t.
	Luh1	
	Mefe	Stam
	Lica	h.t.
	Caca	
	Vaca	Caca
	Legl	h.t.
	Cooc	
	Vagl	Xete
	Vasc	h.t.
	Luh1	
	Vasc	h.t.
	Xete	c.t.
	Vaca	c.t.
		Pico



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 hairy 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.		Pp
	Phma h.t.		po
	Caru	Caru	P
	Aruv	h.t.	me
	Phma	Phma	
	+ Smst	h.t.	
	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
10	Asca	Asca	
10	Tabr	h.t.	
10	Mefe		
9	Setr	h.t.	
1	Phma		
+	Clun	Clun	
	Tabr	h.t.	
	Mefe		
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
2	Clun	Clun	
1	Tabr	h.t.	
	Mefe		
	Xete		
10	Asca	Asca	
10	Tabr	h.t.	
10	Mefe		
8	Gydr	h.t.	
9	Adpe	h.t.	
10	Adpe	Atfi	
9	Atfi	h.t.	
7	Opho	h.t.	
	Clun	Clun	
	Arnu	h.t.	
	Mefe		
	Xete		
9	Asca	Asca	
10	Arnu	h.t.	
10	Mefe		
5	Gydr	h.t.	
1	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	
1	Mefe	h.t.	
2	Xete		
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
3	Mefe	Stam	
3	Lica	h.t.	
2	Caca	Caca	
	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	



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.

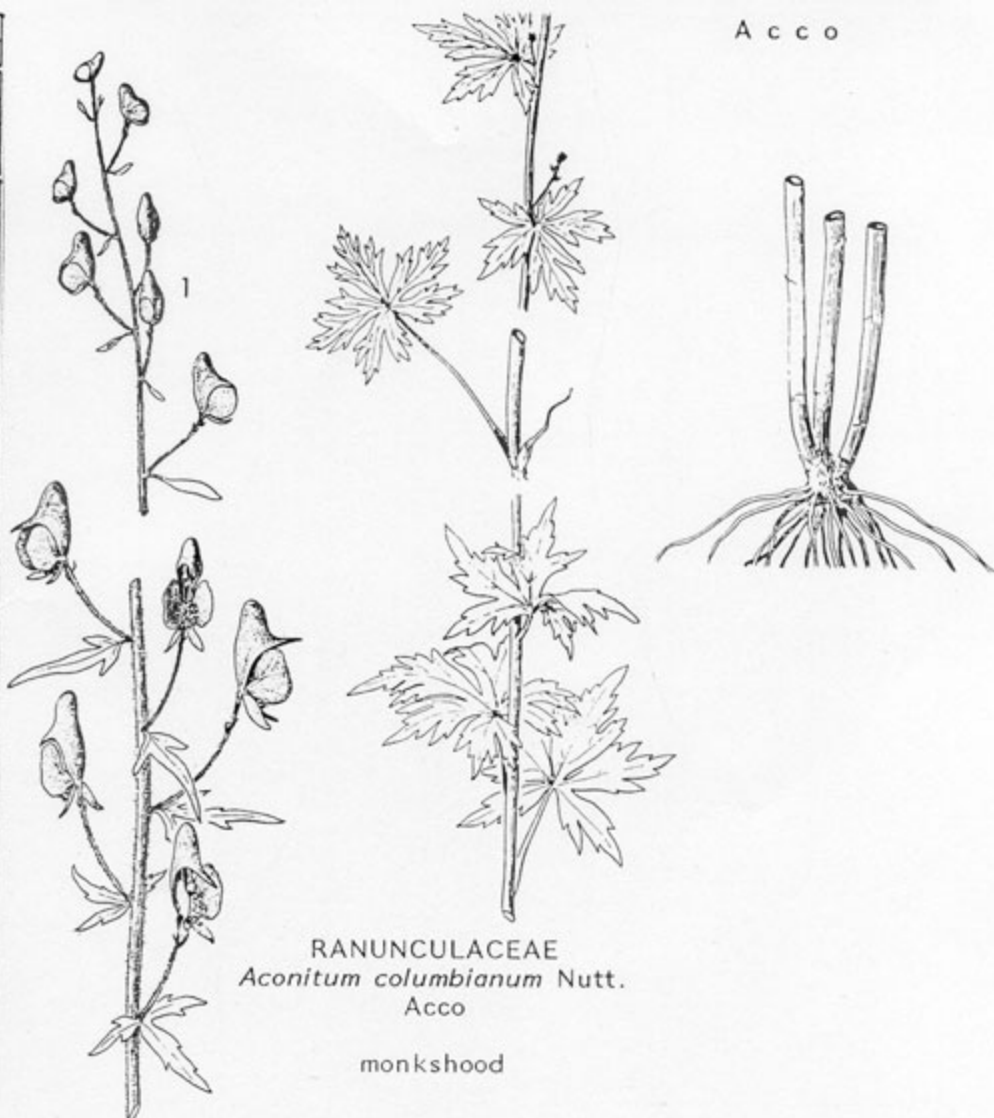
ENEMIES: Fire: moderately resistant, regeneration from seeds to preburn levels within 5-10 years.

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

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

7	Syal h.t.		
7	Phma h.t.		
8	Caru	Caru	
7	Aruv	h.t.	
5	Phma	Phma	
1	Smst	h.t.	
3	Phma	Phma	
	Cooc	h.t.	
3	Libo	Libo	
	Xete	h.t.	
+	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr	h.t.	
1	Phma		
1	Clun	Clun	
	Tabr	h.t.	
	Mefe		
1	Xete		
1	Vagl	Xete	
1	Cooc	h.t.	
+	Clun	Clun	
	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	
	Arnu	h.t.	
	Mefe		
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
1	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	
5	Vaca	h.t.	
7	Legl		
	Cooc		
1	Vagl	Xete	
1	Vasc	h.t.	
	Luhi		
	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	

Kipo	Syal h.t.	
	Phma h.t.	
Pisme	Caru h.t.	Caru
	Phma h.t.	Aruv
	Phma h.t.	Smst
Abgr	Phma h.t.	Phma
	Libo h.t.	Cooc
	Libo h.t.	Libo 1
	Asca h.t.	Xete 1
	Asca h.t.	Asca
	Setr h.t.	Tabr
	Setr h.t.	Mefe
	Clun h.t.	Phma
	Clun h.t.	Clun
	Xete h.t.	Tabr
Tipl	Xete h.t.	Mefe
	Xete h.t.	Xete
	Clun h.t.	Vagl
	Clun h.t.	Cooc
	Clun h.t.	Clun
	Clun h.t.	Tabr
	Clun h.t.	Mefe
	Clun h.t.	Xete
	Asca h.t.	Asca +
	Asca h.t.	Tabr
Tshe	Asca h.t.	Mefe
	Gydr h.t.	
	Adpe h.t.	
	Atfi h.t.	Adpe
	Atfi h.t.	Atfi 2
	Opho h.t.	1
	Clun h.t.	Clun
	Clun h.t.	Arnu
	Clun h.t.	Mefe
	Clun h.t.	Xete
Tisme	Asca h.t.	Asca +
	Asca h.t.	Arnu
	Asca h.t.	Mefe
	Gydr h.t.	+
	Clun h.t.	Mefe
	Clun h.t.	Xete
	Mefe h.t.	Xete
	Mefe h.t.	Luhi
	Stam h.t.	Mefe
	Stam h.t.	Luhi
Abia	Xete h.t.	Vagl
	Xete h.t.	Luhi
	Clun h.t.	Clun
	Clun h.t.	Mefe
	Clun h.t.	Xete
	Mefe h.t.	Cooc
	Mefe h.t.	Xete
	Stam h.t.	Vasc
	Stam h.t.	Luhi
	Caca h.t.	Mefe
Pico	Caca h.t.	Lica 2
	Caca h.t.	Caca 7
	Caca h.t.	Vaca 2
	Caca h.t.	Legl 1
	Xete h.t.	Cooc
	Xete h.t.	Vagl
	Xete h.t.	Vasc
	Xete h.t.	Luhi
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



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.

Pipo	Syal h.t.	
Pipo	Phma h.t.	
Psmc	Caru h.t.	Caru
	Aruv	
	Phma h.t.	Phma 2
Psmc	Smst	6
	Phma h.t.	Phma 7
	Cooc	7
Libo	Libo h.t.	Libo 5
	Xete	1
	Asca h.t.	Asca 8
Abqr	Tabr	6
	Mefe	2
	Setr h.t.	6
Clun	Phma	7
	Clun	8
	Tabr	4
Xete	Mefe	1
	Xete	3
	Vagl	
Cooc	Cooc	2
	Clun	6
	Tabr	4
Thp1	Mefe	2
	Xete	2
	Asca h.t.	Asca 8
Gydr	Tabr	9
	Mefe	4
	Gydr h.t.	6
Adpe	Adpe	10
	Atfi	9
	Atfi	8
Opho	Opho h.t.	8
	Clun	3
	Arnu	5
Tshe	Mefe	2
	Xete	3
	Asca h.t.	Asca 9
Arnu	Arnu	10
	Mefe	7
	Gydr h.t.	5
Clun	Mefe	
	Xete	
	Mefe	1
Tsme	Luhi	
	Stam	Mefe
	Luhi	
Xete	Vagl	
	Luhi	
Clun	Clun	3
	Mefe	
	Xete	3
Cooc	Cooc	1
	Xete	
	Vasc	
Luhi	Luhi	
	Stam	Mefe 1
	Lica	
Caca	Caca	
	Vaca	
	Legl	
Cooc	Cooc	
	Vagl	
	Vasc	
Luhi	Luhi	
	Vasc h.t.	
	Xete c.t.	
Pico	Vaca c.t.	



ASTERACEAE (COMPOSITAE)

Adenocaulon bicolor Hook.

Adbi

trail-plant, pathfinder

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

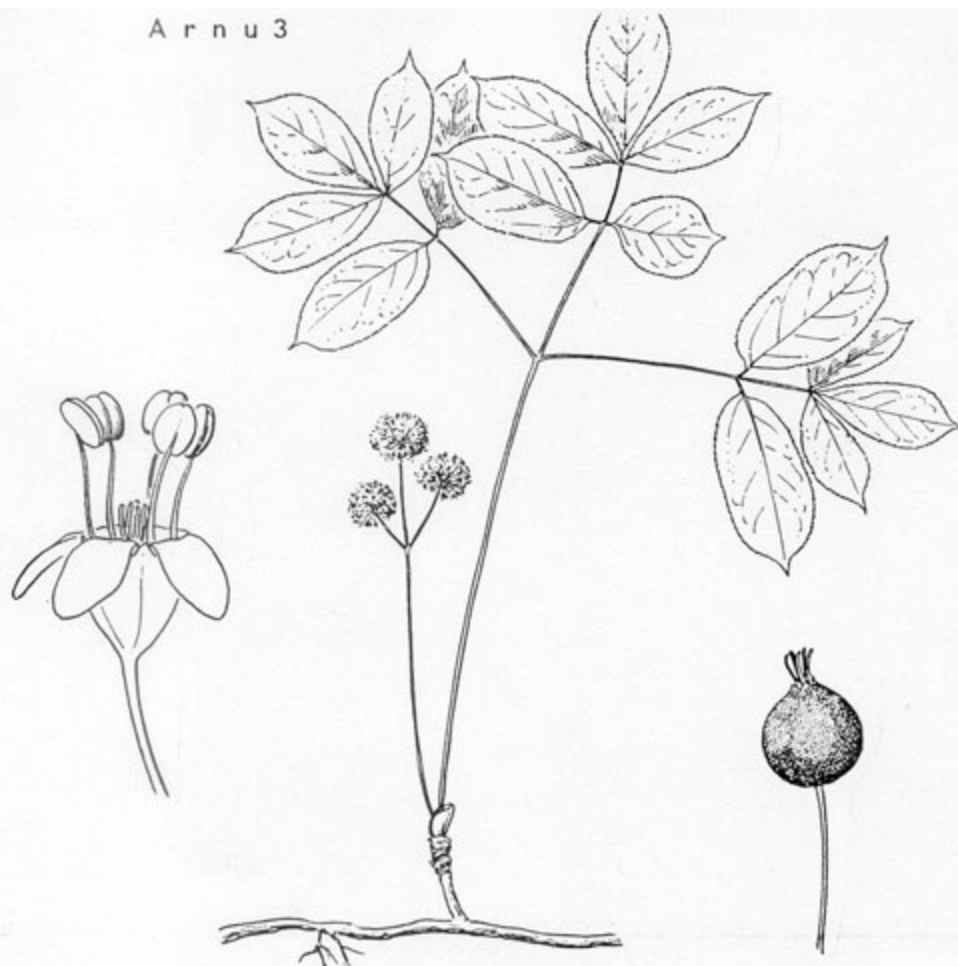
LEAVES: Alternate, mostly basal, triangular to arrowhead-shaped blade, glabrous above, white-woolly below, margins shallowly lobed, 3-15cm (1-6in) wide with long petioles.

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.

Arnu3



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

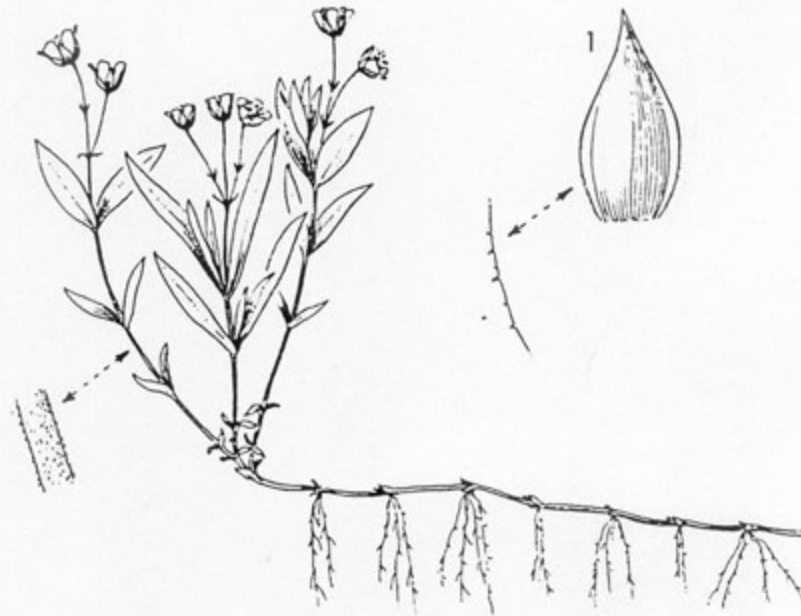
FLOWERS: Inflorescence shorter than leaves, consisting of 3-7 round ball umbels with numerous, inconspicuous, 5-merous, greenish-white flowers, 5-6mm long; May-June.

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	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
	Setr h.t.		Abgr
+	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
	Vagl	Xete	
	Cooc	h.t.	
+	Clun		
	Tabr	Clun	
	Mefe	h.t.	
	Xete		
+	Asca	Asca	Thpl
	Tabr	h.t.	
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
+	Atfi	h.t.	
1	Opho	h.t.	
+	Clun		
10	Arnu	Clun	
	Mefe	h.t.	
	Xete		
1	Asca	Asca	
10	Arnu	h.t.	
	Mefe		
1	Gydr	h.t.	
	Mefe	Clun	
	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.		

Kipo	Syal h.t.	1
	Phma h.t.	4
Psme	Caru h.t.	2
	Aruv	
	Phma h.t.	4
Phma	Phma	4
	Smst	6
Phma	Phma	4
	Cooc	6
	Libo	4
Libo	Libo	4
	Xete	4
	Asca	6
Asca	Asca	6
	Tabr	4
	Mefe	6
Setr	Setr h.t.	8
	Phma	5
	Clun	5
Clun	Tabr	3
	Mefe	2
	Xete	4
Xete	Vagl	4
	Cooc	5
Clun	Clun	1
	Tabr	
	Mefe	1
Xete	Xete	2
	Asca	2
	Tabr	4
Mefe	Mefe	
	Gydr h.t.	
	Adpe h.t.	3
Atfi	Atfi	1
	h.t.	1
	Opho h.t.	
Clun	Clun	1
	Arnu	
	Mefe	
Xete	Xete	1
	Asca	1
	Arnu	
	Mefe	
Gydr	Gydr h.t.	
	Clun	3
	Mefe	2
Mefe	Mefe	1
	Luh	
	Stam	2
Xete	Xete	
	Vagl	
	Luh	
Clun	Clun	3
	Mefe	2
	Xete	4
Cooc	Cooc	1
	Xete	
	Vasc	1
Luh	Luh	
	Mefe	2
	Lica	2
Caca	Caca	2
	Vaca	
	Legl	1
Cooc	Cooc	4
	Vagl	1
	Vasc	+
Luh	Luh	
	Vasc h.t.	
	Xete c.t.	
Pico	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-elliptic 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.

Kipo	Syal h.t.	
	Phma h.t.	
Psmc	Caru	Caru
	h.t.	Aruv
	Phma	Phma
Abgr	h.t.	Smst
	Phma	Phma
	h.t.	Cooc
Libo	Libo	Libo
	h.t.	Xete
	Asca	Asca
Clun	h.t.	Tabr
	h.t.	Mefe
	Xete	Vagl
Xete	h.t.	Cooc
	Clun	Clun
	h.t.	Tabr
Thpi	h.t.	Mefe
	Xete	Xete
	Asca	Asca
Gydr	h.t.	Tabr
	h.t.	Mefe
	Adpe	Adpe
Atfi	h.t.	Atfi
	Opho	Opho
	h.t.	
Tshe	Clun	Clun
	h.t.	Arnu
	Mefe	Mefe
Asca	h.t.	Xete
	h.t.	Asca
	h.t.	Arnu
Gydr	h.t.	Mefe
	Clun	Mefe
	h.t.	Xete
Mefe	h.t.	Xete
	h.t.	Luh
	Stam	Mefe
Xete	h.t.	Luh
	h.t.	Vagl
	h.t.	Luh
Clun	h.t.	Clun
	h.t.	Mefe
	h.t.	Xete
Mefe	h.t.	Cooc
	h.t.	Xete
	h.t.	Vasc
Stam	h.t.	Luh
	h.t.	Mefe
	h.t.	Lica
Caca	h.t.	2
	h.t.	Vaca
	h.t.	Legl
Xete	h.t.	1
	h.t.	Cooc
	h.t.	Vagl
Vasc	h.t.	Vasc
	h.t.	Luh
	h.t.	
Pico	h.t.	
	h.t.	
	h.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.

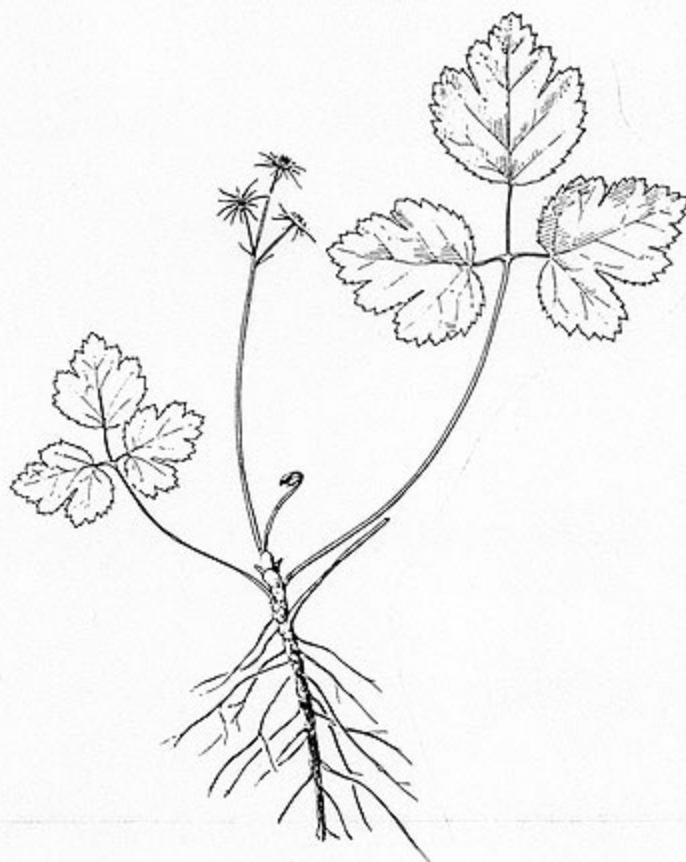
FLOWERS: Generally two per stem, regular, borne on long peduncle with white sepals, petals lacking; late May-Aug.

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

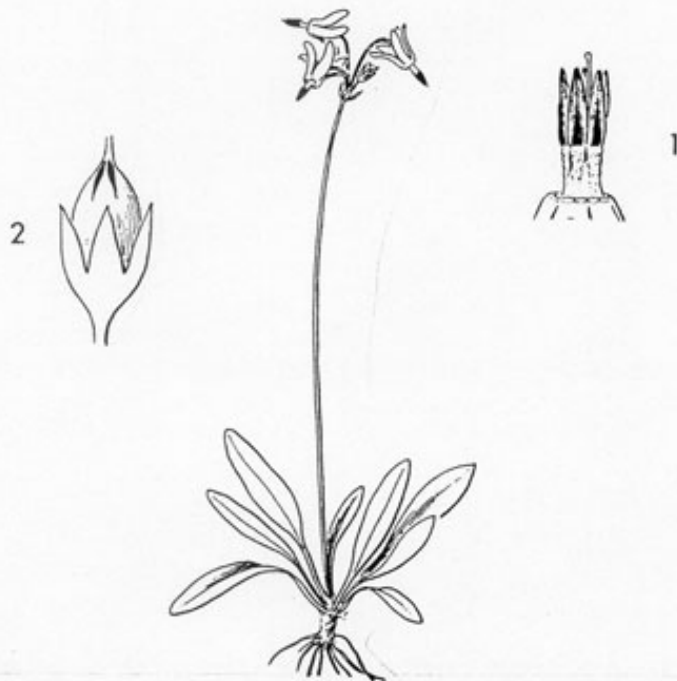
LEAVES: Basal, leathery, shiny, petiolate, trifoliate leaves; leaflets broadly ovate, sharply serrate, 3-6cm (1-2in) long, 3-lobed about half their length.

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.



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.		
Phma h.t.		Phpo
Caru	Caru	
Aruv	h.t.	
Phma	Phma	
Smst	h.t.	
Phma	Phma	
Cooc	h.t.	
Libo	Libo	
Xete	h.t.	
Asca		
Tabr	Asca	
Mefe	h.t.	
Setr	h.t.	
Phma		
Clun		
Tabr	Clun	
Mefe	h.t.	
Xete		
Vagl	Xete	
Cooc	h.t.	
Clun		
Tabr	Clun	
Mefe	h.t.	
Xete		
Asca		
Tabr	Asca	
Mefe	h.t.	
Gydr	h.t.	
Adpe	h.t.	
Adpe		
+ Atfi	h.t.	
Opho	h.t.	
Clun		
Arnu	Clun	
Mefe	h.t.	
Xete		
Asca		
Arnu	Asca	
Mefe	h.t.	
Gydr	h.t.	
Mefe		
Xete	Clun	
Xete	h.t.	
Luhi	Mefe	
Mefe	h.t.	
Luhi	Stam	
Vagl	h.t.	
Luhi	Xete	
Luhi	h.t.	
Clun		
Mefe	Clun	
Xete	h.t.	
Cooc		
Xete	Mefe	
Vasc	h.t.	
Luhi		
1 Mefe	Stam	
3 Lica	h.t.	
7 Caca		
Vaca	Caca	
Legl	h.t.	
Cooc		
Vagl	Xete	
Vasc	h.t.	
Luhi		
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	

Pico	Syal h.t.	2
	Phma h.t.	9
Pisme	Caru h.t.	6
	Aruv	
	Phma h.t.	2
	Smst	2
Abgr	Phma h.t.	1
	Cooc	
	Libo h.t.	1
	Xete	
	Asca h.t.	+
	Tabr	
	Mefe	
	Setr h.t.	2
	Phma	1
	Clun	+
Thpl	Clun h.t.	
	Tabr	
	Mefe	
	Xete	
	Asca h.t.	+
	Tabr	
	Mefe	
	Gydr h.t.	
	Adpe h.t.	
	Atfi h.t.	+
Tshe	Clun h.t.	+
	Arnu	
	Mefe	
	Xete	
Tisme	Asca h.t.	+
	Arnu	
	Mefe	
	Gydr h.t.	
Abia	Clun h.t.	1
	Mefe	1
	Xete	1
	Cooc	
	Mefe h.t.	2
	Vasc	2
Pico	Clun h.t.	1
	Mefe	1
	Lica	1
	Caca h.t.	2
	Vaca	
	Legl	
Pico	Cooc	1
	Vagl	2
	Vasc	2
	Luhi	3
Pico	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



LILIACEAE

Erythronium grandiflorum Pursh

Erg

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.

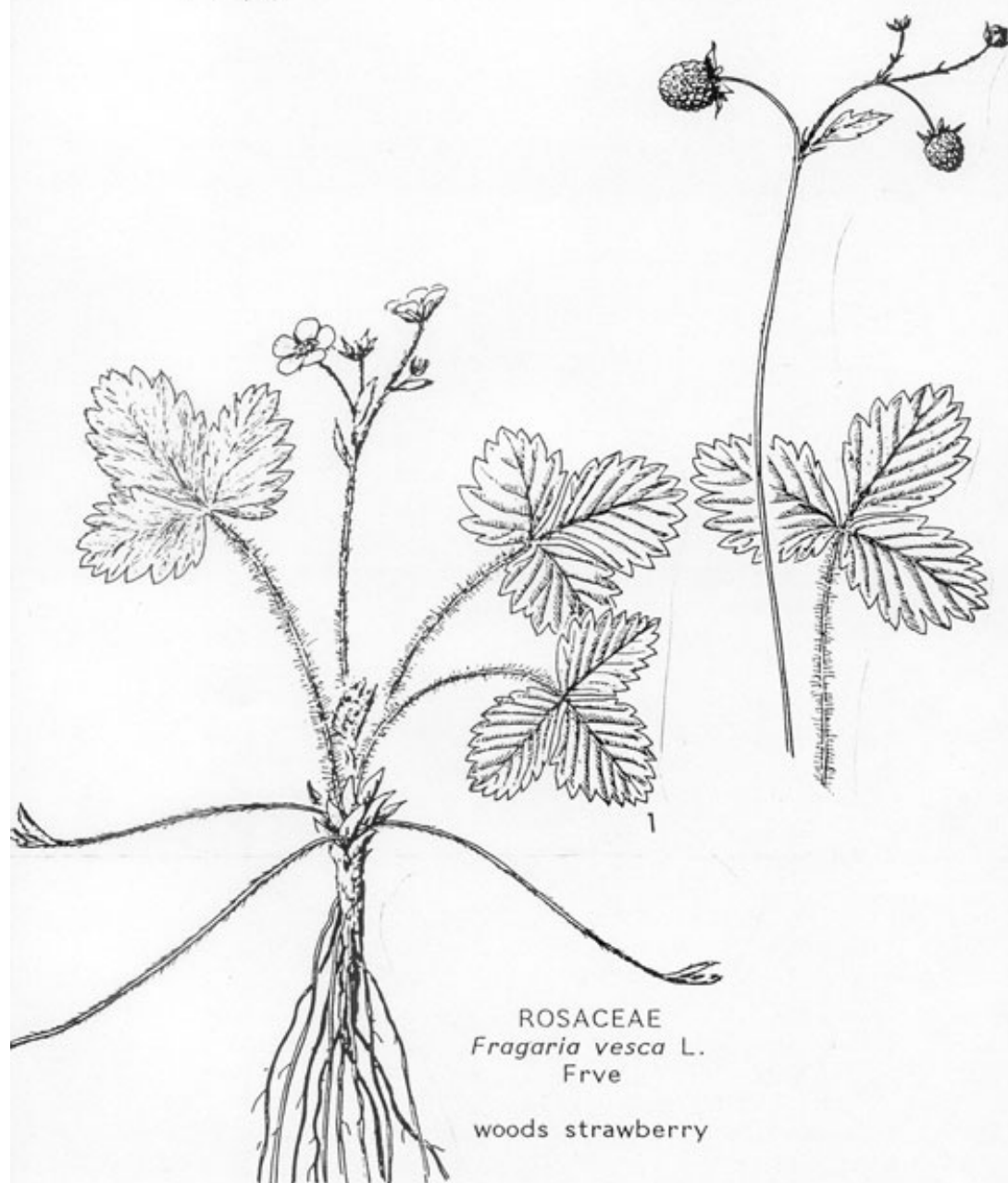
FLOWERS: Solitary or 2-5 in loose racemes, showy, bright yellow to golden, with reflexed petals, 2-4cm (1-2in) long, stamens exposed, white, red, or yellow, 10-12mm long; March-Aug.

