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Reserve

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## TO THE READER

The purpose of this field guide is to help you to recognize these rare plants and noxious weeds in the field.

If you find populations of noxious weeds please report them to the Ranger District contact person in charge of noxious weeds.

**If you find any sensitive species, it is extremely important that you contact the District Botanist or call the Forest Botanist at the Supervisor's Office (206) 744-3200.**

At the end of the section on sensitive species is an example of a rare plant sighting form. Please follow it as a reference for noting information about your sighting.

Please take many photographs but **do not collect** any part of a rare plant. Take detailed notes so that the District or Forest botanist can verify your sighting.

Remember...the only way we can protect the rare plants and prevent the spread of noxious weeds is if we know where they are, and we need your help. Your cooperation is greatly appreciated!

## NOMENCLATURE

Vascular Plants of the Pacific Northwest by Hitchcock et al. (1955-1959) was the taxonomic authority for this guide, except as noted below. For those species not included in this text, nomenclature follows that used by the Washington Natural Heritage Program (1990). For noxious weeds, nomenclature follows the current Washington State Department of Agriculture Noxious Weed List (RCW 17.10). Descriptions for certain species of *Botrychium* were based on Lellinger (1985) and Alverson (1985). For certain species of *Carex*, descriptions were based on Taylor (1983). The description for *Cassiope lycopodioides* ssp. *crispilosa* was based on Hulten (1968). Reference to vegetation zones follows a preliminary vegetation classification of the Mt. Baker-Snoqualmie N.F. by Henderson, Leshner, Peter, and Shaw (personal communication).

Note: All measurements under 10 cm (1 dm) are given in centimeters or millimeters; measurements longer than this are given in both metric and English units (inches or feet). A metric ruler has been printed on the back cover for your convenience.

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## ACKNOWLEDGEMENTS

Illustrations of all species except composites were produced by Jeanne R. Janish. Composites (Asteraceae), were drawn by John Rumley. All illustrations were reproduced from Volumes I-V of "Vascular Plants of the Pacific Northwest" by Hitchcock et al. (1959-1969), with permission from the University of Washington Press. Photographs were generously loaned by numerous botanists, whose names appear next to each plate. Thanks is due to the following people who assisted with word processing, data analysis, or draft species descriptions: Joe Coffey, Mimie Rodrigo, Demetria Shew, Faye Streier, Sally Claggett, and Kathy Ahlenslager. Sue Holt and Clayton Antieau volunteered their time to review and comment on the manuscript. Special thanks to Cheri Ziebart, who assisted with all aspects of layout, design, and production. Lois Kemp provided very helpful advice based upon her experience producing a similar guide for the Mt. Hood N.F. Catherine Hovanic and Diane Dolstad provided information on noxious weeds. John Gamon and Jan Henderson were an invaluable source of botanical and ecological information on the sensitive species. Robin Lesher also provided important botanical information and painstakingly reviewed the manuscript.

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## LIMITATIONS OF THIS FIELD GUIDE

**Status:** The species included in this guide were based upon the Regional Forester's Sensitive Species List. This list is updated on an annual basis, based upon documented occurrences or changes in status of a species. Therefore, there may be species on future lists that were not included in this field guide. Contact the Forest Botanist for the most current list.

**Habitat and Zone:** Information on the habitat and vegetation zone was based upon the most current information available at the time of printing. This does *not* preclude the possibility of any given species occurring in a habitat or zone other than what is mentioned here; as we increase our inventories and document more occurrences, we will be able to refine our understanding of the habitat requirements and distribution of these species.

**Taxonomy:** The descriptions in this guide are botanically accurate, however, the subtle and technical distinctions between many of the sensitive species require the use of a technical botanical key for positive identification.

## SENSITIVE PLANT SPECIES LISTED BY HABITAT

Some species occur in more than one habitat. Please be aware that most species are not strictly confined to the habitats listed below.

### DRY MEADOWS

*Agoseris elata*

*Castilleja cryptantha*

*Gentiana glauca*

*Pedicularis rainierensis*

*Saxifraga integrifolia* var. *apetala*

### ROCK OUTCROPS

*Campanula lasiocarpa*

*Carex scirpoidea* var. *scirpoidea*

*Dodecatheon pulchellum* v. *watsonii* (seep)

*Dryas drummondii*

*Platanthera chorisiana* (seep)

*Ranunulus cooleya* (seep)

*Saxifraga debilis* (seep)

*Saxifraga integrifolia* var. *apetala* (seep)

### MIXED DECIDUOUS AND CONIFEROUS FORESTS

*Botrychium lanceolatum*

*Botrychium minganense*

*Botrychium montanum*

*Botrychium pinnatum*

*Cimicifuga elata*

*Galium kamtschaticum*

*Lycopodium dendroideum*

*Montia diffusa*



**MOIST TO DRY  
CONIFEROUS FORESTS**

*Botrychium lanceolatum*  
*Botrychium lunaria*  
*Botrychium montanum*  
*Botrychium pinnatum*  
*Cimicifuga elata*  
*Galium kamtschaticum*  
*Lycopodium dendroideum*  
*Montia diffusa*  
*Platanthera obtusata*  
*Pleuricospora fimbriolata*

**GRAVEL/SCREE/TALUS**

*Aster sibericus* var. *meritus*  
*Dryas drummondii*  
*Luzula arcuata*  
*Poa grayana*  
*Ranunulus cooleya* (seep)  
*Saxifraga debilis* (seep)  
*Saxifraga integrifolia* var. *apetala*

**HIGH ELEVATION OPEN RIDGETOPS**

*Aster sibericus* var. *meritus*  
*Botrychium pinnatum*  
*Carex scirpoidea* var. *scirpoidea*  
*Dryas drummondii*  
*Poa grayana*

**ROCKY AREAS & BOULDER FIELDS**

*Aster sibericus* var. *meritus*  
*Botrychium lanceolatum*  
*Botrychium minganense*  
*Carex scirpoidea* var. *scirpoidea*  
*Coptis asplenifolia*  
*Dryas drummondii*  
*Lycopodium dendroideum*  
*Poa grayana*  
*Ranunulus cooleya* (seep)

**RIPARIAN AREAS (Defined here as areas in or adjacent to streams or rivers)**

*Carex interrupta*

*Carex pluriflora*

*Carex scirpoidea* var. *scirpoidea*

*Carex scopulorum* var. *prionophylla*

*Dryas drummondii*

*Fritillaria camschatensis*

*Galium kamtschaticum*

*Poa grayana*

**BOGS (Defined here as areas with acidic, organic soils, and a plant community dominated by sphagnum moss and members of the heath family)**

*Carex buxbaumii*

*Carex pauciflora*

*Carex paupercula*

*Carex pluriflora*

*Carex saxatilis* var. *major*

*Carex scopulorum* var. *prionophylla*

*Carex stylosa*

*Gentiana douglasiana*

*Lycopodium inundatum*

*Microseris borealis*

*Platanthera sparsiflora*

**OTHER WET AREAS (This category includes all wet places except for riparian areas and bogs, e.g. moist to wet meadows, marshes, lakeshores, and seeps; these areas may or may not be forested)**

*Botrychium lunaria*

*Botrychium pinnatum*

*Calamagrostis crassiglumis*

*Carex buxbaumii*

*Carex comosa*

*Carex paupercula*

*Carex pluriflora*

## OTHER WET AREAS (Continued)

*Carex saxatilis* var. *major*  
*Carex scirpoidea* var. *scirpoidea*  
*Carex scopulorum* var. *prionophylla*  
*Carex stylosa*  
*Carex comosa*  
*Carex macrochaeta*  
*Castilleja cryptantha*  
*Dodecatheon pulchellum* v. *watsonii*  
*Fritillaria camschatensis*  
*Galium kamtschaticum*  
*Gentiana douglasiana*  
*Gentiana glauca*  
*Lobelia dortmanna*  
*Loiseleuria procumbens*  
*Lycopodium inundatum*  
*Microseris borealis*  
*Pedicularis rainierensis*  
*Platanthera sparsiflora*  
*Platanthera chorisiana*  
*Ranunculus cooleyae*  
*Saxifraga debilis*  
*Saxifraga integrifolia* var. *apetala*  
*Tillaea aquatica*

## UNKNOWN (Not enough data to generalize for the Mt. Baker-Snoqualmie N.F.)

*Cassiope lycopodioides cristapilosa*  
*Chaenactis thompsonii*

# SENSITIVE PLANT SPECIES LISTED BY ZONE

SCIENTIFIC NAME	WESTERN HEMLOCK	SILVER FIR	MOUNTAIN HEMLOCK	SUBALPINE PARKLAND	ALPINE	UNDETERMINED
<i>Agoseris elata</i>		X	X			
<i>Aster sibericus</i> var. <i>meritus</i>				X	X	
<i>Botrychium lanceolatum</i>	X	X	X	X	X	
<i>Botrychium lunaria</i>	X	X	X	X	X	
<i>Botrychium minganense</i>	X	X	X			
<i>Botrychium montanum</i>	X	X				
<i>Botrychium pinnatum</i>	X	X	X	X	X	
<i>Calamagrostis crassiglumis</i>						X
<i>Campanula lasiocarpa</i>					X	
<i>Carex buxbaumii</i>		X				
<i>Carex comosa</i>	X					
<i>Carex interrupta</i>						X
<i>Carex macrochaeta</i>	X	X	X			
<i>Carex pauciflora</i>		X	X			
<i>Carex paupercula</i>		X	X	X	X	
<i>Carex pluriflora</i>						X
<i>Carex saxatilis</i> var. <i>major</i>		X	X			
<i>Carex scirpoidea</i> var. <i>scirpoidea</i>				X	X	
<i>Carex scopulorum</i> var. <i>prionophylla</i>			X	X	X	
<i>Carex stylosa</i>		X	X			
<i>Cassiope lycopodioides</i> ssp. <i>cristapilosa</i> *			X	X	X	
<i>Castilleja cryptantha</i>				X	X	
<i>Chaenactis thompsonii</i> *						X
<i>Cimicifuga elata</i>	X					
<i>Coptis asplenifolia</i>	X	X				

Many species occur in more than one zone. Please be aware that species are not strictly confined to the zones listed below.

# SENSITIVE PLANT SPECIES LISTED BY ZONE

SCIENTIFIC NAME

WESTERN HEMLOCK

SILVER FIR

MOUNTAIN HEMLOCK

SUBALPINE PARKLAND

ALPINE

UNDETERMINED

SCIENTIFIC NAME	WESTERN HEMLOCK	SILVER FIR	MOUNTAIN HEMLOCK	SUBALPINE PARKLAND	ALPINE	UNDETERMINED
<i>Dodecatheon pulchellum</i> var. <i>watsonii</i>				X	X	
<i>Dryas drummondii</i>				X	X	
<i>Fritillaria camschatensis</i>	X	X				
<i>Galium kamtschaticum</i>		X	X			
<i>Gentiana douglasiana</i>		X				
<i>Gentiana glauca</i>					X	
<i>Lobelia dortmanna</i>						X
<i>Loisleuria procumbens</i>				X		
<i>Luzula arcuata</i>				X	X	
<i>Lycopodium dendroideum</i>	X					
<i>Lycopodium inundatum</i>	X					
<i>Microseris borealis</i>						X
<i>Montia diffusa</i>	X					
<i>Pedicularis rainierensis</i>				X		
<i>Platanthera chorisiana</i>			X			
<i>Platanthera obtusata</i>	X	X				
<i>Platanthera sparsiflora</i>	X					
<i>Pleuricospora fimbriolata</i>	X	X				
<i>Poa grayana</i>					X	
<i>Ranunulus cooleyae</i>				X		
<i>Saxifraga debilis</i>					X	
<i>Saxifraga integrifolia</i> var. <i>apetala</i>				X		
<i>Tillaea aquatica</i>	X	X				

# *Agoseris elata* (AGEL2)

## tall agoseris

Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** This is one of the "false dandelions" with a **single head of yellow flowers, basal leaves and milky sap.** The primary difference between this species and pale agoseris (*A. glauca*), is that the achene (dry fruit) has a prolonged slender tip that is scarcely or not at all marked with parallel lines. Blooms June-August.

**HABITAT:** Suspected in meadows and open woods, from low elevations to timberline.



Don Eastman

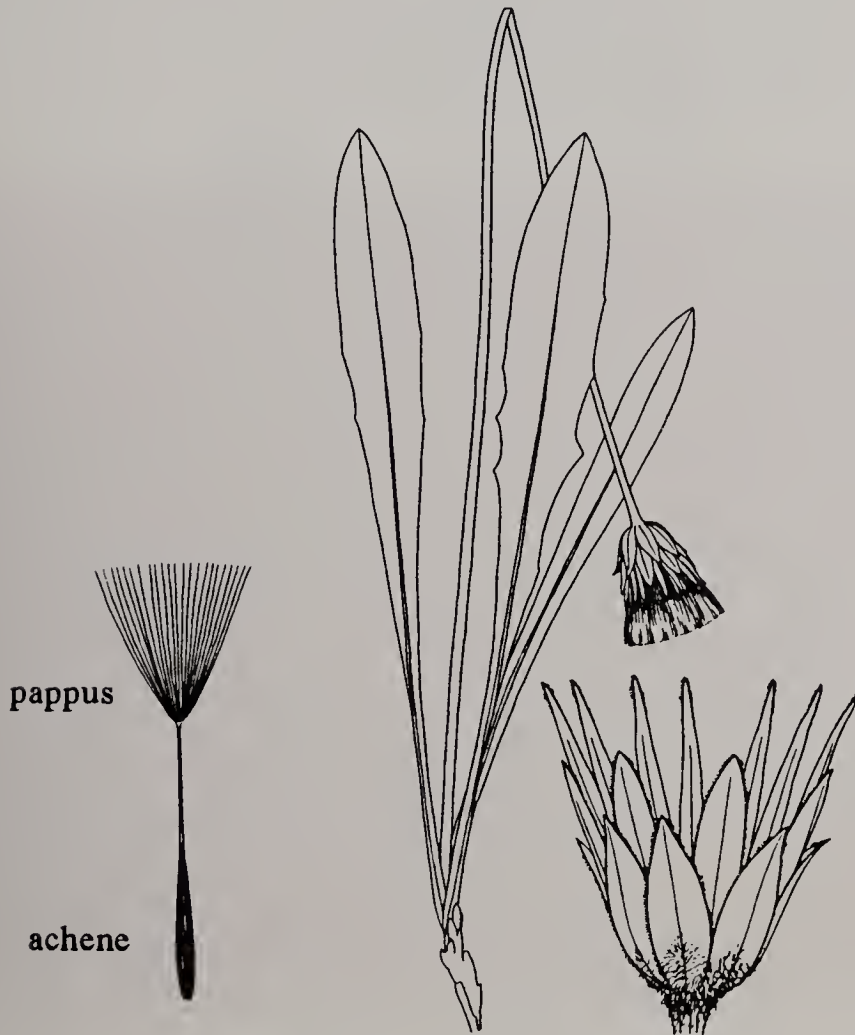
Julie Kierstead

**DESCRIPTION:** A rather stout perennial 2-7 dm (8-28") tall, with a leafless flowering stem. Plants hairless or with short hairs.

**LEAVES:** Basal, oblanceolate, entire or toothed, 10-30 cm long, 1-7 cm wide.

**FLOWER:** Solitary yellow head, often drying to pink; fruiting involucre 2-3 cm high.

**FRUITS:** Achene 8-10 mm long, beak of about equal length, pappus 12-14 mm long.



*Aster sibiricus* var. *meritus* (ASSI2)

arctic aster

Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** This aster is often only 10 cm tall (occasionally up to 40 cm), with **entire leaves**. It has **purple ray flowers** that are subtended by **purple-tinged bracts**. The closely related rough-leaved aster (*A. radulinus*) is taller and has sharply toothed leaves. Blooms July-August.

**HABITAT:** On the Mt. Baker-Snoqualmie N.F. it has been found from 4400' to 7200' in elevation, in unstable, rocky or gravelly substrate, with *Phlox diffusa* and *Carex* spp.



Robin Lesher



**DESCRIPTION:** Rhizomatous perennial, flower heads solitary or few, plants without glands.

**LEAVES:** Firm, entire or with a few short teeth, stem and lower leaf surfaces with short hairs.

**FLOWERS:** 12-23 purple rays on each head, subtended by purple-tinged bracts.



*Botrychium lanceolatum* (BOLA)  
lance-leaved grape-fern  
Adder's-tongue Family (Ophioglossaceae)

**DISTINGUISHING CHARACTERISTICS:** *Botrychium* species have a somewhat succulent appearance, with a divided sterile blade that resembles a fern, and a fertile spike of spore bearing structures that resemble tiny bunches of grapes. This species is most apt to be confused with *B. virginianum*, but can be identified by its less divided sterile blade and by its smaller fruiting spike.

**HABITAT:** Moist sites from 760' to 6000' elevation. On the Mt. Baker-Snoqualmie N.F. it has been reported on a variety of habitats: a wet, mossy bench in an old-growth western red-cedar forest, a creek drainage on a mossy talus slope with big-leaf maple, an alpine meadow, an alpine rocky, mossy area, and a toe-slope in a 125 year old stand dominated by Douglas-fir and hardwoods.



Stewart Janes

**DESCRIPTION:** Plants mostly 5-35 cm tall, with a common (shared) stalk 3-25 cm long.

**STERILE BLADE:** Sessile (without a stalk) or nearly so, attached near the summit of the plant, as wide or wider than long, commonly 1-6 cm long and 1-9 cm wide.

**FERTILE SEGMENT:** Spike 1-3 cm long, stalk short, (0.5) 1-3 cm long. The fertile segment of *B. virginianum* is generally 4-17 cm long.



*Botrychium lunaria* (BOLU)

moonwort

Adder's-tongue Family (Ophioglossaceae)

**DISTINGUISHING CHARACTERISTICS:** This small grape-fern has a sterile leaf attached well above ground. The leaf is **pinnately divided only once**, with more or less fan shaped segments, the lowest pair of segments similar to the others.

**HABITAT:** This species is usually known to occur in deep shaded forests at low to mid elevations. On the Mt. Baker-Snoqualmie N.F. it has been reported in a lush subalpine meadow at 5900' elevation and on an alluvial terrace, in an old-growth forest dominated by western hemlock and grand fir.

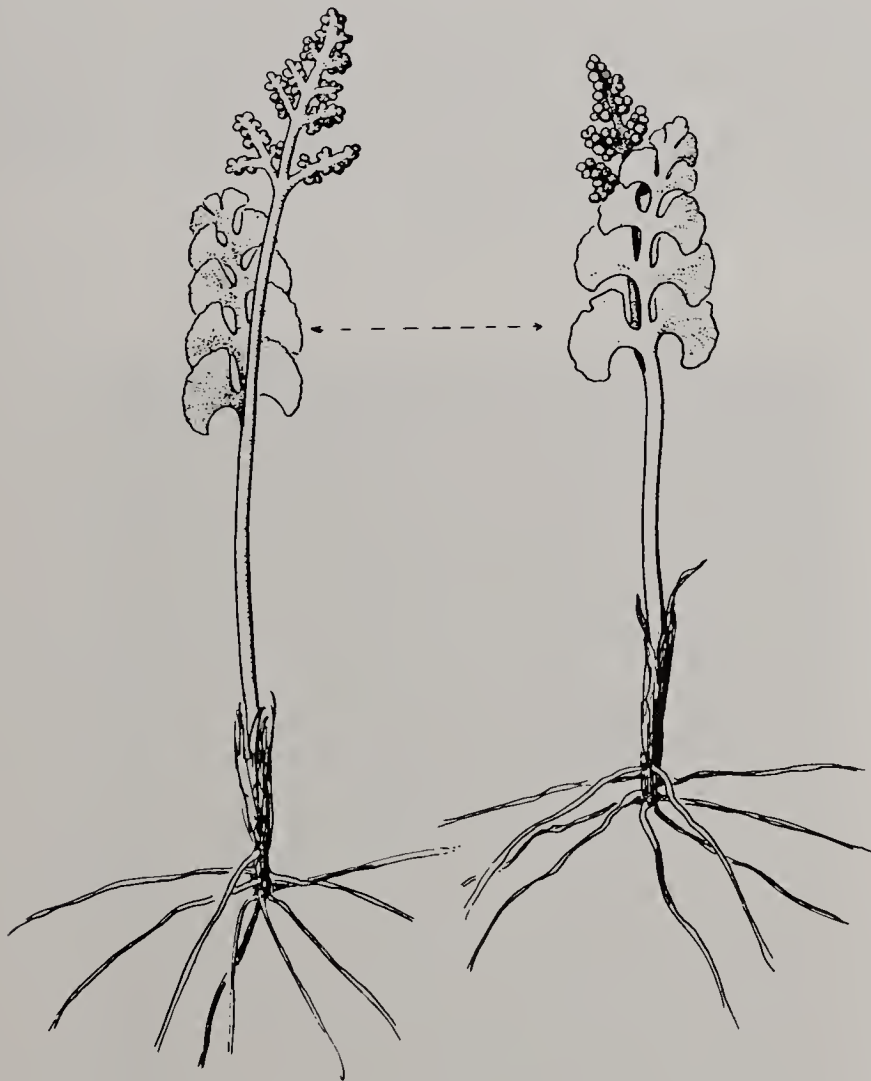


Richard Brown

**DESCRIPTION:** Plants average 6-18 cm tall, hairless.

**STERILE BLADE:** Sessile or on a short stalk up to about 5 mm long, the blade mostly 1.5-7 cm long and 0.7-3 cm wide, distinctly once pinnate, usually with 3-6 pairs of fan-shaped pinnae.

**FERTILE SEGMENT:** Spike and stalk about equal length, each 0.5-7 cm long.



*Botrychium minganense* (BOMI)

Victorin's grape-fern

Adder's-tongue Family (Ophioglossaceae)

**DISTINGUISHING CHARACTERISTICS:** This is a yellow green grape-fern; the sterile leaf has numerous, well developed oblong to wedge-shaped segments. It can be distinguished from moonwort (*B. lunaria*) because the segments on the latter are more fan-shaped and spaced closer together along the stem. Identifiable June-August.

**HABITAT:** Moist sites from 2700' to 5600' in elevation. On the Mt. Baker-Snoqualmie N.F. it has been reported on a mossy talus slope under big-leaf maple and on an open, rocky, subalpine site with moss and low herbaceous plants.

