

Bulletin of the
NATIVE PLANT SOCIETY of OREGON

To increase the knowledge of members and public in identification
and conservation of the native plants of the Pacific Northwest

Volume XVI No. 8

August 1983

CHAPTER NEWS

Blue Mountain

--- No scheduled meetings or field trips for August.

Corvallis

--- No meetings until October. No field trips until September.

Emerald

Emerald Chapter of NPSO has been invited to testify at Sen. Hatfield's August 25th hearing on the Oregon Forest Wilderness bill. If you have information on unique plant communities in any of the proposed wilderness areas (see article in this issue) and would like to help draft our testimony, contact Leighton Ho: 345-3252.

Persons interested in helping with the NPSO booth at the Lane County fair, which is Aug. 16-21, should contact Charlene Simpson: 686-1094 (home) or 686-3221 (work). We need ideas & display materials for the booth, and people to staff it.

6 Aug., Sat. Field trip: CANYON MEADOWS. Jack Lake to Canyon Glacier on 3-fingered Jack in search of alpine flowers with Charlene Simpson, leader. Call 686-1094. This will be a long day. Depart 7:30 a.m., SEHS parking lot.

8 Aug., Mon. Workshop: NATIVE TREES & SHRUBS OF OREGON, with Alan Curtis. Meet at 7:15 p.m. in Room 33, Science II, U of O campus, kitty corner from the Herbarium. Bring Hitchcock & Cronquist, a hand lens, razor blades etc. & plants to key.

13 Aug., Sat. Field trip: QUAKING ASPEN SWAMP - BEAR FLAT. This is a Natural History Society field trip with Herm Fitz, Emerald Chapter member. 50¢ for members; 75¢ for non-members. Pre-register with Dottie Conlon, 687-2318. Meet 9 a.m., SEHS parking lot.

16-21 Aug. NPSO booth: Lane County fair. Call Charlene Simpson, 686-1094 or 686-3221 if you can help.

22 Aug., Mon. Workshop: NATIVE PLANTS NOT VISIBLE TO THE NAKED EYE: the lesser known relative of the morel, with Martha Sherwood. Meet at 7:15 p.m. in Room 33, Science II, U of O campus (see 8 Aug.).

25 Aug., Thurs. NPSO testimony: Oregon Forest Wilderness bill hearing, Salem. Call Leighton Ho, 345-3252, to add your two cents' worth.

12 Sept., Mon. Workshop: FUNDAMENTALS OF WILDFLOWER PHOTOGRAPHY, with Jack Hausotter. Meet at 7:15 p.m., Room 33, Science II, U of O campus (see 8 Aug.).

Sept. & Oct. OPEN: Call Charlene Simpson, Emerald Chapter Field Trip chair, if you wish to organize & lead a trip. 686-3221 (days) or 686-1094 (eves).

High Desert

- 13 Aug., Sat. Field trip: BROKEN TOP. This spectacular alpine area will be the highlight of our less-than-five-mile moderate hike. Bring lunch. Access road is rough. Meet at McDonalds Restaurant parking lot at 8:30 for carpool.
- 27 Sept., Tues. Meeting: Cascade Natural Gas meeting room, 7:30 p.m. Barbara & Ken Robinson will do the program (subject to be announced).

Mid-Columbia

--- No scheduled meetings or field trips for August.

Portland

--- No monthly meeting in August.