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, trifoliate 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.	Phma h.t.	Phpo
2	Caru	Caru	Psmc
4	Aruv	h.t.	
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	
1	Tabr	h.t.	
2	Mefe	h.t.	
	Setr	h.t.	
7	Phma		
3	Clun		
1	Tabr	Clun	
2	Mefe	h.t.	
5	Xete		
4	Vagl	Xete	
5	Cooc	h.t.	
2	Clun		Thpl
	Tabr	Clun	
4	Mefe	h.t.	
	Xete		
2	Asca	Asca	
	Tabr	h.t.	
	Mefe		
1	Gydr	h.t.	
1	Adpe	h.t.	
	Adpe	Atfi	
+	Atfi	h.t.	
	Opho	h.t.	
1	Clun		Tshe
1	Arnu	Clun	
	Mefe	h.t.	
1	Xete		
2	Asca	Asca	
1	Arnu	h.t.	Tame
	Mefe		
	Gydr	h.t.	
	Mefe	Clun	
1	Xete	h.t.	
	Xete	Mefe	Tame
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	Abia
	Clun	Clun	
	Mefe	h.t.	
2	Xete		
3	Cooc	Mefe	
	Xete	h.t.	Abia
	Vasc		
	Luhi		
1	Mefe	Stam	
3	Lica	h.t.	
3	Caca	Caca	Abia
2	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
1	Vasc	h.t.	Pico
	Luhi		
	Vasc	h.t.	
	Xete	c.t.	Pico
	Vaca	c.t.	

Pipo	Syal h.t.	
	Phma h.t.	
Psmie	Caru	Caru
	h.t.	Aruv
	Phma	Phma 2
	h.t.	Smst 1
Abgr	Phma	Phma 1
	h.t.	Cooc
	Libo	Libo 2
	h.t.	Xete
	Asca	Asca
	h.t.	Tabr +
		Mefe 1
	Setr h.t.	2
		Phma 3
		Clun 2
	Clun	Tabr 2
	h.t.	Mefe 1
Thpl	Xete	Xete 1
		Vagl 2
	h.t.	Cooc 1
	Clun	Clun 1
	h.t.	Tabr
		Mefe
		Xete
	Asca	Asca 2
	h.t.	Tabr
		Mefe
	Gydr h.t.	1
	Adpe h.t.	1
Tshg	Atfi	Adpe 2
	h.t.	Atfi 1
	Opho h.t.	
	Clun	Clun
	h.t.	Arnu 1
		Mefe 1
		Xete
	Asca	Asca
	h.t.	Arnu
		Mefe
	Gydr h.t.	
Tsmie	Clun	Mefe
	h.t.	Xete
	Mefe	Xete
	h.t.	Luhi
	Stam	Mefe
	h.t.	Luhi
	Xete	Vagl
	h.t.	Luhi
Abia	Clun	Clun 3
	h.t.	Mefe 1
		Xete 1
		Cooc 1
	Mefe	Xete
	h.t.	Vasc
		Luhi
	Stam	Mefe 1
	h.t.	Lica
	Caca	Caca 2
	h.t.	Vaca 5
Pico		Legl 2
		Cooc 1
	Xete	Vagl 1
	h.t.	Vasc 1
		Luhi
	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, trifoliate 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.

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

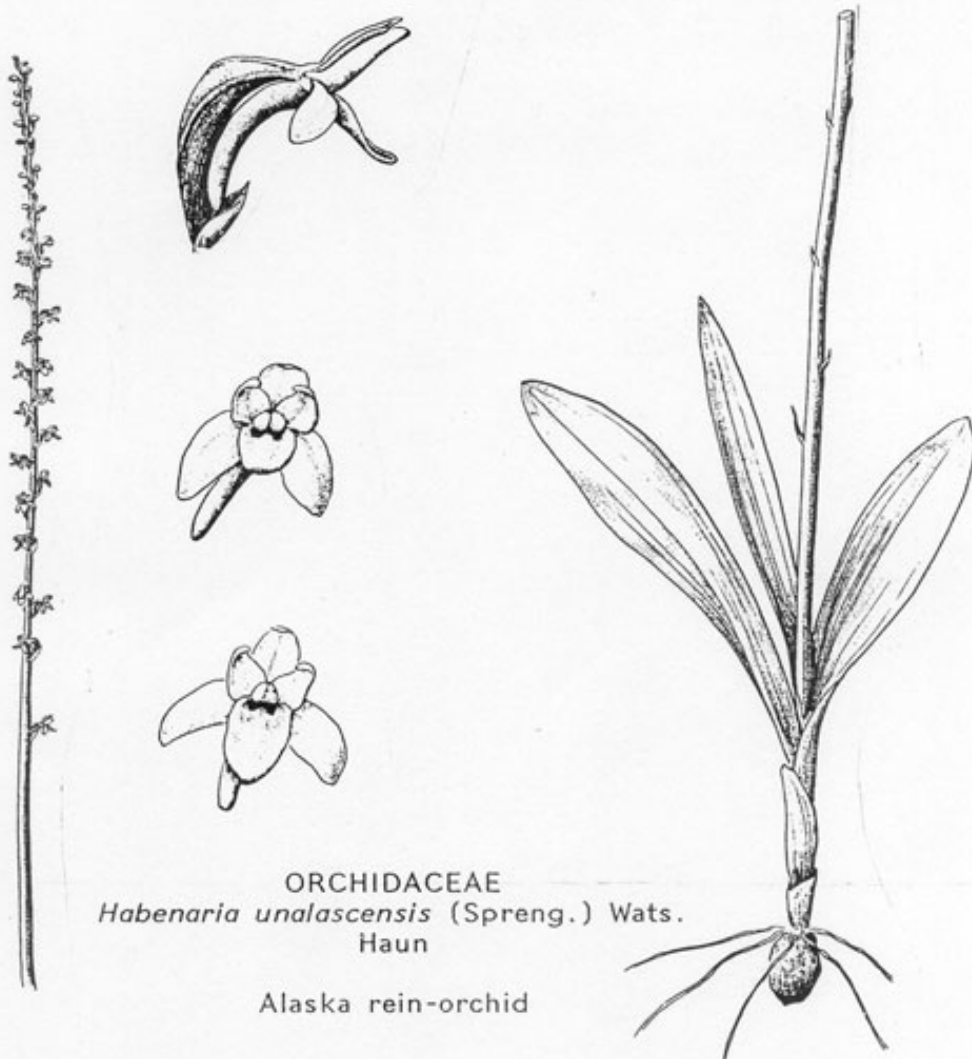
FRUIT: Erect capsule, 1cm long.

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.

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

H a u n



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.



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.		
3	Phma	h.t.		Pico
4	Caru	Caru		
4	Aruv	h.t.		Pime
3	Phma	Phma		
2	Smst	h.t.		
	Phma	Phma		
	Cooc	h.t.		
1	Libo	Libo		
	Xete	h.t.		
+	Asca	Asca		
	Tabr	h.t.		
	Mefe			
	Setr	h.t.		Abgr
+	Phma			
+	Clun			
	Tabr	Clun		
	Mefe	h.t.		
+	Xete			
	Vagl	Xete		
	Cooc	h.t.		
+	Clun			
	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			
	Arnu	Clun		
	Mefe	h.t.		
	Xete			
	Asca	Asca		
	Arnu	h.t.		
	Mefe			
	Gydr	h.t.		
	Mefe	Clun		
	Xete	h.t.		
	Xete	Mefe		
	Luhi	h.t.		
	Mefe	Stam		
	Luhi	h.t.		
	Vagl	Xete		
	Luhi	h.t.		
	Clun			
	Mefe	Clun		
1	Xete	h.t.		
	Cooc			
	Xete	Mefe		
	Vasc	h.t.		
	Luhi			
	Mefe	Stam		
	Lica	h.t.		
	Caca	Caca		
	Vaca	h.t.		
	Legl			
	Cooc			
1	Vagl	Xete		
1	Vasc	h.t.		
	Luhi			
	Vasc	h.t.		
	Xete	c.t.		
	Vaca	c.t.		

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

H i a l



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.

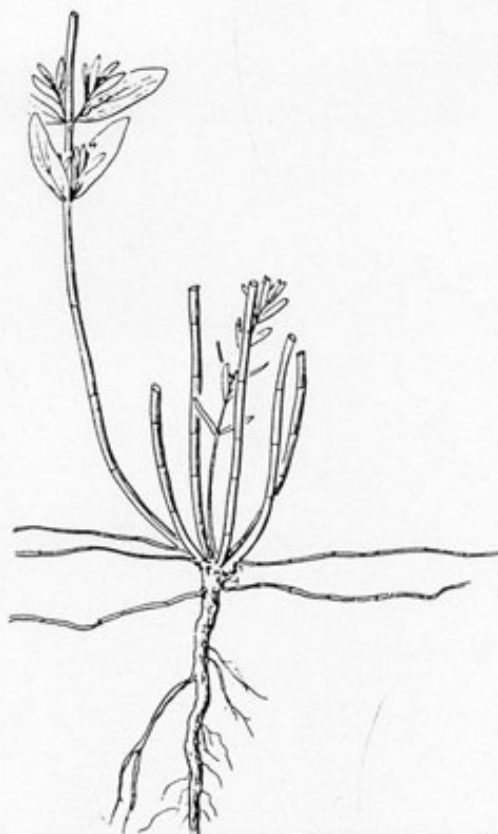
LEAVES: Slightly to moderately hairy, margin entire or slightly wavy, 4-17cm (2-7in) long; basal and lowest cauline leaves: persistent; middle and upper leaves: sessile, reduced, and generally less hairy.

FLOWERS: White, usually 13-34 in several to many heads on slender peduncles; involucre 6-11mm 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.

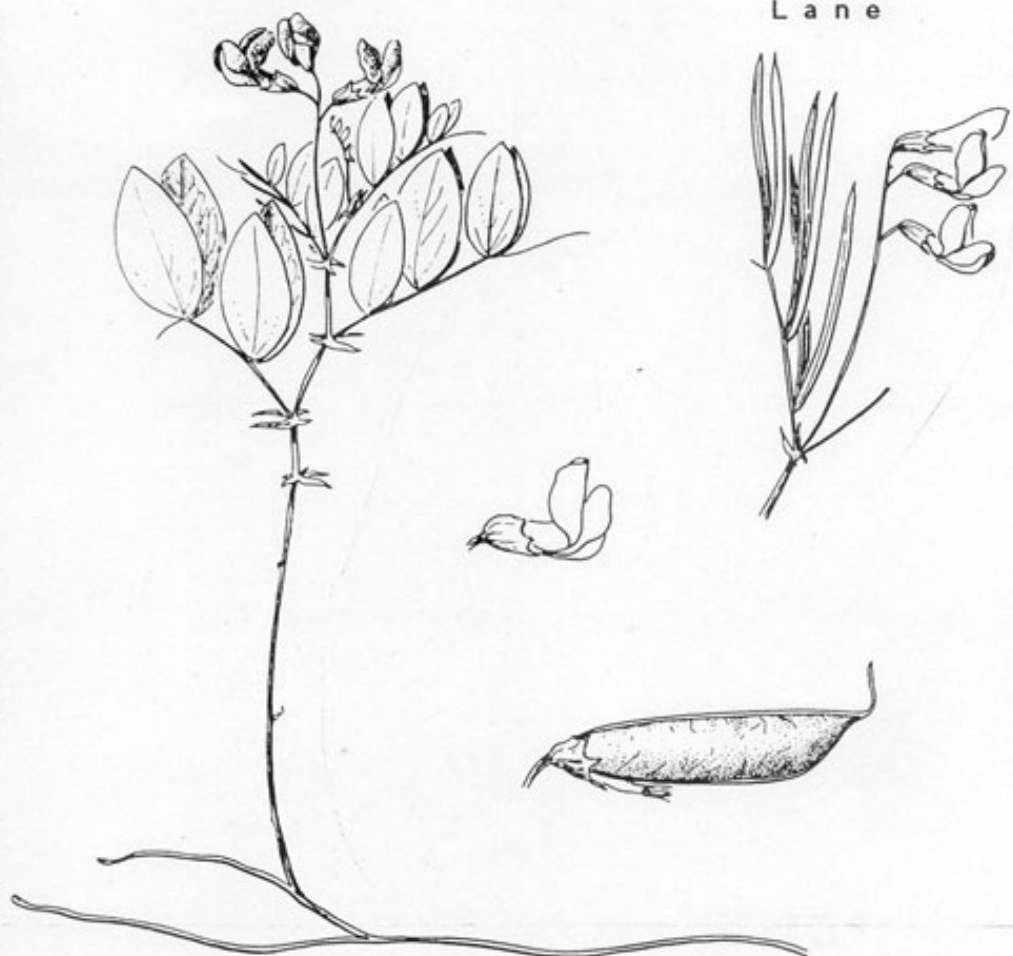
ENEMIES: *Chrysolina quadrigemina* and *Chrysolina hyperici* (Klamath weed beetles) exert effective biological control (Furniss and Carolin 1977).

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.	
1	Phma h.t.	
	Caru	Caru
2	Aruv h.t.	
+	Phma	Phma
	Smst h.t.	
1	Phma	Phma
	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
	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
	Arnu h.t.	
	Mefe	
	Xete	
	Asca	Asca
	Arnu h.t.	
	Mefe	
	Gydr h.t.	
	Mefe	Clun
	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.	
	Xete c.t.	
	Vaca c.t.	

Pico	Syal h.t.	1
	Phma h.t.	
Pisme	Caru h.t.	Caru
	Phma h.t.	Phma
	Smst h.t.	Smst
Abgr	Phma h.t.	Phma
	Libo h.t.	Libo
	Asca h.t.	Asca
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
	Setr h.t.	Setr
	Clun h.t.	Clun
	Xete h.t.	Xete
	Vagl h.t.	Vagl
	Cooc h.t.	Cooc
Thp	Clun h.t.	Clun
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
	Xete h.t.	Xete
	Asca h.t.	Asca
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
	Gydr h.t.	Gydr
	Adpe h.t.	Adpe
	Atfi h.t.	Atfi
Tshe	Clun h.t.	Clun
	Arnu h.t.	Arnu
	Mefe h.t.	Mefe
	Xete h.t.	Xete
	Gydr h.t.	Gydr
Tsme	Clun h.t.	Clun
	Mefe h.t.	Mefe
	Xete h.t.	Xete
	Luh h.t.	Luh
	Stam h.t.	Stam
Abia	Clun h.t.	Clun
	Mefe h.t.	Mefe
	Xete h.t.	Xete
	Vagl h.t.	Vagl
	Cooc h.t.	Cooc
Pico	Vasc h.t.	Vasc
	Xete c.t.	Xete
	Vaca c.t.	Vaca



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.



APIACEAE (UMBELLIFERAE)
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.		Pip
Phma h.t.		
Caru	Caru	Psm
Aruv	h.t.	
Phma	Phma	
Smst	h.t.	
Phma	Phma	Abgr
Cooc	h.t.	
Libo	Libo	
Xete	h.t.	
Asca		
Tabr	Asca	
Mefe	h.t.	
Setr	h.t.	
Phma		
Clun		
Tabr	Clun	Thp1
Mefe	h.t.	
Xete		
+ Asca	Asca	
Tabr	h.t.	
Mefe		
1 Gydr	n.t.	
Adpe	h.t.	
Adpe	Atfi	
1 Atfi	h.t.	
Opho	h.t.	Tsh
+ Clun		
Arnu	Clun	
1 Mefe	h.t.	
Xete		
+ Asca	Asca	
1 Arnu	h.t.	
3 Mefe		
+ Gydr	h.t.	
Mefe	Clun	Tme
Xete	h.t.	
Xete	Mefe	
Luhi	h.t.	
Mefe	Stam	
5 Luhi	h.t.	
Vagl	Xete	
Luhi	h.t.	
Clun	Clun	Ab1a
1 Mefe	h.t.	
Xete		
1 Cooc		
Xete	Mefe	
Vasc	h.t.	
Luhi		
4 Mefe	Stam	
5 Lica	h.t.	
5 Caca		
7 Vaca	Caca	
2 Legl	h.t.	
Cooc		Pico
Vagl	Xete	
Vasc	h.t.	
1 Luhi		
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	

Mpo	Syal h.t.	
Phma	h.t.	
Caru	Caru	
h.t.	Aruv	
Phma	Phma	1
h.t.	Smst	1
Phma	Phma	
h.t.	Cooc	7
Libo	Libo	
h.t.	Xete	
Asca	Asca	1
h.t.	Tabr	
Mefe	Mefe	1
Setr	h.t.	
Phma	Phma	1
Clun	Clun	+
h.t.	Tabr	
Mefe	Mefe	2
Xete	Xete	2
Vagl	Vagl	
Cooc	Cooc	1
Clun	Clun	+
h.t.	Tabr	
Mefe	Mefe	1
Xete	Xete	1
Asca	Asca	+
h.t.	Tabr	
Mefe	Mefe	
Gydr	h.t.	
Adpe	h.t.	1
Atfi	Atfi	
h.t.	Atfi	+
Opho	h.t.	
Clun	Clun	
h.t.	Arnu	
Mefe	Mefe	
Xete	Xete	
Asca	Asca	
h.t.	Arnu	
Mefe	Mefe	
Gydr	h.t.	
Clun	Mefe	
h.t.	Xete	
Mefe	Xete	
h.t.	Luhi	
Stam	Mefe	
h.t.	Luhi	
Xete	Vagl	
h.t.	Luhi	
Clun	Clun	
h.t.	Mefe	1
Xete	Xete	2
Cooc	Cooc	
Mefe	Xete	
h.t.	Vasc	
Luhi	Luhi	
Stam	Mefe	1
h.t.	Lica	1
Caca	Caca	2
h.t.	Vaca	
Legl	Legl	
Cooc	Cooc	
Xete	Vagl	1
h.t.	Vasc	
Luhi	Luhi	
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	

Live



APIACEAE (UMBELLIFERAE)

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.

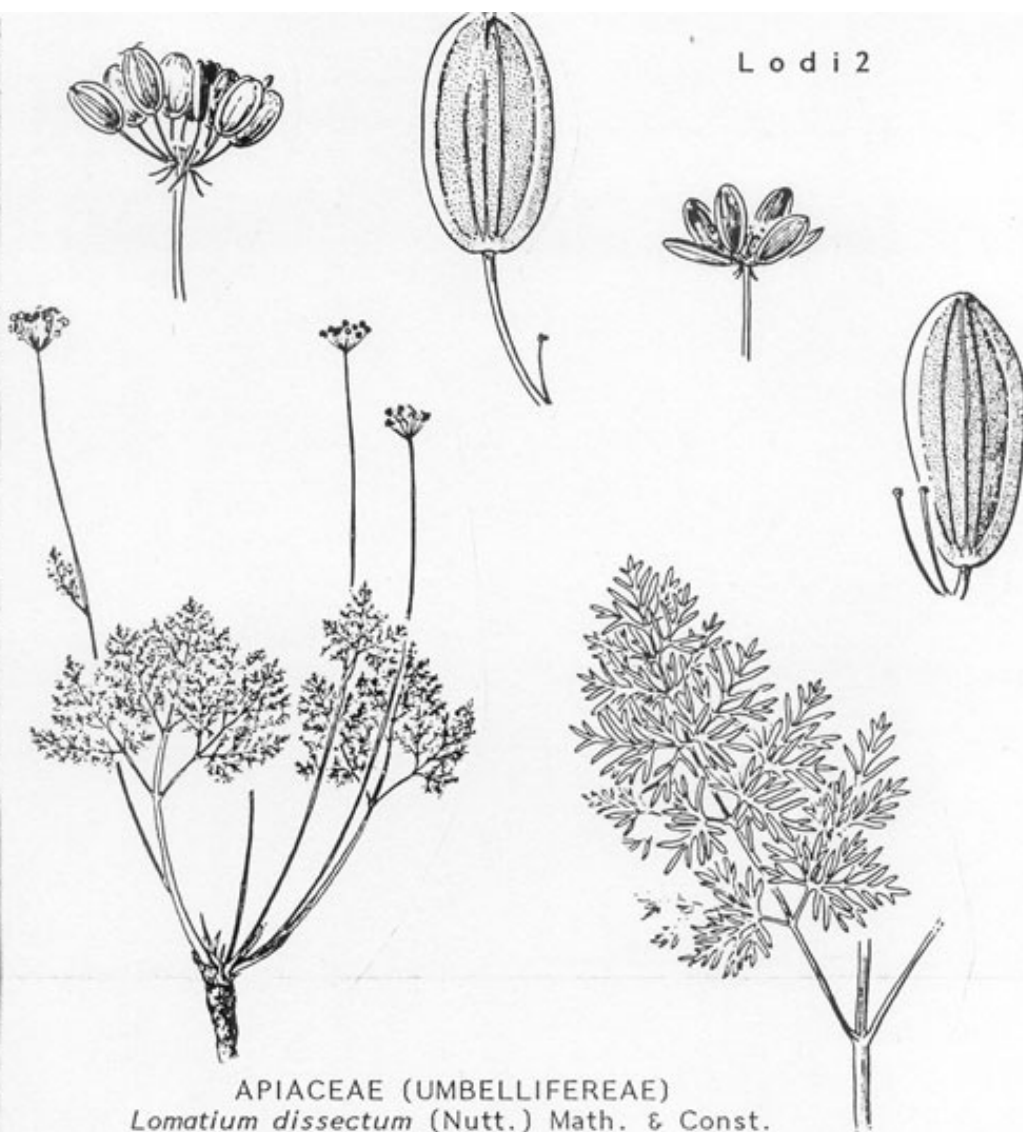
FLOWERS: Small, 3-merous, greenish to purplish-green, 3-4mm long; lip angled down, narrow not clawed; 5-25 flowers in a slender, lax raceme; June-early Aug.

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.	Phpo
	Phma h.t.	
	Caru h.t.	Caru
	Aruv h.t.	Aruv
	Phma h.t.	Phma
	Smst h.t.	Smst
	Phma h.t.	Phma
	Cooc h.t.	Cooc
2	Libo h.t.	Libo
1	Xete h.t.	Xete
	Asca h.t.	Asca
1	Tabr h.t.	Tabr
1	Mefe h.t.	Mefe
	Setr h.t.	Setr
	Phma h.t.	Phma
+	Clun h.t.	Clun
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
2	Xete h.t.	Xete
2	Vagl h.t.	Vagl
	Cooc h.t.	Cooc
+	Clun h.t.	Clun
5	Tabr h.t.	Tabr
1	Mefe h.t.	Mefe
	Xete h.t.	Xete
1	Asca h.t.	Asca
	Tabr h.t.	Tabr
3	Mefe h.t.	Mefe
2	Gydr h.t.	Gydr
	Adpe h.t.	Adpe
	Adpe h.t.	Adpe
+	Atfi h.t.	Atfi
1	Opho h.t.	Opho
1	Clun h.t.	Clun
1	Arnu h.t.	Arnu
2	Mefe h.t.	Mefe
1	Xete h.t.	Xete
1	Asca h.t.	Asca
3	Arnu h.t.	Arnu
3	Mefe h.t.	Mefe
2	Gydr h.t.	Gydr
3	Mefe h.t.	Mefe
4	Xete h.t.	Xete
1	Xete h.t.	Xete
2	Luhi h.t.	Luhi
2	Mefe h.t.	Mefe
5	Luhi h.t.	Luhi
1	Vagl h.t.	Vagl
	Luhi h.t.	Luhi
3	Clun h.t.	Clun
2	Mefe h.t.	Mefe
1	Xete h.t.	Xete
3	Cooc h.t.	Cooc
2	Xete h.t.	Xete
	Vasc h.t.	Vasc
	Luhi h.t.	Luhi
1	Mefe h.t.	Mefe
1	Lica h.t.	Lica
2	Caca h.t.	Caca
	Vaca h.t.	Vaca
1	Legl h.t.	Legl
1	Cooc h.t.	Cooc
	Vagl h.t.	Vagl
1	Vasc h.t.	Vasc
	Luhi h.t.	Luhi
	Vasc h.t.	Vasc
	Xete c.t.	Xete
	Vaca c.t.	Vaca

Pipo	Syal h.t.	4
Pipo	Phma h.t.	6
Psmc	Caru h.t.	Caru
	Phma h.t.	Aruv
	Phma h.t.	Smst
Abgr	Phma h.t.	Phma
	Libo h.t.	Cooc
	Libo h.t.	Libo
	Asca h.t.	Xete
	Asca h.t.	Asca
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
	Setr h.t.	
	Phma h.t.	Phma
	Clun h.t.	Clun
Thp1	Clun h.t.	Tabr
	Clun h.t.	Mefe
	Clun h.t.	Xete
	Asca h.t.	Asca
	Asca h.t.	Tabr
	Asca h.t.	Mefe
	Gydr h.t.	
	Adpe h.t.	
	Atfi h.t.	Adpe
	Opho h.t.	Atfi
Tshe	Clun h.t.	Clun
	Clun h.t.	Arnu
	Clun h.t.	Mefe
	Clun h.t.	Xete
	Asca h.t.	Asca
	Asca h.t.	Arnu
	Asca h.t.	Mefe
	Gydr h.t.	
	Clun h.t.	Mefe
	Clun h.t.	Xete
Tsmc	Mefe h.t.	Xete
	Mefe h.t.	Xete
	Stam h.t.	Luh1
	Stam h.t.	Mefe
	Stam h.t.	Luh1
	Xete h.t.	Vagl
	Xete h.t.	Luh1
	Clun h.t.	Clun
	Clun h.t.	Mefe
	Clun h.t.	Xete
Ab1a	Mefe h.t.	Cooc
	Mefe h.t.	Xete
	Mefe h.t.	Vasc
	Stam h.t.	Luh1
	Stam h.t.	Mefe
	Stam h.t.	Lica
	Caca h.t.	Caca
	Caca h.t.	Vaca
	Caca h.t.	Legl
	Xete h.t.	Cooc
Pico	Vasc h.t.	Vagl
	Xete c.t.	Vasc
	Vaca c.t.	Luh1
	Vaca c.t.	



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.

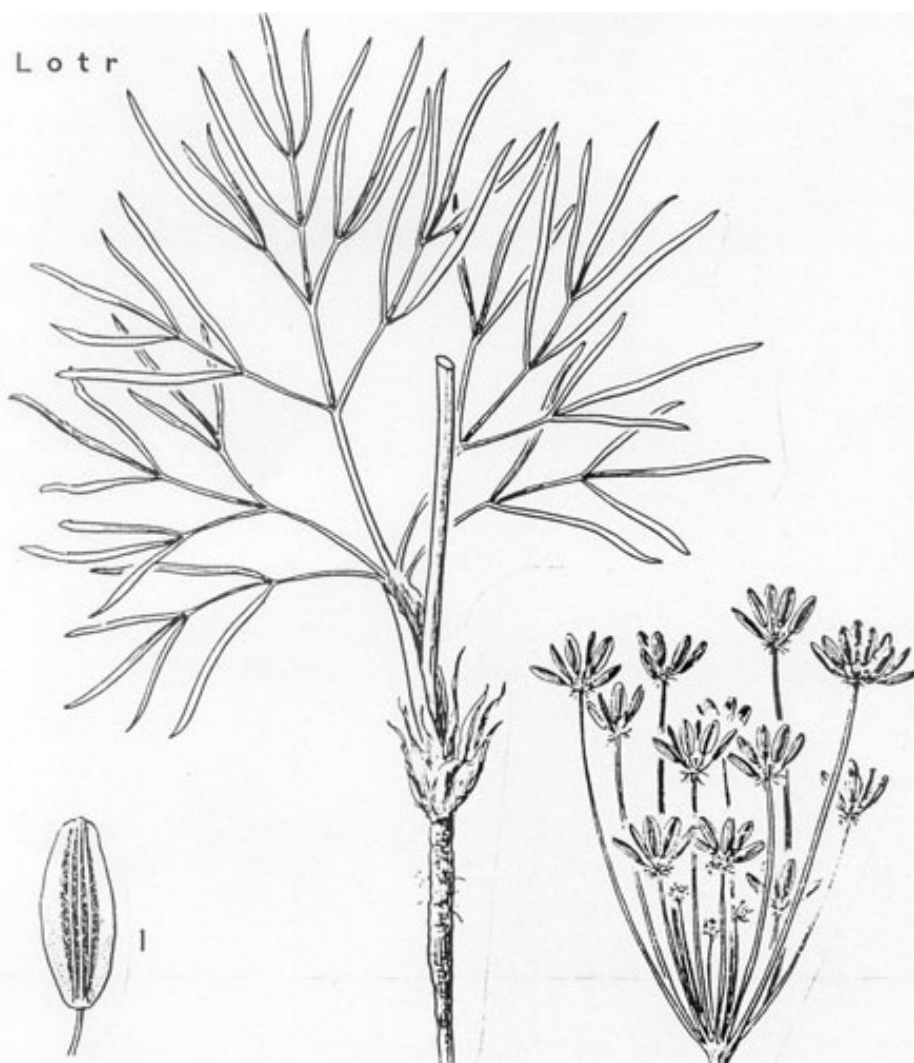
FLOWERS: 10-30 yellow or purple flowers in compound umbels; April-June.