Courtney Loomis/USFS



**DESCRIPTION:** Plants about 5-30 cm tall.

**STERILE PORTION:** Attached at about 1/3 of the way up the plant. Leaf margins entire but commonly with one or more incisions in the outer margins. The outside margins of the segments form an angle of **90 degrees or less**.

**FERTILE SEGMENT:** 1.5-15 cm long, branches of the fertile portion mostly spreading.

*Botrychium montanum* (BOMO)

mountain grape-fern

Adder's tongue Family (Ophioglossaceae)

**DISTINGUISHING CHARACTERISTICS:** This species can be distinguished from other grape-ferns in this area by the **irregularly shaped and sometimes confluent pairs of lobes of the sterile blade.**

**HABITAT:** On the Mt. Baker-Snoqualmie N.F. it has been reported in mossy, moist sites from 1600 to 2700' in elevation. One site was a wet bench in an old-growth western red-cedar stand. The other site was in a rocky creek drainage with conifers and big-leaf maple.



Ed Alverson



**DESCRIPTION:** Plants bluish green, 4-12.5 cm tall.

**STERILE BLADE:** Oblong to linear, 0.7 to 4 cm long and very narrow (2-9 mm wide). The 1-6 pairs of lobes are irregularly shaped, often merged together, the most distant lobes toothed to lacerate.

**FERTILE SEGMENT:** 1 to 6.5 cm long.



*Botrychium pinnatum*\* (BOPI)  
pinnate grape-fern  
Adder's-tongue Family (Ophioglossaceae)

**DISTINGUISHING CHARACTERISTICS:** A small and rather inconspicuous plant, 1 to 2 dm (under 10") tall, yellowish-green in color. The sterile blade is attached at or above the middle of the plant and twice-pinnate with rounded segments.

**HABITAT:** On the Mt. Baker-Snoqualmie N.F., it has been found on moist to dry sites at elevations from 2100-6500' in elevation. Reported sites include: a moist coniferous forest, a mossy talus slope under mixed deciduous and coniferous cover, a lush subalpine meadow, and an alpine ridgetop.

\* will key out as *Botrychium boreale*

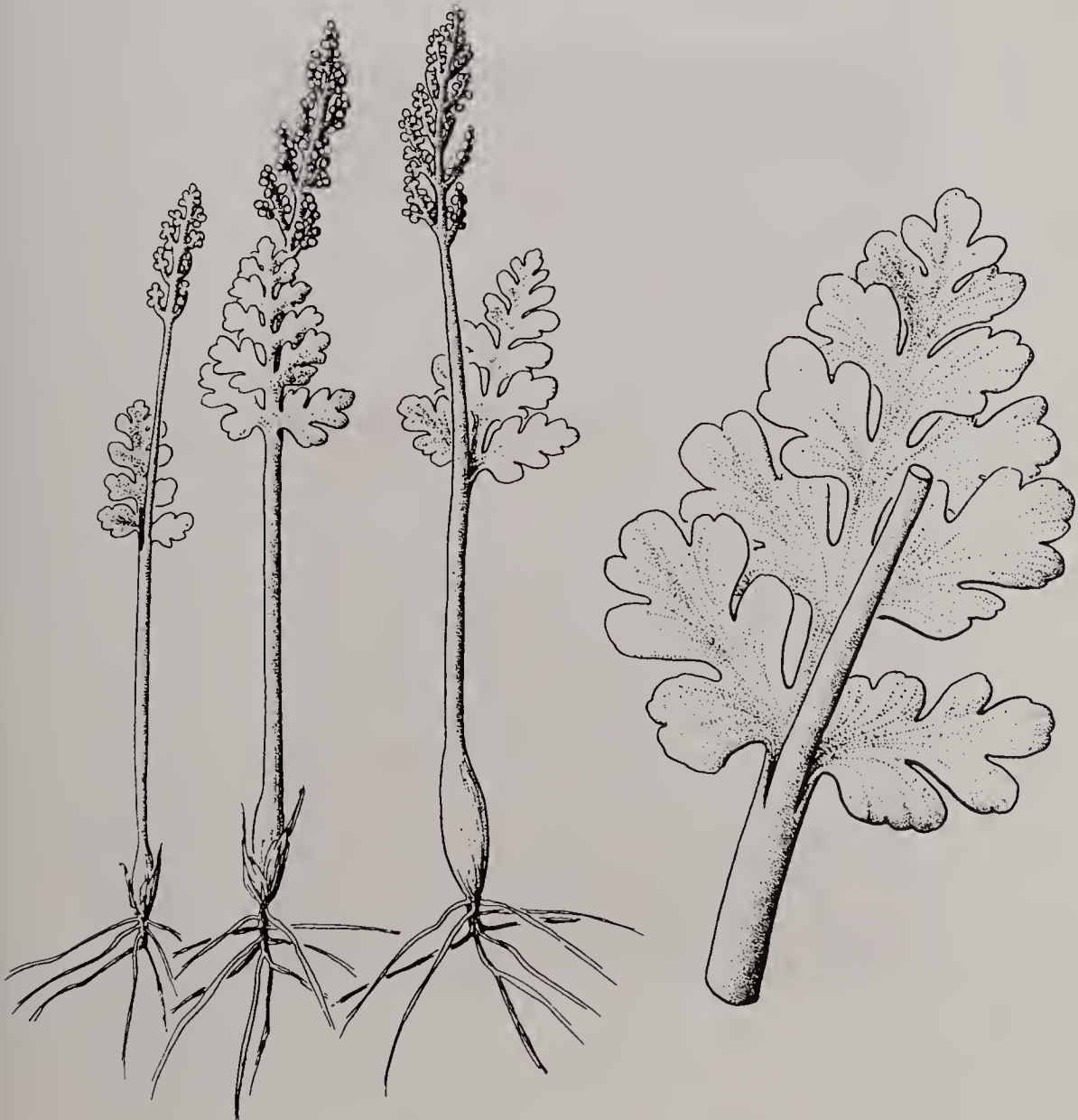


D.H. Wagner

**DESCRIPTION:** Plants mostly 1-2 dm tall, hairless, commonly yellowish-green.

**STERILE BLADE:** Attached near or more commonly above the middle of the plant, sessile or nearly so, mostly 2-5 cm long and 1.5-4 cm wide, somewhat fleshy, with prominent veins, bipinnate or subbipinnate (at least toward the base). The pinnae mostly 3-6 pairs, segments rounded, somewhat crowded.

**FERTILE SEGMENT:** Fertile spike 1.5-6 cm long, erect, the fertile stalk mostly 1-4 cm long.



*Calamagrostis crassiglumis* (CACR5)  
thickglume reedgrass  
Grass Family (Poaceae)

**DISTINGUISHING CHARACTERISTICS:** Members of this genus generally have only 1 floret per spikelet and an awned lemma. This species has **thick glumes**, which are **rounded at the base**, and a **straight awn**, attached near midlength of the lemma (see illustration). Identifiable July-August.

**HABITAT:** Suspected in wet meadows and by lake margins.

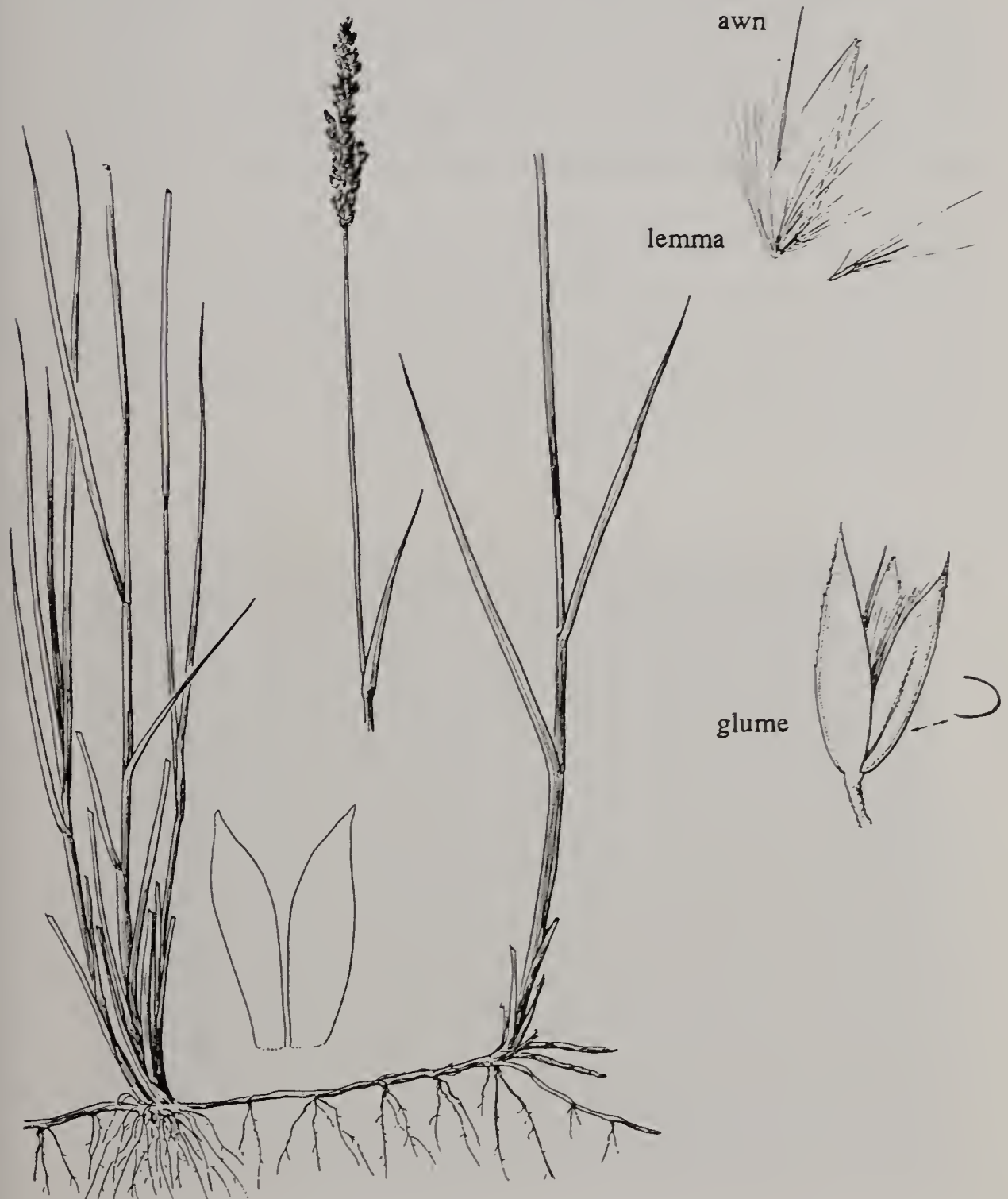
Linda Kunze/WA Natural Heritage Program



**DESCRIPTION:** A stiffly erect grass, 1.5-4 dm (6-16") tall, with a congested panicle of flowers,

**LEAVES:** Blades tough, flat to rolled and only 3-5 mm wide.

**FLOWERS:** Panicle congested, 3-8 cm long, purple.



## *Campanula lasiocarpa* (CALA5)

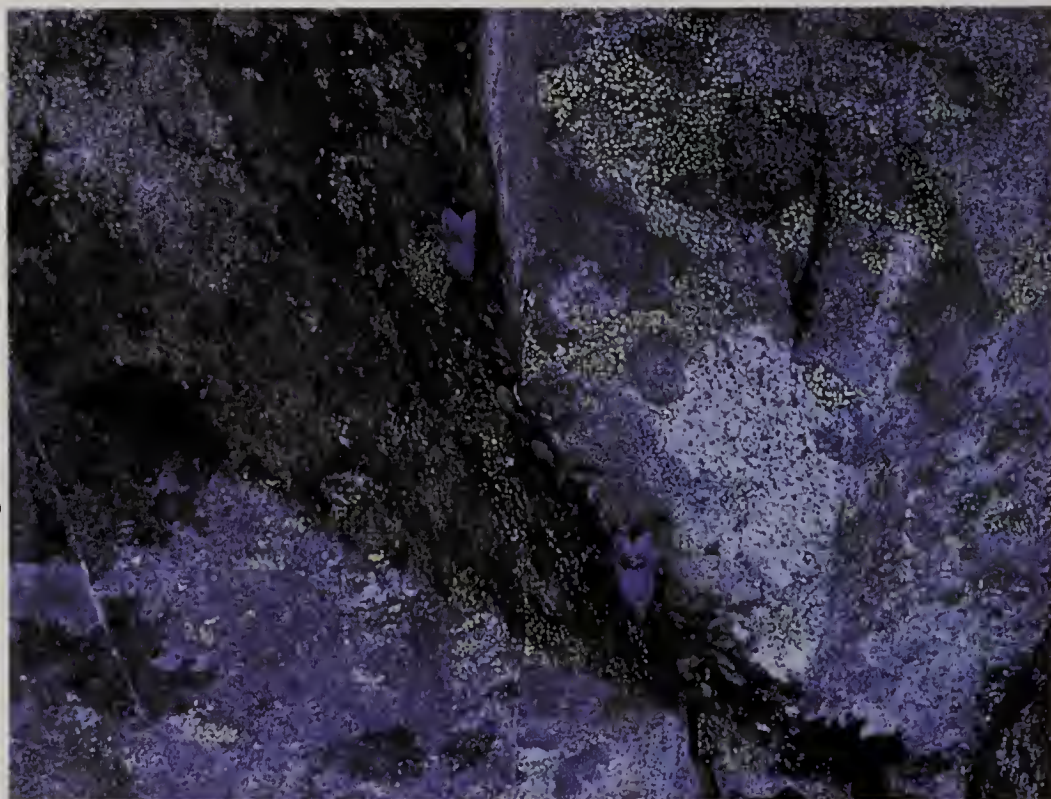
### Alaska harebell

Harebell Family (Campanulaceae)

**DISTINGUISHING CHARACTERISTICS:** This species should be nicknamed "hairy harebell" because it's noted for having sepals covered with long, loosely spreading hairs. It also differs from other harebells by having toothed leaves, and a relatively large corolla; the lobed portion of the corolla is much shorter than the tubular portion. Flowers July-August.

**HABITAT:** Rock crevices in alpine zones, generally in unglaciated areas. On the Mt. Baker-Snoqualmie N.F. it has been reported from dry, rocky microsites within cool, wet alpine areas. Associated species included *Phyllodoce glanduliflora*, *Artemesia trifurcata*, and *Erigeron aureus*.

WA Natural Heritage Program



**DESCRIPTION:** Perennial with 1 to several lax stems up to 15 cm tall.

**LEAVES:** Conspicuously to sometimes obscurely serrated, stem leaves smaller than basal ones, stalks of basal leaves hairy.

**FLOWERS:** Blue, 18-30 mm long, corolla lobes shorter than corolla tube, solitary or rarely a few flowers per plant.



*Carex buxbaumii* (CABU3)

Buxbaum's sedge

Sedge family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** This sedge differs from its closest relatives by having a **perigynium that is densely and conspicuously papillate** (covered with short, rounded projections) and **awn-tipped female scales**. Identifiable June-September.

**HABITAT:** Peat bogs, marshes, wet meadows, and other wet places. On the Mt. Baker-Snoqualmie N.F. it has been found in a bog in the Silver Fir Zone.

John Gamon/WA Natural Heritage Program





**DESCRIPTION:** Plants 3-10 dm tall and vigorously rhizomatous. Stems arising singly or just a few together, not surrounded by old sheaths from previous year's growth.

**LEAVES:** Smooth, mostly 2-4 mm wide.

**FLOWERS:** 2-5 more or less erect spikes, the **top spike is gynaeandrous** (female flowers in the upper portion, male flowers below). The female scales are usually dark with a pale midrib, longer than the perigynia, and have a short awn 0.5 to 3 mm long.

**FRUITS:** Perigynium with prominent marginal nerves.



*Carex comosa* (CAC05)

bristly sedge

Sedge Family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** a tall sedge with large spikes that have a bristly, "bottle brush" appearance. It's distinguished from its closest relatives by the elongate, divergent teeth on the perigynia and by the shape of the female scales. Identifiable May through August.

**HABITAT:** Suspected in marshes, lake margins, drainage ditches, rivulets, wet meadows, and other wet places.

Terry Lillybridge/USFS

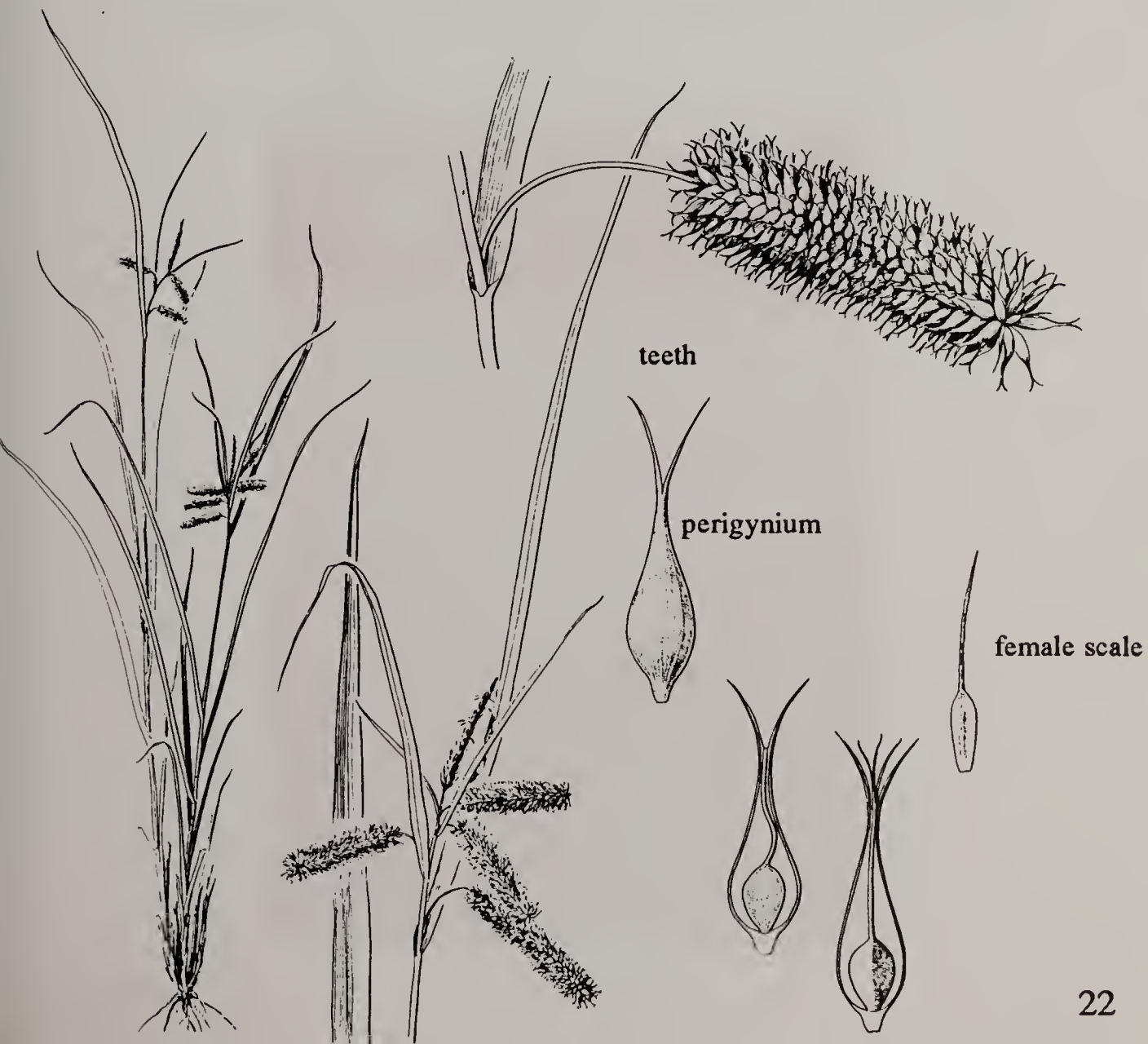


**DESCRIPTION:** Stems coarse, more or less densely clustered from a short, stout rhizome, 5-10 dm (20-40 inches) tall.

**LEAVES:** Flat, 4-11 mm wide, the leaf subtending the inflorescence elongate, often much longer than the flowering stem.

**FLOWERS:** Several female spikes, more or less grouped and nodding, 2-7 cm long by 1.5 cm thick. Female scales with a short, thin or translucent body only 1-2 mm long, and a prominent, rough awn-tip, 2-6 mm long.

**FRUITS:** Perigynia pale greenish, densely crowded, prominently 15-20 nerved, long-beaked with 2 conspicuously divergent teeth 1.2-2 mm long.



*Carex interrupta* (CAIN3)

green-fruited sedge

Sedge Family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** This sedge is noted for having very small fruits and an achene that is closely enveloped by the perigynium. It is often confused with *Carex lenticularis*, which has a more elongated perigynium and which has evident nerves on the perigynium faces. Identifiable April-August.

**HABITAT:** Suspected along sandy or rocky riverbanks, in streambeds, or other open wet places at lower elevations.



Clayton Antieau

**DESCRIPTION:** Plants loosely to somewhat strongly tufted from short rhizomes, 1.5 to 7 dm (6-28") tall.

**LEAVES:** Flat, 2-5 mm wide, the lowermost leaves reduced to scales, and the old leaves persist from previous years.

**FLOWERS:** Terminal spike is male; 2-7 lateral spikes, which are either entirely female or androgynous (male flowers in the upper portion). The lowermost spikes are on thin stems and the flowers are widely spaced towards the base. Female scales dark brown to purplish black, often with a pale midvien.