- 6 Aug., Sat. Field trip: CATHEDRAL RIDGE TRAIL is 3.1 miles, with 2140' elevation gain, to some of Mt. Hood's finest meadows. Carpool at 8:00 a.m., Dept. of Motor Vehicles, NE 60th & Glisan; ZigZag Ranger Station 9:15 a.m. Leader: Virginia Diegel.
- 13 Aug., Sat. Field trip: HELLROARING MEADOWS on Mt. Adams, for a long day--note corrected times: 7:00 a.m. from DMV (see above), 8:30 a.m. from Hood River Inn. Expect wet feet, maybe mosquitoes, & a great day in the meadows where Suksdorf explored. Driving total about 200 miles, hiking probably 6 miles. Leader: Keith Chamberlain.
- 20 Aug., Sat. Field trip: CLACKAMAS RIVER AREA. Carpool at K-Mart lot, 82nd Ave. & Milwaukie Expressway at 7:30 a.m., then meet our leader Carolyn Wright, at Ripplebrook Ranger Station (27 miles E of Estacada, Hwy. 224) at 9:00 a.m. A hiking day; bring insect repellent.
- 27 Aug., Sat. Field trip: VISTA RIDGE TRAIL, 3-mile easy grade to WyEast Basin--maybe a "leader's choice" beyond that. Meet at DMV at 7:30 a.m., regroup at ZigZag Ranger Station 8:45 a.m. to head for the N side of Mt. Hood. Leader: Ken Vanderkamp.
- 10 Sept., Sat. Field trip: MT. HOOD MEADOWS, one of our favorite sites on the mountain, a steep but short access to Timberline Trail, then easy rambling trail. Meet at DMV 8:00 a.m., & at 9:45 a.m. at Mt. Hood Meadows ski area parking lot. Leader: Anne Kowalishen.

Siskiyou

--- No monthly meeting in August.

- 6 Aug., Sat. Field trip: WAGNER BUTTE. Meet at Ashland Bi-Mart 8:00 & Talent Food Barn 8:30. Sue Rolle, 482-0093.
- 21 Aug., Sun. Field trip: CRATER LAKE. Wildflower garden & ?. Meet at Ashland Bi-Mart 7:30, Medford K-Mart 8:00. Frank Lang, 482-5235.

Willamette Valley

--- No meeting until September.

- 6 Aug., Sat. Field trip: CANYON CREEK (Jack Lake) with Salem Audubon Society. Jerry Smith, leader 393-3863.
- 13 Aug., Sat. Field trip: PARK RIDGE from Breitenbush Lake. Leaders are Heike & Wally Eubanks, 390-2257.
- 20 Aug., Sat. Field trip: MT. HOOD AREA. Leaders are Lois & Bill Eagan, 393-2131.

All trips will leave from the NE corner of the south Salem K-Mart at 8:00 a.m.

President's letter:

Dear Fellow NPSOers,

I hope you are all enjoying your summer. My daughter and I have just returned from a 10-day trip to San Diego County and northern Baja California where we had warm sunshine and some good days of swimming in the Pacific surf. In rural San Diego County and along the Pacific coast of Baja between Rosarito Beach and Ensenada we saw wonderful fields of flowers. The habitat there is categorized by Munz as the California Valley Grassland Community. The average rainfall varies between 6 and 20 inches annually, and in a wet year, such as the west coast is presently having, one can expect a rich display of flowers.

We saw some beautiful Mimulus species including a spectacular flesh-colored species, M. latidens. Also conspicuous, scattered in drifts on the hillsides, was the bright magenta caryophyll, Vaccaria segetalis, a Mediterranean species. Many beautiful flowers were also visible from our train, especially in Santa Barbara and San Luis Obispo Counties.

THE BULLETIN

I want to praise Julie Kierstead for a very handsome July Bulletin. I hope all our readers were as pleased as I was with the attractive appearance and excellent editing of Julie's first Bulletin.

BOARD MEETING OCTOBER 8

Wayne Rolle, President of Siskiyou Chapter has helped me set up our next NPSO Board of Directors meeting. It will take place on Saturday, October 8, at Southern Oregon State College in Ashland at 1:00 P.M. I hope all officers, Board Members, and Chapter Presidents will be able to attend. Also, as always, any NPSO member is welcome to attend any Board Meeting. The main agenda item will be the NPSO Annual Budget.

WILDERNESS BILL

Please read the article elsewhere in this Bulletin about the Oregon Wilderness Bill. Now is the time to flood Senator Hatfield's office with our letters in support of these critical additions to Oregon's Wilderness areas. Please support the hard working lobbyists from the Oregon Natural Resources Council who are representing us in Washington, D. C.