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.

Lotr



APIACEAE (UMBELLIFEREAE)
Lomatium triternatum (Pursh) Coulter & 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.

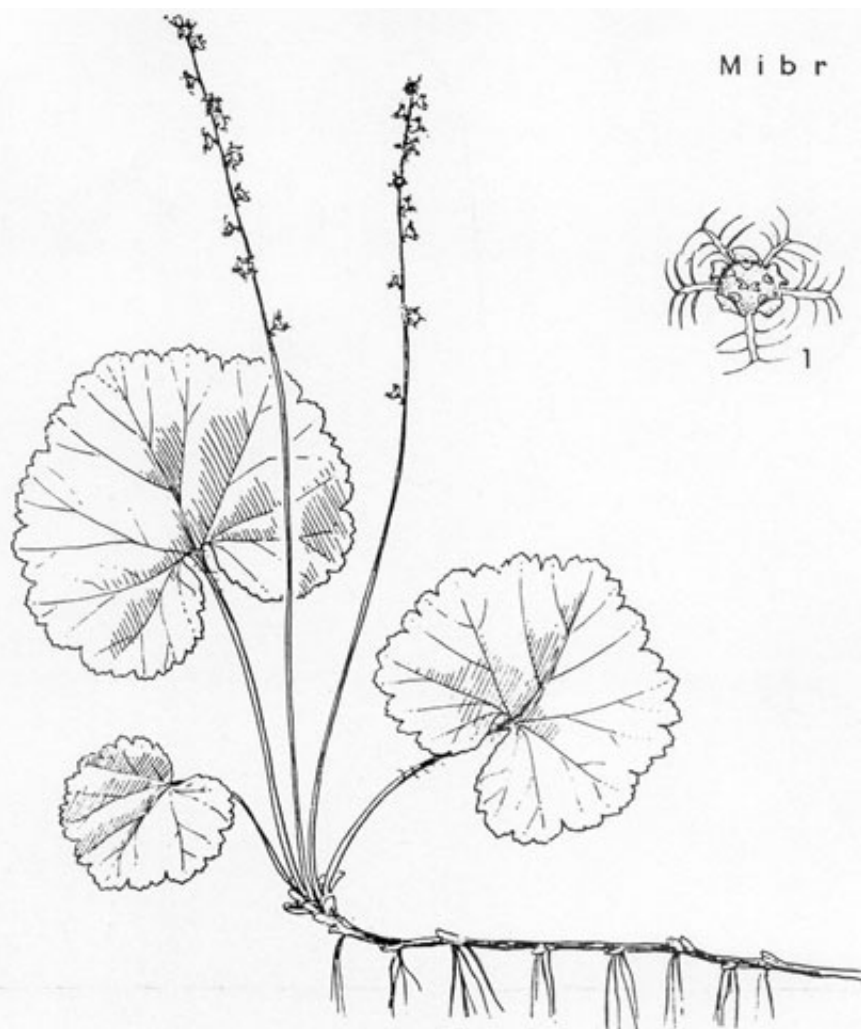
FRUIT: Oblong to elliptic, broadly winged, dry schizocarp (1).

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.	
	Phma h.t.	Pp
	Caru	Caru
	Aruv	h.t.
	Phma	Phma
	Smst	h.t.
1	Phma	Phma
	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	
	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	
	Arnu	Clun
	Mefe	h.t.
	Xete	
	Asca	Asca
	Arnu	h.t.
	Mefe	
	Gydr	h.t.
	Mefe	Clun
	Xete	h.t.
	Xete	Mefe
	Luhi	h.t.
	Mefe	Stam
	Luhi	h.t.
	Vagl	Xete
	Luhi	h.t.
	Clun	
	Mefe	Clun
	Xete	h.t.
	Cooc	
	Xete	Mefe
	Vasc	h.t.
	Luhi	
	Mefe	Stam
	Lica	h.t.
	Caca	
	Vaca	Caca
	Legl	h.t.
	Cooc	
	Vagl	Xete
	Vasc	h.t.
	Luhi	
	Vasc	h.t.
	Xete	c.t.
	Vaca	c.t.

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



M i b r

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.

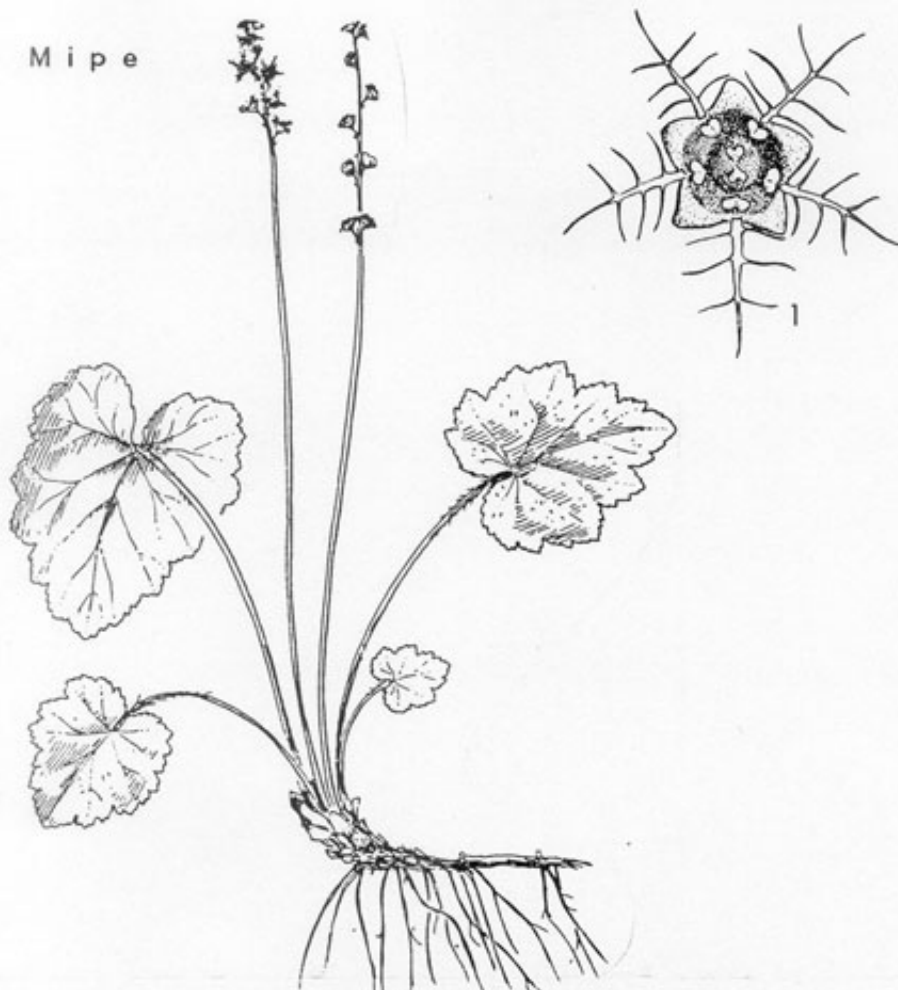
FLOWERS: Calyx saucer-shaped, greenish-yellow petals pinnately dissected into 5-9 lateral paired segments (1), stamens 5, alternate with petals; in 20-60 flowered racemes, blossoming upward; May-Aug.

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.

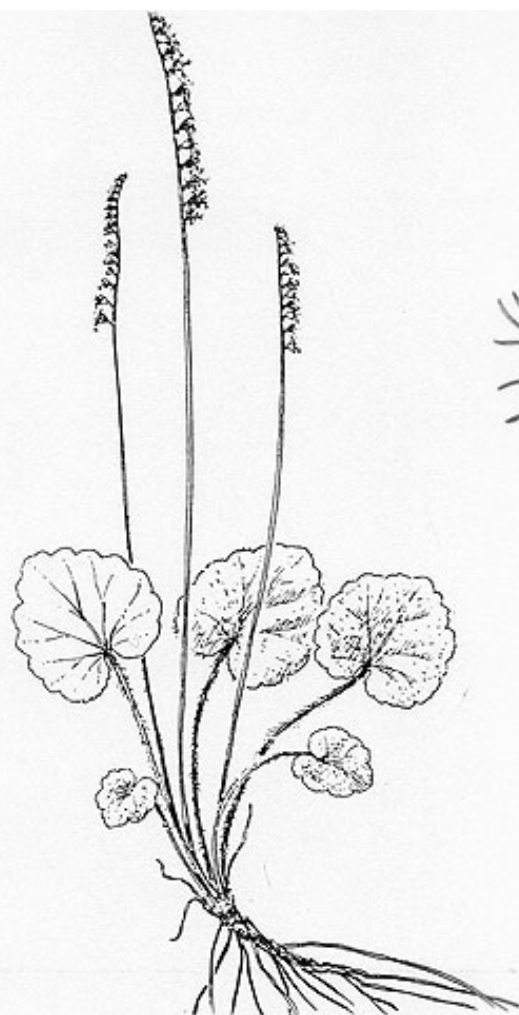
SIMILAR SPECIES: *Mitella Conspectus*, p.156; *Tiarella trifoliata*, p.183; and *Heuchera* species, p.145.

HABITAT: Moist woods, especially along streams to wet mountain meadows.

	Syal h.t.	Phpo
	Phma h.t.	
	Caru	Caru
	Aruv	h.t.
	Phma	Phma
	Smsr	h.t.
	Phma	Phma
	Cooc	h.t.
	Libo	Libo
	Xete	h.t.
	Asca	Asca
	Tabr	h.t.
	Mefe	
1	Setr h.t.	Abgr
	Phma	
	Clun	
	Tabr	Clun
	Mefe	h.t.
+	Xete	
	Vagl	Xete
	Cooc	h.t.
	Clun	
	Tabr	Clun
	Mefe	h.t.
	Xete	
+	Asca	
1	Tabr	Asca
	Mefe	h.t.
	Gydr n.t.	
1	Adpe h.t.	
2	Adpe	Atfi
2	Atfi	h.t.
1	Opho h.t.	
	Clun	
	Arnu	Clun
	Mefe	h.t.
	Xete	
	Asca	Asca
	Arnu	h.t.
	Mefe	
	Gydr h.t.	
	Mefe	Clun
	Xete	h.t.
	Xete	Mefe
	Luhi	h.t.
	Mefe	Stam
5	Luhi	h.t.
	Vagl	Xete
	Luhi	h.t.
	Clun	
1	Mefe	Clun
	Xete	h.t.
	Cooc	
	Xete	Mefe
	Vasc	h.t.
2	Luhi	
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.	Pico
	Xete c.t.	
	Vaca c.t.	

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

Mist 2



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.

Thmo



FABACEAE (LEGUMINOSAE)
Thermopsis montana Nutt.
Thmo

Montana golden pea, mountain thermopsis

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

LEAVES: Alternate, trifoliate 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.	
1	Phma h.t.	Phpo
	Caru	Caru
	Aruv h.t.	Psme
	Phma	Phma
	Smst h.t.	
	Phma	Phma
1	Cooc h.t.	
3	Libo	Libo
3	Xete h.t.	
	Asca	Asca
+	Tabr h.t.	
2	Mefe	
	Setr h.t.	Abgr
	Phma	
1	Clun	
	Tabr	Clun
2	Mefe h.t.	
3	Xete	
2	Vagl	Xete
	Cooc h.t.	
1	Clun	
	Tabr	Clun
1	Mefe h.t.	
	Xete	
+	Asca	Asca
	Tabr h.t.	
	Mefe	
	Gydr h.t.	Thp1
2	Adpe h.t.	
1	Adpe	Atfi
	Atfi h.t.	
	Opho h.t.	
	Clun	
	Arnu	Clun
	Mefe h.t.	
	Xete	
	Asca	Asca
	Arnu h.t.	
	Mefe	
	Gydr h.t.	Ishe
	Mefe	Clun
1	Xete h.t.	
	Xete	Mefe
1	Luhi h.t.	
	Mefe	Stam
	Luhi h.t.	
	Vagl	Xete
	Luhi h.t.	
3	Clun	
	Mefe	Clun
1	Xete h.t.	
2	Cooc	Mefe
	Xete h.t.	
	Vasc	
	Luhi	
	Mefe	Stam
1	Lica h.t.	
	Caca	Caca
	Vaca h.t.	
	Legl	
1	Cooc	
1	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	Caru
	h.t.	Aruv
	Phma	Phma
Abgr	h.t.	Smst
	Phma	Phma
	h.t.	Cooc
	Libo	Libo
	h.t.	Xete
	Asca	Asca 1
	h.t.	Tabr 1
	Mefe	Mefe 1
	Setr h.t.	8
	Phma	
Thp1	Clun	Clun
	h.t.	Tabr
	Mefe	Mefe
	Xete	Xete 2
	Asca	Asca 1
	h.t.	Tabr 1
	Mefe	Mefe 6
	Gydr h.t.	
	Adpe h.t.	2
	Atfi	Atfi
Tshe	h.t.	Atfi 6
	Opho h.t.	1
	Clun	Clun
	h.t.	Arnu
	Mefe	Mefe
	Xete	Xete
	Asca	Asca +
	h.t.	Arnu 3
	Mefe	Mefe
	Gydr h.t.	1
Tsme	Clun	Mefe 2
	h.t.	Xete 1
	Mefe	Xete
	h.t.	Luh1 2
	Stam	Mefe 7
	h.t.	Luh1 5
	Xete	Vagl 1
	h.t.	Luh1 1
Ab1a	Clun	Clun
	h.t.	Mefe 1
	Xete	Xete
	Cooc	Cooc 1
	h.t.	Xete
	Vasc	Vasc
	Luh1	Luh1 1
	Stam	Mefe 6
	h.t.	Lica 9
	Caca	Caca 8
Pico	h.t.	Vaca 5
	Legl	Legl 4
	Cooc	Cooc
	Vagl	Vagl
	h.t.	Vasc +
	Luh1	Luh1 1
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



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.

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

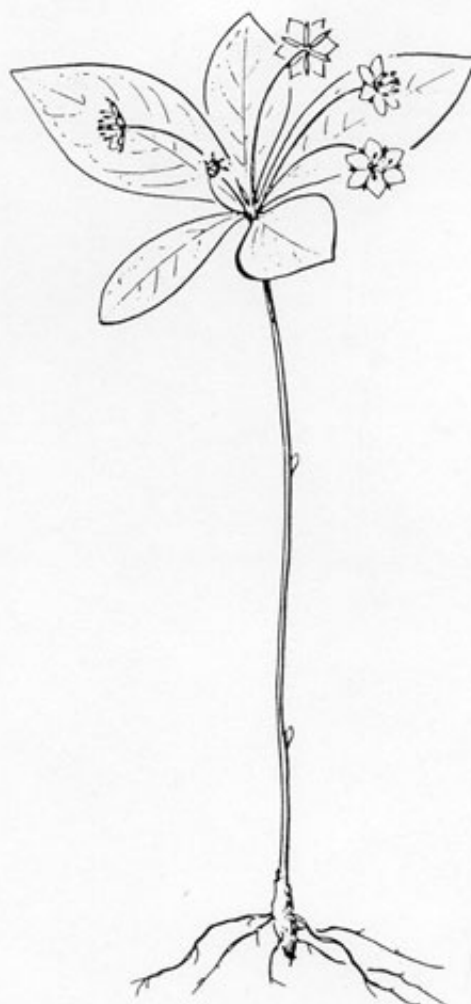
LEAVES: Opposite, mainly cauline, mostly 2-5 pairs; lowest pairs reduced, the next above well-developed, petiolate, odd-pinnately compound, leaflets lance-shaped, coarsely toothed, terminal leaflet largest; basal leaves, when present, similar to cauline leaves.

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.

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



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.

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



Popu

POLEMONIACEAE
Polemonium pulcherrimum Hook.
Popu

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

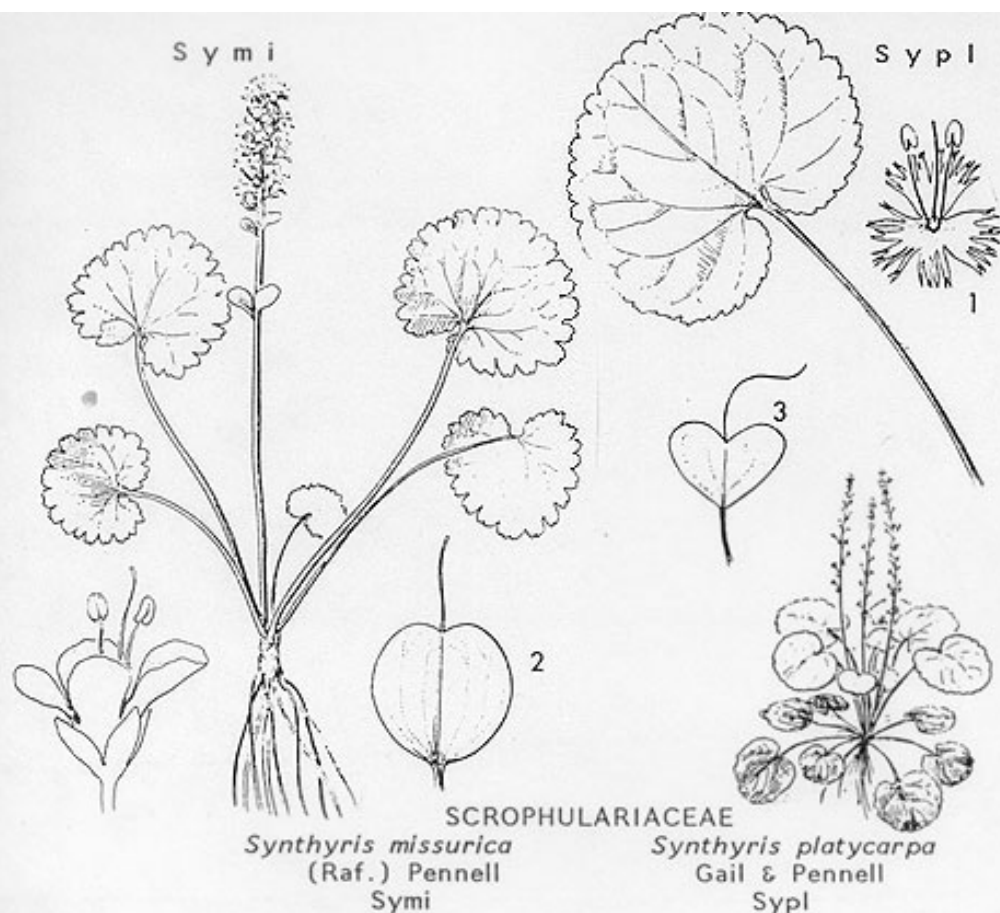
FORM: Deciduous, perennial forb, with several loose, erect stems, 30-50cm (12-20in) tall from a branched woody base.

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.



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).

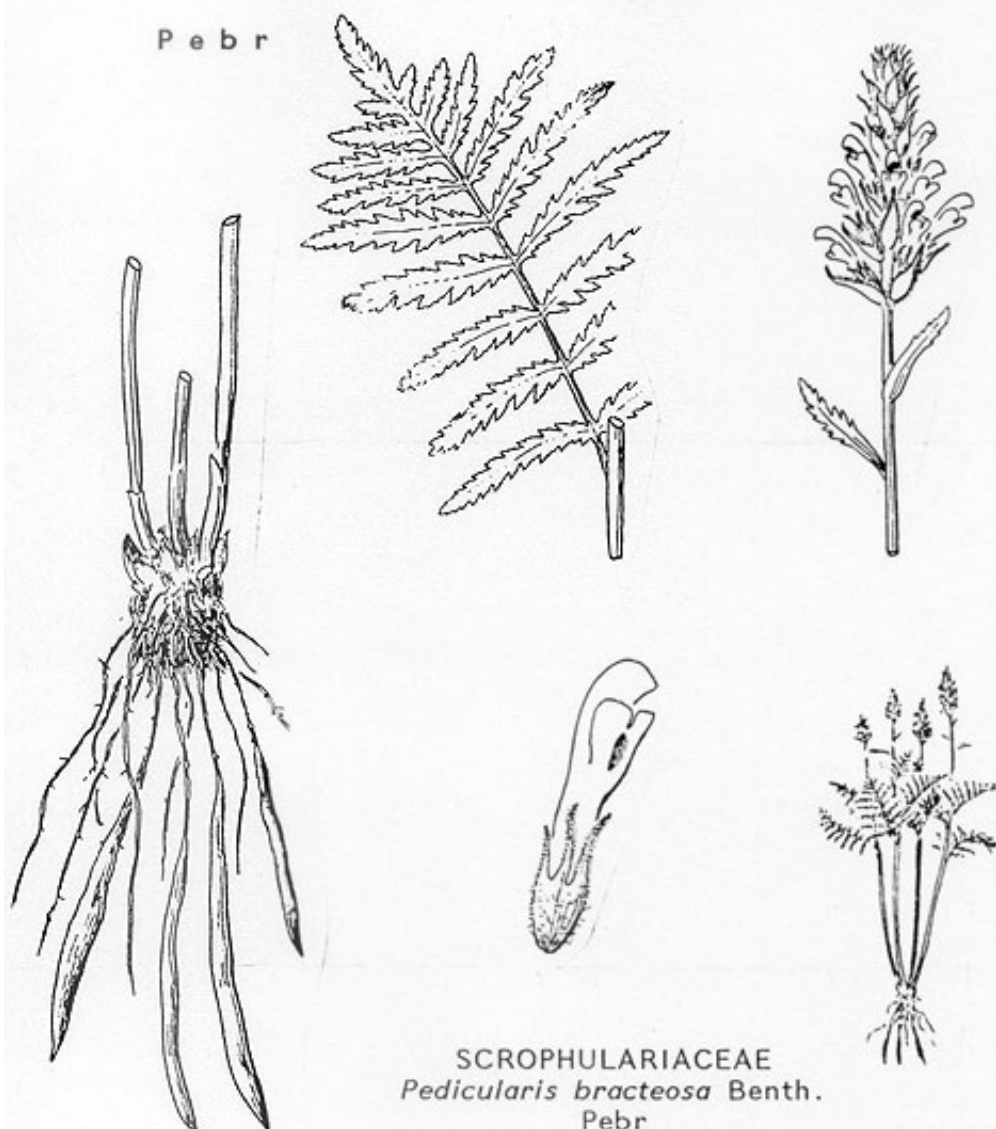
Sypl: heart-shaped capsule (3), 3-5mm wide, nearly twice as wide as high.

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.		
		Phma h.t.		
		Caru	Caru	
		Aruv	h.t.	
		Phma	Phma	
		Smst	h.t.	
		Phma	Phma	
		Cooc	h.t.	
		Libo	Libo	
		Xete	h.t.	
		Asca	Asca	
		Tabr	h.t.	
		Mefe	h.t.	
		Setr	h.t.	
		Phma		
		Clun	Clun	
		Tabr	h.t.	
		Mefe	h.t.	
		Xete		
		Vagl	Xete	
		Cooc	h.t.	
		Clun	Clun	
		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	
		Arnu	h.t.	
		Mefe		
		Xete		
		Asca	Asca	
		Arnu	h.t.	
		Mefe		
		Gydr	h.t.	
		Mefe	Clun	
		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	Mefe	
		Xete	h.t.	
		Vasc		
		Luhi	Stam	
		Mefe	h.t.	
		Lica		
		Caca	Caca	
		Vaca	h.t.	
		Legl		
		Cooc		
		Vagl	Xete	
		Vasc	h.t.	
		Luhi		
		Vasc	h.t.	
		Xete	c.t.	
		Vaca	c.t.	

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.

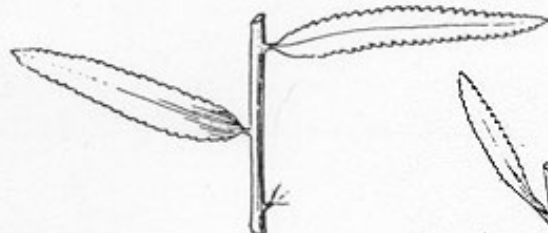
FRUIT: Capsule.

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.		Kipo
	Phma h.t.		
2	Caru	Caru	Psme
1	Aruv	h.t.	
+	Phma	Phma	
	Smst	h.t.	
	Phma	Phma	Abyr
	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.	Inpl
	Tabr		
2	Mefe		
1	Xete	Asca h.t.	
+	Asca		
	Tabr		
	Mefe		
	Gydr h.t.		
	Adpe h.t.		
	Adpe	Atfi	
1	Atfi	h.t.	
1	Opho	h.t.	
	Clun	Clun h.t.	Isne
	Arnu		
3	Mefe		
1	Xete	Asca h.t.	
+	Asca		
	Arnu		
	Mefe		
+	Gydr h.t.		
3	Mefe	Clun h.t.	Isme
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.	Ab1a
2	Mefe		
1	Xete	Mefe h.t.	
1	Cooc		
	Xete		
5	Vasc		
2	Luhi	Stam h.t.	
5	Mefe		
1	Lica		
	Caca	Caca h.t.	
2	Vaca		
	Legl	Xete h.t.	
	Cooc		
2	Vagl		
+	Vasc		
1	Luhi		
	Vasc h.t.	Pico	
	Xete c.t.		
	Vaca c.t.		

Pip	Syal h.t.	
Phma h.t.		
Caru h.t.	Caru	2
Phma h.t.	Aruv	
Phma h.t.	Phma	+
Phma h.t.	Smst	+
Phma h.t.	Phma	
Libo h.t.	Cooc	1
Libo h.t.	Libo	3
Libo h.t.	Xete	4
Asca h.t.	Asca	+
Asca h.t.	Tabr	1
Asca h.t.	Mefe	2
Setr h.t.		
Phma		
Clun h.t.	Clun	3
Clun h.t.	Tabr	2
Clun h.t.	Mefe	5
Clun h.t.	Xete	4
Xete h.t.	Vagl	4
Xete h.t.	Cooc	7
Clun h.t.	Clun	
Clun h.t.	Tabr	
Clun h.t.	Mefe	2
Clun h.t.	Xete	1
Asca h.t.	Asca	2
Asca h.t.	Tabr	1
Asca h.t.	Mefe	3
Gydr h.t.		1
Adpe h.t.		
Atfi h.t.	Adpe	
Atfi h.t.	Atfi	1
Opho h.t.		
Clun h.t.	Clun	
Clun h.t.	Arnu	
Clun h.t.	Mefe	1
Clun h.t.	Xete	1
Asca h.t.	Asca	+
Asca h.t.	Arnu	
Asca h.t.	Mefe	
Gydr h.t.		+
Clun h.t.	Mefe	3
Clun h.t.	Xete	1
Mefe h.t.	Xete	2
Mefe h.t.	Luh	2
Stam h.t.	Mefe	
Stam h.t.	Luh	
Xete h.t.	Vagl	3
Xete h.t.	Luh	1
Clun h.t.	Clun	3
Clun h.t.	Mefe	7
Clun h.t.	Xete	5
Mefe h.t.	Cooc	7
Mefe h.t.	Xete	2
Mefe h.t.	Vasc	5
Mefe h.t.	Luh	2
Stam h.t.	Mefe	3
Stam h.t.	Lica	2
Caca h.t.	Caca	3
Caca h.t.	Vaca	
Caca h.t.	Legl	1
Xete h.t.	Cooc	6
Xete h.t.	Vagl	1
Xete h.t.	Vasc	3
Xete h.t.	Luh	1
Vasc h.t.		
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.