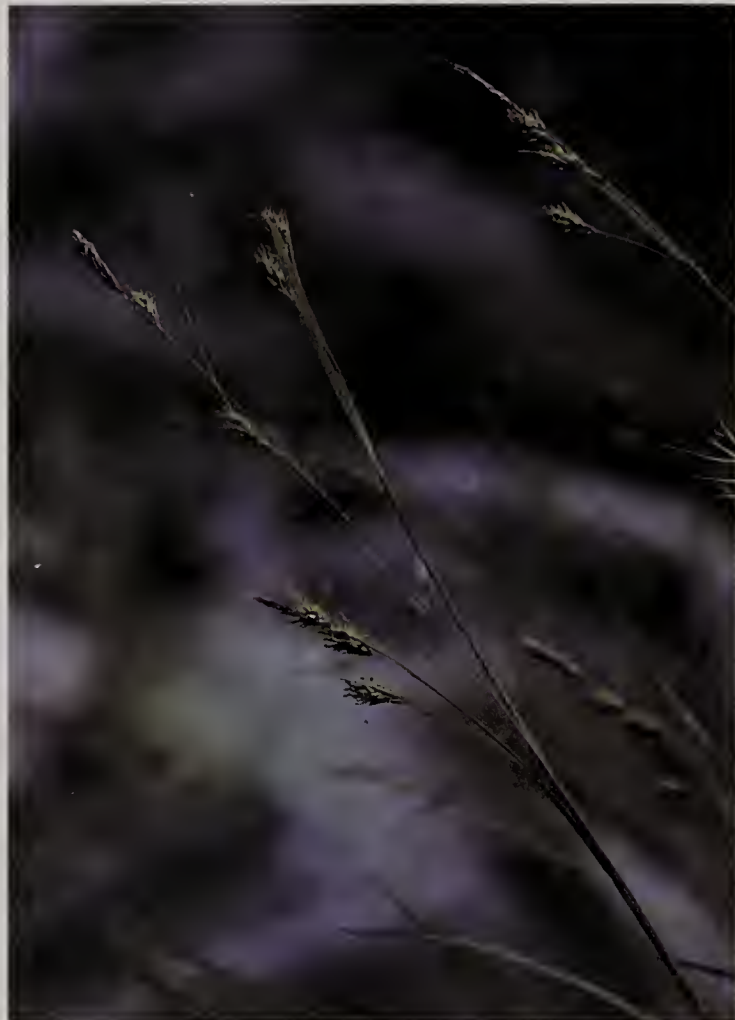
**FRUITS:** Small, 1.4 to 2 mm long, usually olive-green (hence the common name); achene generally completely fills the perigynium.



**Carex macrochaeta (CAMA4)**  
**Alaskan long-awned sedge**  
Sedge family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** The most distinguishing characteristics of this sedge are the **elongate spikes with black or dark brown conspicuously awn-tipped scales**, the lowest spike nodding on a long slender stem and the roots which are covered with **yellowish-brown felt**. Blooms June to August.

**HABITAT:** Suspected in seepage areas and around waterfalls from 600-3200' elevation.



Lois Kemp/USFS

**DESCRIPTION:** Stems loosely clustered, 1-7 dm long, leafy; roots covered with yellowish-brown felt.

**LEAVES:** Flat, mostly 2-5 mm wide, stem leaves few, the upper ones equaling or surpassing the flowering stem.

**FLOWERS:** Terminal spike male, lower 2 to 4 spikes female, 1-3 cm long, the lowest ones nodding on a slender, flexuous, often elongate stem, spikes somewhat widely spaced. Scales black or dark brown, distinctly awn-tipped, the awn sometimes as much as 1 cm long.

**FRUITS:** Perigynia 3.3-4.8 mm long, light green, purple mottled or wholly dark purple, 10-15 nerved, beak absent or very short.



*Carex pauciflora* (CAPA11)

few-flowered sedge

Sedge Family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** This is a unique and odd looking sedge, because it has only a few, large, deflexed female flowers in the lower portion of a single spike.

Identifiable June-July.

**HABITAT:** Sphagnum bogs. On the Mt. Baker-Snoqualmie N.F. it has been reported from sphagnum bogs in the Silver Fir Zone and the Mountain Hemlock Zone.

Linda Kunze/WA Natural Heritage Program



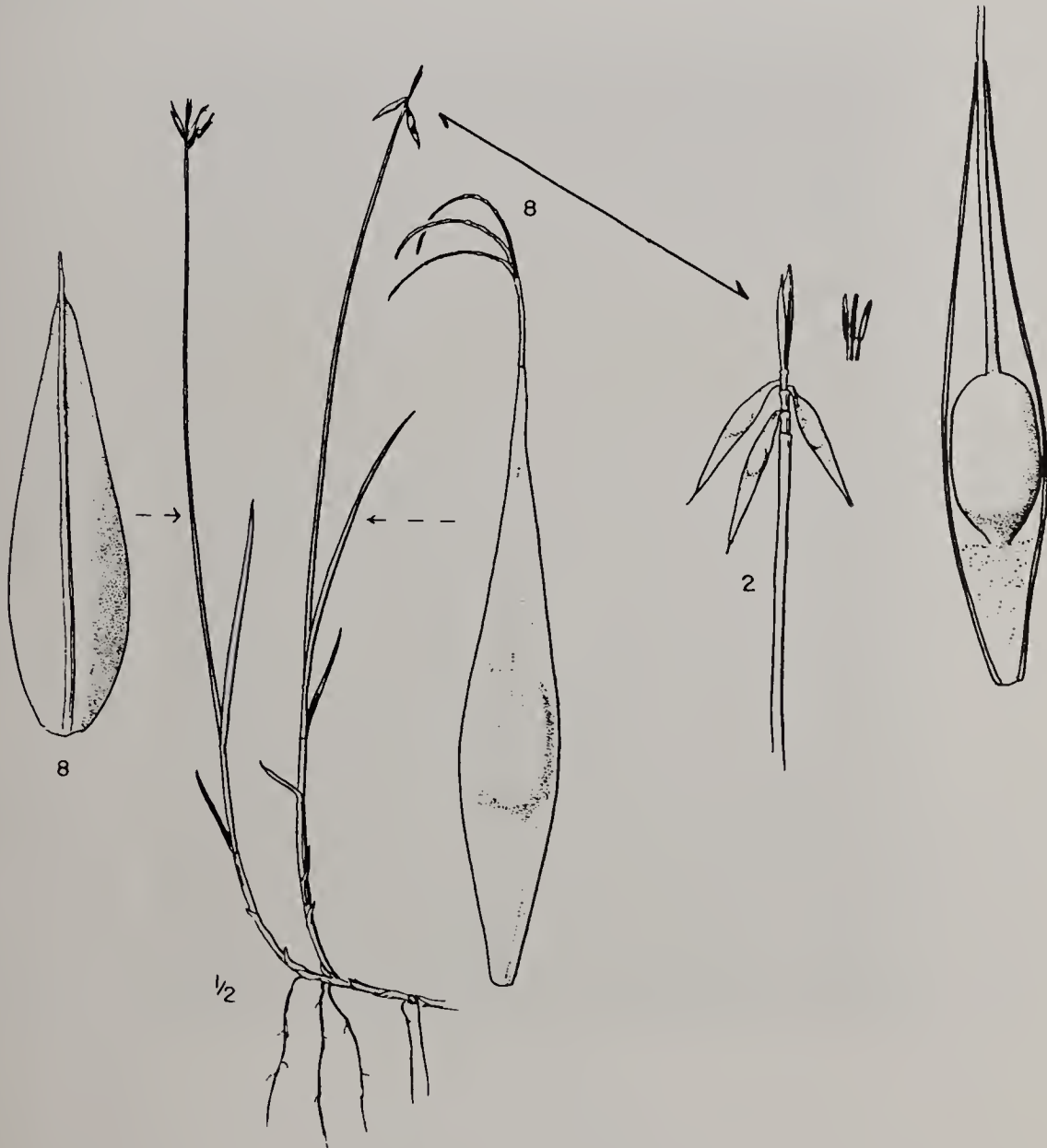


**DESCRIPTION:** Stems arising singly or a few together, 1-4 dm (4-16") tall.

**LEAVES:** 1-3 leaves, originating well above the base, 3-15 cm long and 0.7 to 2 mm wide.

**FLOWERS:** Spike single, short, terminating the stem. Male flowers in upper portion and a few female flowers below. The female flowers fall off at maturity.

**FRUITS:** Perigynia slender and very long (6-7.5 mm), the lower 1-2 mm somewhat shrunken and spongy.



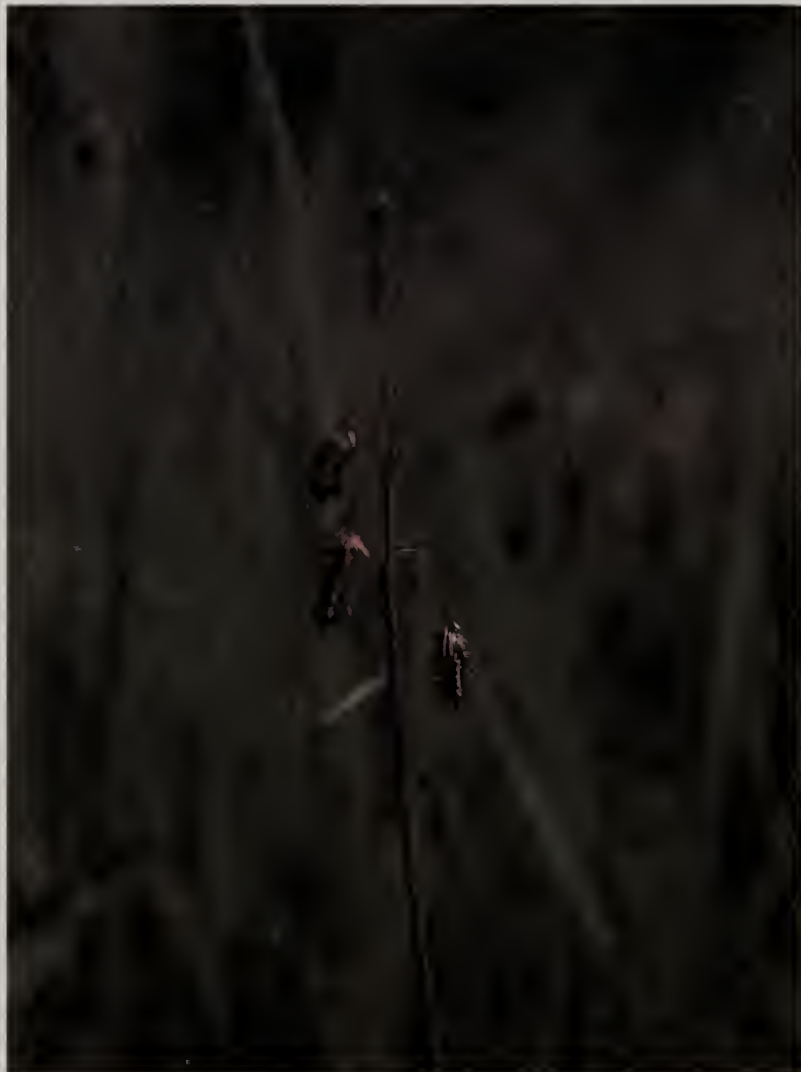
*Carex paupercula* (CAPA9)

poor sedge

Sedge Family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** This sedge has well developed basal leaves, short spikes (0.7-1.5 cm long), and roots covered with a yellowish brown felt. Identifiable in August.

**HABITAT:** Suspected in sphagnum bogs and sedge meadows.



Reid Schuller

**DESCRIPTION:** Stems 1.5-7 dm (6-28 inches) tall, loosely clustered in small tufts.

**LEAVES:** Flat, 1-3 mm wide, the remains of old leaves commonly persistent around the base of the plant.

**FLOWERS:** Solitary terminal male spike with 1-4 female spikes below, nodding on slender stems. Spikes 7-15 mm long, lowest spike with a leafy bract 2-10 cm long.

**FRUITS:** Perigynia pale green to straw-colored and **densely covered with tiny, short, blunt projections (papillae)**. Beak absent or very short (0.1 mm).



*Carex pluriflora* (CAPL)  
several-flowered sedge  
Sedge family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** This sedge can best be distinguished by the **black scales of the female spikes** and the **bristle-like bract** (0.5-2 cm long) below the lowest female spike. Blooms June and July.

**HABITAT:** Suspected on boggy lake margins, streambanks, seeps, and other places that are saturated year-round. It usually grows on flat or gentle terrain and is commonly associated with sphagnum.



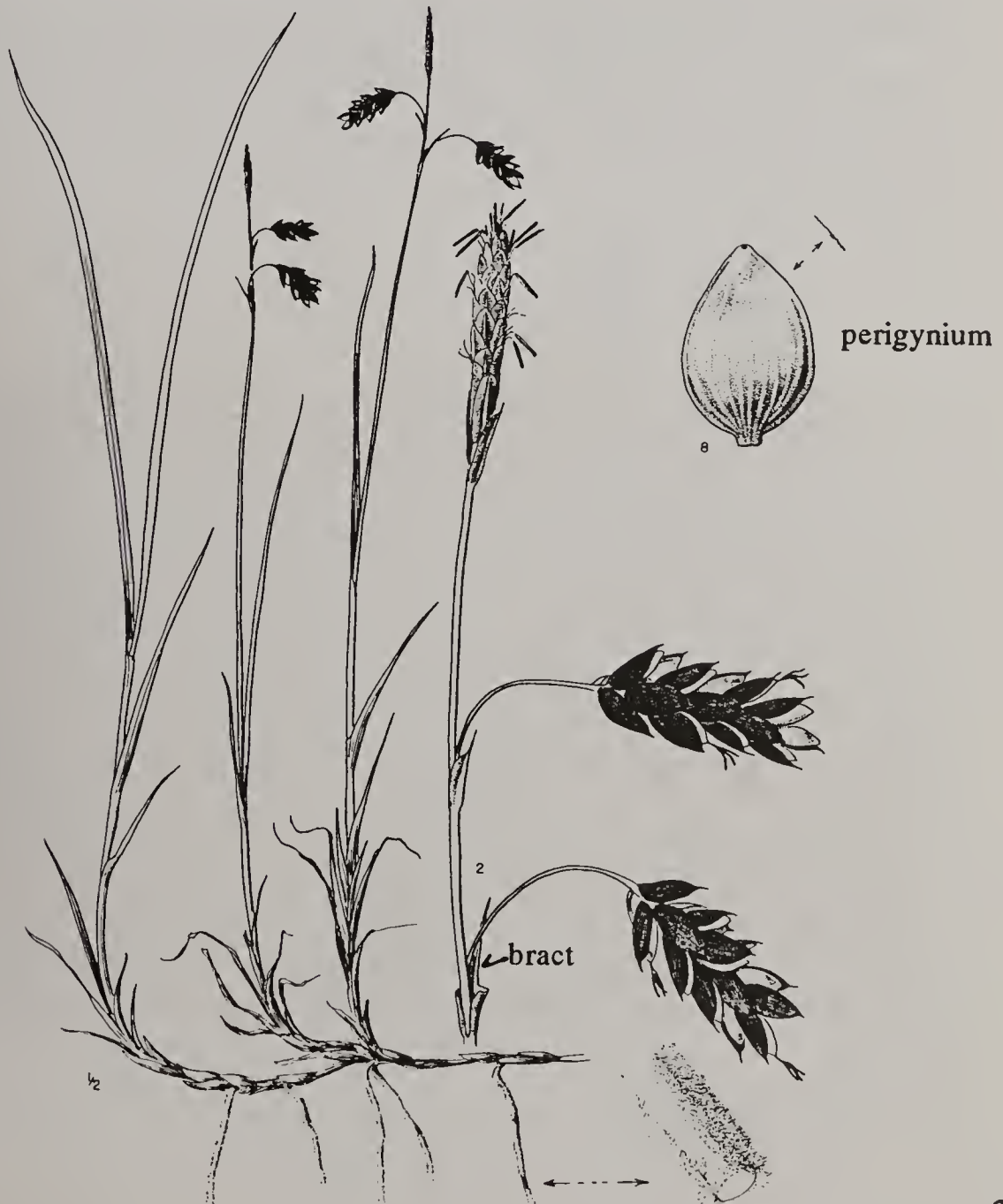
Janis Burger/Olympic National Park

**DESCRIPTION:** Stems loosely clustered or single from creeping rhizomes, 1-6 dm (4-24") tall.

**LEAVES:** Flat, 2-4 mm wide, densely covered with short white projections on the lower leaf surface.

**FLOWERS:** Terminal spike male, 1-3 female spikes below, 1-3 cm long, nodding on slender stems. Inflorescence subtended by a short bristle-like bract.

**FRUITS:** Perigynia 3.0-4.4 mm long, pale or sometimes blackish with dense blunt projections.



*Carex saxatilis* var. *major* (CASA2)

russet sedge

Sedge Family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** Russet sedge is named for the scales, which are usually **dark reddish-brown**. It usually has **2 stigmas**, and a **style that becomes contorted or bent** as the achene matures (see diagram). It can be distinguished from showy sedge (*C. spectabilis*) because the latter has 3 stigmas and a deciduous style.

**HABITAT:** Shallow water, bogs, and sedge-dominated wetlands from 2500' to timberline. On the Mt. Baker-Snoqualmie N.F. it has been reported from a wetland by a lake margin in the Silver Fir Zone.

University of Washington Herbarium

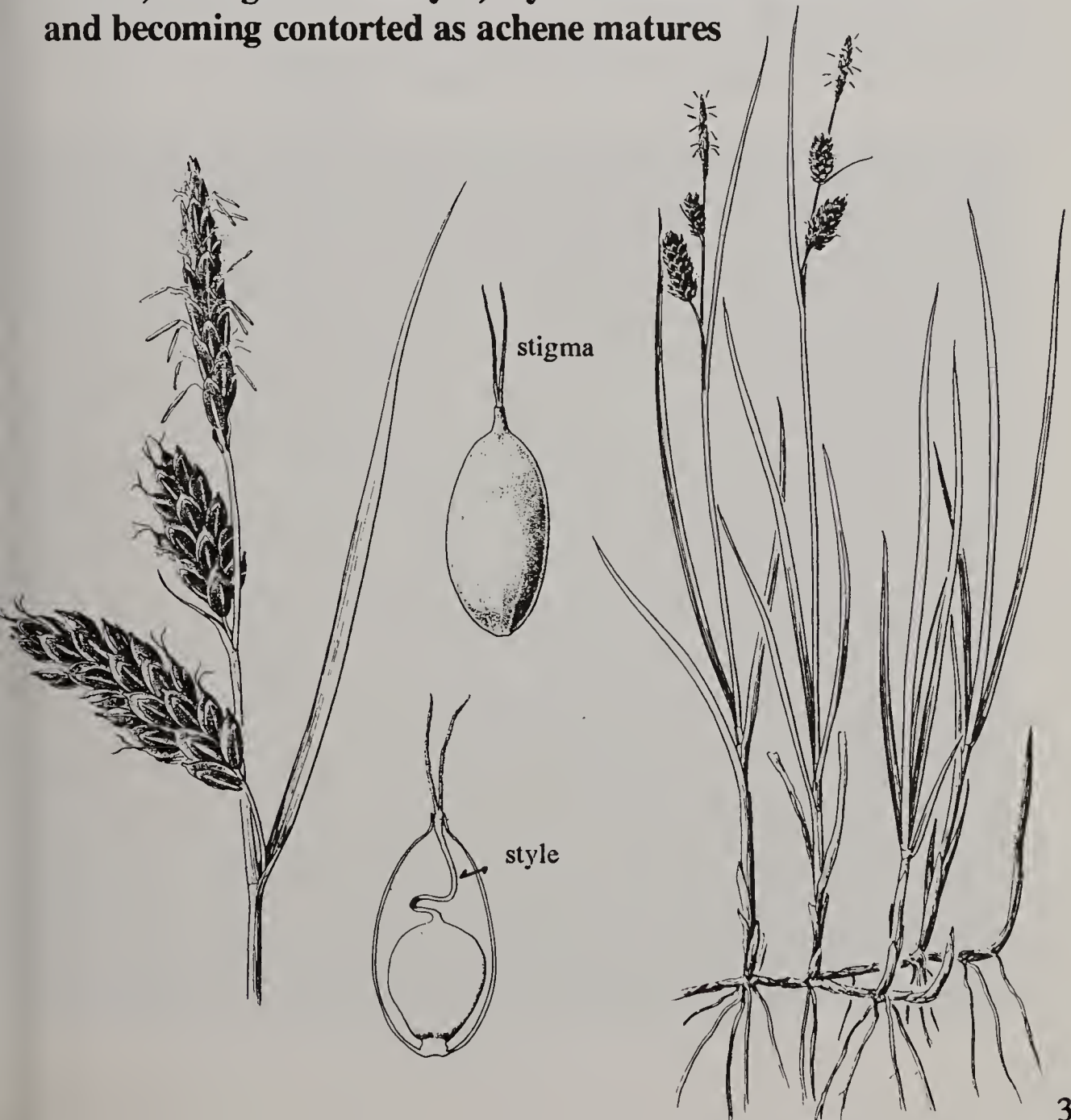


**DESCRIPTION:** Plants turf-forming 2-8 dm (8-32") tall, stems arise singly or a few together from a well developed creeping rhizome (Showy sedge is more or less closely tufted). Lowest bract leaf-like, sometimes longer than the inflorescence. Stems sharply triangular, reddish tinged at base.

**LEAVES:** 2-4 mm wide, old leaves conspicuous.

**FLOWERS:** Male spike terminal, 1-3 lateral female spikes that are spreading to drooping from slender stems, densely flowered.

**FRUITS:** Achene usually lenticular (Showy sedge has a trigonous achene). Stigmas usually 2, style continuous with the achene and becoming contorted as achene matures



*Carex scirpoidea* var. *scirpoidea* (CASCS)  
Canadian single-spike sedge  
Sedge family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** This is the only sedge species with both a **single spike** and a **conspicuously hairy perigynium**. The variety is noted for **stem leaves that originate well above the base**. Identifiable July through August.