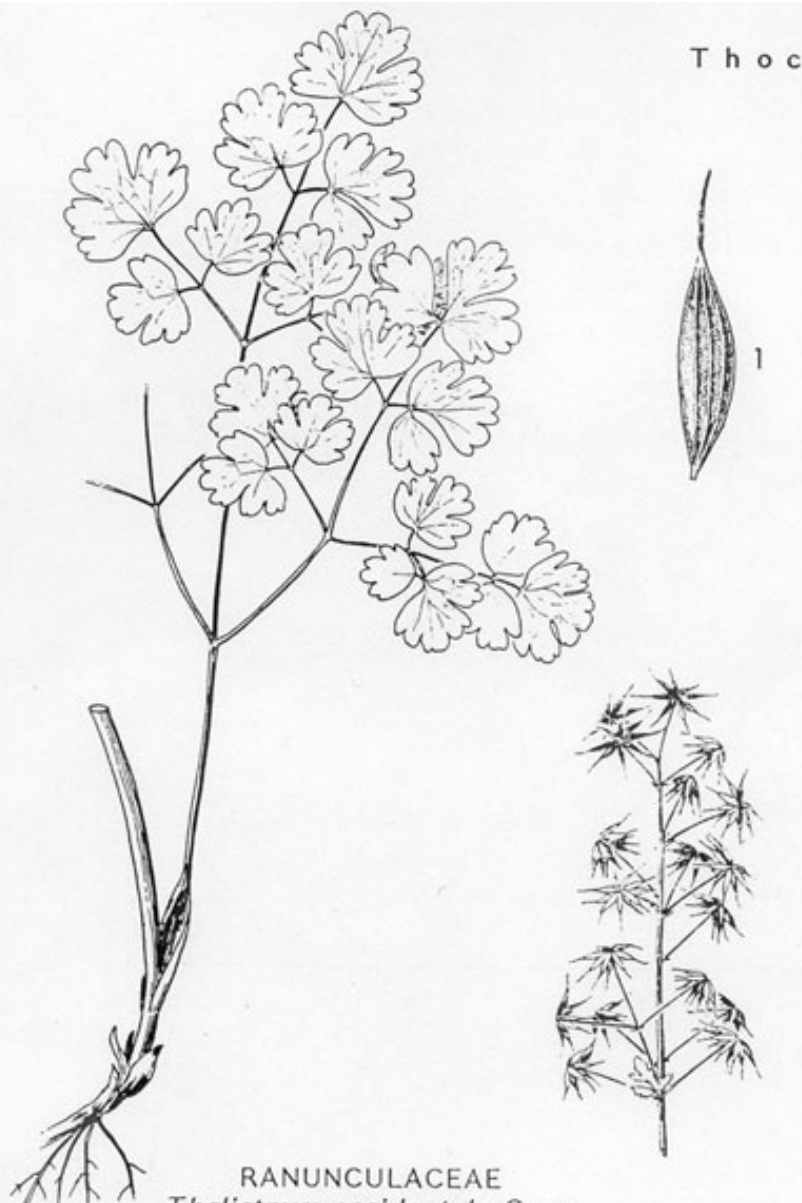
FLOWERS: White, sometimes tinged with yellow or rose, bilabiate, calyx lobes 2, galea strongly arched and tapering into a down-curved beak, which touches the prominent lower lip, in an elongated, lax, spikelike raceme; June-Sept.

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.

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



RANUNCULACEAE
Thalicttrum 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.



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 warty, 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.		Pp
	Phma h.t.		po
	Caru -	Caru	
	Aruv	h.t.	
	Phma	Phma	
	Smst	h.t.	
1	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
1	Asca	Asca	
+	Tabr	h.t.	
	Mefe		
	Setr	h.t.	
	Phma		
	Clun		
	Tabr	Clun	
1	Mefe	h.t.	
+	Xete		
	Vagl	Xete	
	Cooc	h.t.	
+	Clun	Clun	
	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	
	Arnu	h.t.	
	Mefe		
	Xete		
1	Asca	Asca	
	Arnu	h.t.	
	Mefe		
+	Gydr	h.t.	
1	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
2	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun	Clun	
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		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	

Phhe



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.

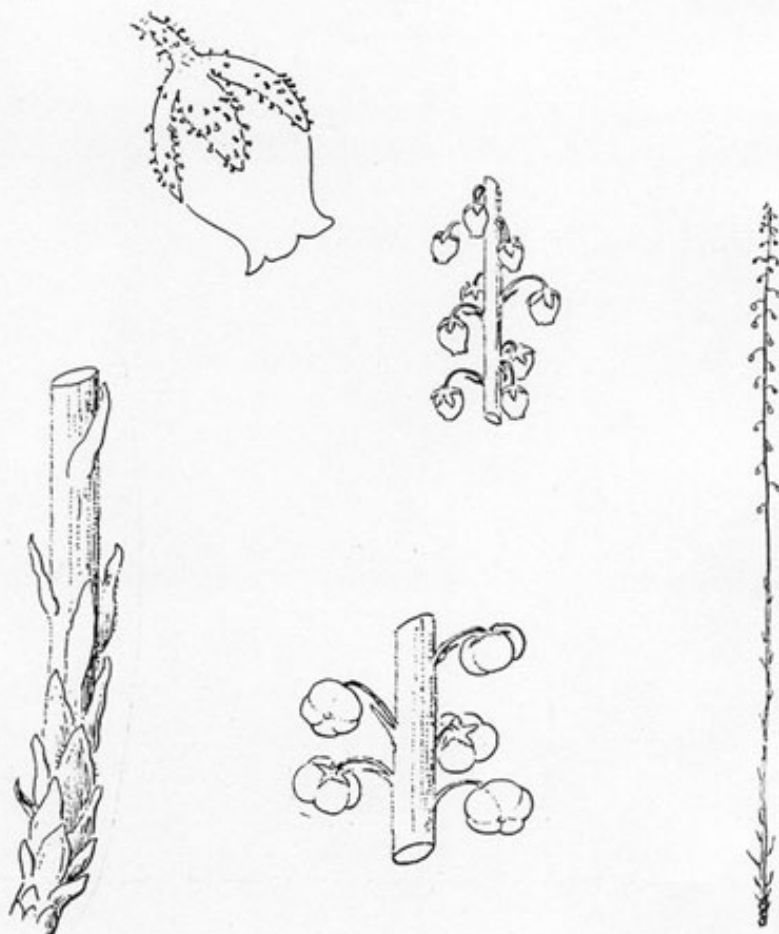
FRUIT: Capsule.

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

Syal h.t.		
Phma h.t.		
Caru	Caru	
Aruv	h.t.	
Phma	Phma	
Smst	h.t.	
Phma	Phma	
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		
Asca	Asca	
Tabr	h.t.	
Mefe		
Gydr	h.t.	
Adpe	h.t.	
Adpe	Atfi	
Atfi	h.t.	
Opho	h.t.	
Clun		
Arnu	Clun	
Mefe	h.t.	
Xete		
Asca	Asca	
Arnu	h.t.	
Mefe		
Gydr	h.t.	
Mefe	Clun	
Xete	h.t.	
Xete	Mefe	
Luhi	h.t.	
Mefe	Stam	
Luhi	h.t.	
Vagl	Xete	
Luhi	h.t.	
Clun		
1 Mefe	Clun	
Xete	h.t.	
Cooc		
Xete	Mefe	
Vasc	h.t.	
Luhi		
1 Mefe	Stam	
Lica	h.t.	
Caca		
Vaca	Caca	
Legl	h.t.	
Cooc		
Vagl	Xete	
Vasc	h.t.	
Luhi		
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	

Pipo	Syal h.t.	
	Phma h.t.	3
Psme	Caru h.t.	Caru
	Phma h.t.	Phma +
	Smst h.t.	Smst
Abgr	Phma h.t.	Phma
	Libo h.t.	Cooc 1
	Asca h.t.	Asca +
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
	Setr h.t.	
	Phma h.t.	Phma
	Clun h.t.	Clun 1
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe 1
Thp1	Xete h.t.	Xete 1
	Vagl h.t.	Vagl 2
	Cooc h.t.	Cooc 2
	Clun h.t.	Clun 1
	Tabr h.t.	Tabr 1
	Mefe h.t.	Mefe 1
	Xete h.t.	Xete
	Asca h.t.	Asca 1
	Tabr h.t.	Tabr
	Mefe h.t.	Mefe
Tshe	Gydr h.t.	
	Adpe h.t.	Adpe 1
	Atfi h.t.	Atfi
	Opho h.t.	Opho
	Clun h.t.	Clun 2
	Arnu h.t.	Arnu
	Mefe h.t.	Mefe
	Xete h.t.	Xete 1
	Asca h.t.	Asca 2
	Arnu h.t.	Arnu 1
Tsme	Mefe h.t.	Mefe 2
	Gydr h.t.	Gydr 1
	Clun h.t.	Clun +
	Mefe h.t.	Mefe
	Xete h.t.	Xete 2
	Luhi h.t.	Luhi
	Stam h.t.	Stam
	Mefe h.t.	Mefe
	Luhi h.t.	Luhi
	Vagl h.t.	Vagl 1
Ab1a	Luhi h.t.	Luhi
	Clun h.t.	Clun
	Mefe h.t.	Mefe
	Xete h.t.	Xete 1
	Cooc h.t.	Cooc
	Mefe h.t.	Mefe
	Vasc h.t.	Vasc
	Luhi h.t.	Luhi
	Stam h.t.	Stam
	Mefe h.t.	Mefe
Pico	Lica h.t.	Lica
	Caca h.t.	Caca
	Vaca h.t.	Vaca
	Legl h.t.	Legl 1
	Cooc h.t.	Cooc
	Vagl h.t.	Vagl 1
	Vasc h.t.	Vasc +
	Luhi h.t.	Luhi
	Vasc h.t.	Vasc
	Xete c.t.	Xete
	Vaca c.t.	Vaca

P t a n



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.

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.	
	Phma	+
	Clun	1
Thp1	Clun h.t.	Tabr 4
	Mefe	6
	Xete	3
	Vagl	2
	Cooc	2
	Clun	3
	Tabr	5
	Mefe	7
	Xete	7
	Asca h.t.	Asca 3
Tshe	Tabr	5
	Mefe	4
	Gydr h.t.	6
	Adpe h.t.	1
	Atfi h.t.	Adpe 1
	Atfi	1
	Opho h.t.	1
	Clun	6
	Arnu	3
	Mefe	6
Tsme	Xete	7
	Asca h.t.	Asca 3
	Arnu	4
	Mefe	3
	Gydr h.t.	6
	Clun h.t.	Mefe 5
	Xete	5
	Mefe	4
	Luhi	1
	Stam h.t.	Mefe 5
Ab1a	Luhi	
	Xete	Vagl 3
	Luhi	
	Clun h.t.	Clun 7
	Mefe	4
	Xete	3
	Cooc	8
	Xete	2
	Vasc	1
	Luhi	
Pico	Stam h.t.	Mefe 1
	Lica	1
	Caca h.t.	Caca
	Vaca	5
	Legl	2
	Cooc	1
	Vagl	
	Vasc	1
	Luhi	
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



P y a s



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.

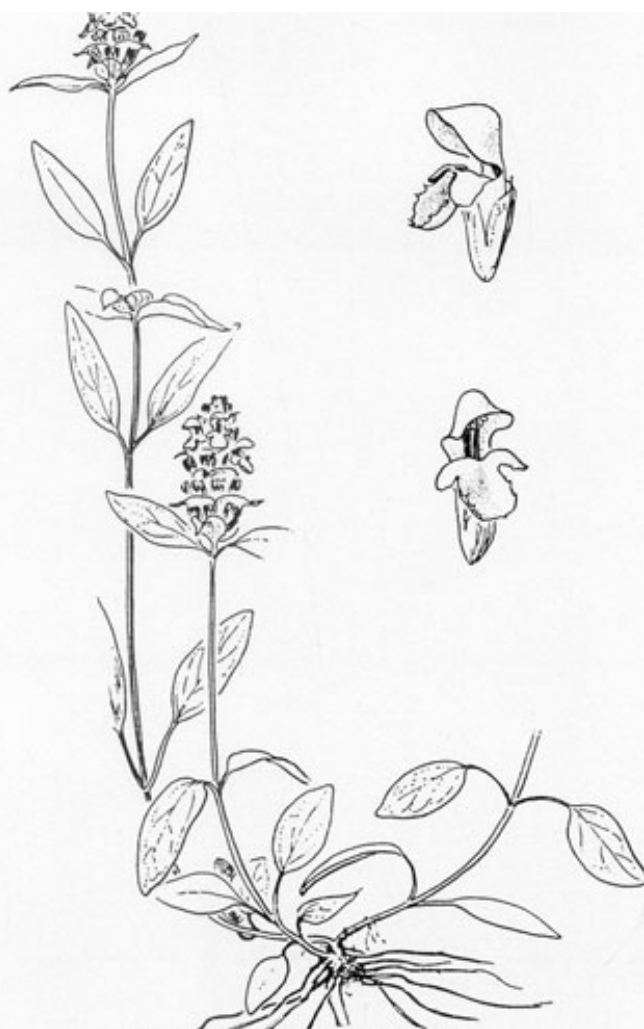
LEAVES: Numerous basal leaves with petioles usually at least as long as the blades; simple, entire, circular to elliptic, leathery, shiny dark green above, often purplish-brown beneath, 3-8cm (1-3in) wide, no white mottling along midveins.

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.

Prvu



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.

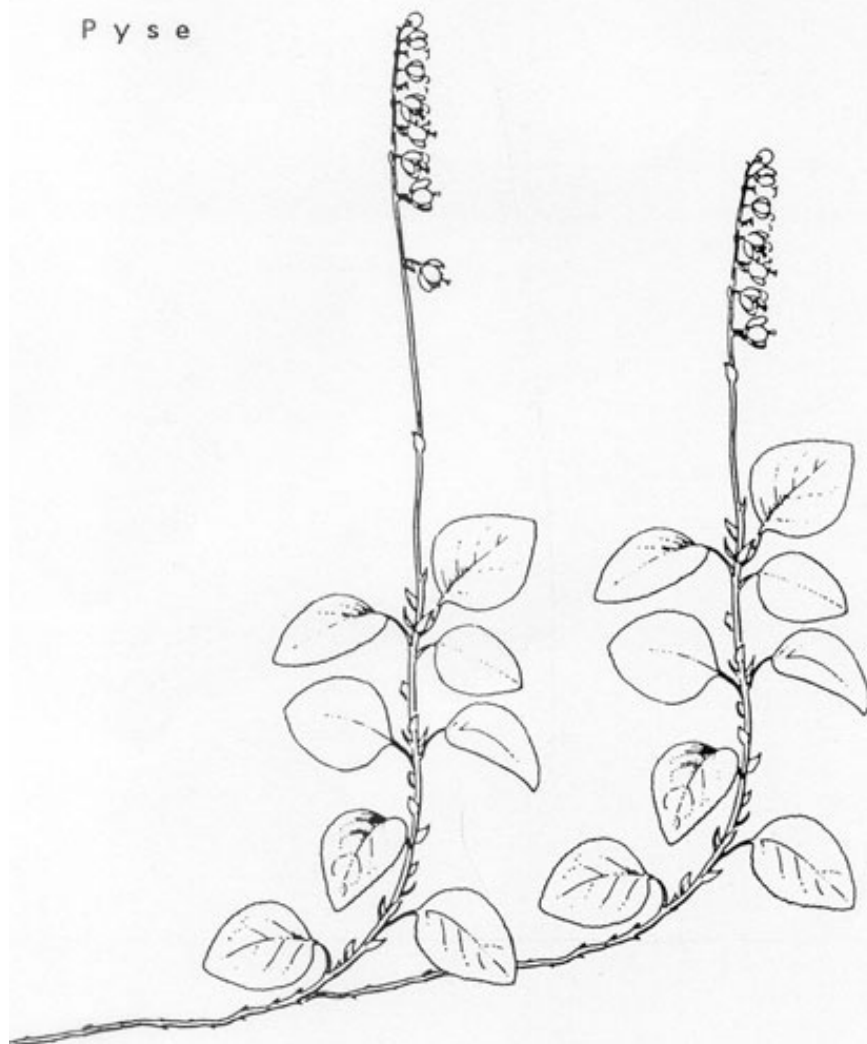
FRUIT: Hard nutlets.

HABITAT: Moist places or disturbed sites such as logging roads and skid trails.

NOTES: Once a common medicinal herb used now as a refreshing beverage.

2	Syal h.t.	Pipo
3	Phma h.t.	
	Caru	Caru
	Aruv	h.t.
+	Phma	Phma
1	Smst	h.t.
	Phma	Phma
	Cooc	h.t.
	Libo	Libo
	Xete	h.t.
+	Asca	Asca
	Tabr	h.t.
	Mefe	
	Setr	h.t.
+	Phma	
1	Clun	Clun
	Tabr	h.t.
	Mefe	
	Xete	
	Vagl	Xete
	Cooc	h.t.
	Clun	Clun
	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
	Arnu	h.t.
1	Mefe	
	Xete	
	Asca	Asca
	Arnu	h.t.
	Mefe	
	Gydr	h.t.
	Mefe	Clun
	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.
3	Caca	Caca
2	Vaca	h.t.
	Legl	
	Cooc	
	Vagl	Xete
	Vasc	h.t.
	Luhi	
	Vasc	h.t.
	Xete	c.t.
	Vaca	c.t.

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.	
	Phma h.t.	
2	Caru	Caru
2	Aruv	h.t.
	Phma	Phma
+	Smst	h.t.
1	Phma	Phma
1	Cooc	h.t.
4	Libo	Libo
4	Xete	h.t.
3	Asca	Asca
4	Tabr	h.t.
5	Mefe	
1	Setr	h.t.
2	Phma	
3	Clun	
5	Tabr	Clun
5	Mefe	h.t.
5	Xete	
5	Vagl	Xete
5	Cooc	h.t.
4	Clun	
6	Tabr	Clun
7	Mefe	h.t.
6	Xete	
5	Asca	Asca
7	Tabr	h.t.
4	Mefe	
5	Gydr	n.t.
1	Adpe	h.t.
	Adpe	Atfi
1	Atfi	h.t.
1	Opho	h.t.
6	Clun	
5	Arnu	Clun
7	Mefe	h.t.
7	Xete	
5	Asca	Asca
6	Arnu	h.t.
3	Mefe	
5	Gydr	h.t.
7	Mefe	Clun
10	Xete	h.t.
5	Xete	Mefe
2	Luhi	h.t.
	Mefe	Stam
2	Luhi	h.t.
5	Vagl	Xete
2	Luhi	h.t.
7	Clun	
7	Mefe	Clun
6	Xete	h.t.
7	Cooc	
8	Xete	Mefe
5	Vasc	h.t.
4	Luhi	
6	Mefe	Stam
4	Lica	h.t.
2	Caca	Caca
	Vaca	h.t.
2	Legl	
6	Cooc	
3	Vagl	Xete
2	Vasc	h.t.
1	Luhi	
	Vasc	h.t.
	Xete	c.t.
	Vaca	c.t.

S i m e



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	Psmc	
	Aruv	h.t.		
1	Phma	Phma		
1	Smst	h.t.		
3	Phma	Phma	Abyr	
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	Xete h.t.		
1	Vagl			
1	Cooc			
+	Clun	Clun h.t.	Thpl	
	Tabr			
	Mefe			
	Xete			
1	Asca	Asca h.t.		
	Tabr			
1	Mefe			
1	Gydr	n.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			
	Luhi	Mefe h.t.		
	Mefe	Stam h.t.		
	Luhi	Xete h.t.		
1	Vagl			
	Luhi			
	Clun	Clun h.t.	Ab1a	
	Mefe			
	Xete			
	Cooc	Mefe h.t.		
	Xete			
	Vasc			
	Luhi	Stam h.t.		
	Mefe			
	Lica			
1)	Caca	Caca h.t.		
	Vaca			
	Legl			
	Cooc	Xete h.t.		
1	Vagl			
	Vasc			
	Luhi			
	Vasc	h.t.		Pico
	Xete	c.t.		
	Vaca	c.t.		

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.

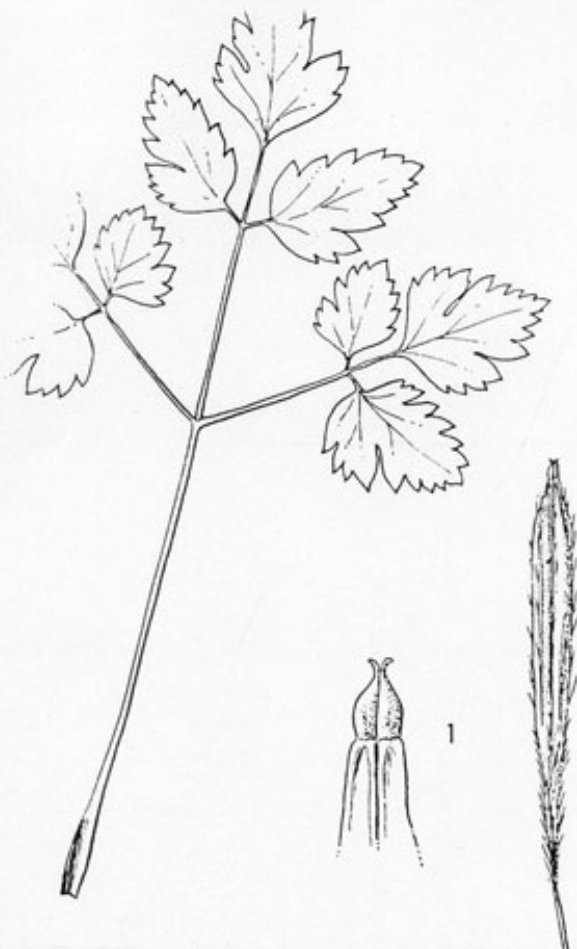
FRUIT: Globose, greenish-yellow berries becoming black; immature fruit green with 3 red stripes.

SIMILAR SPECIES: Liliaceae Conspectus, p.129.

NOTES: Edible but with strong laxative properties.

1	Syal h.t.		Ptlo
	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		
10	Clun	Clun	
6	Tabr	h.t.	Thpl
4	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.		Tsh
5	Clun	Clun	
9	Arnu	h.t.	
3	Mefe		
7	Xete		
10	Asca	Asca	Tsh
10	Arnu	h.t.	
10	Mefe		
10	Gydr h.t.		Tsme
4	Mefe	Clun	
6	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
5	Mefe	Stam	Abja
	Luhi	h.t.	
1	Vagl	Xete	
	Luhi	h.t.	
10	Clun	Clun	
4	Mefe	h.t.	
7	Xete		
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
5	Mefe	Stam	Pico
6	Lica	h.t.	
5	Caca	Caca	
2	Vaca	h.t.	
	Legl		
	Cooc		
1	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		

Tip	Syal h.t.	1
	Phma h.t.	7
Psmc	Caru h.t.	4
	Aruv	3
	Phma h.t.	9
Abgr	Phma h.t.	7
	Cooc	4
	Libo h.t.	6
	Xete	3
	Asca h.t.	8
	Tabr	8
	Mefe	8
	Setr h.t.	10
	Phma	7
	Clun h.t.	8
Thp	Clun h.t.	6
	Mefe	5
	Xete	6
	Vagl	2
	Cooc	4
	Clun	5
	Tabr	2
	Mefe	3
	Xete	3
	Asca h.t.	5
Tshe	Tabr	4
	Mefe	4
	Gydr h.t.	3
	Adpe h.t.	7
	Atfi	8
	Adpe h.t.	7
	Atfi	7
	Opho h.t.	8
	Clun	2
	Arnu	4
Tsmc	Mefe	4
	Xete	3
	Asca h.t.	7
	Arnu	7
	Mefe	10
	Gydr h.t.	5
	Clun h.t.	1
	Mefe	4
	Xete	4
	Luhi	
Abia	Stam h.t.	5
	Lica	5
	Caca h.t.	
	Vaca	
	Legl	
	Cooc	1
	Vagl	1
	Vasc	
	Luhi	1
	Vasc h.t.	
Pico	Xete c.t.	
	Vaca c.t.	



O s c h



APIACEAE (UMBELLIFEREAE)

Osmorhiza chilensis H. & A.

Os ch

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.

S e s t



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.

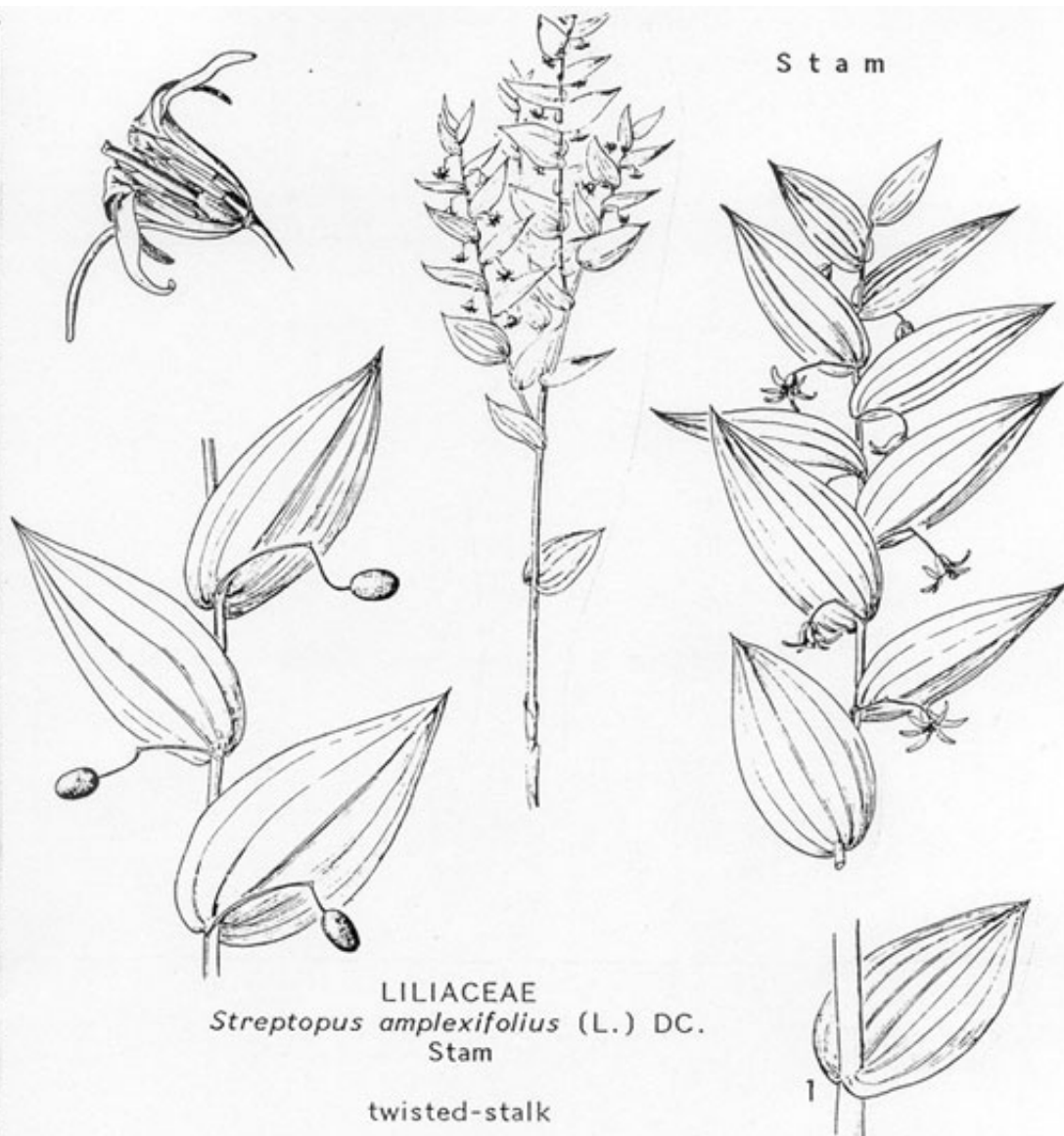
FRUIT: Follicles widely divergent (1), not glandular.

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.		Pipo
	Phma h.t.		
2	Caru h.t.	Caru h.t.	Pime
	Aruv h.t.	Phma h.t.	
	Phma h.t.	Phma h.t.	
+	Smst h.t.		
	Phma h.t.	Phma h.t.	
	Cooc h.t.	Libo h.t.	
	Libo h.t.		
	Xete h.t.	Asca h.t.	Abgr
	Asca h.t.		
	Tabr h.t.		
	Mefe h.t.		
	Setr h.t.		
	Phma h.t.		
	Clun h.t.		
	Tabr h.t.	Clun h.t.	
	Mefe h.t.		
	Xete h.t.		
	Vagl h.t.	Xete h.t.	
	Cooc h.t.		
	Clun h.t.	Clun h.t.	Thp1
	Tabr h.t.		
	Mefe h.t.		
	Xete h.t.		
	Asca h.t.	Asca h.t.	
	Tabr h.t.		
	Mefe h.t.		
	Gydr h.t.		
	Adpe h.t.		
	Adpe h.t.	Atfi h.t.	
	Atfi h.t.		
1	Opho h.t.		
	Clun h.t.	Clun h.t.	Ishe
	Arnu h.t.		
	Mefe h.t.		
	Xete h.t.		
	Asca h.t.	Asca h.t.	
	Arnu h.t.		
	Mefe h.t.		
	Gydr h.t.		
	Mefe h.t.	Clun h.t.	Tsme
	Xete h.t.		
	Xete h.t.	Mefe h.t.	
1	Luhi h.t.		
	Mefe h.t.	Stam h.t.	
2	Luhi h.t.		
	Vagl h.t.	Xete h.t.	
	Luhi h.t.		
	Clun h.t.	Clun h.t.	
	Mefe h.t.		
	Xete h.t.		
	Cooc h.t.		
	Xete h.t.	Mefe h.t.	
	Vasc h.t.		
	Luhi h.t.		
	Mefe h.t.	Stam h.t.	
	Lica h.t.		
	Caca h.t.	Caca h.t.	Abia
	Vaca h.t.		
	Legl h.t.		
	Cooc h.t.		
	Vagl h.t.	Xete h.t.	
	Vasc h.t.		
	Luhi h.t.		
	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.	Smst +
Abgr	Phma h.t.	Phma
	Cooc	
	Libo h.t.	Libo
	Xete	
	Asca h.t.	Asca +
	Tabr	+
	Mefe	
	Setr h.t.	1
	Phma	
	Clun h.t.	Clun +
Thp1	Tabr	
	Mefe	
	Xete	+
	Vagl	
	Cooc	
	Clun	+
	Tabr	2
	Mefe	1
	Xete	
	Asca	1
Tshe	Tabr	
	Mefe	3
	Gydr h.t.	3
	Adpe h.t.	4
	Atfi	6
	Adpe	6
	Atfi	6
	Opho h.t.	8
Tsme	Clun	1
	Arnu	
	Mefe	2
	Xete	1
	Asca	1
	Arnu	1
	Mefe	
	Gydr h.t.	4
Tsla	Clun	Mefe 1
	Xete	
	Mefe	Xete
	Luh1	
	Stam	Mefe 5
	Luh1	2
	Vagl	
	Luh1	
Abia	Clun	Clun
	Mefe	3
	Xete	
	Cooc	
	Xete	
	Vasc	
	Luh1	
	Stam	Mefe 5
	Lica	4
	Caca	2
Pico	Vaca	1
	Legl	
	Cooc	
	Vagl	
	Vasc	
	Luh1	
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



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

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

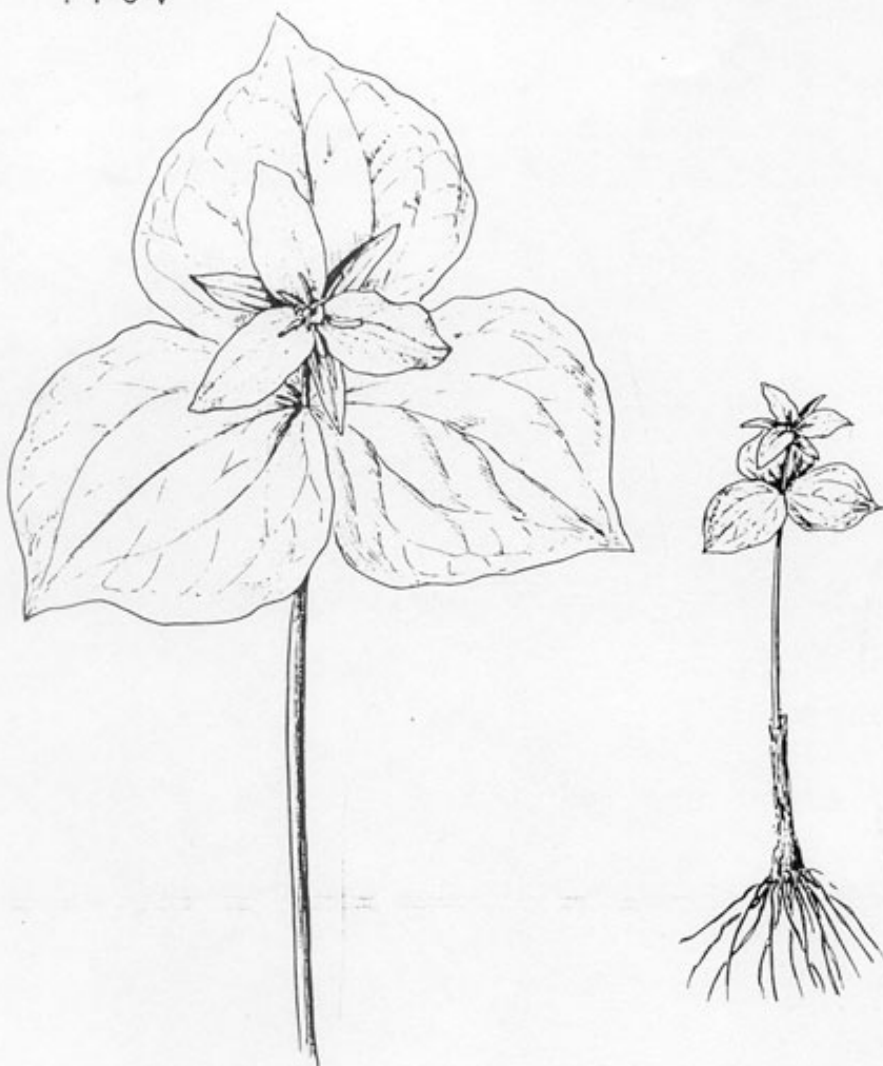
LEAVES: Alternate, parallel-veined, glabrous, ovate, acuminate, mostly 5-12cm (2-5in) long, sessile with cordate clasping bases (1).

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 translucent, 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.

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.

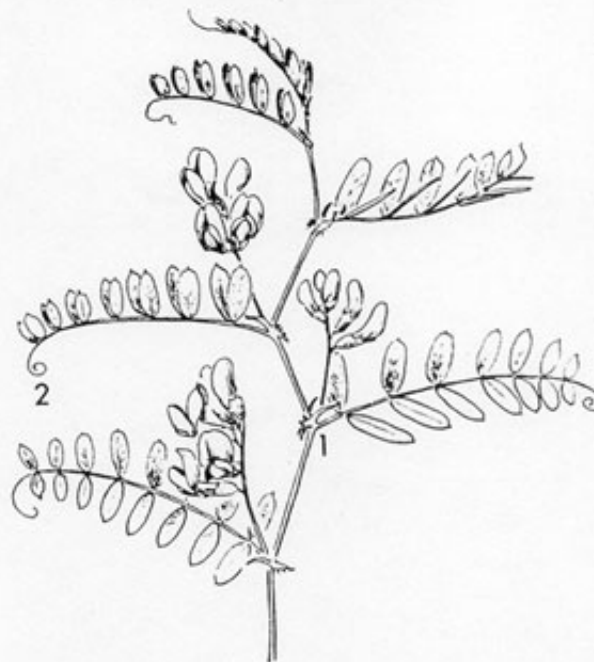
FLOWERS: Solitary, terminal, stalked, 3 white petals aging to pink; March-June, later at high elevations.

FRUIT: Yellowish-green, many seeded berry.

SIMILAR SPECIES: *Trillium petiolatum* (purple trillium), petiolate leaves and sessile, purple flowers.

	Syal	h.t.			
	Phma	h.t.			
	Caru		Caru	Psm	
	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		
10	Tabr				h.t.
10	Mefe				
10	Setr		h.t.		
3	Phma		Clun		
6	Clun				
8	Tabr				h.t.
9	Mefe				
5	Xete				
2	Vagl			Xete	
6	Cooc		h.t.		
6	Clun		Clun	Inpi	
9	Tabr				h.t.
6	Mefe				
7	Xete		Asca		
7	Asca				h.t.
10	Tabr				
9	Mefe				
9	Gydr		n.t.		
8	Adpe		h.t.		
8	Adpe		Atfi		
9	Atfi		h.t.		
9	Opho		h.t.		
5	Clun		Clun		Tshe
4	Arnu			h.t.	
4	Mefe				
5	Xete		Asca		
7	Asca			h.t.	
6	Arnu				
10	Mefe				
9	Gydr		h.t.		
7	Mefe		Clun	Tsm	
5	Xete		h.t.		
1	Xete		Mefe		
	Luhi		h.t.		
10	Mefe		Stam		
5	Luhi		h.t.		
2	Vagl		Xete		
	Luhi		h.t.		
3	Clun		Clun	Abld	
9	Mefe				h.t.
7	Xete				
6	Cooc		Mefe		
	Xete				h.t.
2	Vasc				
1	Luhi		Stam		
6	Mefe				h.t.
7	Lica				
7	Caca		Caca		
7	Vaca				h.t.
4	Legl				
3	Cooc		Xete		
2	Vagl				h.t.
	Vasc				
1	Luhi				
	Vasc		h.t.	Pico	
	Xete		c.t.		
	Vaca		c.t.		

Kpo	Syal h.t.	3
	Phma h.t.	6
Psmc	Caru	Caru
	h.t.	Aruv
	Phma	Phma 1
	h.t.	Smst 2
Abgr	Phma	Phma
	h.t.	Cooc
	Libo	Libo 1
	h.t.	Xete
	Asca	Asca +
	h.t.	Tabr
	Mefe	
	Setr h.t.	3
	Phma	
	Clun	1
	h.t.	Tabr
	Mefe	
Thpl	Xete	Vagl
	h.t.	Cooc
	Clun	
	h.t.	Tabr
	Mefe	
	Xete	
	Asca	1
	h.t.	Tabr
	Mefe	
	Gydr h.t.	
	Adpe h.t.	
	Atfi	Adpe
Tshe	h.t.	Atfi
	Opho h.t.	1
	Clun	
	h.t.	Arnu
	Mefe	
	Xete	
	Asca	
	h.t.	Arnu
	Mefe	
	Gydr h.t.	
Tsmc	Clun	Mefe
	h.t.	Xete
	Mefe	Xete
	h.t.	Luh
	Stam	Mefe
	h.t.	Luh
	Xete	Vagl
	h.t.	Luh
Abia	Clun	Clun
	h.t.	Mefe
	Xete	1
	Mefe	Cooc
	h.t.	Xete
	Vasc	
	Luh	
	Stam	Mefe
	h.t.	Lica
	Caca	Caca
	h.t.	Vaca
Pico	Legl	
	Cooc	
	Vagl	
	Vasc	
	Luh	
	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.

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

V i a d



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



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.

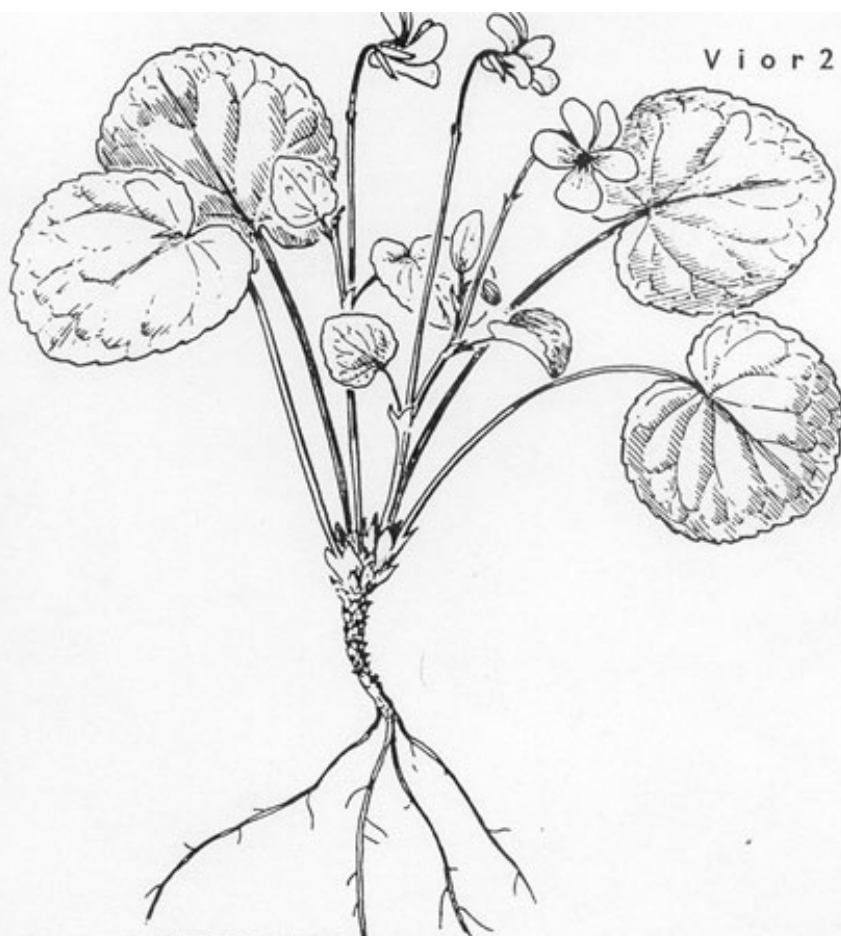
FRUIT: Explosively dehiscent capsule.

SIMILAR SPECIES: *Viola Conspectus*, p.190.

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

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

Moo	Syal h.t.	
	Phma h.t.	
Psmc	Caru h.t.	Caru
	Phma h.t.	Phma
	Phma h.t.	Smst +
	Phma h.t.	Cooc 1
Abgr	Ljbo h.t.	Xete 6
	Asca h.t.	Asca 7
	Tabr h.t.	Tabr 10
	Mefe h.t.	Mefe 10
	Setr h.t.	Setr 7
	Phma h.t.	Phma 3
	Clun h.t.	Clun 7
	Tabr h.t.	Tabr 10
	Mefe h.t.	Mefe 9
	Xete h.t.	Xete 8
	Vagl h.t.	Vagl 7
	Cooc h.t.	Cooc 7
Thpl	Clun h.t.	Clun 7
	Tabr h.t.	Tabr 9
	Mefe h.t.	Mefe 9
	Xete h.t.	Xete 9
	Asca h.t.	Asca 8
	Tabr h.t.	Tabr 10
	Mefe h.t.	Mefe 7
	Gydr h.t.	Gydr 6
	Adpe h.t.	Adpe 9
	Atfi h.t.	Atfi 8
Tshe	Clun h.t.	Clun 9
	Arnu h.t.	Arnu 8
	Mefe h.t.	Mefe 10
	Xete h.t.	Xete 8
	Asca h.t.	Asca 6
	Arnu h.t.	Arnu 8
Tsmc	Mefe h.t.	Mefe 7
	Luhf h.t.	Luhf 2
	Xete h.t.	Vagl 4
	Luhf h.t.	Luhf 3
	Clun h.t.	Clun 10
	Mefe h.t.	Mefe 8
Abia	Xete h.t.	Xete 8
	Cooc h.t.	Cooc 10
	Xete h.t.	Xete 7
	Vasc h.t.	Vasc 8
	Luhf h.t.	Luhf 2
	Mefe h.t.	Mefe 8
	Lica h.t.	Lica 4
	Caca h.t.	Caca 2
	Vaca h.t.	Vaca 7
	Legl h.t.	Legl 7
Pico	Cooc h.t.	Cooc 9
	Vagl h.t.	Vagl 4
	Vasc h.t.	Vasc 6
	Luhf h.t.	Luhf 1
Pico	Vasc h.t.	Vasc
	Xete c.t.	Xete
	Vaca c.t.	Vaca



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.

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Forb characteristics

Species	Persistence Life cycle	Size	Leaf	Flower			Fruit	Comment
			Arrangement Type	Color Inflorescence	#	Shape	Color Type	
NONGREEN								
<u><i>Corallorhiza</i> spp.</u>	Deciduous Perennial	M-L	Alternate Bracts	Red / yellow Raceme	3	Orchid	Red / yellow Capsule	parasitic
<u><i>Pterospora andromedea</i></u>	Deciduous Perennial	M- XL	Alternate Bracts	Yellow Raceme	5	Urn- shaped	Red brown Capsule	parasitic
GREEN								
Whorled Evergreen								
<u><i>Cornus canadensis</i></u>	Evergreen Perennial	S-M	Whorled Simple entire	White Cluster	4	Regular	Red Drupe	
<u><i>Trientalis latifolia</i></u>	Evergreen Perennial	S-M	Whorled Simple entire	Pink Single	6/7	Regular	- Capsule	uncommon
Whorled Deciduous								
<u><i>Frasera fastigiata</i></u>	Deciduous Perennial	XL	Whorled Simple entire	Blue Panicle	4	Regular	- Capsule	
<u><i>Galium</i> spp.</u>	Deciduous Per. - ann.	M	Whorled Simple entire	White Panicle	4	Tubular	- Capsule	square stem
<u><i>Trillium ovatum</i></u>	Deciduous Perennial	S-M	Whorled Simple entire	White Single	3	Regular	Yellow Berry	
Basal Evergreen Compound leaves								
<u><i>Coptis occidentalis</i></u>	Evergreen Perennial	S	Basal Entire trifoliate	White Head	5	Regular	- Follicle	golden root
Basal Evergreen Simple leaves								
<u><i>Asarum caudatum</i></u>	Evergreen Perennial	S	Alternate (basal) Simple cordate	Maroon Single	3	Irregular	- Capsule	ginger odor
<u><i>Goodyera oblongifolia</i></u>	Evergreen Perennial	S	Basal Simple entire	White - green Spike	3	Orchid	Green Capsule	white mottled leaves
<u><i>Heuchera cylindrica</i></u>	Evergreen Perennial	S-XL	Basal Simple palmate toothed	White - green yellow Panicle	5	Bell- shaped	- Capsule	
<u><i>Pyrola asarifolia</i></u>	Evergreen Perennial	S-L	Basal Simple entire	Pink - Purple red Raceme	5	Irregular	- Capsule	
<u><i>Synthyris</i> spp.</u>	Evergreen (deciduous) Perennial	S-L	Basal Simple cordate	Blue violet / blue purple Raceme	4	Bilabiate	- Capsule	
<u><i>Viola orbiculata</i></u>	Evergreen Perennial	S	Basal Simple cordate	Yellow Single	5	Regular	- Capsule	
<u><i>Xerophyllum tenax</i></u>	Evergreen Perennial	L-XL	Basal Simple linear toothed	White Raceme	3	Regular	- Capsule	
Basal Deciduous Compound leaves								
<u><i>Anemone piperi</i></u>	Deciduous Perennial	M-L	Basal (whorled) Compound trifoliate toothed	White Single	5- 6	Regular	- Achene	
<u><i>Fragaria</i> spp.</u>	Deciduous Perennial	M	Basal Compound trifoliate toothed	White Cluster	5	Regular	Red Berry	strawberry
<u><i>Ligusticum</i> spp.</u>	Evergreen Perennial	L-XL	Basal (alternate) Pinnate	White / pink Umbel	5	Regular	- Schizocarp	
	Deciduous	M-	Basal (alternate)	Yellow / white /			-	

<u>Lomatium</u> spp.	Perennial	XL	Compound pinnate toothed	pink Umbel	5	Regular	Schizocarp	
Basal Deciduous Simple leaves								
<u>Balsamorhiza sagittata</u>	Deciduous Perennial	M-XL	Basal Simple arrowhead	Yellow Head	5	Composite	- Achene	
<u>Calypso bulbosa</u>	Deciduous Perennial	S-M	Basal Simple entire	Purple Single	3	Orchid	- Capsule	
<u>Clintonia uniflora</u>	Deciduous Perennial	S	Basal Simple entire	White Single	3	Regular	Blue Berry	hairy leaves
<u>Dodecatheon jeffreyi</u>	Deciduous Perennial	S-L	Basal Simple entire	Purple Umbel	4-5	Regular	- Capsule	unique flowers
<u>Erythronium grandiflorum</u>	Deciduous Perennial	S-M	Basal Simple entire	Yellow Raceme	3	Regular	Green Capsule	bald leaves
<u>Habenaria</u> spp.	Deciduous Perennial	M-L	Basal Simple entire	White / green / yellow green Raceme	3	Orchid	- Capsule	
<u>Hieracium</u> spp.	Deciduous Perennial	S-XL	Basal (alternate) Simple entire	Yellow / white Head	5	Composite	- Achene	hairy leaves
<u>Mitella</u> spp.	Deciduous Perennial	S-L	Basal Simple cordate toothed	Green / white Raceme	5	Regular	- Capsule	
<u>Trautvetteria caroliniensis</u>	Deciduous Perennial	L-XL	Basal (alternate) Simple palmate toothed lobed	White / green Cluster	4	Regular	- Achene	riparian
Opposite Deciduous Compound leaves								
<u>Valeriana sitchensis</u>	Deciduous Perennial	L-XL	Opposite Compound pinnate toothed	White Cluster	5	Tubular	- Achene	
Opposite Deciduous Simple leaves								
<u>Apocynum androsaemifolium</u>	Deciduous Perennial	M-L	Opposite Simple entire	Pink Cyme	5	Bell-shaped	- Follicle	milky sap
<u>Arenaria macrophylla</u>	Deciduous Perennial	S-L	Opposite Simple entire	White Cyme	5	Regular	- Capsule	
<u>Arnica cordifolia</u>	Deciduous Perennial	S-L	Opposite Simple cordate toothed	Yellow Head	5	Composite	- Achene	
<u>Arnica latifolia</u>	Deciduous Perennial	S-L	Opposite Simple entire (toothed)	Yellow Head	5	Composite	- Achene	
<u>Circaea alpina</u>	Deciduous Perennial	S-L	Opposite Simple toothed (entire)	White Raceme	2	Regular	- Capsule	
<u>Geranium viscosissimum</u>	Deciduous Perennial	L-XL	Opposite Simple palmate toothed	Purple Cyme single	5	Regular	- Capsule	sticky plant
<u>Hypericum perforatum</u>	Deciduous Perennial	L-XL	Opposite Simple entire	Yellow Cyme	5	Regular	- Capsule	holey leaves
<u>Listera</u> spp.	Deciduous Perennial	S-M	Opposite Simple entire	Green Raceme	3	Orchid	Green Capsule	
<u>Montia</u> spp.	Deciduous Perennial	S	Opposite (basal) Simple entire cordate	White Raceme	5	Regular	Black Capsule	
<u>Prunella vulgaris</u>	Deciduous Perennial	S-L	Opposite (basal) Simple entire	Purple Spike	5	Bilabiate	- Achene	square stems
<u>Silene menziesii</u>	Deciduous Perennial	S-M	Opposite Simple entire	White Cyme	5	Tubular	- Schizocarp	
Alternate Evergreen								
<u>Pyrola secunda</u>	Evergreen Perennial	S	Alternate Simple toothed	White Raceme	5	Irregular	- Capsule	one-sided raceme
<u>Sedum stenopetalum</u>	Evergreen Perennial	S-M	Alternate Simple linear	Yellow Cyme	5	Regular	- Follicle	succulent
Alternate Deciduous Compound leaves								
<u>Actaea rubra</u>	Deciduous Perennial	M-XL	Alternate Compound lobed toothed	White Cluster	5	Regular	Red Berry	poisonous berries
<u>Angelica arguta</u>	Deciduous	M-	Alternate Compound pinnate	White	5	Irregular	-	

	Perennial	XL	toothed	Umbel			Schizocarp	
<u>Aquilegia spp.</u>	Deciduous Perennial	M- XL	Alternate (basal) Compound lobed trifoliate	Yellow / red Single	5	Irregular	- Follicle	unique flowers
<u>Aralia nudicaulis</u>	Deciduous Perennial	M-L	Alternate Compound pinnate toothed	Green Umbel	5	Regular	Pink Berry	north of Cd'A
<u>Heracleum lanatum</u>	Deciduous Perennial	XL	Alternate Compound palmate toothed	White Umbel	5	Irregular	- Schizocarp	
<u>Lathyrus nevadensis</u>	Deciduous Perennial	M- XL	Alternate Compound pinnate	White Raceme	5	Pea- flower	- Pod	unbranched tendrils
<u>Ligusticum spp.</u>	Deciduous Perennial	L-XL	Alternate (basal) Compound pinnate	White / pink Umbel	5	Regular	- Schizocarp	
<u>Osmorhiza chilensis</u>	Deciduous Perennial	L-XL	Alternate Compound lobed toothed trifoliate	Green - white Umbel	5	Regular	Black Schizocarp	
<u>Polemonium pulcherrimum</u>	Deciduous Perennial	L	Alternate (basal) Compound	Blue Cluster	5	Bell- shaped	- Capsule	skunk-like odor
<u>Potentilla spp.</u>	Deciduous Perennial	M- XL	Alternate (basal) Compound pinnate digitate toothed	Yellow Cluster	5	Regular	Green Achene	
<u>Thalictrum occidentale</u>	Deciduous Perennial	L-XL	Alternate Compound lobed	Greenish white - purple Panicle	4- 5	Irregular	Green purple Achene	dioecious
<u>Thermopsis montana</u>	Deciduous Perennial	L-XL	Alternate Compound trifoliate	Yellow Raceme	5	Pea- flower	- Follicle	poisonous fruits
<u>Tiarella trifoliata</u>	Deciduous Perennial	M-L	Alternate (basal) Compound lobed trifoliate toothed	White Panicle	5	Bell- shaped	- Capsule	
<u>Vicia americana</u>	Deciduous Perennial	M-L	Alternate Compound entire	Blue purple Raceme	5	Pea- flower	- Pod	tendrils
Alternate Deciduous Simple leaves								
<u>Achillea millefolium</u>	Deciduous Perennial	S-XL	Alternate (basal) Simple pinnate	White Cluster	5	Composite	- Achene	
<u>Aconitum columbianum</u>	Deciduous Perennial	L-XL	Alternate Simple lobed	Purple blue Raceme	5	Irregular	- Follicle	unique flowers
<u>Adenocaulon bicolor</u>	Deciduous Perennial	M- XL	Alternate Simple arrowhead	White Head	5	Composite	- Achene	leaves wooly below
<u>Anaphalis margaritacea</u>	Deciduous Perennial	M- XL	Alternate Simple entire linear	White Head	5	Composite	- Achene	
<u>Antennaria racemosa</u>	Deciduous Perennial	S-L	Alternate (basal) Simple entire	Green Head	5	Composite	- Achene	
<u>Aster conspicuus</u>	Deciduous Perennial	M- XL	Alternate Simple toothed	Blue / violet Head	5	Composite	- Achene	sandpapery leaves
<u>Campanula rotundifolia</u>	Deciduous Perennial	S-XL	Alternate (basal) Simple cordate linear	Blue Single	5	Bell- shaped	- Capsule	milky sap
<u>Cardamine constancei</u>	Deciduous Perennial	M	Alternate Simple lobed	Pink Raceme	4	Regular	- Silique	uncommon
<u>Disporum spp.</u>	Deciduous Perennial	S-L	Alternate Simple entire	White Single	3	Bell- shaped	Red / yellow Berry	branched stems
<u>Epilobium angustifolium</u>	Deciduous Perennial	S-XL	Alternate Simple linear	Pink - purple Raceme	4	Regular	Green - red Capsule	common in clearcuts
<u>Erigeron peregrinus</u>	Deciduous Perennial	S-XL	Alternate Simple entire	Purple Head	5	Composite	- Achene	
<u>Mertensia paniculata</u>	Deciduous Perennial	M- XL	Alternate Simple entire	Blue Cluster	5	Tubular	- Nutlet	riparian
<u>Pedicularis spp.</u>	Deciduous Perennial	S-XL	Alternate Simple pinnate toothed	White / purple / yellow Raceme	5	Bilabiate	- Capsule	