**HABITAT:** Moist meadows, rock outcrops with some soil development, near and above timberline. On the Mt. Baker-Snoqualmie N.F. it has been reported around 6000' elevation, in moist alpine meadows and along a small stream.

female plants



male plants

Peter Zika

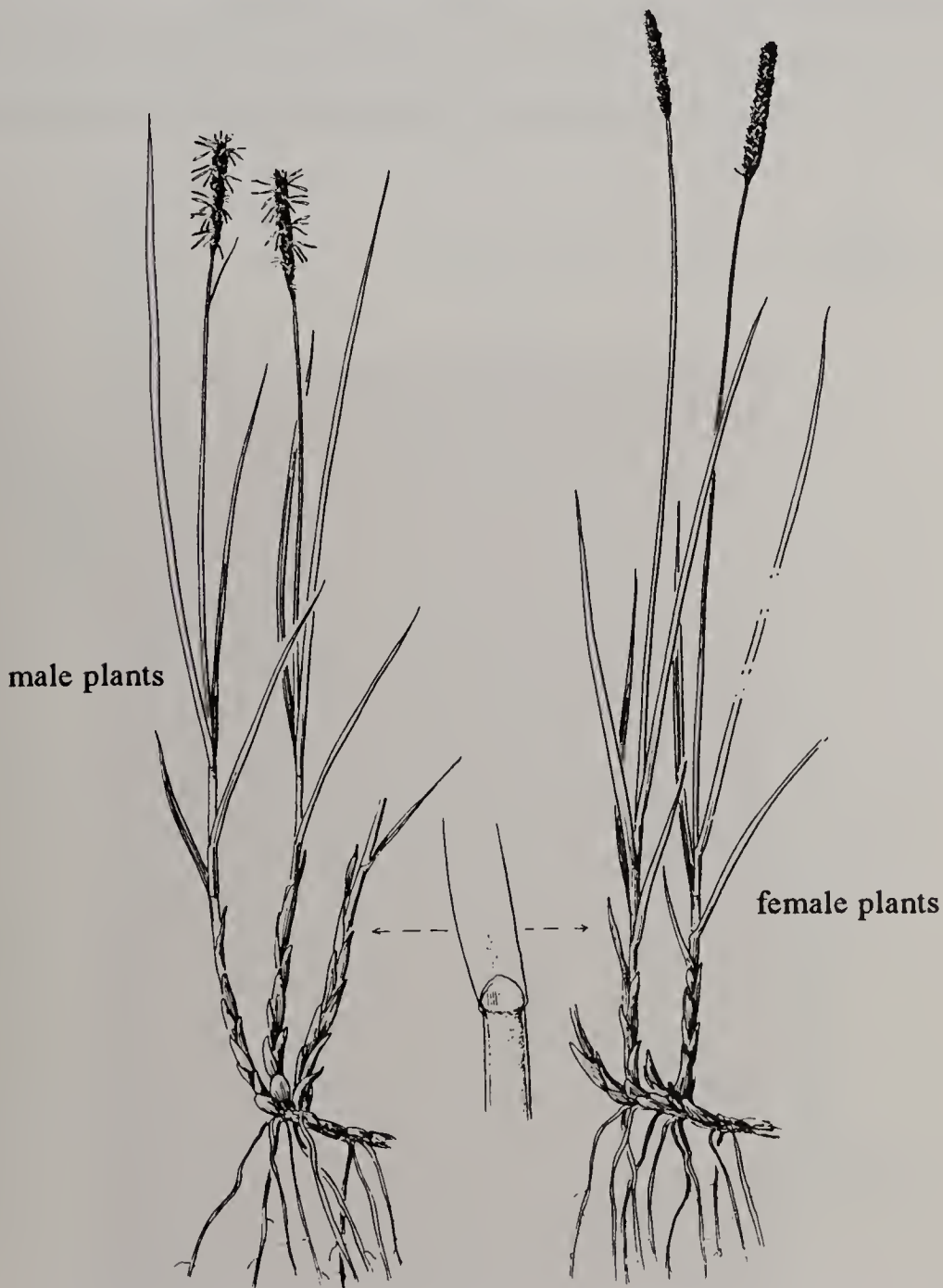


**DESCRIPTION:** Stems clustered or fairly well spaced, 1-4 dm (4-16") tall.

**LEAVES:** Flat, 1.5-3 mm wide, originating well above the base, leaves reduced to scales on the lower stem.

**FLOWERS:** Spike solitary or occasionally with 1 or 2 short sessile spikes at base of main spike. Individual plants have either entirely male or entirely female flowers.

**FRUITS:** Perigynium short and broad, covered with short hairs.



*Carex scopulorum* var. *prionophylla*\*

saw-leaved sedge

Sedge Family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** A tall sedge with long leaves and a leafy bract that is shorter than the terminal spike. The lowermost leaves are reduced to scales.

**HABITAT:** Wet or moist meadows, lakeshores, and streambanks at moderate elevations. On the Mt. Baker-Snoqualmie N.F. it has been found in a wet meadow within the Mountain Hemlock Zone.

\*will key out as *Carex prionophylla*

John Gamon/WA Natural Heritage Program

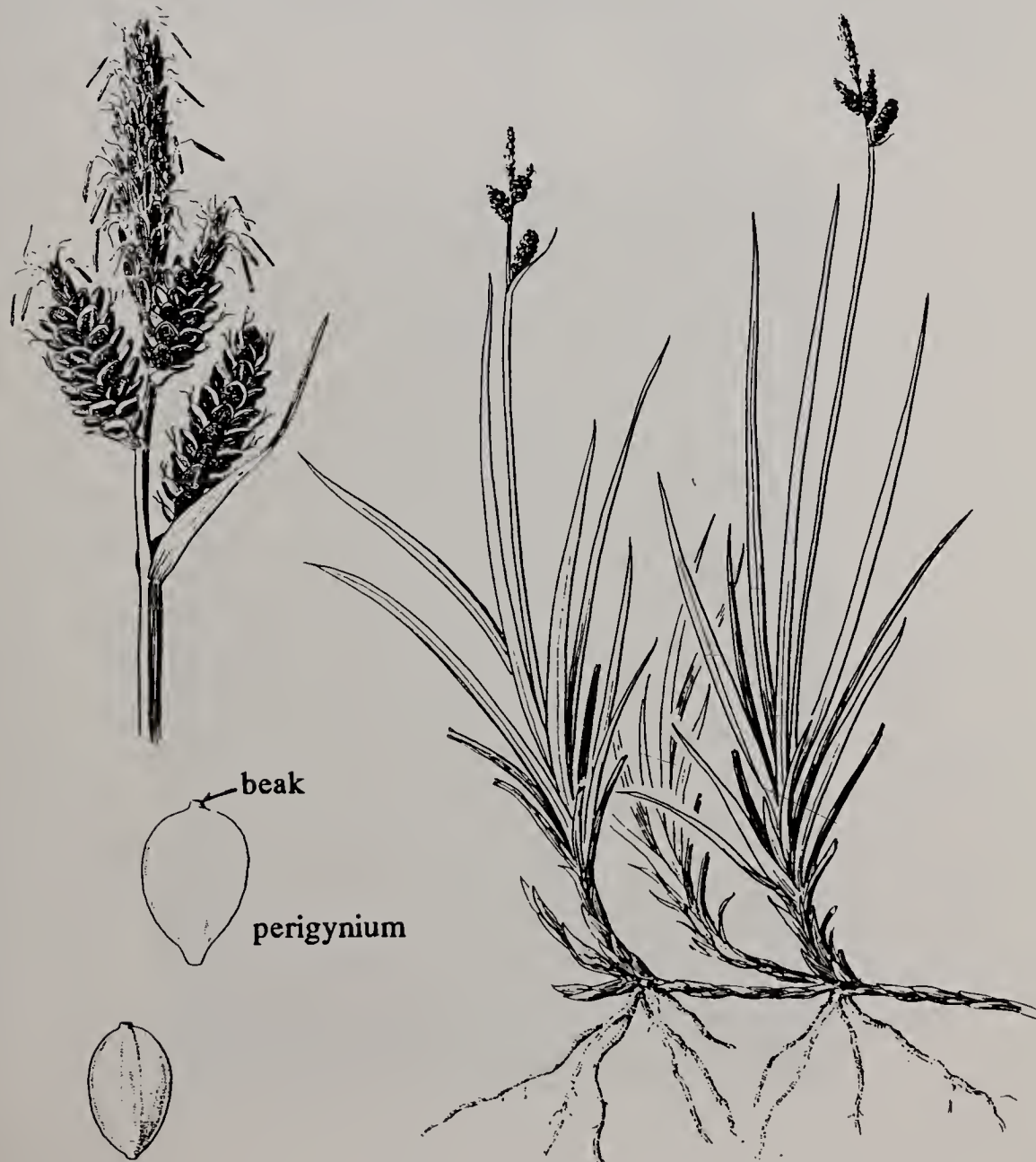


**DESCRIPTION:** Plants densely tufted, mostly 4-10 dm tall, culms reddish-brown near the base.

**LEAVES:** Flat, 2-5 mm wide and 3-6 dm (12-24") long. Plants strongly aphyllopodic (lowermost leaves reduced to scales).

**FLOWERS:** Spikes 3-5, cylindrical, the terminal spike male, the lateral ones female or androgynous (male flowers in upper portion). The upper spikes are erect and close together on the stem. Female scales reddish brown to purplish-black. 2 stigmas.

**FRUITS:** Perigynium 2.0-3.4 mm long, including the very short beak (0.2-0.3 mm long). Achene lenticular, 1.2-1.7 mm long and only loosely enclosed by the perigynium.



*Carex stylosa* (CAST3)

long-styled sedge

Sedge Family (Cyperaceae)

**DISTINGUISHING CHARACTERISTICS:** A densely tufted sedge with purplish-black female scales and a conspicuously exerted style. Flowers in August.

**HABITAT:** Fibrous and sphagnum peat soils that are saturated and seasonally flooded, or sloping wetlands with surface seepage, in the Silver Fir Zone and Mountain Hemlock Zone. On the Mt. Baker-Snoqualmie N.F. it has been found in shallow depressions with sphagnum, along lakeshores, and in a wet meadow in the Mountain Hemlock Zone.



Clayton Antieau

**DESCRIPTION:** Plants 1.5-5 dm (6-20") tall, with **densely clustered stems** on short, stout rhizomes.

**LEAVES:** Coarse and firm, 2-4 mm wide, crowded near the base and generally shorter than the flowering stem.

**FLOWERS:** 2-4 relatively short, erect spikes (0.5-1.0 cm long), the terminal spike male or with male flowers in the upper portion. **Female scales noticeably purplish-black.** **Style conspicuously exerted** when young but becoming deciduous.

**FRUIT:** Perigynia usually yellowish-green (or darker), with a very short beak (0.2 mm). Achene 1.6-1.9 mm long.

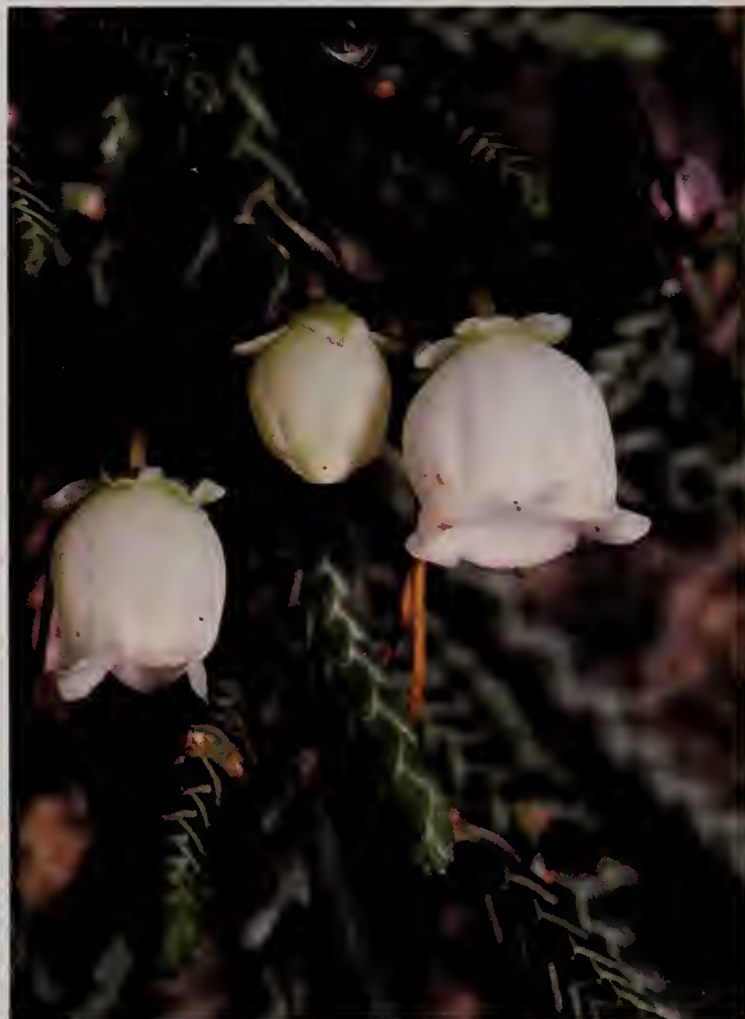


*Cassiope lycopodioides* ssp. *crispilosa*  
(CALYC2)

clubmoss cassiope  
Heath family (Ericaceae)

**DISTINGUISHING CHARACTERISTICS:** A matted, dwarf shrub with thin prostrate branches. The main differences between clubmoss cassiope and white heather (Merten's mountain heather, *Cassiope mertensiana*) is that the rare one has shorter leaves (2-3 mm long vs. 5 mm long) and narrower stems (2 mm thick vs. 4 mm thick).

**HABITAT:** Disjunct, occurs on mountain slopes in coastal Alaska. Found in King County on a mountain cliff face in a cold deep ravine with a northern exposure.



Phil Pearson

**DESCRIPTION:** Evergreen dwarf shrub with small, scale-like leaves.

**LEAVES:** Opposite, with **thin, dry margins**. Leaves are concave above, rounded beneath and **not distinctly 4-ranked**.

**FLOWERS:** Bell-shaped, white.



*Castilleja cryptantha* (CACR6)

obscure Indian paintbrush

Figwort Family (Scrophulariaceae)

**DISTINGUISHING CHARACTERISTIC:** This very small paintbrush is often hidden among the meadow grasses and forbs. It has a conspicuous yellow flower and green to purplish-brown bracts that are covered with sticky hairs. Blooms July-August.

**HABITAT:** Suspected in subalpine meadows from 4500-6500' elevation, ranging from sedge and grass dominated communities on level ground, to herb rich communities on steep slopes. Endemic to the vicinity of Mt. Rainier National Park.

USFS

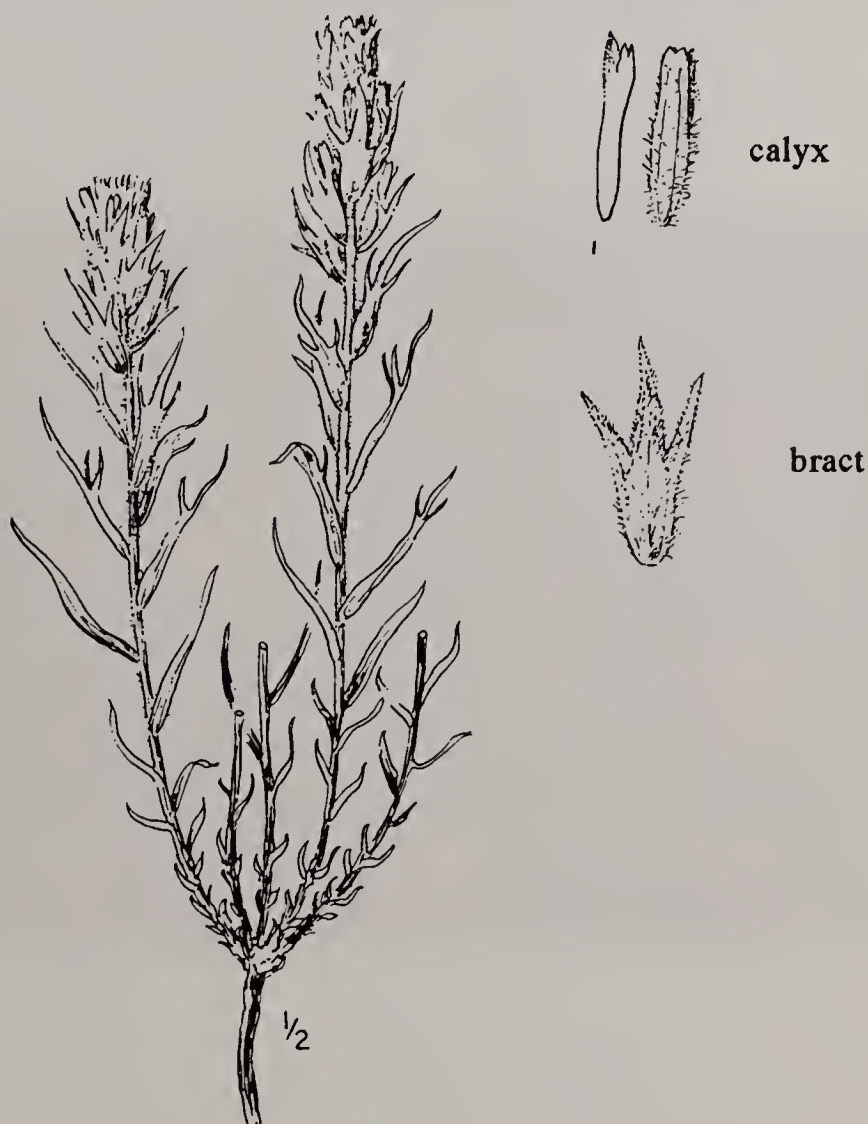




**DESCRIPTION:** Perennial with several clustered stems, only 10 to 15 cm tall. Leaves and stems covered with long, sticky hairs.

**LEAVES:** Lower leaves linear, upper ones broader and sometimes with a pair of short lateral lobes.

**FLOWERS:** Yellow calyx not hidden by bracts, calyx lobes acute, stigma not (or slightly) exerted. Bracts green to purplish-brown and covered with soft, sticky hairs.



*Chaenactis thompsonii* (CHTH)

Thompson's chaenactis

Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** This species is noted for its **lax, multiple stems** and its **flat pinnatifid leaves**. The **herbage is covered with fine, woolly hairs**, giving it a whitish cast. It can be confused with *C. ramosa*, but the latter has more lax stems and curled leaves. Flowers mid-May through August.

**HABITAT:** Most of the sightings of this plant have been on serpentine slopes in the Wenatchee Mountains. There is one unconfirmed report of this species on a subalpine slope at the southern end of the Mt. Baker-Snoqualmie N.F.

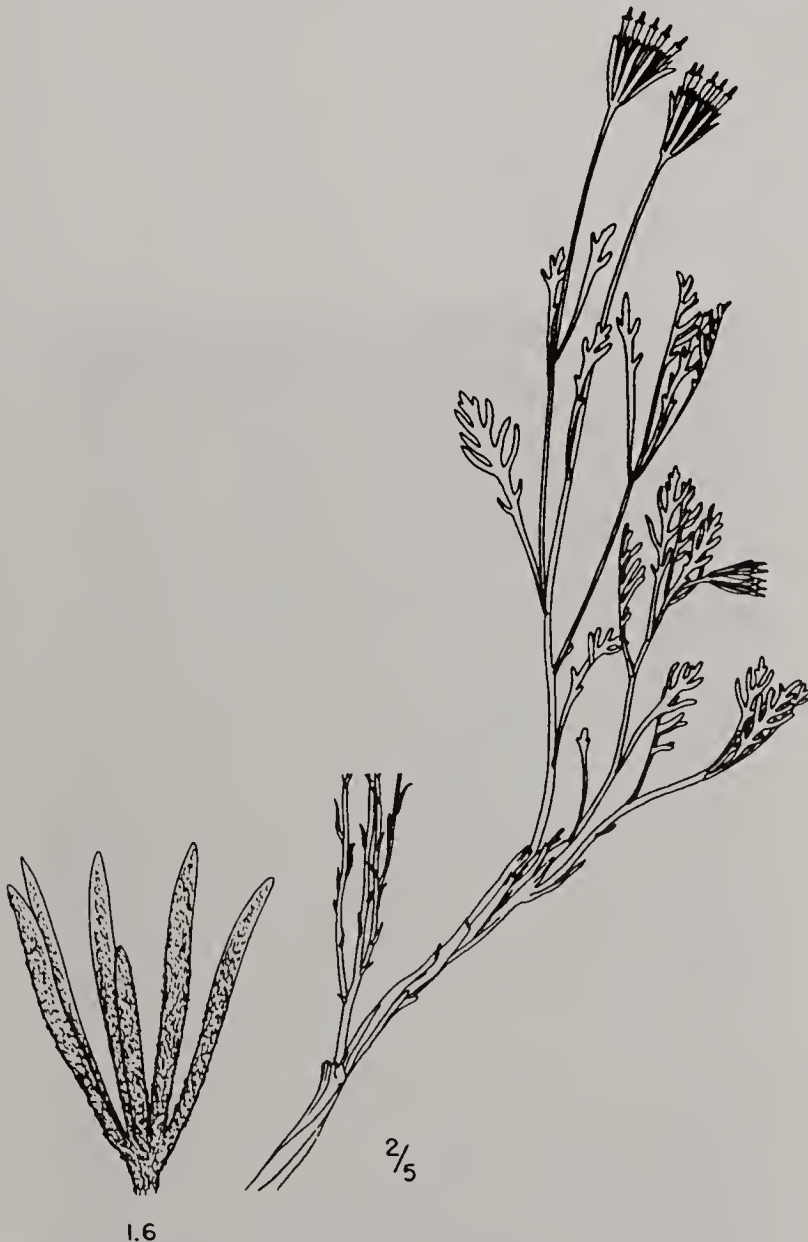
Terry Lillybridge/USFS



**DESCRIPTION:** Perennial, root crown branched, many stems with leaves all the way up the flowering stem, 1-3 dm (4-12') tall.

**LEAVES:** Alternate, **pinnately lobed** and flat about 5 cm long, covered with fine woolly hairs and with a rather broad midrib.

**FLOWERS:** Whitish to pink. Heads all discoid with tubular, bisexual flowers, few or solitary on each stem.



*Cimicifuga elata* (CIEL)  
tall bugbane  
Buttercup Family (Ranunculaceae)

**DISTINGUISHING CHARACTERISTICS:** This is a tall plant, which has large, toothed, compound leaves and a closely packed raceme of flowers covered with minute hairs and glands. Flowers June-August.

**HABITAT:** Suspected in moist, shady woods at lower elevations.

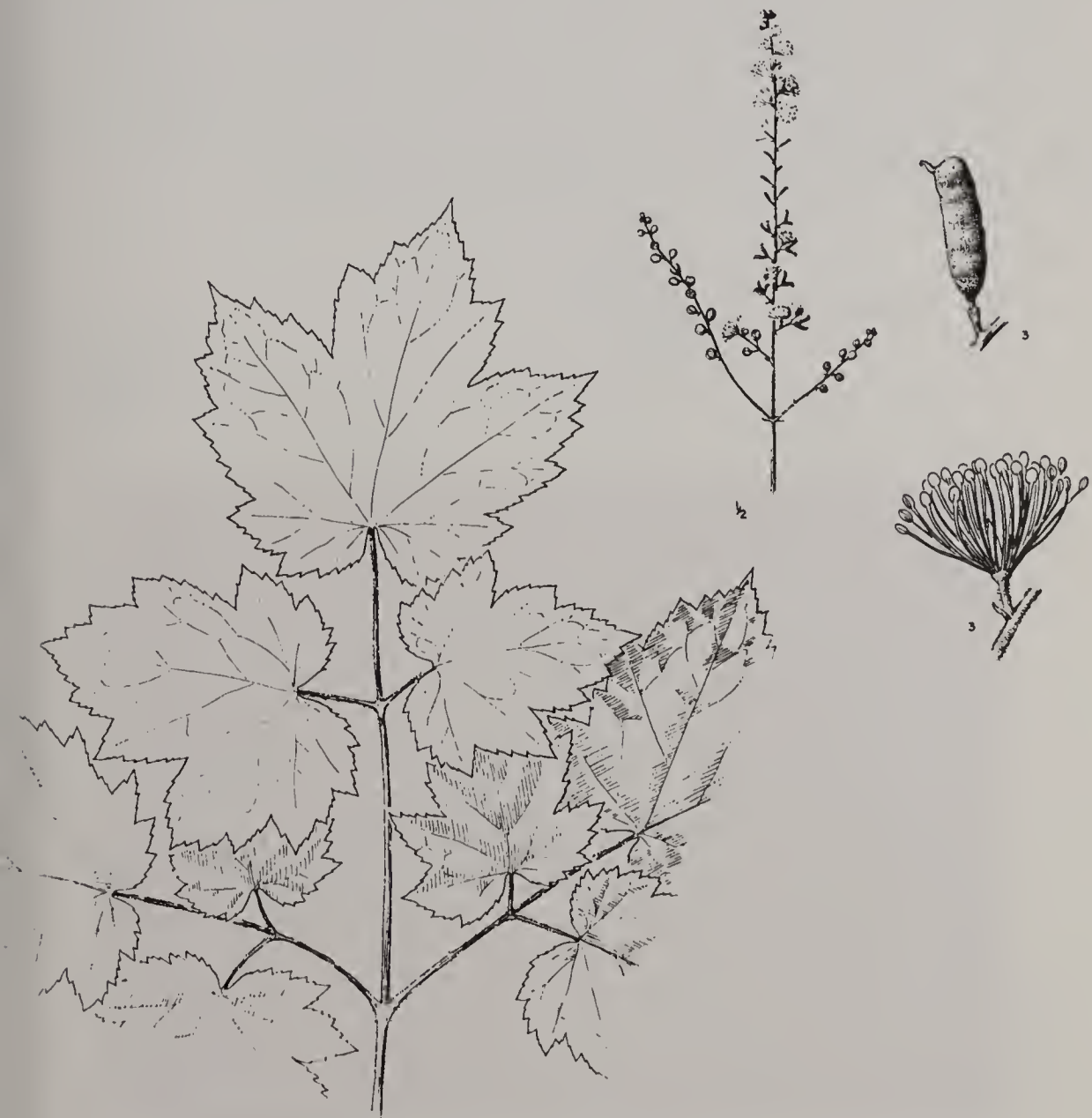


Lois Kemp/USFS

**DESCRIPTION:** Herbaceous perennial from woody rootstock, stems branched above, 1-2 m (3-6 ft) tall.

**LEAVES:** Compound; each leaflet with 3 primary lobes and then further lobed and finely toothed. The leaflets are arranged as to appear tiered or layered.

**FLOWERS:** Petals absent; sepals white to pinkish, falling off when the flower blooms, leaving only the stamens.



*Coptis asplenifolia* (COAS)  
spleenwort-leaved goldthread  
Buttercup Family (Ranunculaceae)

**DISTINGUISHING CHARACTERISTICS:** This plant has fern-like leaves that are divided 2 to 3 times and then cleft again. Each leaf has at least 5 leaflets.

Blooms late April to early May, identifiable to November.

**HABITAT:** Moist coniferous forests in the Western Hemlock Zone and Silver Fir Zone. On the Mt. Baker-Snoqualmie N.F. it has been reported in an old-growth western hemlock and western red-cedar forest, and on a north facing rocky slope.



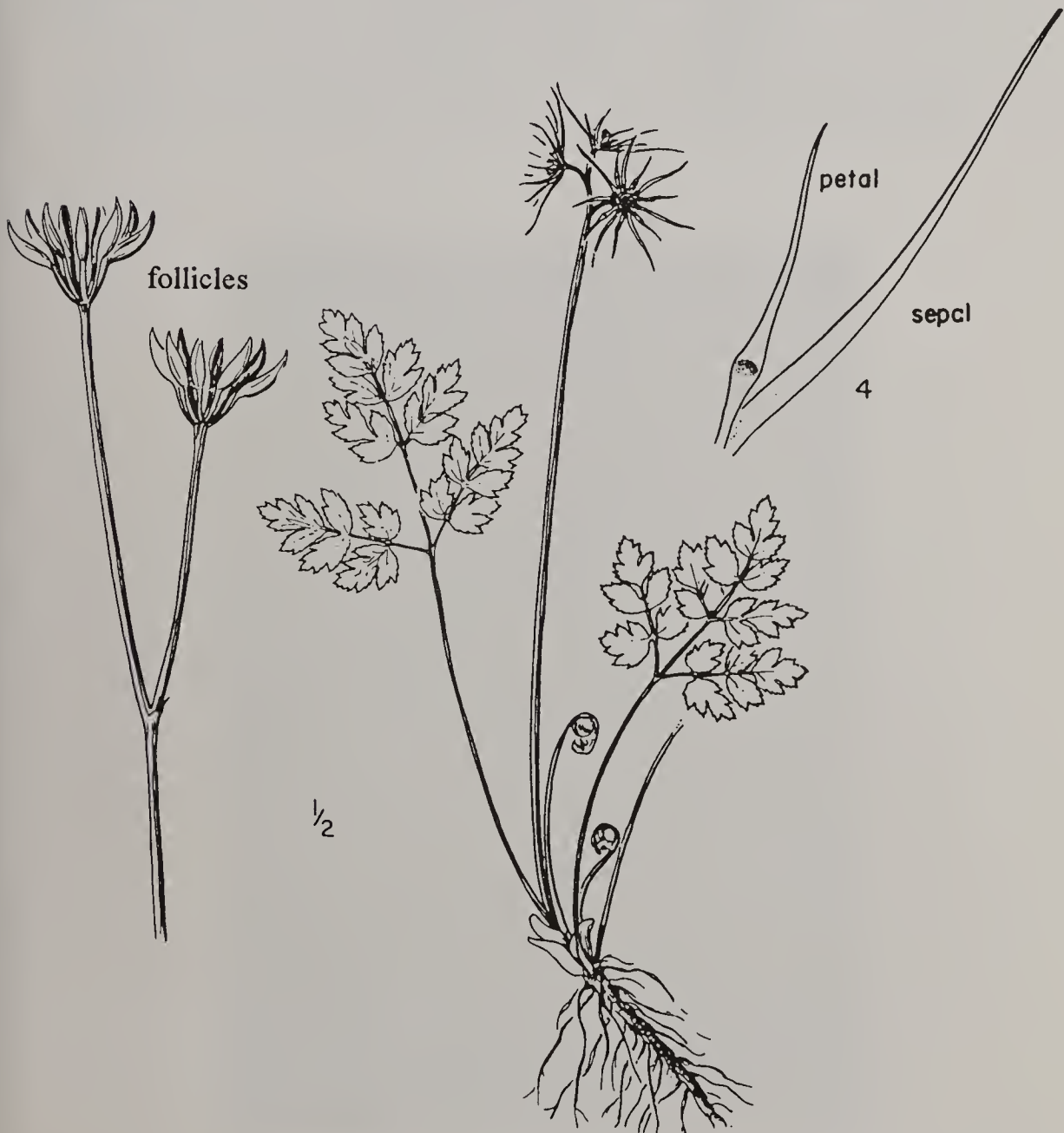
Jim Riley

**DESCRIPTION:** Low scapose perennial with shiny, leathery, evergreen leaves; flower scapes 5-25 cm tall.

**LEAVES:** Basal, 2-3 times pinnately divided, each leaf has at least 5 leaflets.

**FLOWERS:** Sepals and petals long and very narrow, 2-3 flowers per scape.

**FRUITS:** Follicles on a long stipe, arranged in an umbrella-like fashion. Each head may have up to 12 follicles 7-9 mm long.



*Dodecatheon pulchellum* var. *watsonii*  
(DOPUW)

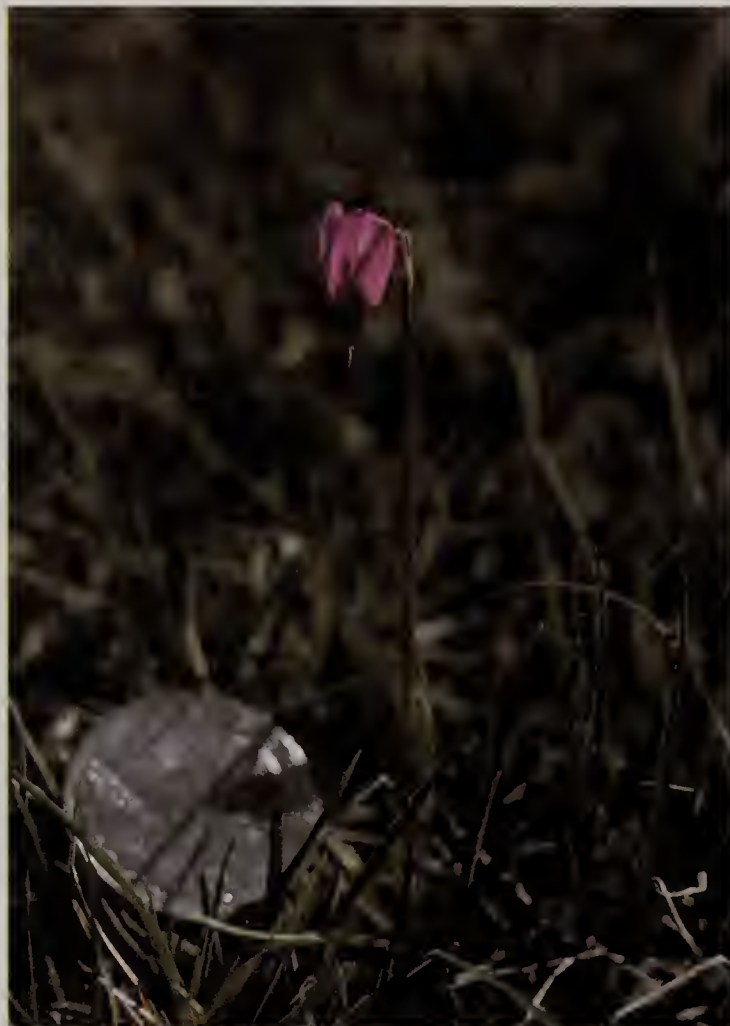
few-flowered shooting star

Primrose Family (*Primulaceae*)

**DISTINGUISHING CHARACTERISTICS:** This is the tiniest shooting star, only 2 to 5 cm tall, with only 1 or 2 flowers and a basal rosette of leaves. It is further distinguished by its yellow stamen tube.

**HABITAT:** Meadows and damp rock outcrops in subalpine to alpine areas. On the Mt. Baker-Snoqualmie N.F. it has been found in a moist meadow at 5900' elevation growing with *Dodecatheon pulchellum* var. *pulchellum* and *Carex nigricans*.

Mark Sheehan/WA Natural Heritage Program

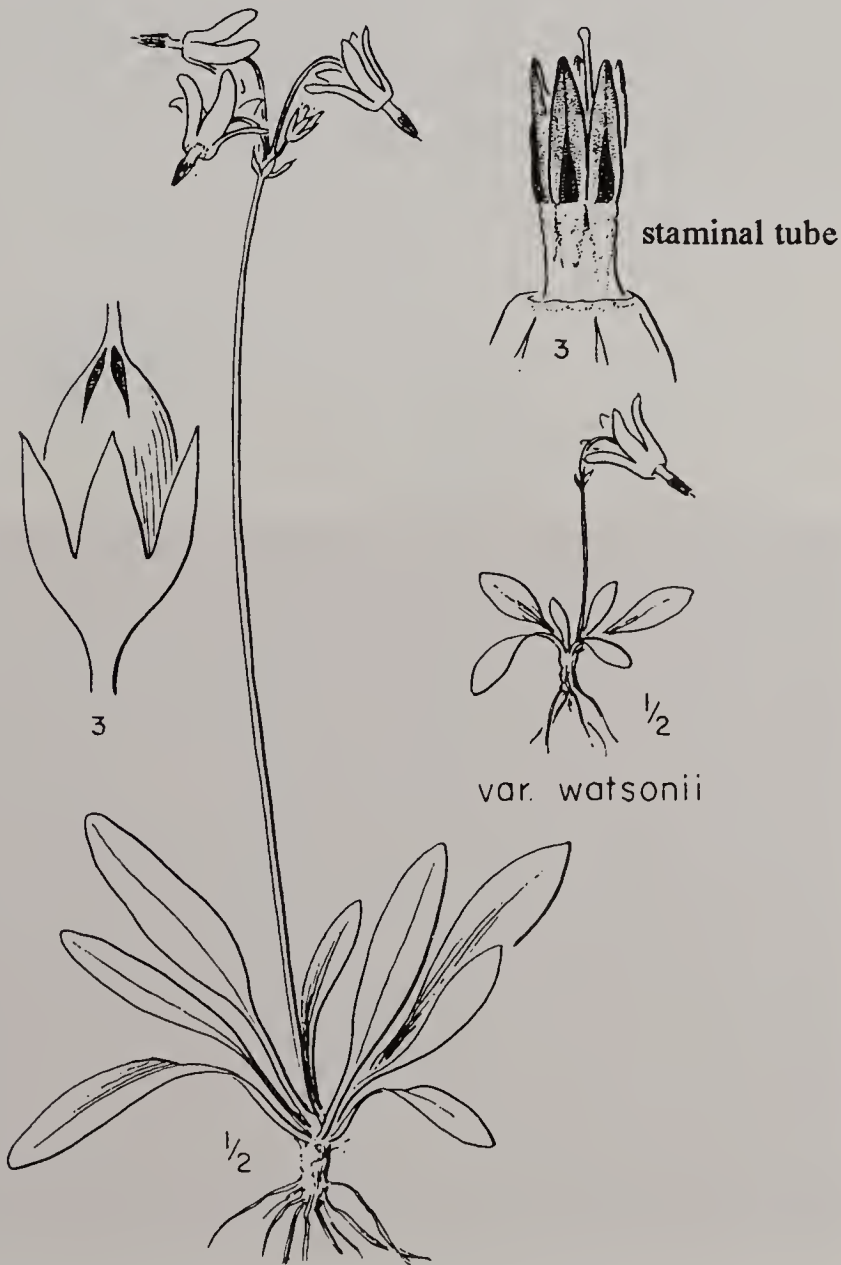




**DESCRIPTION:** Dwarf subalpine or alpine perennial, 2-5 cm tall.

**LEAVES:** Entire to slightly denticulate in a basal rosette.

**FLOWERS:** Showy, pink to rose or purple petals with a yellow staminal tube, usually only 1-2 flowers per stalk.



*Dryas drummondii* (DRDR)  
yellow mountain-avens  
Rose Family (Rosaceae)

**DISTINGUISHING CHARACTERISTICS:** The unique features of this species are its **yellow flowers with rounded sepals** and its **evergreen, oval-shaped leaves with scalloped edges and white undersides**. Blooms from May to early July.

**HABITAT:** Crevices of dry, rocky cliffs, rocky ridges, cirques, and talus slopes. Frequently above timberline (but sometimes in foothills along streams or gravel bars).



Jim Riley

**DESCRIPTION:** Evergreen, prostrate shrub with freely rooting woody branches.

**LEAVES:** Dark green on upper surface and white-hairy beneath. Leaf margins are scalloped and revolute (turned-under).

**FLOWERS:** Petals pale to deep yellow and ascending (never fully spread open), sepals oval-shaped with gland-tipped hairs, filaments hairy near the base.

**FRUITS:** Styles of mature achenes are plumose, giving the plant the appearance of a feather duster.



*Fritillaria camschatcensis* (FRCA2)

Indian rice

Lily Family (Liliaceae)

**DISTINGUISHING CHARACTERISTICS:** This species is distinctive because of its bell-like, greenish-brown to brownish-purple flowers, sets of whorled leaves, unwinged seed capsule, and **distinct unpleasant smell**. It can be told from other species of *Fritillaria* in our area because the flowers are not strongly spotted or mottled. Blooms in June.

**HABITAT:** On the Mt. Baker-Snoqualmie N.F. it has been found in moist to very wet meadows and riparian areas from 1500' to 3100' in the Western Hemlock Zone and Silver Fir Zone.



Julie Kierstead

**DESCRIPTION:** Sturdy stems, about 2-5 dm (8-20") tall, arising from bulbs consisting of several large fleshy scales and numerous rice-like offset bulblets.

**LEAVES:** Stem leaves in 1-3 whorls of 5-9 each and usually with 1-several leaves scattered above the uppermost whorl, 4-10 cm long, 5-25 mm broad.

**FLOWERS:** Bell-shaped, spreading to nodding, dark greenish-brownish-purple, sometimes spotted or streaked with yellow but not strongly mottled. Tepals (petals) 20-30 mm long, 7-12 mm broad.

**FRUITS:** A capsule about 25 mm long, cylindrical, without wings.



## *Galium kamtschaticum*(GAKA)

boreal bedstraw

Madder Family (Rubiaceae)

**DISTINGUISHING CHARACTERISTICS:** At first glance the whorl of 4 round leaves is reminiscent of a 4-leaf clover. The stem usually has only 2-4 whorls. The narrow leaf base, concave leaf margins and few flowers further distinguish this species from the common Oregon bedstraw (*Galium oregonum*).

**HABITAT:** There have been several reported sightings on the Mt. Baker-Snoqualmie N.F. All sites were in wet areas with seeps or standing water, in the Silver Fir Zone and the Mountain Hemlock Zone. In most cases it was found growing with devil's club. There was a wide variation in stand age and light conditions.

Kathy Ahlenslager/USFS

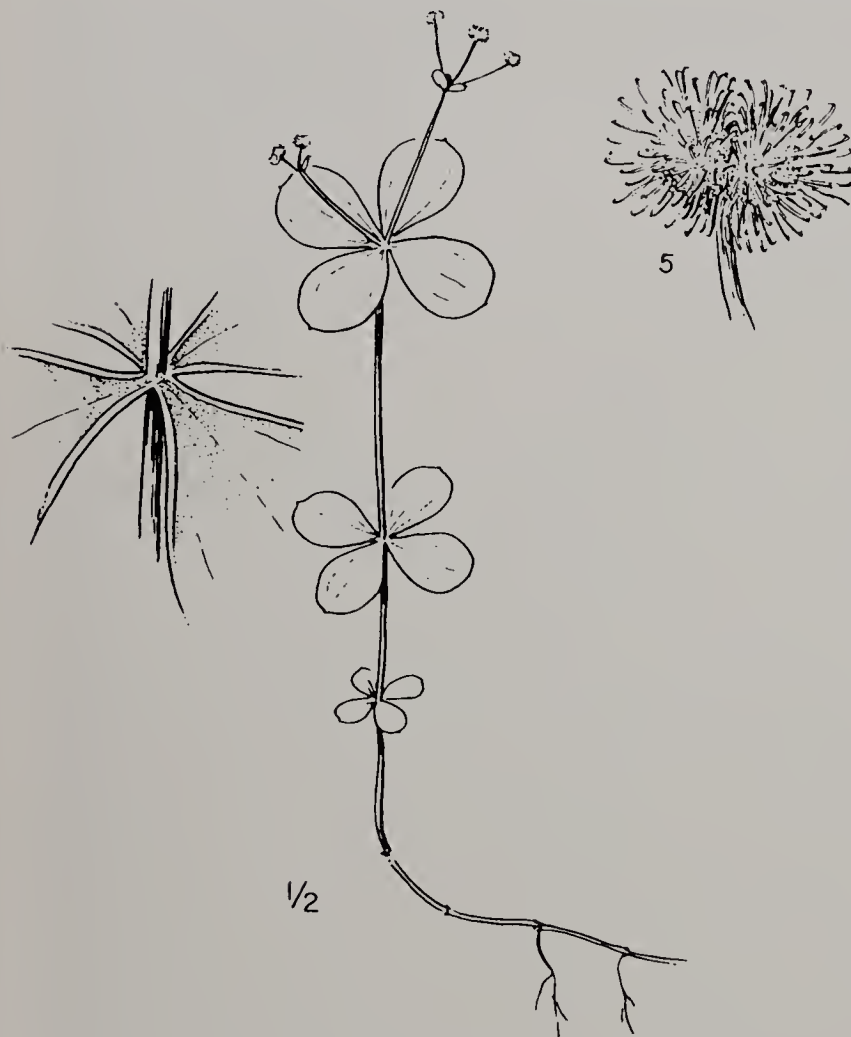


**DESCRIPTION:** Perennial from a creeping rhizome, with single, smooth stems 1-2 dm (4-8") tall.

**LEAVES:** 4 in a whorl \* with 2-4 whorls per plant. Leaf bases narrow, leaf margins concavely rounded.

**FLOWERS:** Generally only 2-3 flowers at the top of each flower stem, with 1-3 flower stems per plant.

\* a ring of leaves, all coming out from the same level on the stem



*Gentiana douglasiana* (GEDO)

swamp gentian

Gentian Family (Gentianaceae)

**DISTINGUISHING CHARACTERISTICS:** This is an annual, white flowered gentian with clefts between the five corolla lobes that are folded like a fan and double-toothed. Blooms July to September.