<u><i>Phacelia heterophylla</i></u>	Deciduous Perennial	M-XL	Alternate Simple lobed entire	White - purple Cluster	5	Tubular	- Capsule	
<u><i>Ranunculus uncinatus</i></u>	Deciduous Per. (ann.)	M-L	Alternate Simple cordate lobed	Yellow Single	5	Regular	- Achene	
<u><i>Senecio triangularis</i></u>	Deciduous Perennial	M-XL	Alternate Simple arrowhead toothed	Yellow Head	5	Composite	- Achene	riparian
<u><i>Smilacina spp.</i></u>	Deciduous Perennial	M-XL	Alternate Simple entire	White Panicle / raceme	3	Regular	Red - green Berry	
<u><i>Streptopus amplexifolius</i></u>	Deciduous Perennial	L-XL	Alternate Simple entire	Greenish white Single	3	Bell-shaped	Orange Berry	twisted pedicel
<u><i>Veratrum spp.</i></u>	Deciduous Perennial	XL	Alternate Simple entire	White / green Panicle	3	Regular	- Capsule	poisonous
<u><i>Viola spp.</i></u>	Deciduous Perennial	S-M	Alternate (basal) Simple toothed	Violet / yellow / white Single	5	Regular	- Capsule	
- = "to" / = "or" () = "can also be"								
Size:	S: 0-15cm (0-6in)	M: 15-30cm (6-12in)	L: 3-6dm (12-24in)	XL: 6dm+ (24in+)				

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Corallorhiza Conspectus

Species	Stem	Inflorescence		
		Flower	Lip	Spur
<u>Corallorhiza maculata</u> <u>spotted coral-root</u> <u>Coma3</u>	stout; purplish to reddish (albino forms)	10-30 reddish- purple flowers; 8-10mm long 	laterally lobed; white with wine-red spots 	poorly-developed 
<u>Corallorhiza mertensiana</u> <u>western coral-root</u> <u>Come</u>	slender; reddish	30+ pink, some yellow 	laterally lobed; not spotted 	well-developed; tip 1-3mm long 
<u>Corallorhiza striata</u> <u>striped coral-root</u> <u>Cost2</u>	purplish	7-30 pinkish 	not lobed; 3-5 reddish stripes 	spur lacking 

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Liliaceae Conspectus

Species	Stems	Leaf and Bases	Leaf Margins	Flower	Fruit
<u>Disporum</u> <u>hookeri</u> Hooker fairy- bell Diho	BRANCHED; brownish (not green); hairy	sessile; ovate- elliptic; rounded base	strongly cilliate with forward- pointing hairs	terminal; 2-3 white bell- shaped	smooth red berry from leaf axils
<u>Disporum</u> <u>trachycarpum</u> wartberry fairy-bell Ditr	BRANCHED; brownish (not green); very hairy	sessile; ovate- oblong; rounded base	strongly cilliate with spreading hairs	terminal; 1-2 white bell- shaped from leaf axils	pebbly yellow- reddish globose berry
<u>Smilacina</u> <u>racemosa</u> false Solomon's seal Smra	unbranched; BROWNISH- GREEN	sessile; broadly ovate slightly clasping bases	smooth	terminal panicle of numerous white flowers	reddish berry (immature spotted) not attached directly to main stem
<u>Smilacina</u> <u>stellata</u> starry Solomon- plume Smst	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
<u>Streptopus</u> <u>amplexifolius</u> twisted-stalk Stam	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

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Habenaria Conspectus

Species	Leaf Description	Leaf Persistence	Flowers	Similar Species
<i>Habenaria elegans</i> hillside rein-orchid Hael	1-3 near basal; oblanceolate	withering at flowering	slightly fragrant; white spur; 8-18mm long; reduced upward; subsessile	<i>Habenaria unalascensis</i>
<i>Habenaria orbiculata</i> large rein-orchid Haor	2 large basal; orbicular; shiny above; flat on ground	withering after flowers	fragrant; greenish; strongly curved spur on pedicels	
<i>Habenaria saccata</i> slender bog orchid Hasa	cauline; oblong; reduced upward	withering with stem	fragrant; greenish spur with enlarged tip reduced upward	
<i>Habenaria unalascensis</i> <i>Alaska rein-orchid</i> Haun	2-4 basal; lanceolate	withering before flowering	moderately fragrant; white or greenish spur; cylindrical; subsessile	<i>Habenaria elegans</i>

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Mitella Conspectus

Species	Leaves	Leaf shape	Flowers	Petals	Stamens
<u>Mitella breweri</u> <u>Brewer's mitrewort</u> <u>Mibr</u>	basal	cordate-kidney; 7-11 lobed with brownish hairs	20-60 in raceme; greenish; saucer-shaped; blossoming upward	dissected into 5-9 lateral segments	5 alternate with the petals
<u>Mitella caulescens</u> <u>mitrewort</u> <u>Mica3</u>	mostly basal with a few cauline	cordate and hairy; 5-7 lobed	up to 25 in raceme; green; bell-shaped; blossoming downward	dissected into 8 segments	5 leafy alternate with the petals
<u>Mitella pentandra</u> <u>alpine mitrewort</u> <u>Mipe</u>	basal	ovate-cordate; 5-9 lobed; hairy-glandular	6-25 in raceme; greenish; saucer-shaped; blossoming upward	dissected into 4-10 segments	5 opposite the petals
<u>Mitella stauropetala</u> <u>side-flowered mitrewort</u> <u>Mist2</u>	basal	cordate-kidney; 5-7 lobed; underneath purplish	10-48 in raceme; whitish; bell-shaped; 1-sided raceme blossoming upward	3 lobed not dissected	5 alternate with the petals

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Pyrola Conspectus

Species	Leaves & Stems	Leaf Shape	Leaf Color	Flowers	Similar Species
<u>Pyrola</u> <u>asarifolia</u> pink <u>wintergreen</u> <u>Pyas</u>	numerous basal	obovate	shiny green above; purplish-brown below; not mottled	10-25 in racemes; pink to rose; nodding; styles strongly curved	<u>Asarum</u> <u>caudatum</u> ; <u>Pyrola</u> <u>picta</u>
<u>Pyrola</u> <u>chlorantha</u> green pyrola Pych	several basal; reddish- brown stems	rotund round- toothed	dull dark green; not mottled	2-8 in raceme; pale yellow; style curved	
<u>Pyrola picta</u> white vein pyrola Pypi	mostly basal	elliptic; thickened margins	dark green with greyish mottling along main veins	10-25 in raceme; yellowish or green; style curved	<u>Pyrola</u> <u>asarifolia</u> ; <u>Goodyera</u> <u>oblongifolia</u>
<u>Pyrola</u> <u>secunda</u> <u>sidebells</u> <u>pyrola</u> <u>Pyse</u>	numerous leaves; leafy aerial stem	ovate to elliptic	light green	6-20 in nodding raceme; flowers on one side; white; styles straight	<u>Gaultheria</u> <u>ovatifolia</u>

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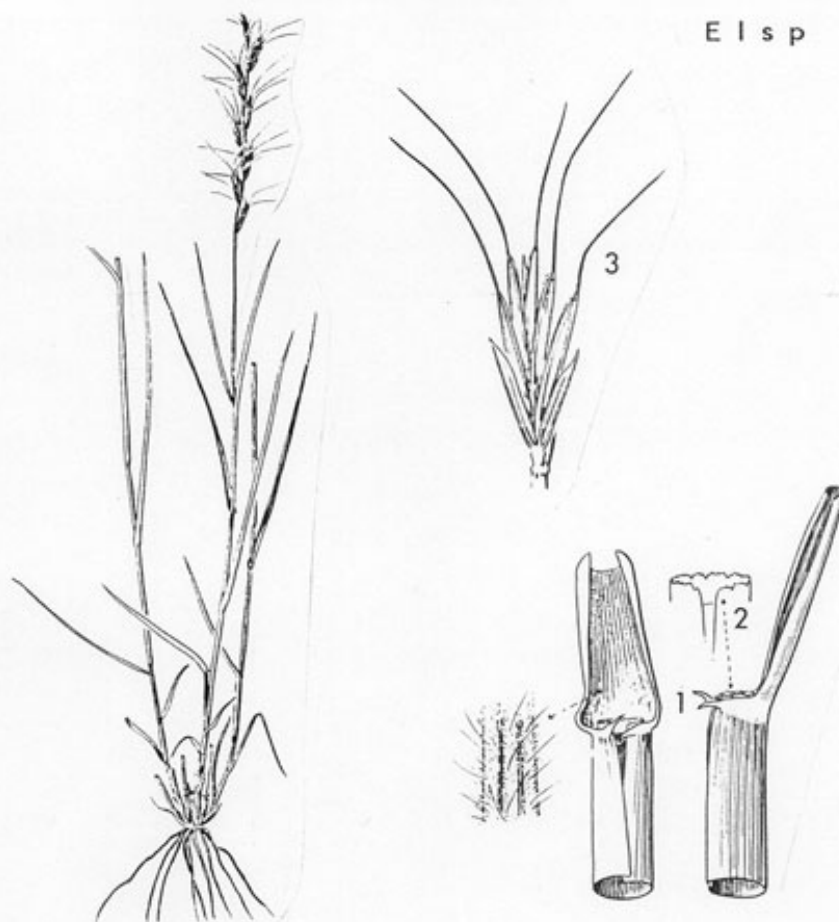
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Viola Conspectus

Species	Rootstock	Leaves	Flower Stem	Flower	Similar Species
<u>Viola adunca</u> <u>hook violet</u> <u>Viad</u>	slender rhizomes	ovate; finely toothed	variable cauline leaves	blue to violet; 3 lower petals; white based	
<u>Viola canadensis</u> Canada violet Vica	short with slender stolons	cordate; acute apex; serrate	leafy; near tip	white; purplish- tinged outside; 3 lower petals purple- veined	<u>Viola glabella</u>
<u>Viola glabella</u> <u>pioneer</u> <u>violet</u> <u>Vigl</u>	spreading fleshy rhizomes without stolons	reniform to cordate; acute apex; serrate	leafy; near tip	bright yellow; 3 lower petals purple- veined	<u>Viola canadensis</u>
<u>Viola orbiculata</u> <u>round- leaved</u> <u>violet</u> <u>Vior2</u>	short erect without stolons	evergreen; orbicular; rounded apex; serrate	leafy; near base	lemon yellow; 3 lower petals purple- veined	<u>Asarum caudatum</u> ; <u>Pyrola asarifolia</u>

Ppo	Syal h.t.	6
	Phma h.t.	3
Psmc	Caru h.t.	4
	Aruv	1
	Phma	3
	Smst	1
Abgr	Phma h.t.	1
	Cooc	
	Libo h.t.	
	Xete	
	Asca h.t.	
	Tabr	
	Mefe	
	Setr h.t.	
Thpl	Phma	
	Clun	+
	Tabr	
	Mefe	
	Xete	+
	Vagl	1
	Cooc	
	Clun h.t.	
Tshe	Tabr	
	Mefe	
	Xete	
	Asca h.t.	
	Tabr	
	Mefe	
	Gydr h.t.	
	Adpe h.t.	
Tsmc	Atfi	
	Adpe	
	Atfi	
	Opho h.t.	
	Clun	
	Arnu	
	Mefe	
	Xete	
Abta	Asca h.t.	
	Arnu	
	Mefe	
	Gydr h.t.	
	Clun h.t.	
	Mefe	
	Xete	
	Luh	
Pico	Clun h.t.	
	Mefe	
	Xete	
	Luh	
	Cooc	
	Xete	
	Vasc	
	Luh	
Pico	Clun h.t.	
	Mefe	
	Xete	
	Luh	
	Cooc	
	Xete	
	Vasc	
	Luh	



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).

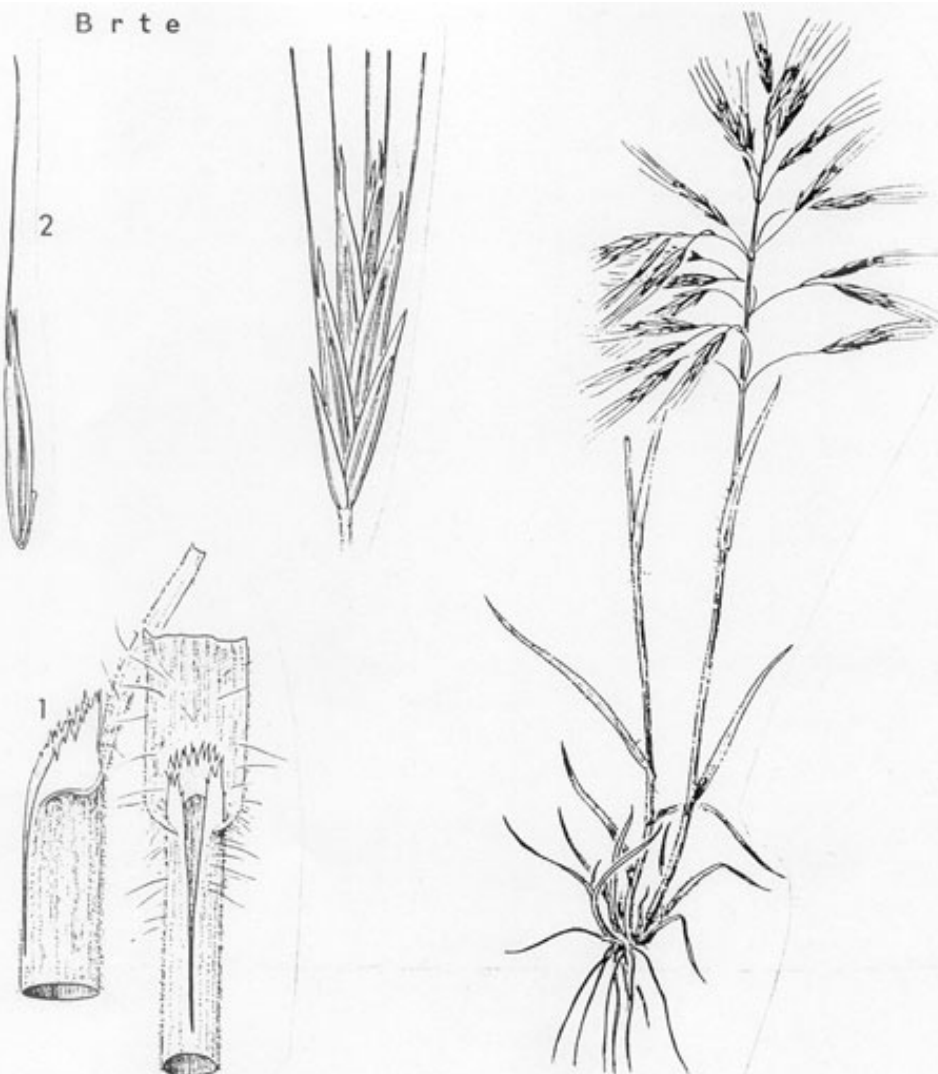
INFLORESCENCE: Erect, spike with one sessile spikelet per node; lemma tipped by a divergent awn (3) about 2cm (1in) long; June-Aug.

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. *inermis*.

B r t e



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.	Pipo
	Phma h.t.	
	Caru h.t.	Psme
	Aruv h.t.	
7	Phma h.t.	
	Smst h.t.	
	Phma h.t.	
	Cooc h.t.	
	Libo h.t.	
	Xete h.t.	
	Asca h.t.	
	Tabr h.t.	
	Mefe h.t.	
	Setr h.t.	Abgr
	Phma h.t.	
	Clun h.t.	
	Tabr h.t.	
	Mefe h.t.	
	Xete h.t.	
+	Vagl h.t.	Xete h.t.
	Cooc h.t.	
	Clun h.t.	
	Tabr h.t.	
	Mefe h.t.	
	Xete h.t.	
	Asca h.t.	
1	Tabr h.t.	Thp
	Mefe h.t.	
	Gydr n.t.	
	Adpe h.t.	
	Adpe h.t.	
	Atfi h.t.	
	Opho h.t.	
	Clun h.t.	
	Arnu h.t.	
	Mefe h.t.	
	Xete h.t.	
	Asca h.t.	
	Arnu h.t.	
	Mefe h.t.	
	Gydr h.t.	
	Mefe h.t.	
	Xete h.t.	
	Xete h.t.	
	Luhi h.t.	
	Mefe h.t.	
	Luhi h.t.	
	Vagl h.t.	
	Luhi h.t.	
	Clun h.t.	
	Mefe h.t.	
	Xete h.t.	
	Cooc h.t.	
	Xete h.t.	
	Vasc h.t.	
	Luhi h.t.	
	Mefe h.t.	
	Lica h.t.	
	Caca h.t.	
	Vaca h.t.	
	Legl h.t.	
	Cooc h.t.	
	Vagl h.t.	
	Vasc h.t.	
	Luhi h.t.	
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	

Pipo	Syal h.t.	1
Phma	h.t.	6
Psme	Caru	Aruv
h.t.	Phma	1
h.t.	Smst	
Phma	Phma	
h.t.	Cooc	
Libo	Libo	
h.t.	Xete	
Asca	Asca	
h.t.	Tabr	
	Mefe	
Abgr	Setr h.t.	
	Phma	
	Clun	+
Clun	Tabr	
h.t.	Mefe	
	Xete	
Xete	Vagl	
h.t.	Cooc	
Thp1	Clun	
	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	
	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	
Ab1a	Clun	
	Mefe	
	Xete	
	Cooc	
Mefe	Xete	
h.t.	Vasc	
	Luhi	
Stam	Mefe	
h.t.	Lica	
Caca	Caca	
h.t.	Vaca	
	Legl	
	Cooc	
Xete	Vagl	
h.t.	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.

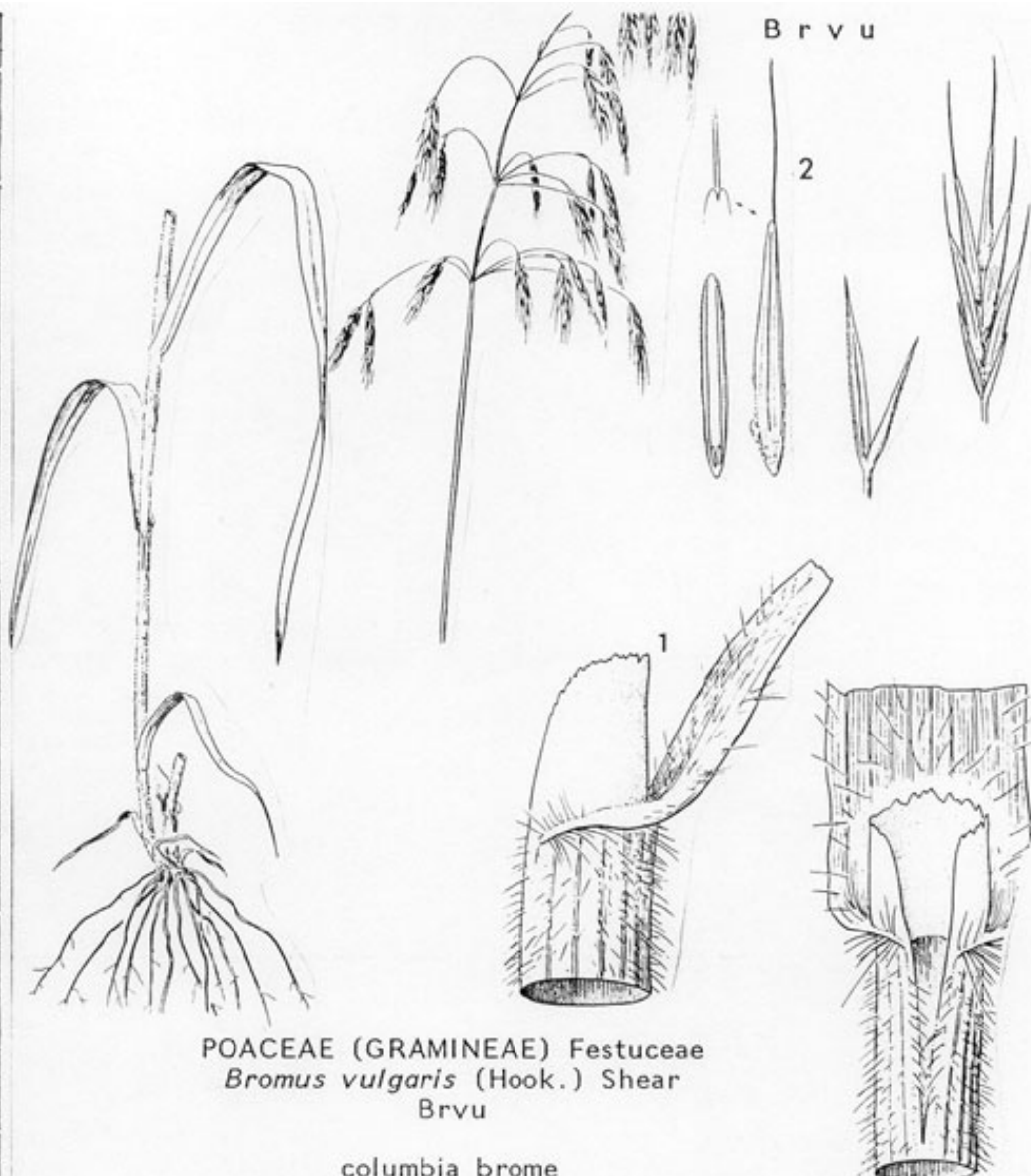
INFLORESCENCE: Purplish-tinged, spreading panicle, 3-10cm (1-4in) long, obtaining a nodding appearance when mature; lemmas awnless with dense webby hairs at the base (1); May-Oct.

ENEMIES: Fire: resistant, but damage from hot, spring burns, regeneration from rhizomes to preburn levels within 2-5 years.

SIMILAR SPECIES: *Poa palustris* (fowl bluegrass), stoloniferous with longer ligules and *Poa compressa* (Canadian bluegrass), culms strongly flattened.

NOTES: Often dominates heavily grazed dry and moist meadows.

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



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

columbia brome

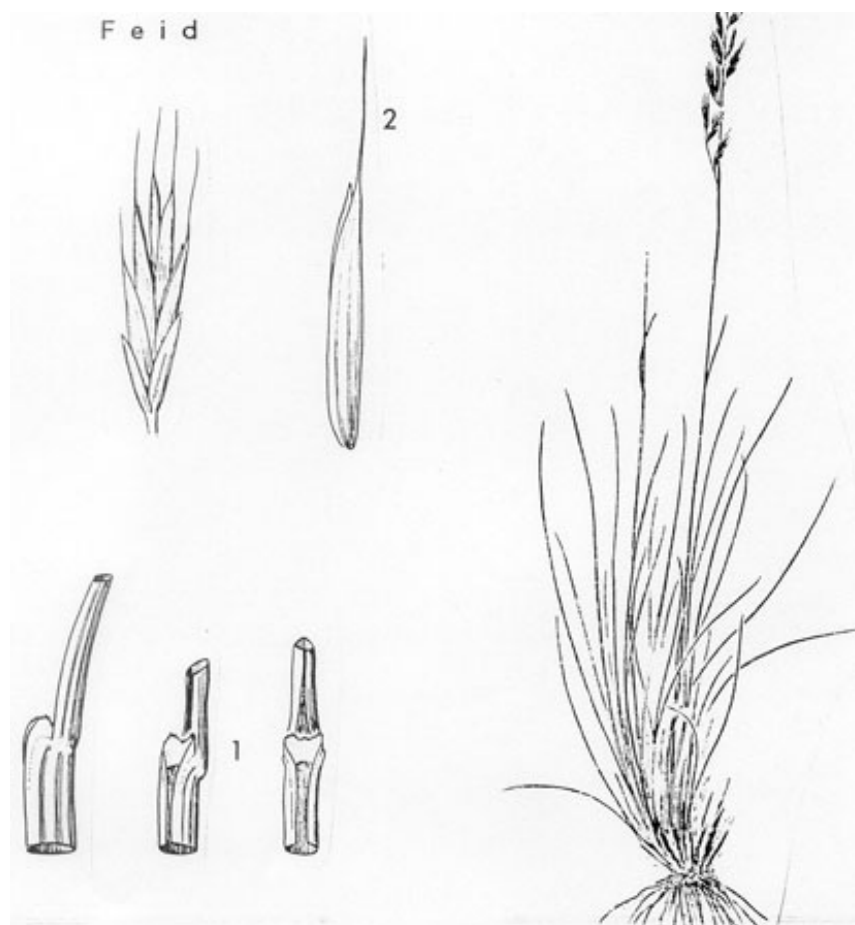
FORM: Robust, hairy, fibrous-rooted perennial, nonrhizomatous, culms slender 30-80cm (12-32in) tall, never forms bunches.

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.



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.

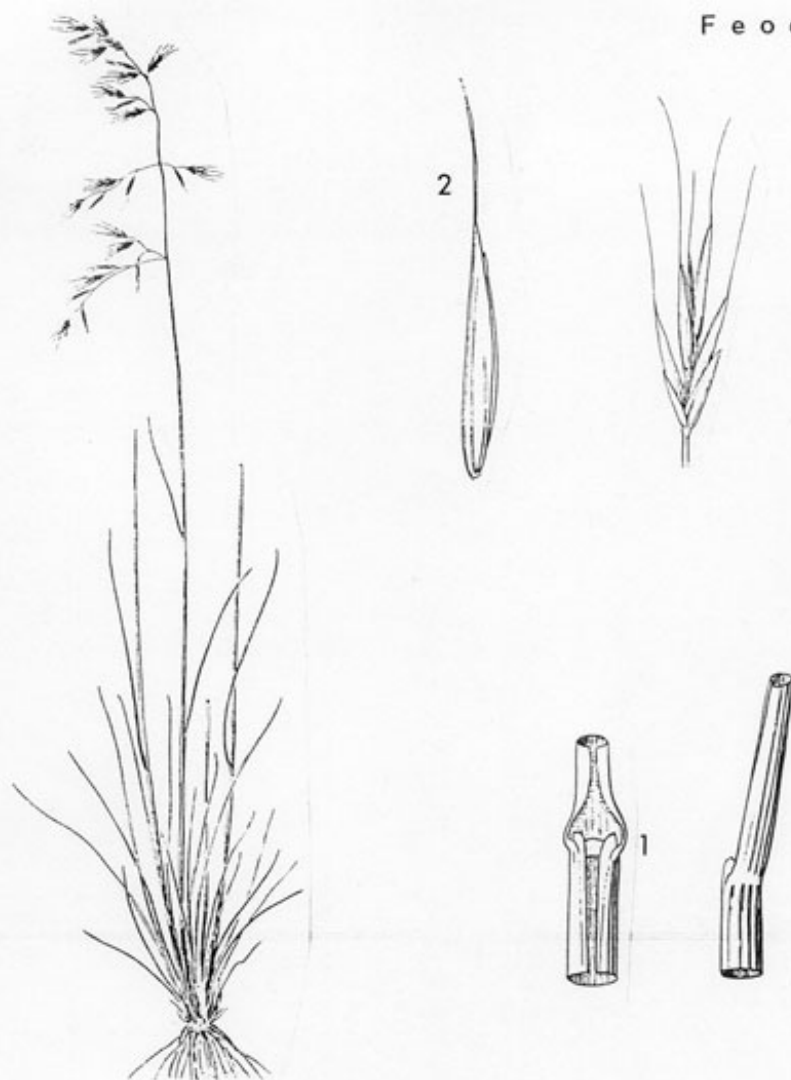
INFLORESCENCE: Narrow panicle, with erect branches 10-20cm (4-8in) long, one to several spikelets per branch with 5-7 florets per spikelet, **glumes of unequal length**, lemma with stout, short awn (2), 2-5mm long.