**HABITAT:** On the Mt. Baker-Snoqualmie N.F. it has been found in a bog at 3000' in elevation in the Silver Fir Zone.



Grace Patrick

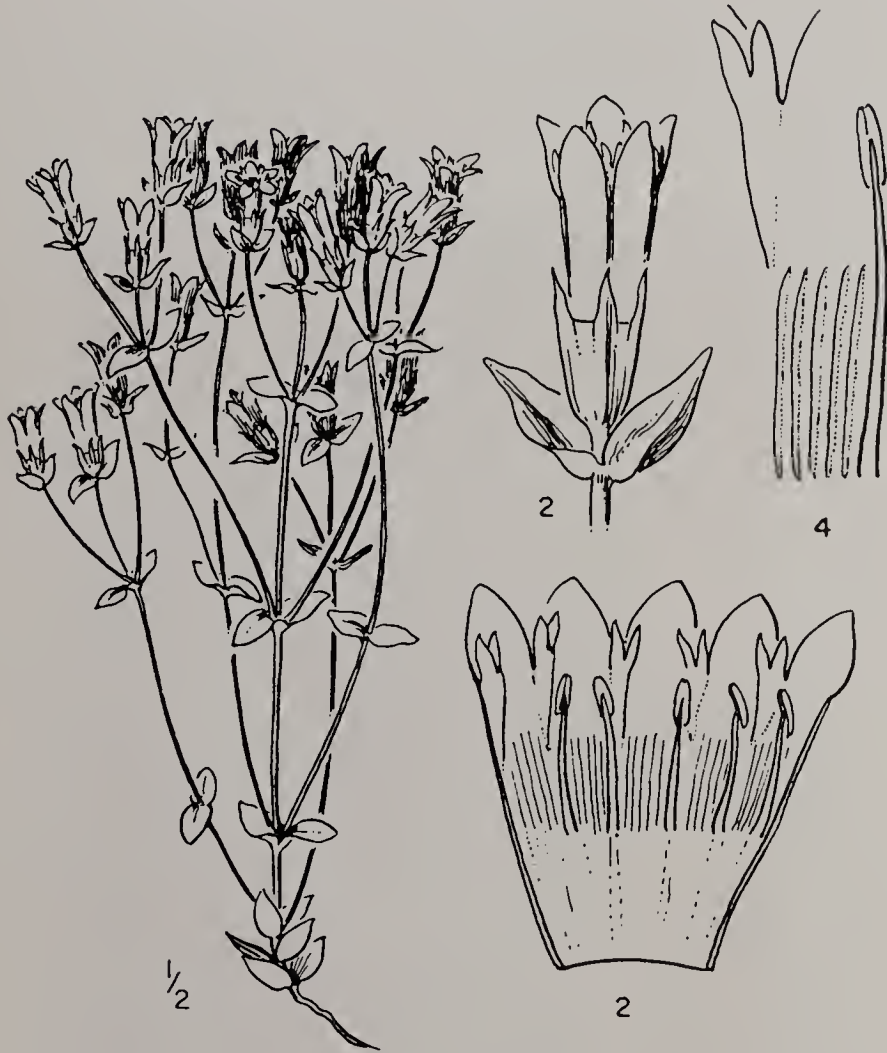


**DESCRIPTION:** Freely branching annual 5-20 cm tall, stems distinctly angled.

**LEAVES:** Egg-shaped, basal leaves 5-15 mm long, stem leaves few, 5-10 mm long.

**FLOWERS:** Funnel-shaped, white, with blue on the back of the lobes.

**FRUITS:** Capsule flattened and wing-margined with a crest above.



*Gentiana glauca* (GEGL)

glaucous gentian

Gentian Family (Gentianaceae)

**DISTINGUISHING CHARACTERISTICS:** This **alpine** gentian has a **basal rosette** of leaves. It can best be distinguished by its **cluster of relatively small, blue flowers** (1-2 cm long).

**HABITAT:** On the Mt. Baker-Snoqualmie N.F. it has been found above 6000' elevation, in dry to moist alpine meadows.

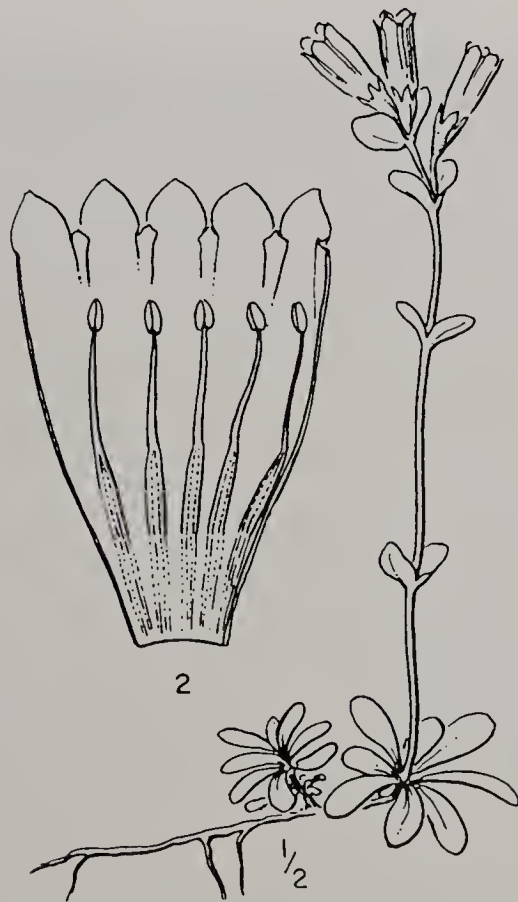
Washington Natural Heritage Program



**DESCRIPTION:** Perennial with stems 4-15 cm (1.5-6") long, from creeping rootstocks.

**LEAVES:** Basal leaves arranged in a circle or disk (rosette), stem leaves opposite, 1-2 pairs.

**FLOWERS:** 3-5 closely crowded, dark blue flowers, 1-2 cm long.



*Lobelia dortmanna* (LODO3)  
water lobelia  
Harebell Family (Campanulaceae)

**DISTINGUISHING CHARACTERISTICS:** This aquatic species of lobelia can be distinguished by the basal leaves which are round in cross-section. Usually only the flowering portion of the plant is above water. Blooms June to August.

**HABITAT:** Suspected in shallow water at the margins of lakes and ponds.

Mark Sheehan/WA Natural Heritage Program

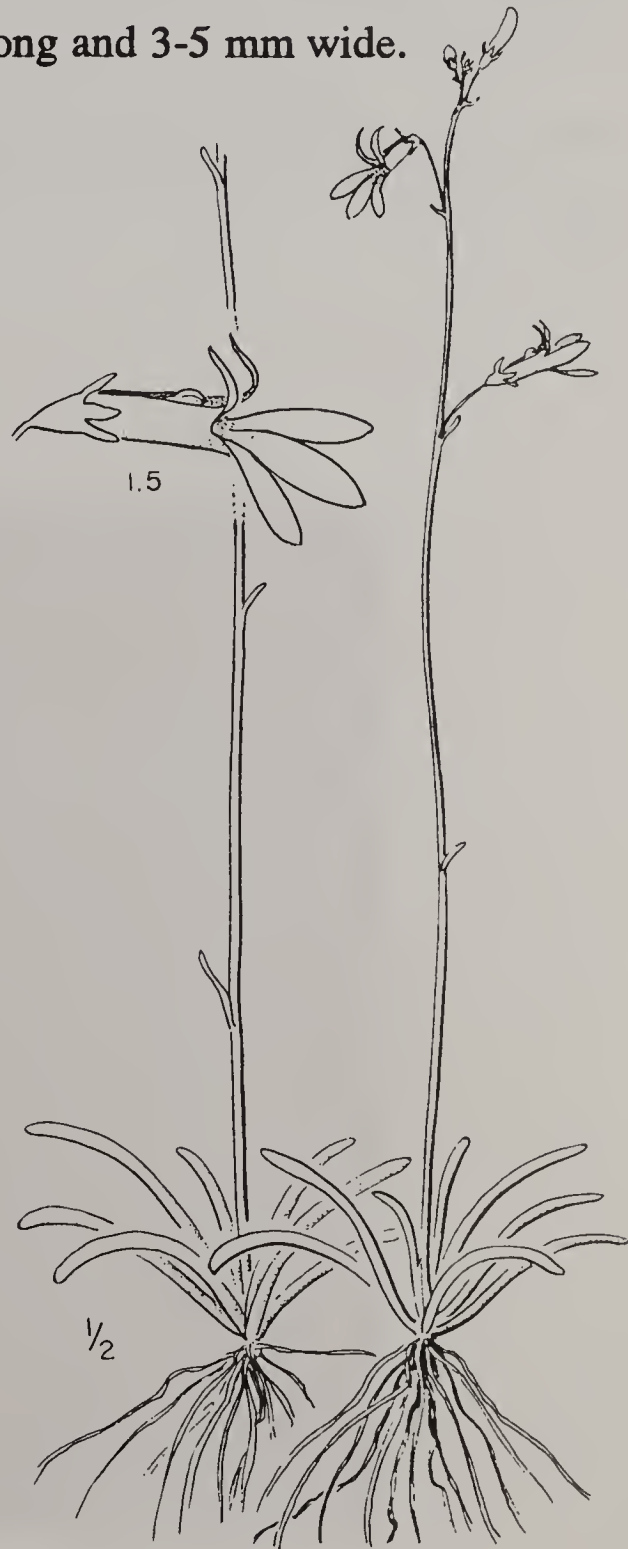


**DESCRIPTION:** Fibrous-rooted aquatic perennial, stems hollow, upright, and mostly unbranched, up to 3 feet tall.

**LEAVES:** Basal leaves in a rosette, linear, fleshy; stem leaves reduced to thin bracts.

**FLOWERS:** Pale blue or white petals fused into a tube with a 3-lobed lip, 1-2 cm long.

**FRUITS:** Capsule 5-10 mm long and 3-5 mm wide.



*Loiseleuria procumbens* (LOPR)

alpine azalea

Heath Family (Ericaceae)

**DISTINGUISHING CHARACTERISTICS:** This dwarf evergreen shrub has **opposite, bright green leaves and light to deep pink flowers**. Because it is so attractive, the most serious threat to this rare plant is from collectors who take cuttings for propagation.

**HABITAT:** On the Mt. Baker-Snoqualmie N.F. its been found in a moist meadow by the outlet of a lake in the Subalpine Parkland Zone.

University of Washington Herbarium



**DESCRIPTION:** Diffusely branched, prostrate evergreen shrub, barely 10 cm tall.

**LEAVES:** Opposite, bright green, 4-8 mm long with revolute (turned-under) margins.

**FLOWERS:** Light to deep pink flowers clustered in the axils of upper stem leaves. Petals fused at base.

**FRUITS:** Capsule, ovoid in shape, 4 mm long.



*Luzula arcuata* (LUAR4)

curved woodrush

Rush family (Juncaceae)

**DISTINGUISHING CHARACTERISTICS:** This dry-site rush can be distinguished by the spreading, **drooping**, inconspicuous flowering heads and the **slender stems**. Petals and sepals come to an acute but not tapered point. Blooms July-August.

**HABITAT:** Suspected on rocky or gravelly soil, usually on moraines and/or above timberline; known from a historical record in Mt. Rainier National Park.

University of Washington Herbarium





**DESCRIPTION:** Perennial tufted rush from short rhizomes, 7-20 cm tall, with **very slender round stems**.

**LEAVES:** Stem leaves few, basal leaves usually **purplish, with edges rolled inward**.

**FLOWERS:** Simple, inconspicuous, light to dark brown, 2 mm long. Flower stems 2-7, slender, in cluster or spike that is spreading and drooping.



*Lycopodium dendroideum* (LYDE)  
treelike clubmoss  
Clubmoss Family (Lycopodiaceae)

**DISTINGUISHING CHARACTERISTICS:** At first glance, this species could remind you of a miniature Norfolk Island pine tree. It has one erect above-ground shoot, which branches 3 or 4 times; the prostrate stems are underground. Identifiable June-October.

**HABITAT:** Dry rocky slopes and open coniferous forests. On the Mt. Baker-Snoqualmie N.F. it was found growing on a lava flow under dense vine-maple.



Jan Henderson/USFS

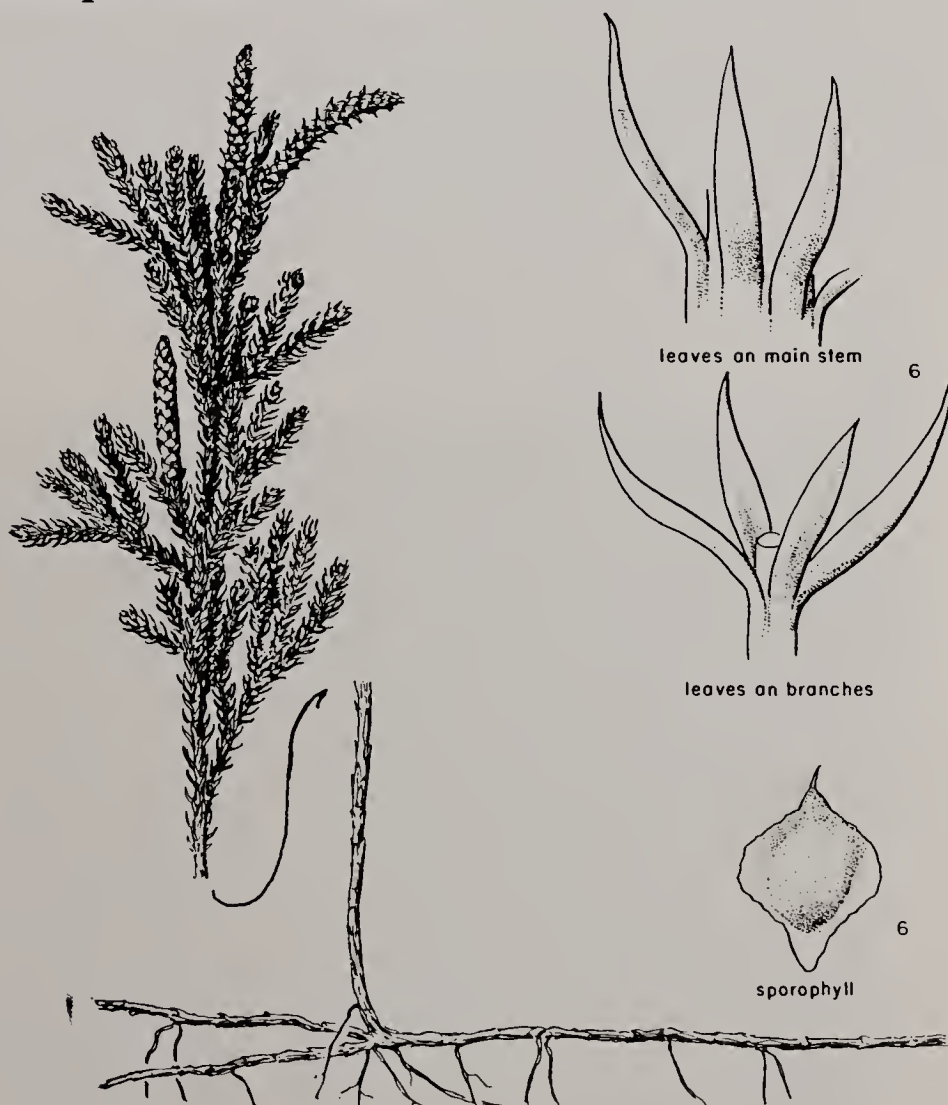
**DESCRIPTION:** Evergreen perennial with thin, scale-like leaves.

**HORIZONTAL STEMS:** Buried deeply underground.

**UPRIGHT STEMS:** Erect; 1-2.5 dm (4-10") tall, with several sets of spreading, many-forked branches.

**LEAVES:** Scaly, sharp pointed, 2.5-5.0 mm long and under 1 mm wide, diverging from the central stem at angles greater than 30 degrees.

**CONES:** Solitary or in groups of 2 or 3, sessile (without stems), borne at the tips of erect braches.



The line drawing is of *Lycopodium obscurum*, a taxon not present in the Pacific Northwest, based on recent biosystematic research. *Lycopodium dendroideum* will key out as *Lycopodium obscurum* in Hitchcock and Cronquist (1973).

*Lycopodium inundatum* (LYIN)

bog clubmoss

Clubmoss Family (Lycopodiaceae)

**DISTINGUISHING CHARACTERISTICS:** The most distinctive feature of this species is the **bushy-topped fertile stems**. Since the portions of the plant that are aboveground are annual, it does not form large mats, unlike other *Lycopodium* species.

**HABITAT:** Suspected at low elevations in sphagnum bogs, seldom in other very wet places.

Linda Kunze/WA Natural Heritage Program



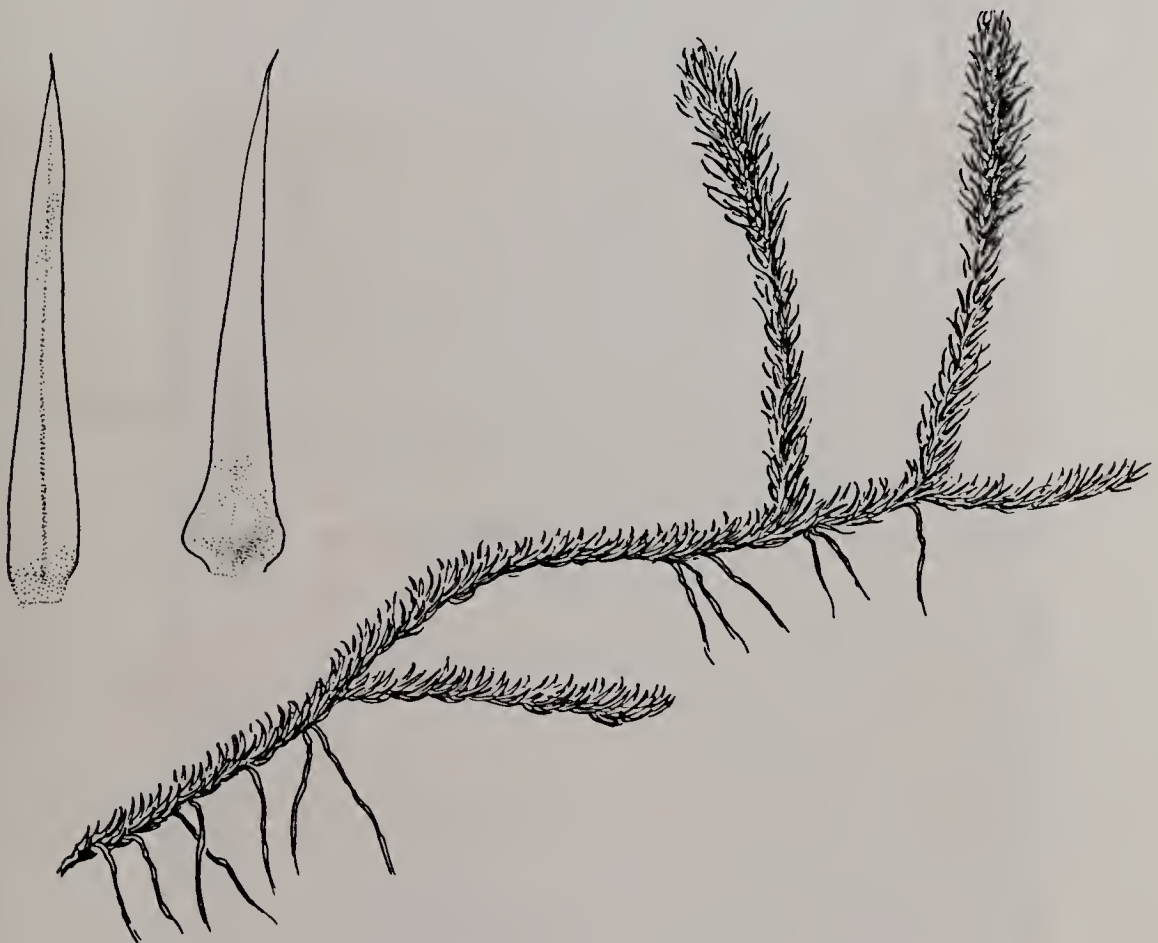
**DESCRIPTION:** This is a small clubmoss, with annual stems, the plant perenniating by a winter bud.

**HORIZONTAL STEMS:** **Annual**, above-ground, prostrate or arching, rooting at frequent intervals, leafy.

**UPRIGHT STEMS:** **Annual**, unbranched, leafy, cone-bearing.

**LEAVES:** Those on the horizontal stem are crowded, thin, narrow (4 - 8 mm long and less than 1 mm wide), the leaves on the lower side twisted into a more or less upright position. Leaves on the upright stems are loosely ascending.

**CONES:** **Single**, sessile, 1-3 cm long; sporophylls (leaves modified for spore production) green, similar to the other leaves but spreading, giving a **bushy-topped appearance to the fertile stems**.



*Microseris borealis*\* (APBO)  
northern microseris  
Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** This plant has a dandelion-type flower on a **leafless flower stem**, and **long, narrow leaves**. Blooms June-August.

**HABITAT:** Suspected in sphagnum bogs and wet to moist meadows.

\* a.k.a. *Apargidium boreale*.



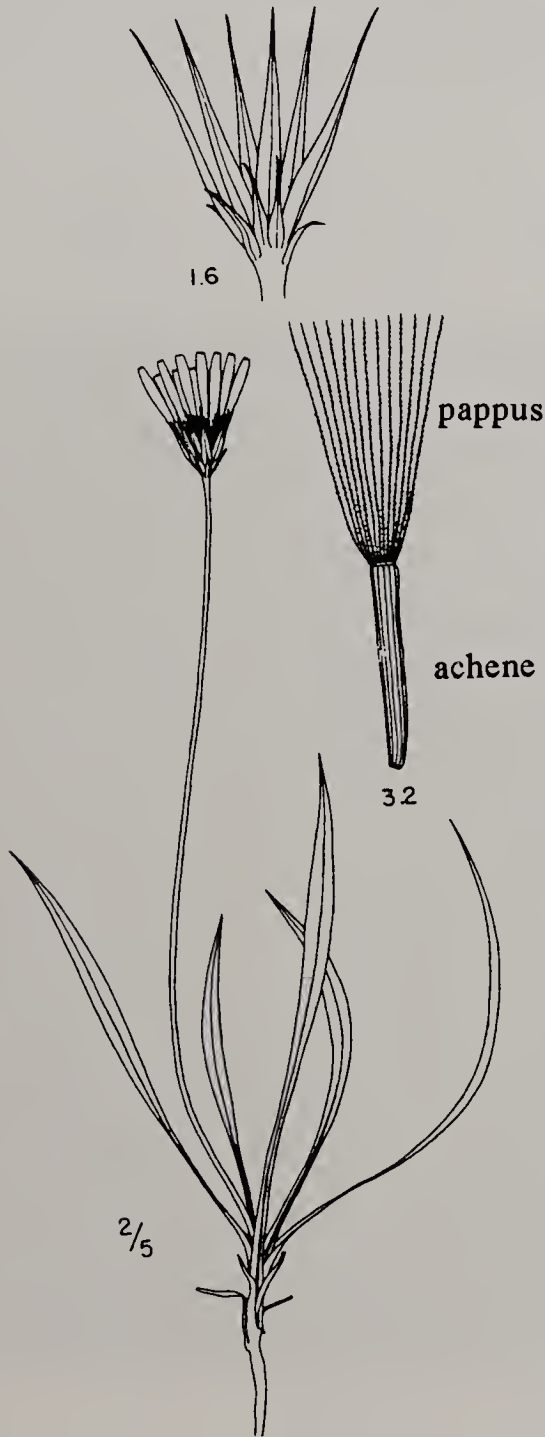
Lois Kemp/USFS

**DESCRIPTION:** Hairless perennial with basal leaves and milky juice, 1-5 dm (4-20") tall,

**LEAVES:** Basal, long and narrow, 5-25 cm long by 2-12 mm wide.

**FLOWERS:** One yellow to orangish flower per stem, ray flowers only, pappus of brownish, barbed capillary bristles.

**FRUITS:** Achene 5-6 mm long.



*Montia diffusa* (MODI3)

branching montia

Purslane Family (Portulacaceae)

**DISTINGUISHING CHARACTERISTICS:** Branching montia can be distinguished from other similar appearing montias by its **branching stems and alternate, spatula shaped leaves**. *Montia parvifolia* has un-branched stems and alternate, small, succulent leaves. *Montia siberica* also has unbranched stems, but with one pair of opposite stem leaves. Blooms April to July.

**HABITAT:** Suspected in moist woods at lower elevations.



Russ Jolley



**DESCRIPTION:** Low, spreading, branched annual, up to 3-4 dm (12-16") tall.

**LEAVES:** Basal leaves few, usually broad and abruptly narrowed to a long petiole (leaf stalk); stem leaves similar, somewhat reduced upward, alternate.

**FLOWERS:** Racemes often originate in stem axils, petals white or pale pink, 3-4 mm long; sepals 2-3 mm long, unequal, stamens 5.

**FRUITS:** 3-valved capsule, seeds usually 2-3, black with several rows of low, oval protuberances and a short appendage nearly 0.5 mm long.



*Pedicularis rainierensis* (PERA5)

Mt. Rainier lousewort

Figwort Family (Scrophulariaceae)

**DISTINGUISHING CHARACTERISTICS:** This species has a showy head of yellow to yellowish white flowers crowded near the top of purplish stems, and strongly incised pinnately compound leaves. Blooms July-August.

**HABITAT:** Mesic to moist meadows in the Subalpine Parkland Zone. Only known in or around Mt. Rainier National Park. It was reported from a moist subalpine hillside at the southern end of the Mt. Baker-Snoqualmie N.F.

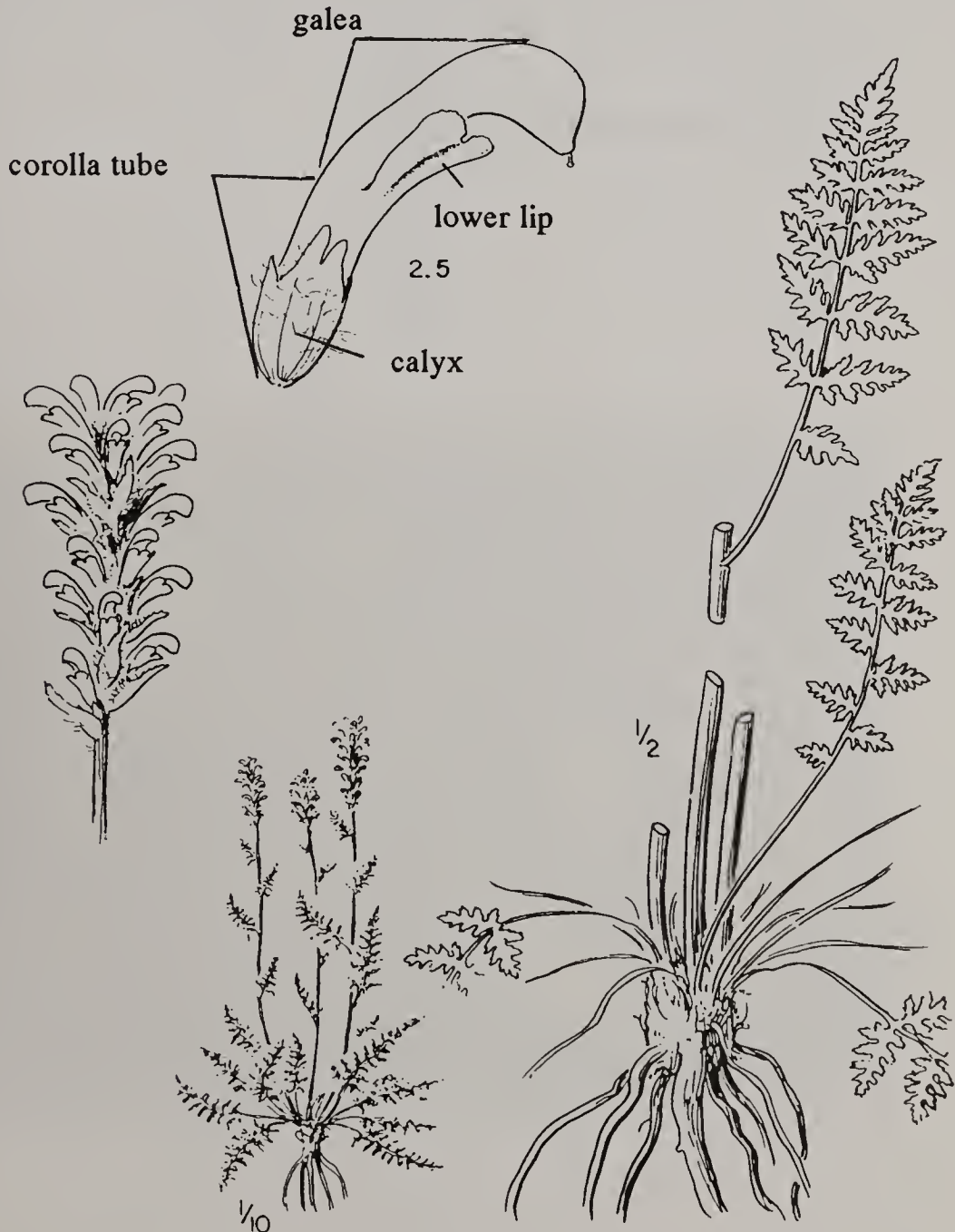


Robin Leshner

**DESCRIPTION:** Perennial with several clustered, unbranched stems, 1.5-4 dm (6-16") tall, lacking fine hairs below the flowering head parts.

**LEAVES:** Stout, deeply and doubly toothed, 5-15 cm long at the base, becoming progressively shorter up the stem.

**FLOWERS:** 1.5 cm, yellowish-white, almost translucent. Galea the same length as the corolla tube and not extended into a beak. Flowers dense on spike, often forming a flat top.



*Platanthera chorisiana*\* (PLCH)

choriso bog-orchid

Orchid family (Orchidaceae)

**DISTINGUISHING CHARACTERISTICS:** This inconspicuous orchid is only 5-15 cm tall, with 2 leaves near the base, and a crowded spike of small, greenish flowers. Blooms July-August.

**HABITAT:** On the Mt. Baker-Snoqualmie N.F. it has been found in very wet meadows, rocky seeps, and lakeshores in the Mountain Hemlock Zone and Silver Fir Zone.

\*a.k.a. *Habenaria chorisiana*

A.E. Grable



**DESCRIPTION:** Small perennial herb, mostly 5-15 cm tall.

**LEAVES:** Usually 2 (sometimes 3), located near the base, somewhat sheathing, sometimes 1 or 2 lanceolate bracts are located further up the stem.

**FLOWERS:** 5-18, greenish, sessile in a crowded spike. These small flowers have a spur less than 1 mm long and lip 1.5-2 mm long. Sepals 1 nerved, the upper one slightly hooded, petals strongly 3 nerved. Lowest flowers have lance-shaped greenish bracts.



*Platanthera obtusata*\* (HAOB)  
small northern bog-orchid  
Orchid Family (Orchidaceae)

**DISTINGUISHING CHARACTERISTICS:** This orchid usually has only 1, semi-erect leaf located at the base of the plant, and sepals with 3 to several nerves. The size of the flower parts further distinguish this species (See next page).

**HABITAT:** Damp to wet forested areas. On the Mt. Baker-Snoqualmie N.F. it has been reported from an old-growth coniferous forest dominated by western hemlock and western red-cedar.

\* a.k.a. *Habenaria obtusata*

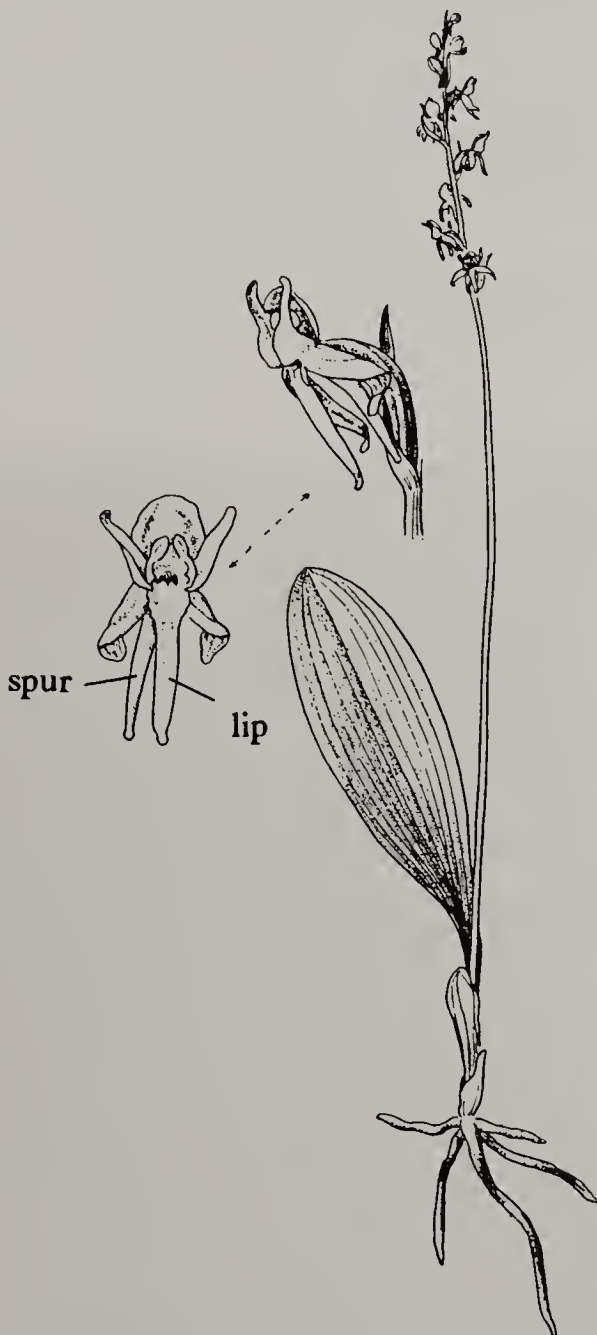
Lois Kemp/USFS



**DESCRIPTION:** Plants hairless, with a leafless flowering stalk, 8-20 cm tall.

**LEAVES:** 1 (rarely 2), semi-erect, generally more than twice as long as it is broad.

**FLOWERS:** Greenish, with 3-15 flowers more or less spread out along the stem, spur 5-8 mm long and tapered from the base, lip 5-9 mm long and up to 1.5 mm wide.



*Platanthera sparsiflora*\* (HASP)

canyon bog-orchid

Orchid family (Orchidaceae)

**DISTINGUISHING CHARACTERISTICS:** The greenish flowers of this bog orchid are widely spread out above a leafy stem. This species can be confused with slender bog-orchid (*P. saccata*), but the rare one has narrower leaves, a relatively long and narrow spur, and a more linear lip. Blooms May-August .

**HABITAT:** Moist to wet or boggy areas. On the Mt. Baker-Snoqualmie N.F. one plant has been reported growing in a seep in the Western Hemlock Zone.

\*a.k.a. *Habernaria sparsiflora*



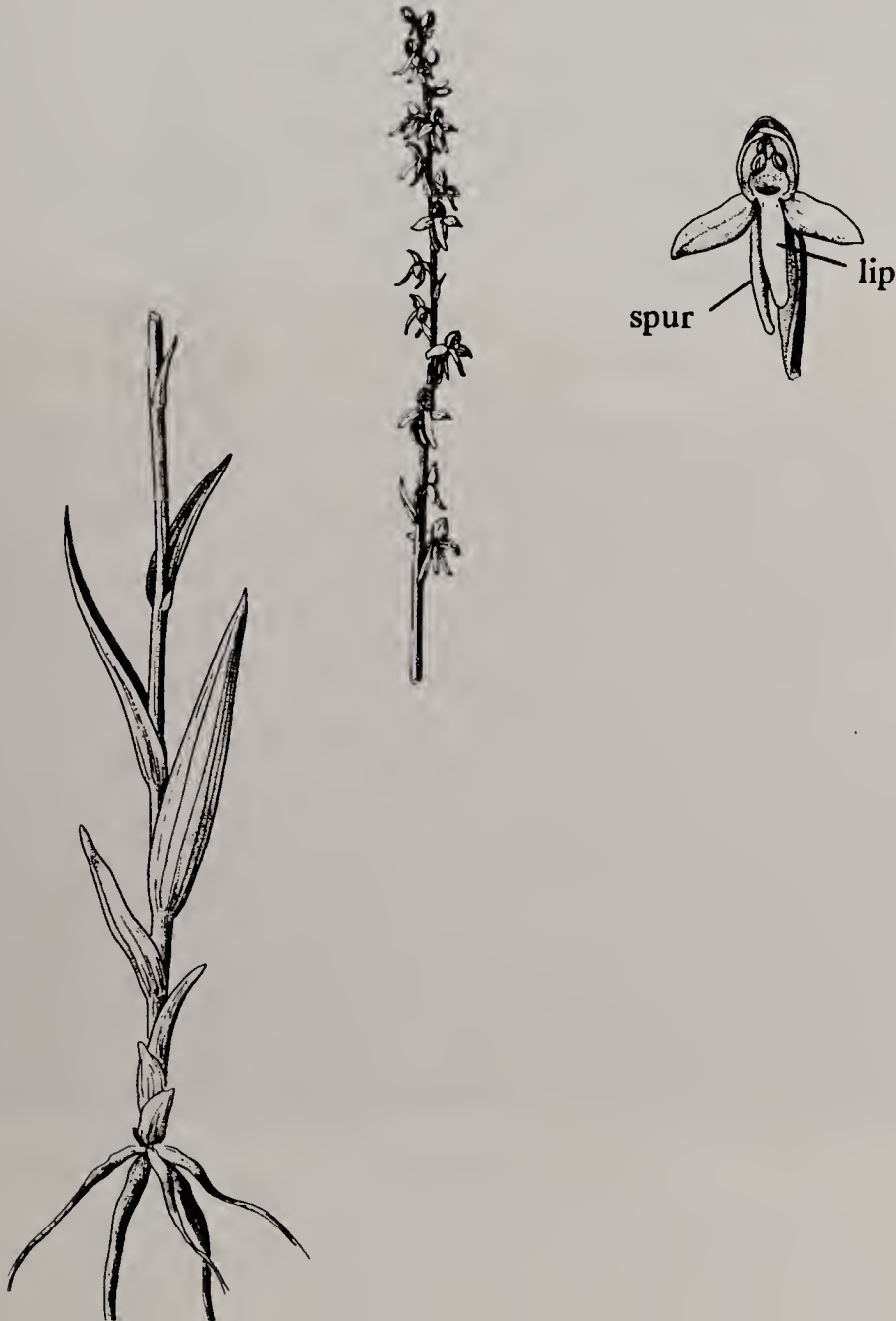
Lois Kemp



**DESCRIPTION:** Fleshy, hairless perennial with a leafy flower stem, 3-8 dm tall.

**LEAVES:** Lance-shaped, up to 25 cm long by 1-3 cm wide, mostly on the lower half of the stem (The lower leaves of *P. saccata* are oblong to elliptic).

**FLOWERS:** Greenish, widely spaced. Spur cylindric to slightly club-shaped, roughly the same length as the lip, usually curved (the spur of *P. saccata* is scrotiform, usually less than 3/4 the length of the lip and uncurved). Lip linear to lance-shaped, pendent.



*Pleuricospora fimbriolata* (PLFI2)

fringed pinesap

Heath Family (Ericaceae)

**DISTINGUISHING CHARACTERISTICS:** This non-green plant, a saprophyte, is 3-12 cm tall. It has a yellow-white color from its first emergence from the duff, and usually has a brownish tinge in each bud. It can be told from pinesap (*Hypopitys monotropa*) by its anthers, which are long and linear (The anthers on pinesap are short and oval shaped). Blooms July-August.

**HABITAT:** Dense conifer stands, 1,000-4,000' elevation, with ample duff and little understory vegetation, often associated with Douglas-fir. On the Mt. Baker-Snoqualmie N.F. its been reported from dry forests in the Western Hemlock Zone.



Jim Riley

**DESCRIPTION:** White, non-photosynthetic plant, 3-12 cm tall.

**LEAVES:** Lacking leaves.

**FLOWERS:** **Fringed** in appearance when in full bloom, **8-15 mm**, with slightly shorter bracts. Some brown coloration is common. **Anthers 2-3 mm long and linear**, not much broader than the filaments.

**FRUIT:** Capsule, nearly ball-shaped.



*Poa grayana* (POGR5)

Gray's bluegrass

Grass Family (Poaceae)

**DISTINGUISHING CHARACTERISTICS:** Species of bluegrass generally have leaf tips shaped like the bow of a canoe, several flowers per spikelet, and unawned lemmas. Gray's bluegrass is an **alpine** species with **spreading branches** and **hairs** on the back and at the base of the lemma. Blooms late June-September.

**HABITAT:** An alpine species; suspected in vegetation mats in talus and scree slopes, open ridges, and fell-fields.

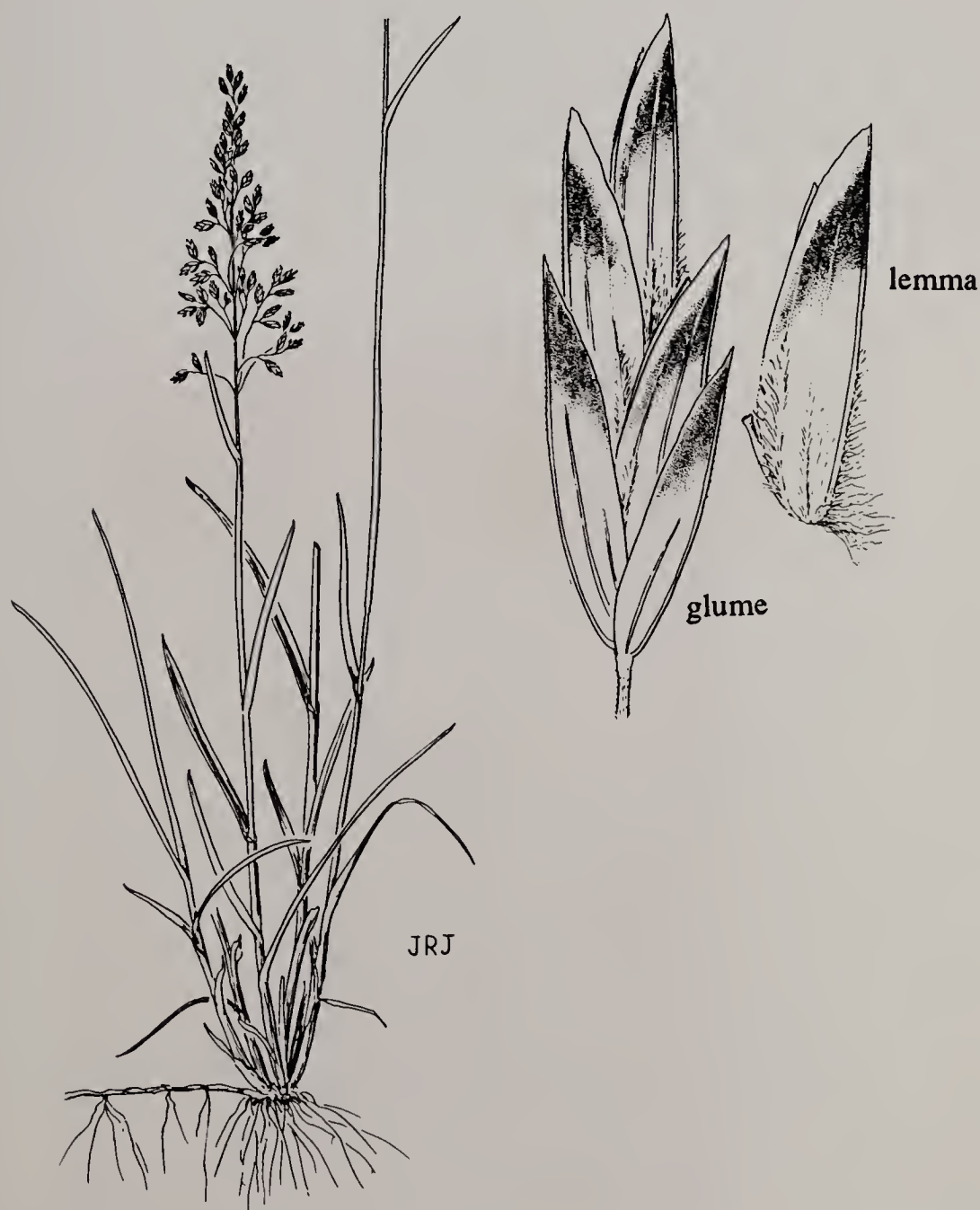
University of Washington Herbarium



**DESCRIPTION:** Tufted perennial, but generally more or less rhizomatous, usually 3-6 dm (12-24") tall.

**LEAVES:** Flat or folded, 2-4 mm broad, rough on the margins, leaf tips sharply prow-shaped.

**FLOWERS:** Panicle spreading, often pyramid shaped. Spikelets average about 6 mm long, purplish. Lemmas strongly keeled, hairy on the back, silky on the 5 nerves, cobweb-like hairs at base.