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.	Phma h.t.	Ppdp
4	Caru h.t.	Aruv h.t.	Psme
1	Phma h.t.	Smst h.t.	Phma
	Phma h.t.	Cooc h.t.	Phma
	Libo h.t.	Libo h.t.	Libo
	Xete h.t.	Xete h.t.	Xete
	Asca h.t.	Tabr h.t.	Asca
	Mefe h.t.	Mefe h.t.	Mefe
	Setr h.t.	Setr h.t.	Setr
	Phma h.t.	Phma h.t.	Phma
	Clun h.t.	Clun h.t.	Clun
	Tabr h.t.	Tabr h.t.	Tabr
	Mefe h.t.	Mefe h.t.	Mefe
	Xete h.t.	Xete h.t.	Xete
	Vagl h.t.	Vagl h.t.	Vagl
	Cooc h.t.	Cooc h.t.	Cooc
	Clun h.t.	Clun h.t.	Clun
	Tabr h.t.	Tabr h.t.	Tabr
	Mefe h.t.	Mefe h.t.	Mefe
	Xete h.t.	Xete h.t.	Xete
	Asca h.t.	Asca h.t.	Asca
	Tabr h.t.	Tabr h.t.	Tabr
	Mefe h.t.	Mefe h.t.	Mefe
	Gydr h.t.	Gydr h.t.	Gydr
	Adpe h.t.	Adpe h.t.	Adpe
	Atfi h.t.	Atfi h.t.	Atfi
	Opho h.t.	Opho h.t.	Opho
	Clun h.t.	Clun h.t.	Clun
1	Arnu h.t.	Arnu h.t.	Arnu
	Mefe h.t.	Mefe h.t.	Mefe
	Xete h.t.	Xete h.t.	Xete
	Asca h.t.	Asca h.t.	Asca
	Arnu h.t.	Arnu h.t.	Arnu
	Mefe h.t.	Mefe h.t.	Mefe
	Gydr h.t.	Gydr h.t.	Gydr
	Mefe h.t.	Mefe h.t.	Mefe
	Xete h.t.	Xete h.t.	Xete
	Xete h.t.	Xete h.t.	Xete
	Luhi h.t.	Luhi h.t.	Luhi
	Mefe h.t.	Mefe h.t.	Mefe
	Luhi h.t.	Luhi h.t.	Luhi
	Vagl h.t.	Vagl h.t.	Vagl
	Luhi h.t.	Luhi h.t.	Luhi
	Clun h.t.	Clun h.t.	Clun
	Mefe h.t.	Mefe h.t.	Mefe
	Xete h.t.	Xete h.t.	Xete
	Cooc h.t.	Cooc h.t.	Cooc
	Xete h.t.	Xete h.t.	Xete
	Vasc h.t.	Vasc h.t.	Vasc
	Luhi h.t.	Luhi h.t.	Luhi
	Mefe h.t.	Mefe h.t.	Mefe
	Lica h.t.	Lica h.t.	Lica
	Caca h.t.	Caca h.t.	Caca
	Vaca h.t.	Vaca h.t.	Vaca
	Legl h.t.	Legl h.t.	Legl
	Cooc h.t.	Cooc h.t.	Cooc
	Vagl h.t.	Vagl h.t.	Vagl
+	Vasc h.t.	Vasc h.t.	Vasc
	Luhi h.t.	Luhi h.t.	Luhi
	Vasc h.t.	Vasc h.t.	Vasc
	Xete c.t.	Xete c.t.	Xete
	Vaca c.t.	Vaca c.t.	Vaca

Pipo	Syal h.t.	4
	Phma h.t.	3
Psmc	Caru h.t.	4
	Aruv	2
	Phma h.t.	3
	Smst	5
Abgr	Phma h.t.	2
	Cooc	
	Libo h.t.	5
	Xete	1
	Asca h.t.	2
	Tabr	
	Mefe	2
	Setr h.t.	
Clun	Phma	1
	Clun	1
	Tabr	1
	Mefe	2
	Xete	1
	Vagl	1
	Cooc	1
Thpl	Clun h.t.	1
	Tabr	
	Mefe	2
	Xete	1
	Asca h.t.	+
	Tabr	
	Mefe	
	Gydr h.t.	
Tshe	Adpe h.t.	2
	Atfi	
	Adpe	+
	Atfi	+
	Opho h.t.	2
	Clun	+
	Arnu	
Tsmc	Mefe	
	Xete	
	Xete	
	Luh1	
	Mefe	
	Luh1	
	Vagl	
	Luh1	
Abia	Clun h.t.	2
	Mefe	1
	Xete	1
	Cooc	2
	Xete	
	Vasc	
	Luh1	
	Mefe	1
Pico	Lica	1
	Caca	
	Vaca	2
	Legl	1
	Cooc	
	Vagl	1
	Vasc	
	Luh1	
Pico	Vasc h.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).

Pipo	Syal h.t.	1
	Phma h.t.	1
Psmie	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.	
		Phma
		Clun
Thp	Clun	Tabr
	h.t.	Mefe
		Xete
	Asca	Asca
	h.t.	Tabr
		Mefe
	Gydr h.t.	
	Adpe h.t.	
	Atfi	Adpe
	h.t.	Atfi
Ishe	Opho h.t.	
		Clun
	Clun	Arnu
	h.t.	Mefe
		Xete
	Asca	Asca
	h.t.	Arnu
		Mefe
	Gydr h.t.	
		Clun
Isme	Clun	Mefe
	h.t.	Xete
	Mefe	Xete
	h.t.	Luhi
	Stam	Mefe
	h.t.	Luhi
	Xete	Vagl
	h.t.	Luhi
		Clun
		Mefe
Abia		Xete
	Mefe	Cooc
	h.t.	Xete
		Vasc
	Stam	Luhi
	h.t.	Mefe
		Lica
	Caca	Caca
	h.t.	Vaca
		Legl
Pico		Cooc
	Xete	Vagl
	h.t.	Vasc
		Luhi
	Vasc h.t.	
	Xete c.t.	
	Vaca c.t.	



orchard grass

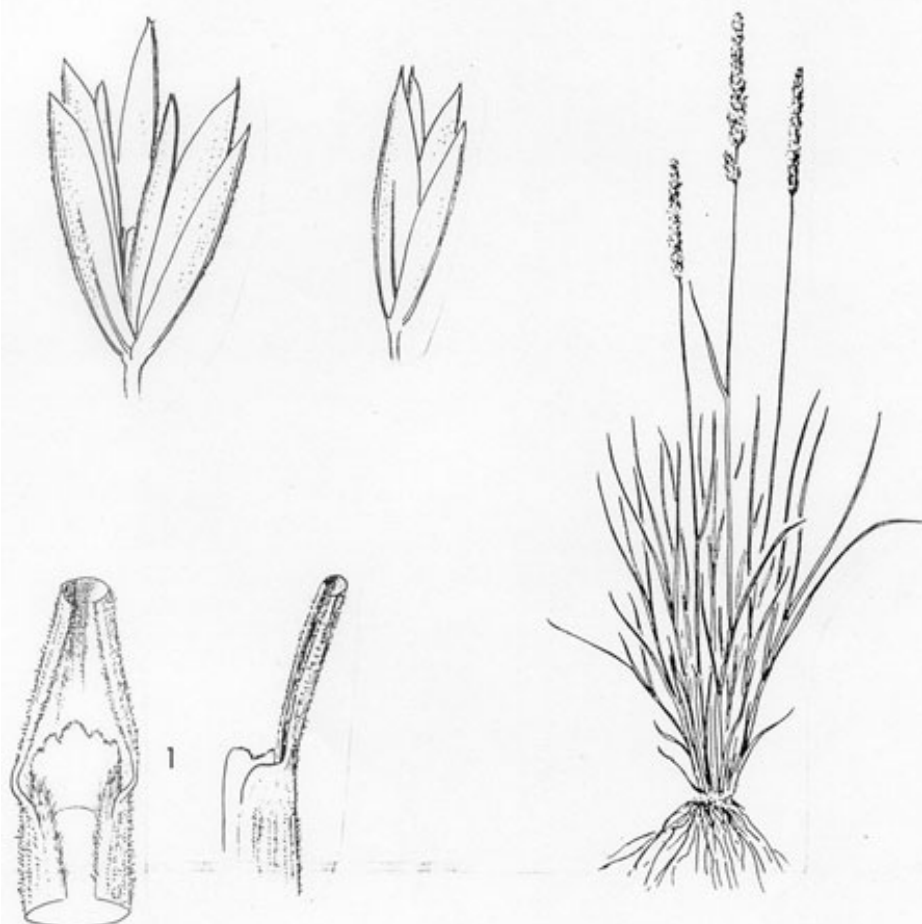
FORM: A tall, strongly, tufted, cool season perennial with hollow culms up to 12dm (4ft) tall.

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 second 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.

Koni



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	Psmie
	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.	Tshe
	Arnu		
	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	Abld
	Mefe	h.t.	
	Xete		
	Cooc	Mefe h.t.	
	Xete		
	Vasc		
	Luhi	Stam h.t.	
	Mefe		
	Lica		
	Caca	Caca h.t.	
	Vaca		
	Legl		
	Cooc	Xete h.t.	
	Vagl		
	Vasc		
	Luhi		
1	Vasc h.t.		Pico
	Xete c.t.		
	Vaca c.t.		

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



M e s u



2



POACEAE (GRAMINEAE) Festuceae
Melica subulata (Griseb.) Scribn.
Mesu

Alaska oniongrass

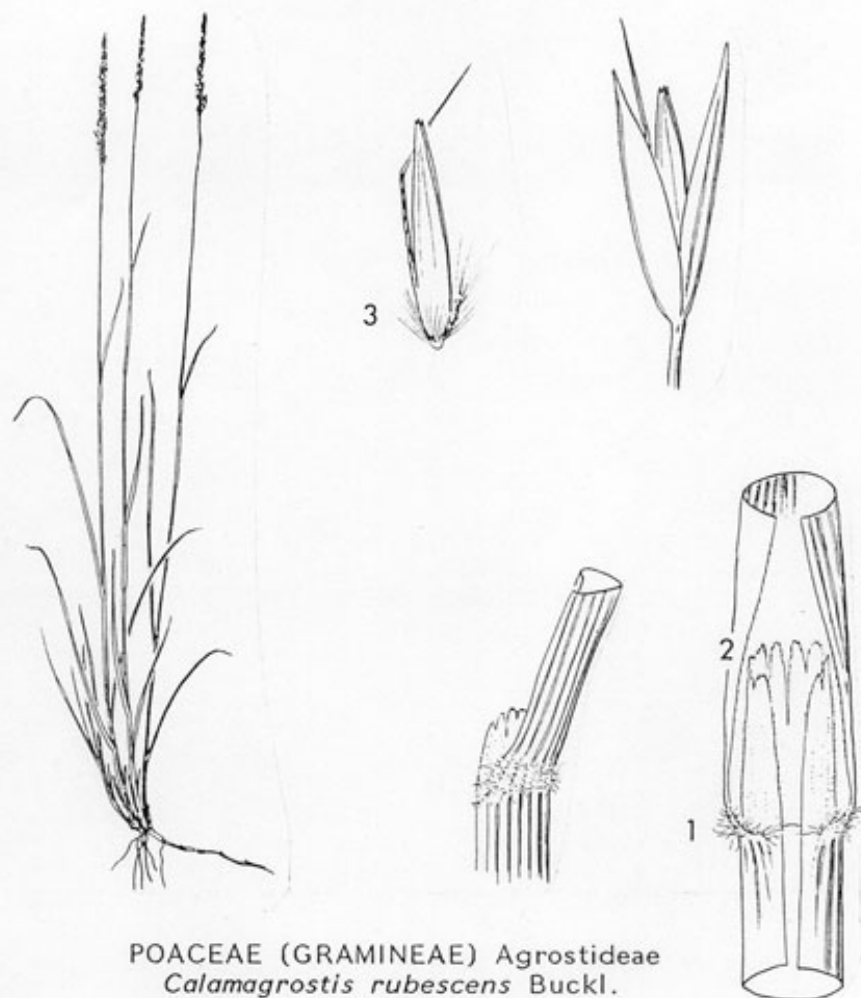
FORM: Tufted, perennial grass, 30-80cm (12-32in) tall; hollow culms enlarged and bulbous at base (1), attached to short rhizomes.

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).

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

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.		Ptpo
Phma h.t.		
Caru	Caru	Psmc
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	Thp
Mefe	h.t.	
Xete		
Asca	Asca	
Tabr	h.t.	
Mefe		
Gydr	h.t.	
Adpe	h.t.	
Adpe	Atfi	
Atfi	h.t.	
Opho	h.t.	Tshe
+ Clun		
Arnu	Clun	
Mefe	h.t.	
Xete		
Asca	Asca	
Arnu	h.t.	Tme
Mefe		
Gydr	h.t.	
Mefe	Clun	
Xete	h.t.	
Xete	Mefe	
Luhi	h.t.	
Mefe	Stam	Abia
5 Luhi	h.t.	
Vagl	Xete	
Luhi	h.t.	
Clun	Clun	
Mefe	h.t.	
Xete		
1 Cooc	Mefe	
Xete	h.t.	
Vasc		
Luhi		
1 Mefe	Stam	Pico
1 Lica	h.t.	
10 Caca	Caca	
10 Vaca	h.t.	
4 Legl		
1 Cooc		
Vagl	Xete	
+ Vasc	h.t.	
Luhi		
Vasc	h.t.	
Xete	c.t.	
Vaca	c.t.	

C a g e



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.

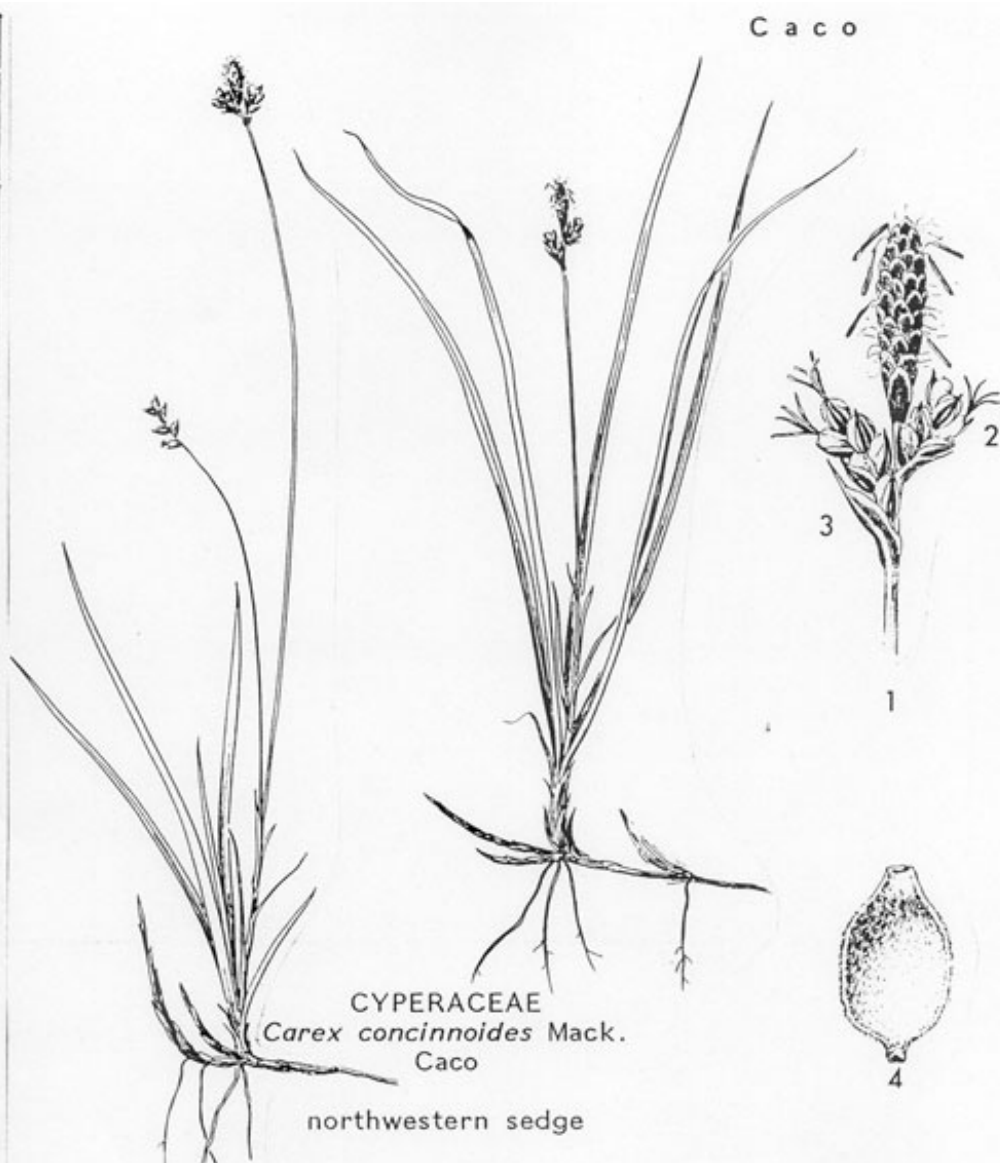
FRUIT: Large 3-sided achene (3), 4-5mm long.

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	h.t.	
4	Libo	Libo	
	Xete	h.t.	
2	Asca	Asca	
	Tabr	h.t.	
1	Mefe		
2	Setr	h.t.	
3	Phma		
2	Clun		
1	Tabr	Clun	Thp
2	Mefe	h.t.	
2	Xete		
4	Vagl	Xete	
3	Cooc	h.t.	
1	Clun		
	Tabr	Clun	
1	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Tabr	h.t.	Tshe
	Mefe		
	Gydr	h.t.	
	Adpe	h.t.	
	Adpe	Atfi	
	Atfi	h.t.	
	Opho	h.t.	
+	Clun		
	Arnu	Clun	
2	Mefe	h.t.	
	Xete		Tsme
1	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr	h.t.	
2	Mefe	Clun	
5	Xete	h.t.	
5	Xete	Mefe	
5	Luhi	h.t.	
	Mefe	Stam	
2	Luhi	h.t.	Abia
4	Vagl	Xete	
4	Luhi	h.t.	
	Clun		
	Mefe	Clun	
4	Xete	h.t.	
	Cooc		
	Xete	Mefe	
2	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
1	Lica	h.t.	Pico
2	Caca	Caca	
2	Vaca	h.t.	
2	Legl		
2	Cooc		
6	Vagl	Xete	
4	Vasc	h.t.	
3	Luhi		
	Vasc	h.t.	
	Xete	c.t.	
	Vaca	c.t.	

Pipo	Syal h.t.	1
	Phma h.t.	
Psme	Caru h.t.	Caru 6
	Aruv	3
	Phma h.t.	Phma +
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
	Phma	+
	Clun	1
Thp	Clun h.t.	Tabr
	Mefe	1
	Xete	1
	Asca h.t.	Asca +
	Tabr	
	Mefe	
	Gydr h.t.	
	Adpe h.t.	1
	Atfi h.t.	Adpe
	Atfi	+
Ishe	Opho h.t.	
	Clun	1
	Arnu	1
	Mefe	
	Xete	1
	Asca h.t.	Asca 1
	Arnu	
	Mefe	
	Gydr h.t.	1
	Clun	
Isme	h.t.	Mefe
	Xete	
	Mefe	
	h.t.	Luhi 1
	Stam	Mefe
	h.t.	Luhi
	Xete	Vagl
	h.t.	Luhi
	Clun	3
	h.t.	Mefe
Abia	Xete	1
	Cooc	1
	Mefe	
	h.t.	Vasc 1
	Luhi	
	Stam	Mefe 1
	h.t.	Lica 1
	Caca	
	h.t.	Vaca
	Legl	2
Pico	Cooc	3
	Xete	Vagl 2
	h.t.	Vasc 3
	Luhi	2
	Vasc h.t.	10
	Xete c.t.	
	Vaca c.t.	



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

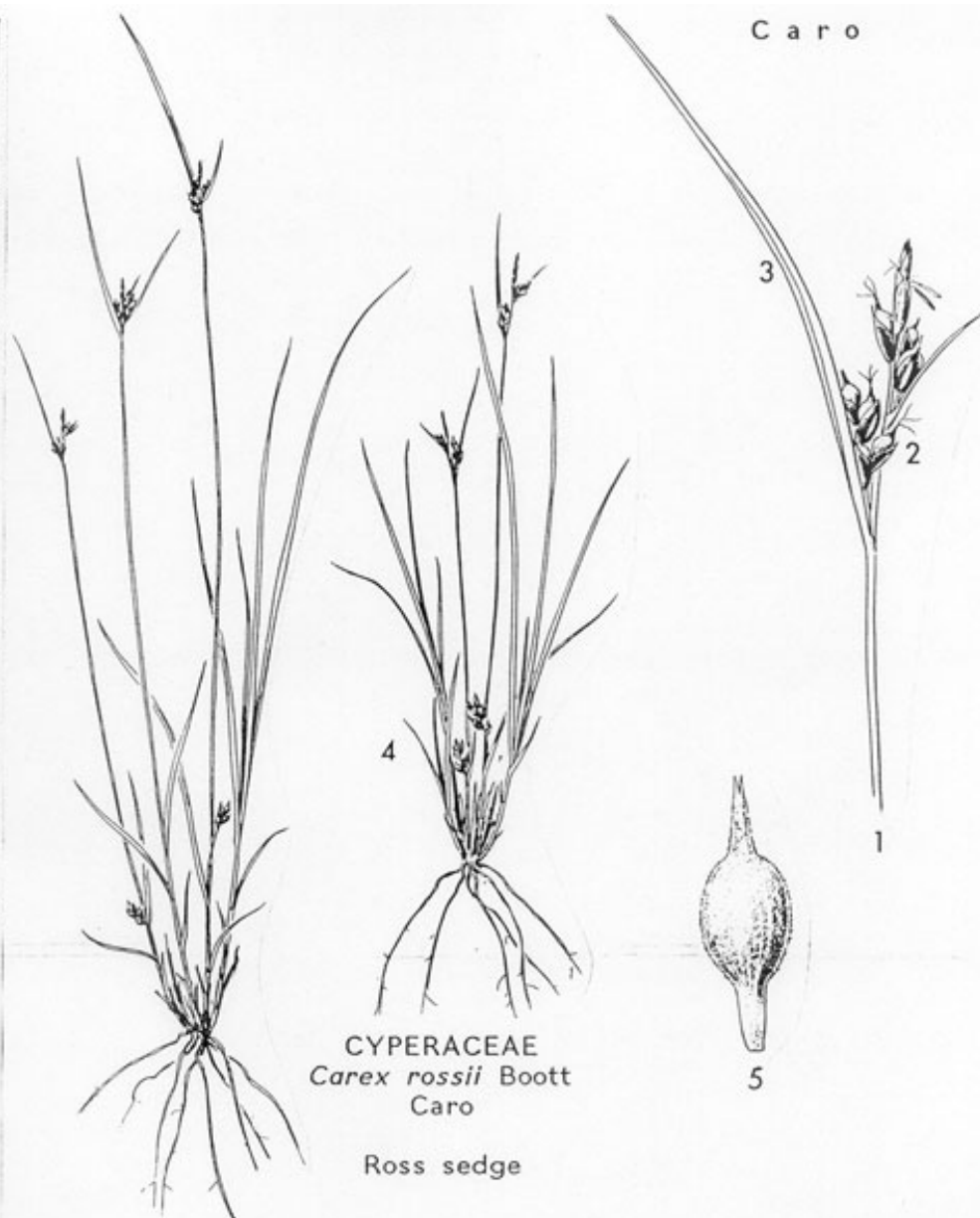
LEAVES: Firm, flat blades, 2-5mm wide, generally longer than the culm, remaining green through winter, basal sheaths reddish-brown to purplish tinged dark brown.

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.

Pipo	Syal h.t.	2
	Phma h.t.	1
Psmc	Caru	Caru
	h.t.	Aruv
	Phma	Phma
Phma	h.t.	Smst
	h.t.	1
	h.t.	1
Abgr	Phma	Phma
	h.t.	Cooc
	Libo	Libo
	h.t.	Xete
	Asca	Asca
	h.t.	Tabr
	h.t.	Mefe
	Setr	Setr
	h.t.	6
	Phma	Phma
Clun	h.t.	Clun
	h.t.	Tabr
	h.t.	Mefe
	h.t.	Xete
	Asca	Asca
	h.t.	Tabr
	h.t.	Mefe
	h.t.	Xete
	Xete	Vagl
	h.t.	Cooc
Thpl	Clun	Clun
	h.t.	Tabr
	h.t.	Mefe
	h.t.	Xete
	Asca	Asca
	h.t.	Tabr
	h.t.	Mefe
	Gydr	Gydr
	h.t.	Adpe
	h.t.	Atfi
Tshe	Clun	Clun
	h.t.	Arnu
	h.t.	Mefe
	h.t.	Xete
	Asca	Asca
	h.t.	Arnu
	h.t.	Mefe
	Gydr	Gydr
	h.t.	Adpe
	h.t.	Atfi
Tsmc	Clun	Clun
	h.t.	Mefe
	h.t.	Xete
	h.t.	Xete
	h.t.	Luhi
	Stam	Stam
	h.t.	Luhi
	Xete	Xete
	h.t.	Vagl
	h.t.	Luhi
Abia	Clun	Clun
	h.t.	Mefe
	h.t.	Xete
	h.t.	Cooc
	Mefe	Mefe
	h.t.	Xete
	h.t.	Vasc
	h.t.	Luhi
	Stam	Stam
	h.t.	Lica
Pico	Caca	Caca
	h.t.	Vaca
	h.t.	Legl
	Cooc	Cooc
	Xete	Xete
	h.t.	Vagl
	h.t.	Vasc
	h.t.	Luhi
	Vasc	Vasc
	h.t.	1



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.

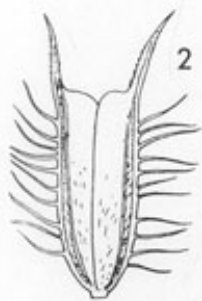
INFLORESCENCE: Terminal, solitary, staminate spike (1); 1-4 short, few-flowered lateral pistillate spikes borne near staminate spike, pistillate flowers (2) with 3 stigmas, the lowest subtended by a leafy bract (3) which is longer than the staminate spike, one or more small pedunculate pistillate spikes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

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.		
Phma h.t.		Phpo
Caru	Caru	Psmc
Aruv	h.t.	
Phma	Phma	
Smst	h.t.	
Phma	Phma	
Cooc	h.t.	
Libo	Libo	
Xete	h.t.	
Asca		Abgr
Tabr	Asca	
Mefe	h.t.	
Setr	h.t.	
Phma		Clun
Clun		
Tabr	h.t.	
Mefe		
Xete		Xete
Vagl		
Cooc	h.t.	
Clun		Thpl
Tabr	Clun	
Mefe	h.t.	
Xete		
Asca		Asca
Tabr	h.t.	
Mefe		
Gydr	n.t.	
Adpe	h.t.	Atfi
Adpe		
Atfi	h.t.	
Opho	h.t.	
Clun		Tsle
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		Abia
Mefe	Clun	
Xete	h.t.	
Cooc		Mefe
Xete	h.t.	
Vasc		
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.	



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.

Syal h.t.		Pipo
Phma h.t.		
Caru	Caru	Pme
Aruv	h.t.	
Phma	Phma	
+ Smst	h.t.	
1 Phma	Phma	Abgr
Cooc	h.t.	
Libo	Libo	
Xete	h.t.	
Asca		
Tabr	Asca	
Mefe	h.t.	
Setr	h.t.	
Phma		
Clun		
Tabr	Clun	Thpl
Mefe	h.t.	
Xete		
+ Asca	Asca	
Tabr	h.t.	
1 Mefe		
Gydr	h.t.	
Adpe	h.t.	
Adpe	Atfi	
+ Atfi	h.t.	
Opho	h.t.	Tshe
Clun		
Arnu	Clun	
Mefe	h.t.	
1 Xete		
1 Asca	Asca	
Arnu	h.t.	Tme
Mefe		
Gydr	h.t.	
Mefe	Clun	
Xete	h.t.	
Xete	Mefe	
Luhi	h.t.	Abia
Mefe	Stam	
Luhi	h.t.	
Vagl	Xete	
Luhi	h.t.	
Clun	Clun	Pico
Mefe	h.t.	
1 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.	