*Ranunculus cooleya* (RACO)

Cooley's buttercup

Buttercup Family (Ranunculaceae)

**DISTINGUISHING CHARACTERISTICS:** This buttercup can be distinguished by its basal leaves, which are kidney-shaped, deeply lobed, and on long leaf stalks. The flowering stem is leafless and bears a single flower. Petals have a V-shaped scale near the base. Blooms July to August.

**HABITAT:** Damp rocky slopes and rock crevices, usually blooming as the snow recedes. On the Mt. Baker-Snoqualmie N.F. it has been reported from talus at the base of cliffs and in a lush herb community on gravelly to rocky substrate.

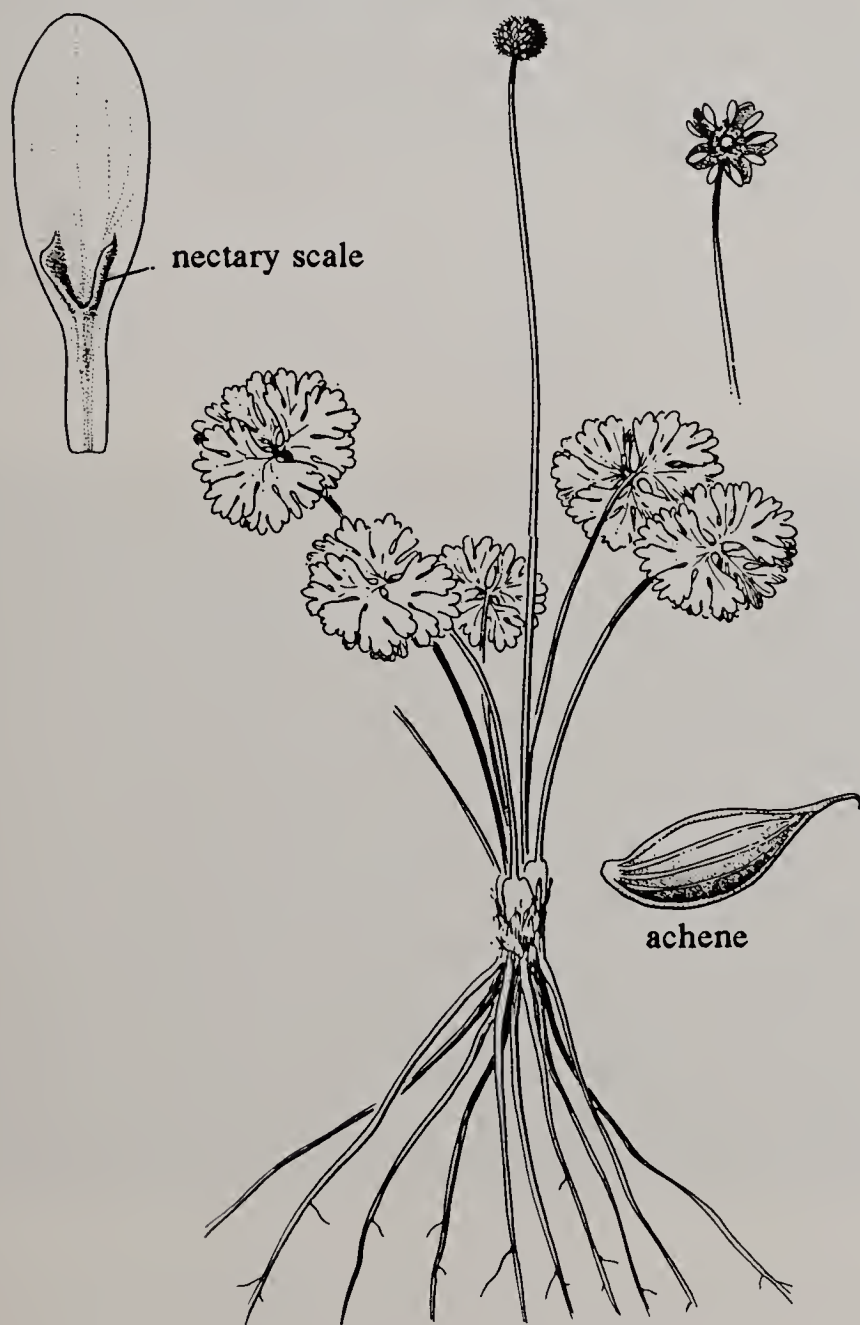


**DESCRIPTION:** Perennial from thick fibrous roots, with a single flower on a leafless stem. Flowering stems 1-3.5 dm (4-14") tall.

**LEAVES:** All basal, on leaf stalks up to 15 cm long, kidney-shaped, deeply 3-5 lobed, each of the main lobes further divided 2-3 times, the main leaf segments overlap each other.

**FLOWER:** A single, yellow flower with 7-12 slender petals, 5 broad sepals, and numerous stamens.

**FRUITS:** Achenes 70-100, about 2.5 mm long, 3 prominent lateral nerves and a slightly hooked beak.



*Saxifraga debilis* (SADE)  
pygmy or weak saxifrage  
Saxifrage Family (Saxifragaceae)

**DISTINGUISHING CHARACTERISTICS:** Pygmy saxifrage is a diminutive alpine plant, with lobed, kidney-shaped leaves and pink veins in the flower petals. Bulbils (small bulb-like structures) are sometimes present in the axils of the basal leaves. Blooms July-August.

**HABITAT:** Moist meadows, rock seeps, ephemeral streams, and glacial outwash. On the Mt. Baker-Snoqualmie N.F. it has been found on shaded rock outcrops, moist cliffs, and glacial outwash in the Alpine Zone.

Robin Leshner





**DESCRIPTION:** Perennial, forming small patches, flower stems only 1-10 cm tall.

**LEAVES:** Mostly basal with long, slender petioles (leaf stalks). The blade is shallowly lobed (5-15 mm broad with 3-5 lobes), and more or less kidney-shaped.

**FLOWERS:** Several stems with one to two flowers per stem. Flowers white with pinkish veins, calyx purplish-green.



*Saxifraga integrifolia* var. *apetala*  
(SAINA)

swamp saxifrage

Saxifrage family (Saxifragaceae)

**DISTINGUISHING CHARACTERISTICS:** This is one of a group of Saxifrages with thick basal leaves in a compact rosette. It has a **single flower stalk that is covered with glands and hairs, topped by a densely packed head of flowers.**

**HABITAT:** Vernal moist meadows, rock seeps, ephemeral streams. On the Mt. Baker-Snoqualmie N.F. it was found at 5900' elevation on a steep, moist, lateral moraine with a north aspect.

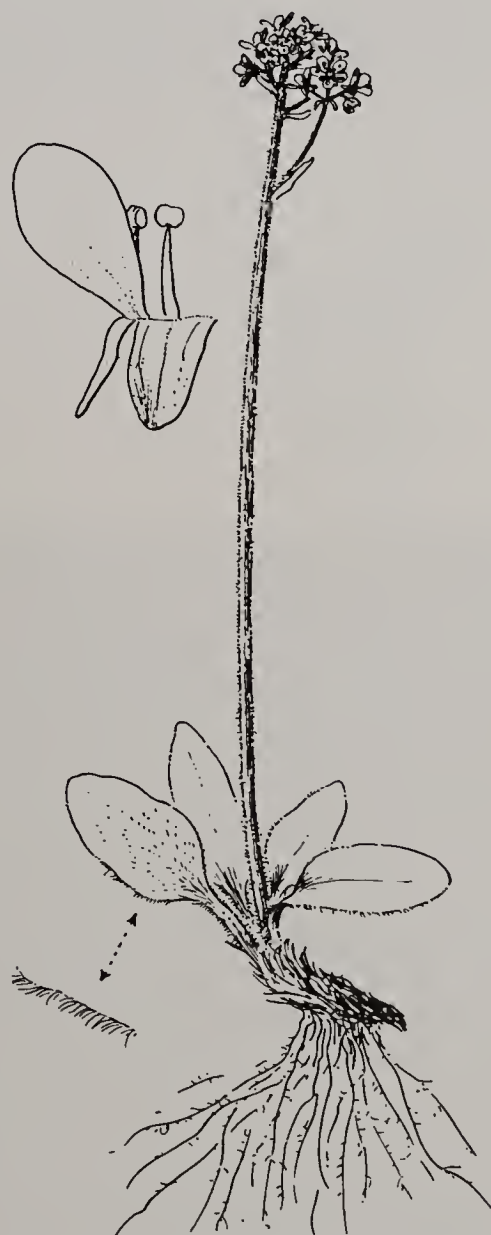


Jim Riley

**DESCRIPTION:** Perennial 1-3 dm (4-12") tall with a single, hairy flower stalk.

**LEAVES:** All basal, entire, rounded above and narrowing gradually to a relatively broad, hairy petiole (leaf-stem).

**FLOWERS:** Petals usually lacking; anthers yellow; flowers densely packed, forming a rounded head at the top of the hairy, glandular flower stalk.



var. *integrifolia*

*Tillaea aquatica* (TIAQ)  
pigmy-weed  
Stonecrop Family (Crassulaceae)

**DISTINGUISHING CHARACTERISTICS:** This diminutive relative of Sedum is only 2-6 cm long with **thin, weak stems**. The 4-parted flowers occur **singly** in the leaf axils (*T. erecta* has dense clusters of flowers in the leaf axils).

**HABITAT:** On the Mt. Baker-Snoqualmie N.F., it has been found on mudflats by a lakeshore in the Western Hemlock Zone.



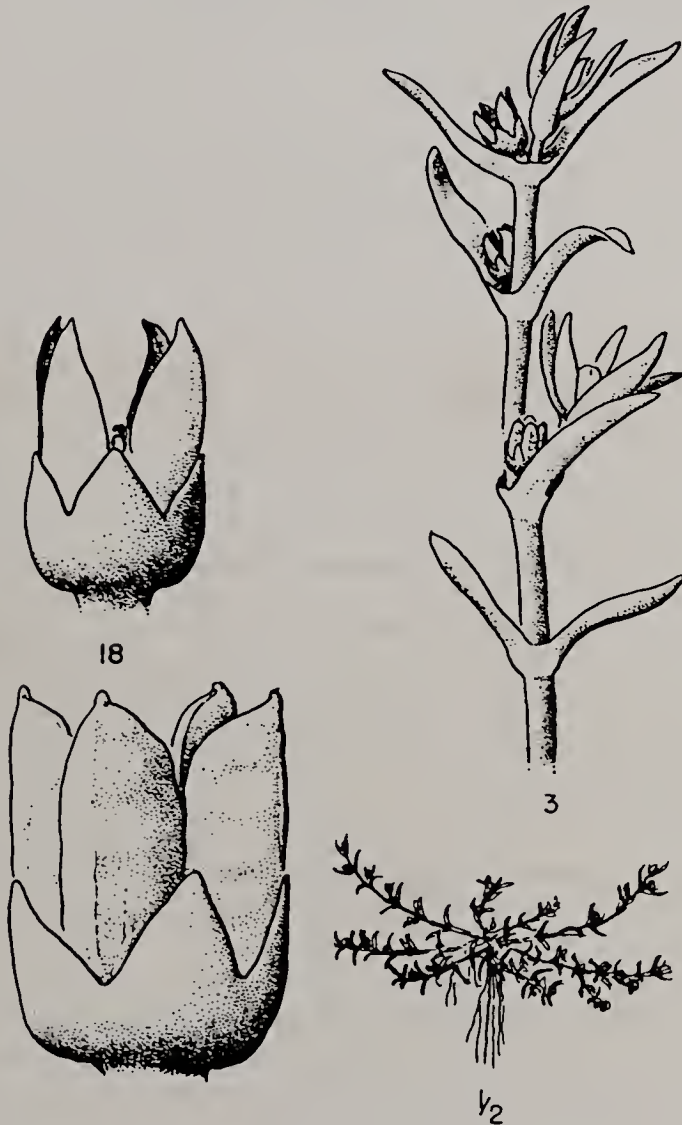
Russ Jolley

**DESCRIPTION:** Small, freely branched annual with a prostrate to ascending growth habit.

**LEAVES:** Opposite, succulent, linear to lance-shaped, 3-6 mm long.

**FLOWERS:** Occur singly in leaf axils; 4 membranous to whitish petals, 1.5 mm long, 4 stamens that are much smaller than the petals, sepals fused at the bottom and lobed above.

**FRUITS:** Follicles scarcely 2 mm and purplish.



USDA FOREST SERVICE  
R-6 THREATENED, ENDANGERED, AND SENSITIVE  
PLANT SIGHTING FORM

Taxon \_\_\_\_\_

Project Area \_\_\_\_\_

Date \_\_\_\_\_ Forest \_\_\_\_\_ District \_\_\_\_\_

USGS Quad. \_\_\_\_\_ County/State \_\_\_\_\_

Site # \_\_\_\_\_ Examiner/Affiliation \_\_\_\_\_

Legal	T _____	R _____	sec. _____	1/4 _____	of 1/4 _____
	T _____	R _____	sec. _____	1/4 _____	of 1/4 _____
	T _____	R _____	sec. _____	1/4 _____	of 1/4 _____

Location \_\_\_\_\_

Directions \_\_\_\_\_

Population Size \_\_\_\_\_ (indicate stems or clumps)

Distribution \_\_\_\_\_ Total Area \_\_\_\_\_

Avg. Clump Diameter \_\_\_\_\_ or Avg. Stems/Clump \_\_\_\_\_

Phenology:	Vegetative _____ (%)	Flowering _____ (%)
	Fruiting _____ (%)	Senescent _____ (%)

Elev. \_\_\_\_\_ (ft.) Aspect \_\_\_\_\_ (degrees) Slope \_\_\_\_\_ (%)

Landform \_\_\_\_\_

Habitat \_\_\_\_\_

Microtopography \_\_\_\_\_ (concave, convex, planer, or undulating)

Soil/Substrate \_\_\_\_\_

Plant Association \_\_\_\_\_

Associated Species: \_\_\_\_\_

Moss/Lichen Layer \_\_\_\_\_ Cover\* \_\_\_\_\_

Herb Layer \_\_\_\_\_

Low Shrub Layer \_\_\_\_\_ Cover\* \_\_\_\_\_

High Shrub Layer \_\_\_\_\_ Cover\* \_\_\_\_\_

Tree Layer \_\_\_\_\_ Cover\* \_\_\_\_\_

\_\_\_\_\_ Canopy Cover \_\_\_\_\_ (%)

Remarks/Management Recommendations \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\* Cover classes: absent, open, light, moderate, dense, very dense.

\*\*\* ATTACH 1:24,000 (or larger) MAP TO BACK \*\*\*







## NOXIOUS WEEDS

The State of Washington has classified noxious weeds according to the seriousness of the threat they pose statewide. The law is designed to prevent the spread of newly introduced species by eliminating them and to contain those weeds that are already a problem.

The State Noxious Weed Control Board has suggested 12 species for us to watch out for. These are divided into 2 categories in this guide:

**Detection Weeds:** These are species not yet detected on the Mt. Baker-Snoqualmie National Forest, so it is more critical to 'sound the alarm' if you find them.

**Target Weeds:** These are already a problem; the strategy is to contain them to prevent further spread.

If you find any of these species, note the size of the population and the legal description of the site. Pass this information along to the contact person responsible for noxious weeds at the Ranger District where they occurred.

## DETECTION WEED

### *Anchusa officinalis* (ANOF)

#### common bugloss

Borage Family (Boraginaceae)

**DESCRIPTION:** A taprooted perennial, 3-8 dm (1-2.5 feet) tall, covered with coarse, often sharp, spreading hairs. The small blue flowers have petals fused into a tube, which spreads into 5 lobes at the top. The flower stalk is curved, but straightens with age. Fruits are separated into 4 parts (nutlets) about 2 mm high and leaning towards the center of the flower. Blooms May-July.

**HABITAT:** Roadsides and other disturbed habitats.



## DETECTION WEED

### *Carduus nutans* (CANU5)

#### musk thistle

Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** A biennial with stems from 3 to 6 feet tall, and with spiny wings extending down the stem. Leaves are deeply lobed with spines around the margin. The solitary, purple flower head is large, thistle-like, and usually nodding. Flowering occurs in June.

**HABITAT:** Pastures, range and timber lands, roadsides and ditchbanks, stream courses and grain fields.



## DETECTION WEED

### *Centaurea diffusa* (CEDI)

#### diffuse knapweed

Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** A brushy annual or biennial up to two feet tall; grayish-green leaves divided into many segments and mainly associated with the rosette stage. Flowers are numerous and generally small, typically white but sometimes rose to purplish; bracts are tipped by a slender spine. Flowering occurs July to September.

**HABITAT:** Roadsides, rock pit areas, and other disturbed sites.



Russ Jolley

## DETECTION WEED

*Centaurea jacea* x *nigra*\* (CENIJ)

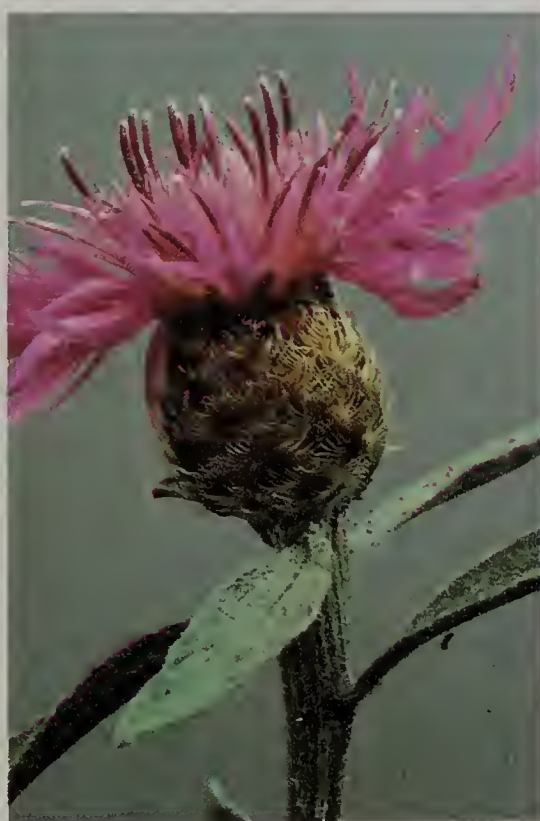
meadow knapweed

Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** A perennial with stems up to 1 m (3.5 feet) in height. Leaves are lance-shaped and get progressively smaller up the stem. Black knapweed (*C. nigra*) has black-tipped bracts under the flower head, which are shaped like the teeth of a comb. Brown knapweed (*C. jacea*), has bracts which are lighter and less finely cut. Meadow knapweed is a cross between black and brown knapweed.

**HABITAT:** Meadows, forested areas, clearcuts, roadsides; can tolerate partial shade.

\* a.k.a. *Centaurea pratensis*



## DETECTION WEED

### *Centaurea maculosa* (CEMA)

#### spotted knapweed

Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** A biennial or short-lived perennial; stems one to three feet in height, stiffly branching, with numerous, erect branches. Leaves divided into narrow segments; flowers pink to purple, bracts with a terminal fringe. Flowering occurs June to October.

**HABITAT:** Roadsides and disturbed sites.



## DETECTION WEED

### *Euphorbia esula* (EUES)

#### leafy spurge

Spurge family (Euphorbiaceae)

**DISTINGUISHING CHARACTERISTICS:** A perennial spreading by seed and woody rootstocks; 2-9 dm (9-36") tall. Stems are erect, usually with numerous weak sterile side branches, and exude a milky juice when cut. Leaves are alternate, 3-10 cm (1-4") long, and somewhat **bluish-green**; **leaves on the flowering branches closely clasp the stem.** Flowers yellowish in color, minute, turning orange to red in the fall. Flowering occurs from May to July.

**HABITAT:** Pastures, rangelands, and streambanks.



## DETECTION WEED

*Hieracium aurantiacum* (HIAU)  
king devil or orange hawkweed  
Aster Family (Asteraceae)

**DESCRIPTION:** This is the only hawkweed with **red-orange flowers**. It is a perennial herb up to 9 dm (almost 3') tall with basal leaves and a leafless flower stem. Its 15-30 flower heads arise from branches that all originate near the top of the plant. The only difference between this species and **yellow hawkweed** (*Hieracium pratense*, HIPR) is that the latter has **yellow flowers**.

**HABITAT:** Meadows, forested areas, clearcuts, and roadsides; will tolerate partial shade.





## TARGET WEED

*Hypochaeris radicata* (HYRA)  
spotted cats-ear or hairy cats-ear  
Aster Family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** A perennial with several flower heads. The bright yellow ray flowers will open on overcast days (as opposed to *H. glabra*, which only opens in full sun). The dark green leaves form a basal rosette and are covered with coarse, firm hairs.

**HABITAT:** Lawns, pastures, roadsides, and other disturbed areas.



## DETECTION WEED

*Lythrum salicaria* (LYSA)

purple loosestrife

Loosestrife Family (Lythraceae)

**DISTINGUISHING CHARACTERISTICS:** An erect perennial up to 2 m (6 feet) tall with square stems, opposite leaves, and an elongate spike of reddish-purple flowers. Although very attractive, this plant is a serious problem in North American wetlands because it aggressively invades, sometimes to the exclusion of all other native species.

**HABITAT:** Marshes, with cattails (*Typha* spp.) and reed canary grass (*Phalaris arundinacea*).



## TARGET WEED

### *Senecio jacobaea* (SEJA)

#### tansy ragwort

Aster family (Asteraceae)

**DISTINGUISHING CHARACTERISTICS:** A biennial or short-lived perennial that is toxic to livestock; stems 3-18 dm (1 to 6 feet) tall, leaves divided into lobed and toothed segments. Flowers yellow, numerous, with each head containing 10 to 15 golden yellow rays. Flowers from July to September.

**HABITAT:** Disturbed sites; such as roadsides, log landings, clearcuts, etc.



Richard Brown

## DETECTION WEED

### *Ulex europaeus* (ULEV)

gorse

Legume Family (Leguminosae)

**DESCRIPTION:** A stiff, spiny, much-branched shrub, 3-27 dm (1 to 9 feet) tall. Branches are conspicuously ribbed and sharply spine-tipped, with spine-like leaves. Flowers are clustered near the ends of the branches and are pea-like; flower color is yellow. Flowers April through September although major flowering occurs during early spring.

**HABITAT:** Most common along roadsides.



O.S.D.A.

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