Elgl



POACEAE (GRAMINEAE) Triticeae
Elymus glaucus Buckl.
Elgl

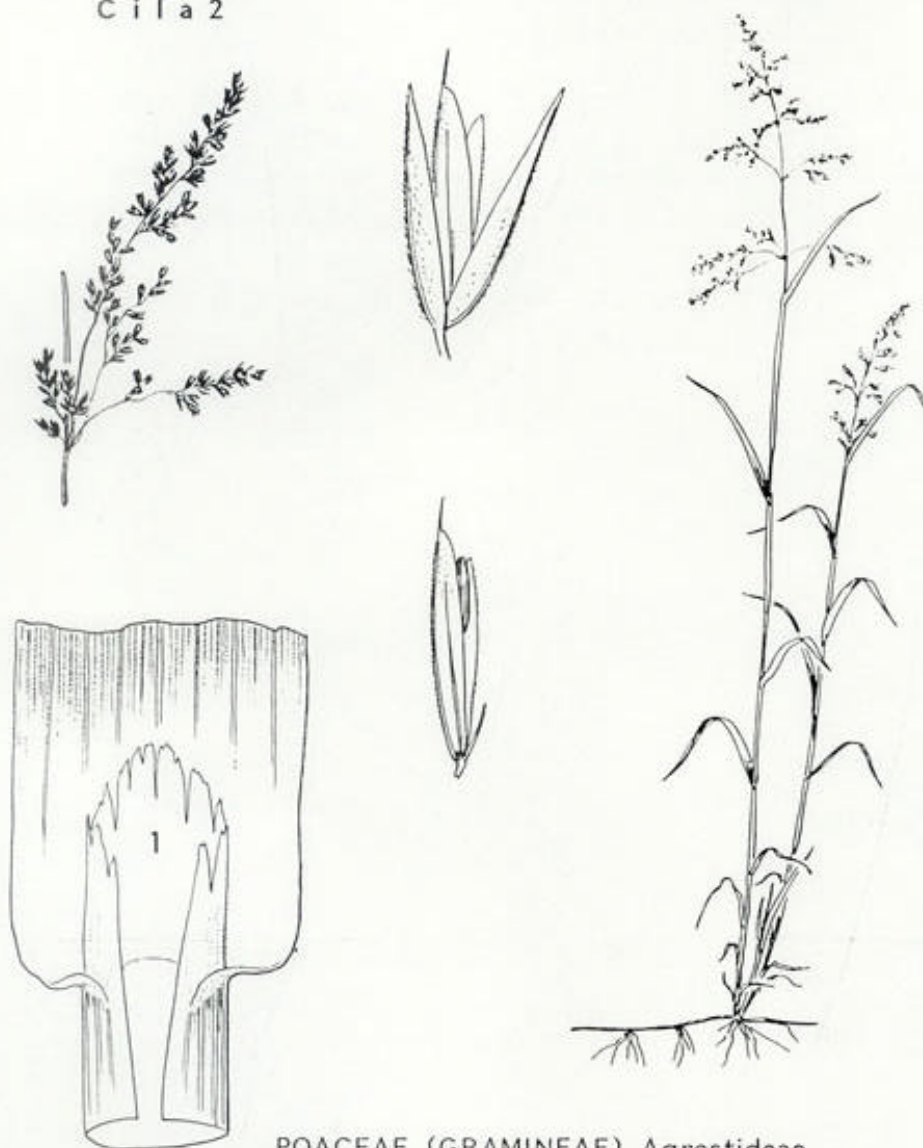
blue wildrye

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.		
4	Phma h.t.		
	Caru	Caru	
1	Aruv	h.t.	
1	Phma	Phma	
2	Smst	h.t.	
2	Phma	Phma	
	Cooc	h.t.	
1	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
1	Mefe		
	Setr h.t.		
	Phma		
	Clun		
	Tabr	Clun	
	Mefe	h.t.	
+	Xete		
	Vagl	Xete	
	Cooc	h.t.	
	Clun		
	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		
	Arnu	Clun	
	Mefe	h.t.	
	Xete		
+	Asca	Asca	
	Arnu	h.t.	
	Mefe		
	Gydr h.t.		
	Mefe	Clun	
	Xete	h.t.	
1	Xete	Mefe	
	Luhi	h.t.	
	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
	Clun		
	Mefe	Clun	
	Xete	h.t.	
	Cooc		
	Xete	Mefe	
	Vasc	h.t.	
	Luhi		
	Mefe	Stam	
	Lica	h.t.	
3	Caca	Caca	
2	Vaca	h.t.	
	Legl		
	Cooc		
	Vagl	Xete	
	Vasc	h.t.	
	Luhi		
	Vasc h.t.		
	Xete c.t.		
	Vaca c.t.		



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.	Phma h.t.	Pp	
Caru	Caru	Psm	
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	h.t.		
Setr	h.t.		
Phma			
Clun	Clun		
Tabr	h.t.	Thp1	
Mefe	h.t.		
Xete			
Asca	Asca		
Tabr	h.t.		
Mefe			
Gydr	n.t.		
+ Adpe	h.t.		
Adpe	Atfi		
1 Atfi	h.t.		
Opho	h.t.	Tsm	
+ Clun	Clun		
Arnu	h.t.		
Mefe			
Xete			
1 Asca	Asca		
Arnu	h.t.		
Mefe			
Gydr	h.t.		
Mefe	Clun	Tsm	
Xete	h.t.		
Xete	Mefe		
Luhi	h.t.		
Mefe	Stam		
Luhi	h.t.		
Vagl	Xete		
Luhi	h.t.		
Clun	Clun	Aol	
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	n.t.	Pico	
Xete	c.t.		
Vaca	c.t.		



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.		Pp
4	Phma h.t.		Pp
	Caru	Caru	Pme
	Aruv	h.t.	
2	Phma	Phma	
2	Smst	h.t.	
2	Phma	Phma	
	Cooc	h.t.	
	Libo	Libo	
	Xete	h.t.	
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
1	Setr h.t.		Abgr
1	Phma		
2	Clun	Clun	
	Tabr	h.t.	
	Mefe		
	Xete		
1	Vagl	Xete	
	Cooc	h.t.	
	Clun		
	Tabr	Clun	
3	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Tabr	h.t.	
	Mefe		
2	Gydr n.t.		
1	Adpe h.t.		
1	Adpe	Atfi	
+	Atfi	h.t.	
	Opho h.t.		
1	Clun		
	Arnu	Clun	
1	Mefe	h.t.	
	Xete		
	Asca	Asca	
	Arnu	h.t.	
	Mefe		
+	Gydr h.t.		
+	Mefe	Clun	
	Xete	h.t.	
	Xete	Mefe	
	Luhi	h.t.	
2	Mefe	Stam	
	Luhi	h.t.	
	Vagl	Xete	
	Luhi	h.t.	
3	Clun	Clun	
1	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.		



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.			
Phma h.t.			
Caru	Caru		
Aruv	h.t.		
Phma	Phma		
Smst	h.t.		
Phma	Phma		
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			
Tabr	Clun		
3 Mefe	h.t.		
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			
1 Arnu	Clun		
2 Mefe	h.t.		
Xete			
2 Asca	Asca		
Arnu	h.t.		
Mefe			
1 Gydr h.t.			
Mefe	Clun		
Xete	h.t.		
Xete	Mefe		
Luhi	h.t.		
Mefe	Stam		
2 Luhi	h.t.		
Vagl	Xete		
2 Luhi	h.t.		
3 Clun			
Mefe	Clun		
Xete	h.t.		
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.			
Xete c.t.			
Vaca c.t.			

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



1

JUNCACEAE

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

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.

[illegible]

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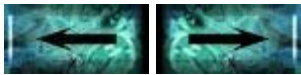
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Carex Conspectus

Species	Form	Roots	Pistillate Flowers	Floral Bract	Illustration
<u>Carex</u> <u>concinnoides</u> <u>northwestern</u> <u>sedge</u> <u>Caco</u>	loose groups of single stems	creeping rhizomes	5-12 flowered	subtending lowest pistillate spike 1cm	
<u>Carex</u> <u>geyeri</u> <u>elksedge</u> <u>Cage</u>	loose group of single stems	branching rhizomes	single flowered	bractless	
<u>Carex</u> <u>rossii</u> <u>Ross' sedge</u> <u>Caro</u>	tufted clump of many stems	fibrous	1-4 flowered	subtending entire spike 5cm	

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Luzula Conspectus

Species	Form	Roots	Leaves	Flowers	Habitat
Luzula campestris field woodrush Luca	tufted	fibrous	cauline leaves; hairy; pale green	congested clusters of 8-15	dry to moist sites
Luzula hitchcockii smooth woodrush Luhi	single stemmed to tufted	rhizomatous	cauline leaves; hairy; red mottled	open panicle deep brown to purplish-brown	high elevation wet or heavy snowpack sites
Luzula parviflora millet woodrush Lupa	densely tufted	fibrous; semi-stoloniferous	non-hairy; pale to medium green	solitary open panicle; greenish-tawny sometimes darker	dry to moist sites

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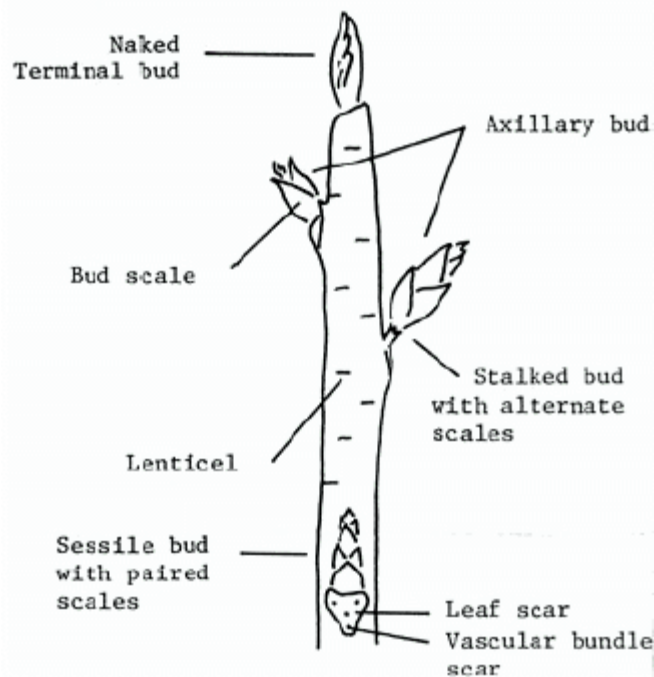
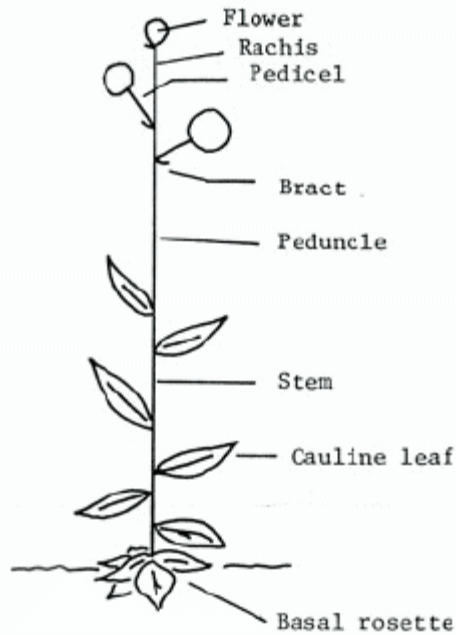
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Plant Parts and Terminology



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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

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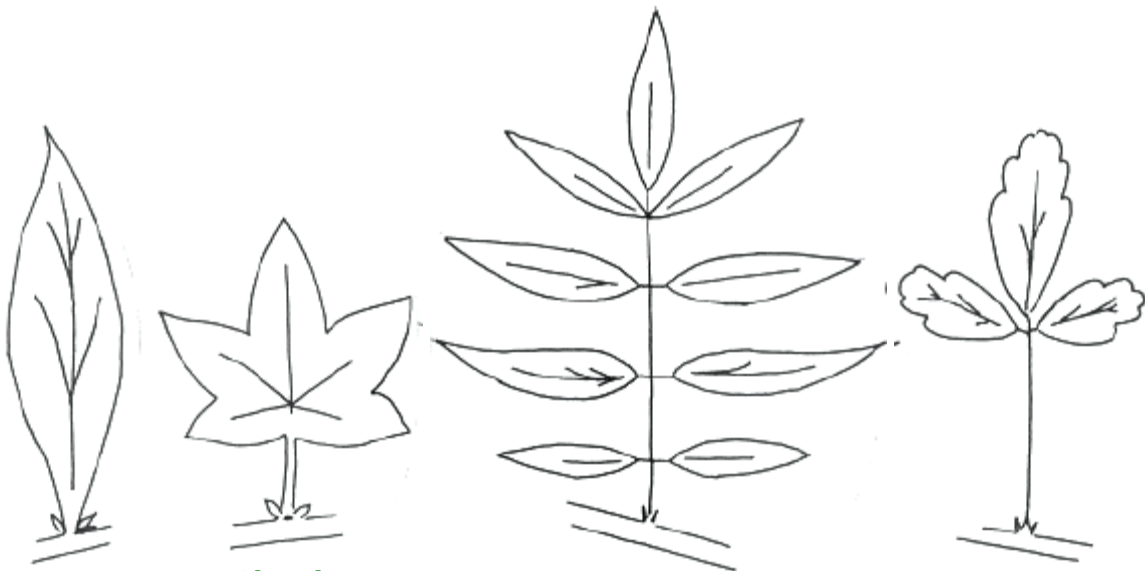
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Leaf Types



Simple Simple Palmately lobed Pinnately compound Trifoliate

Leaf Arrangements



Alternate Opposite Whorled

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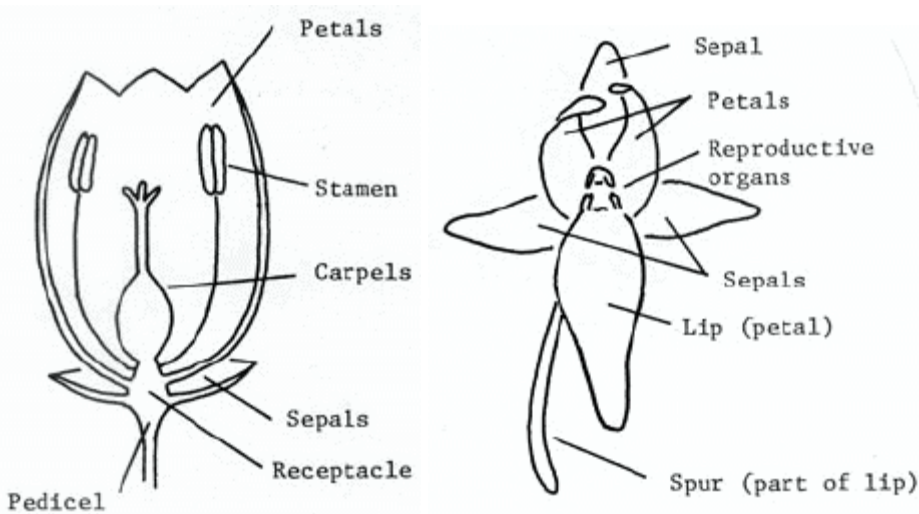
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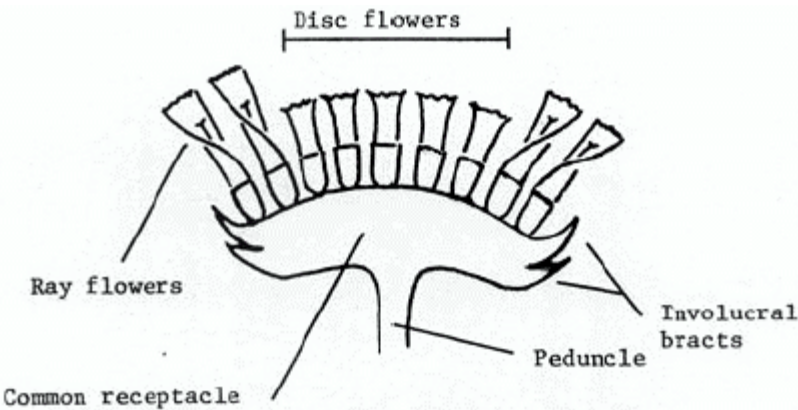


Flower Parts



Regular

Irregular (Orchid)



Head type (Composite family only)

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Flower Shapes



Regular



Urceolate (urn-shaped)



Campanulate (bell-shaped)



Rotate (wheel-shaped)



Bilabiate (two-lipped)

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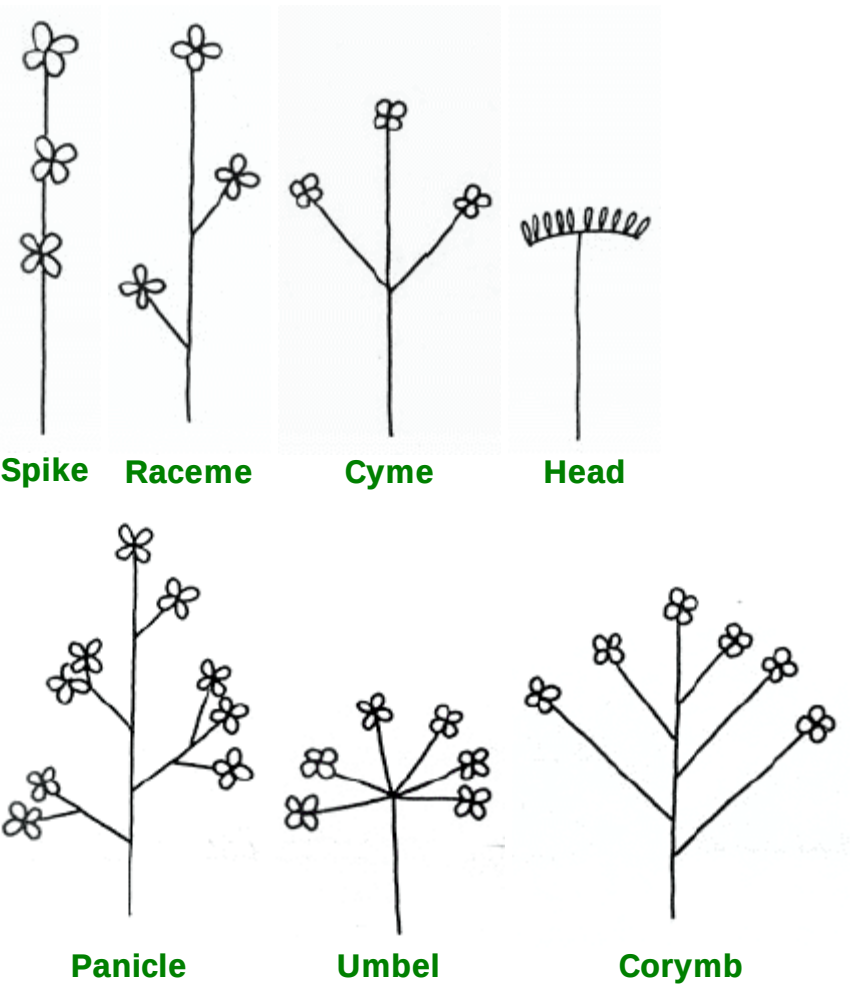
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Inflorescence Types



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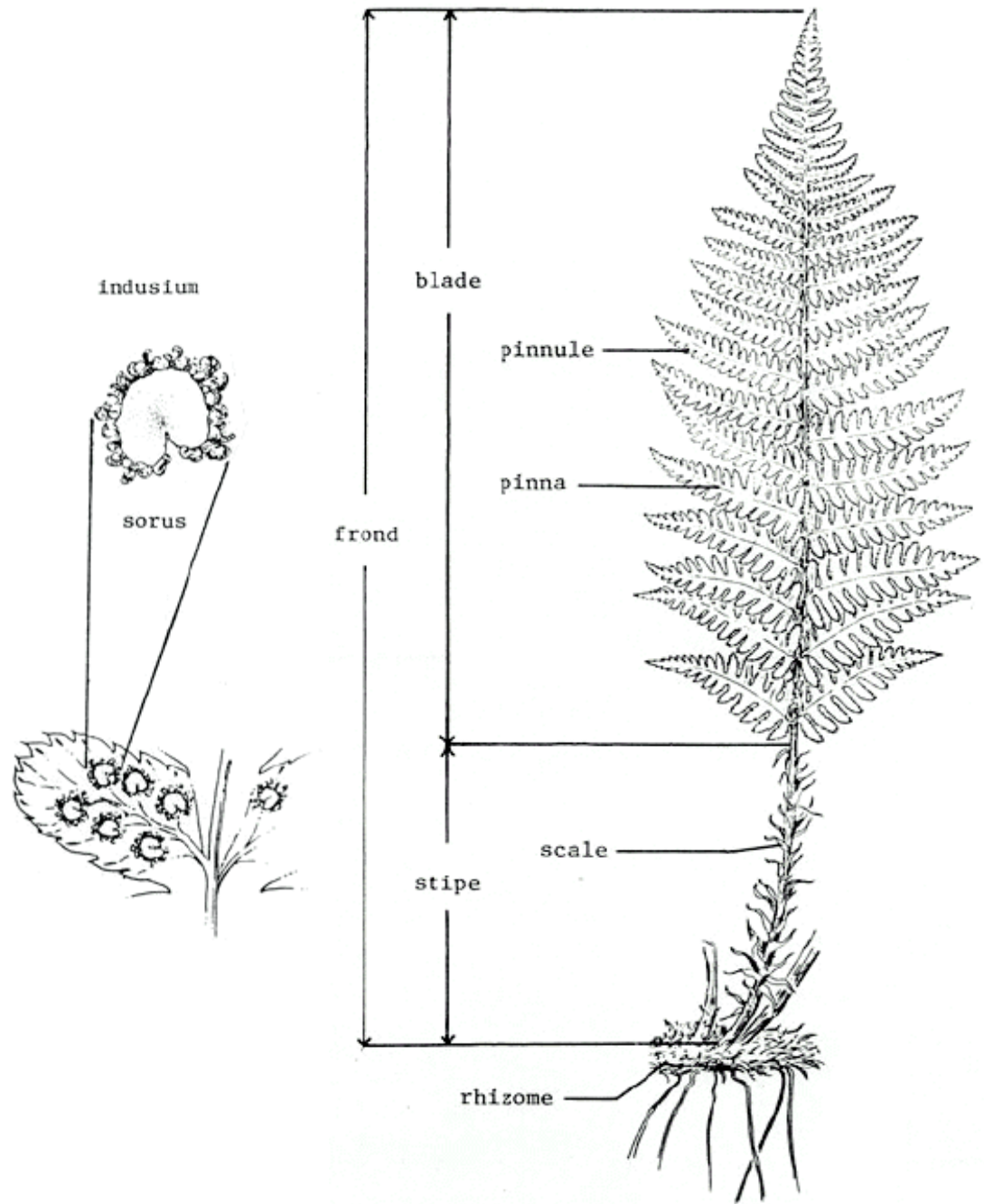
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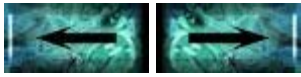
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Fern Parts



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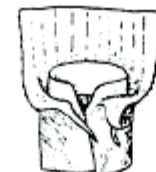
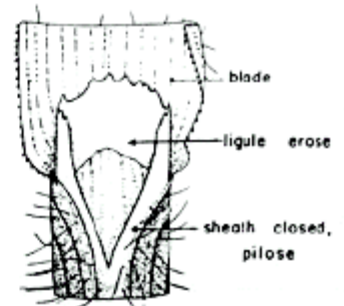
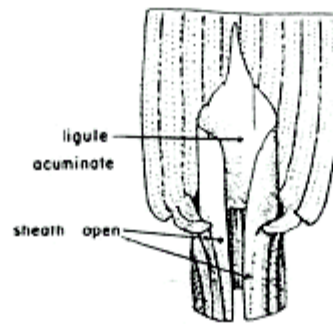
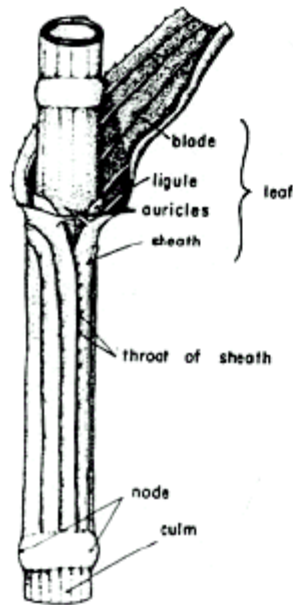
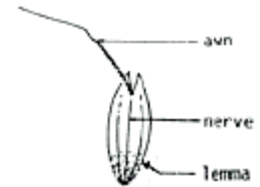
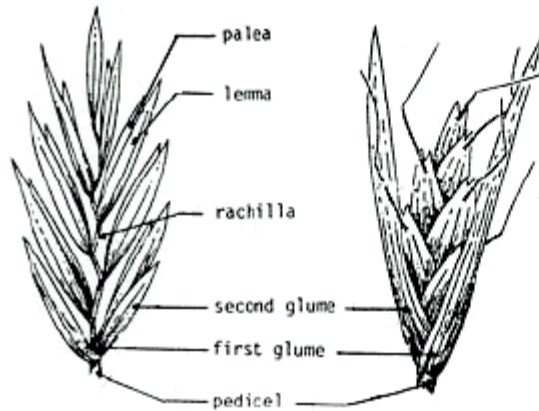
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Graminoid Parts



auricles prominent

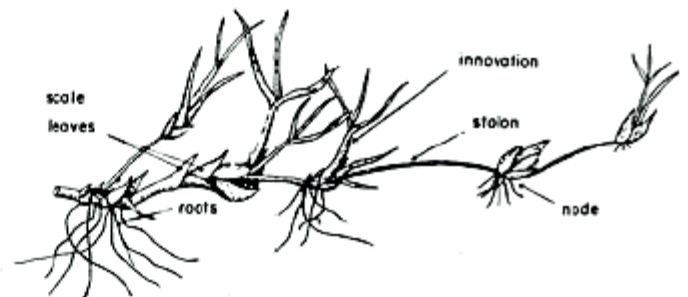
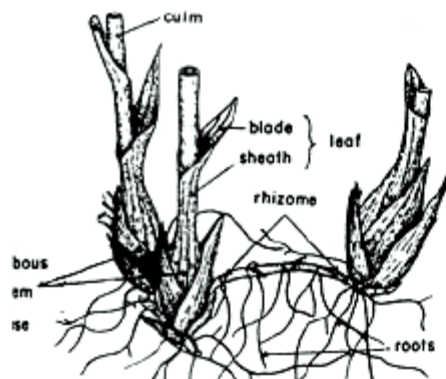


Table 16.--VIOLA SPECIES CONSPECTUS

Species	Page	Rootstock	Leaves	Flower Stem	Flower	Similar Species
<i>Viola adunca</i> hook violet Viad	191	slender rhizomes	ovate finely toothed	variable cauline leaves	blue to violet 3 lower petals white based	
<i>Viola canadensis</i> 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
<i>Viola glabella</i> 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
<i>Viola orbiculata</i> 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.	
Phma h.t.		1
Psme	Caru	Caru
h.t.	Aruv	
Phma	Phma	
h.t.	Smst	+
Phma	Phma	
h.t.	Cooc	
Libo	Libo	
h.t.	Xete	
Asca	Asca	+
h.t.	Tabr	+
Mefe	Mefe	
Abgr	Setr h.t.	3
Phma	Phma	
Clun	Clun	1
h.t.	Tabr	
Mefe	Mefe	
Xete	Xete	+
Vagl	Vagl	
Cooc	Cooc	
Clun	Clun	
h.t.	Tabr	
Mefe	Mefe	
Xete	Xete	
Thp1	Asca	
h.t.	Tabr	
Mefe	Mefe	
Gydr h.t.		
Adpe h.t.		
Atfi	Adpe	
h.t.	Atfi	+
Opho h.t.		1
Clun	Clun	
h.t.	Arnu	
Mefe	Mefe	
Xete	Xete	
Asca	Asca	
h.t.	Arnu	
Mefe	Mefe	
Gydr h.t.		
Clun	Mefe	
h.t.	Xete	
Mefe	Xete	
h.t.	Luh1	
Stam	Mefe	
h.t.	Luh1	
Xete	Vagl	
h.t.	Luh1	
Clun	Clun	
h.t.	Mefe	
Xete	Xete	
Cooc	Cooc	
Mefe	Xete	
h.t.	Vasc	
Stam	Luh1	
h.t.	Lica	2
Caca	Caca	3
h.t.	Vaca	
Legl	Legl	2
Cooc	Cooc	
Xete	Vagl	
h.t.	Vasc	
Luh1	Luh1	
Vasc h.t.		
Xete c.t.		
Vaca c.t.		



R a u n 2



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.