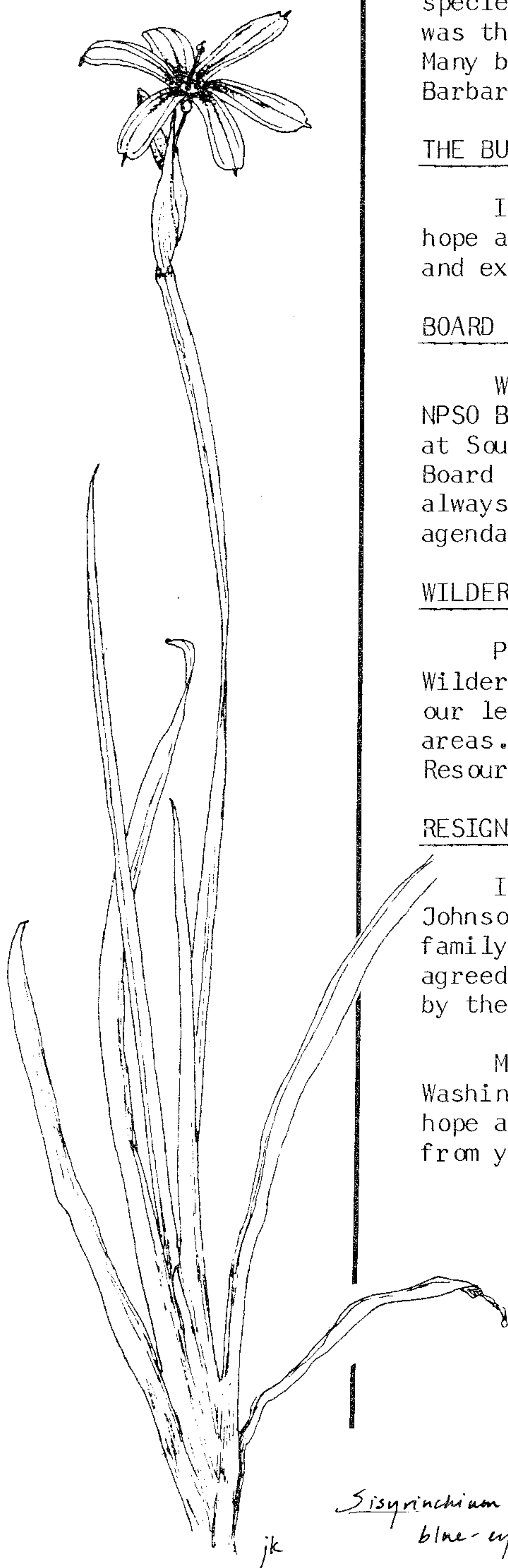
RESIGNATION OF STATE SECRETARY

It was with regret that on July 11 I accepted the resignation of Linda Johnson our NPSO State Secretary. Linda found that she was overcommitted with family and school duties. Florence Ebeling of Portland Chapter has graciously agreed to serve as Secretary for the remainder of the year, pending approval by the Board. Good luck, Linda and thank you, Florence.

My family will probably spend a few weeks in the San Juan Islands of Washington State in August. I plan to be back in Eugene before Labor Day. I hope all members will feel free to write or call me at any time--I like hearing from you.

Flowers Forever,

Rhoda Love, Pres.



Sisyrinchium angustifolium
blue-eyed grass

OREGON WILDERNESS BILL MOVES TO SENATE

On March 21 the U.S. House of Representatives passed the 1.2 million-acre Oregon Forest Wilderness bill by a vote of 252 to 88. The bill now begins its struggle in the Senate, and we have the chance to protect a significant part of Oregon's remaining forest wilderness. The Forest Service continues to schedule timber sales in many of Oregon's finest roadless areas.

The proposals contained in HR 1149 include critical wildlife & fisheries habitat, key watersheds and important back-country recreation areas with some of the best vistas in the state. There are sound economic and biological reasons for protecting these lands. This bill is supported strongly by conservationists, sportsmen, commercial fishermen, Indian tribes, scientists and outdoor recreationists. It is opposed by much of Oregon's timber industry, more for philosophical reasons than because of legitimate concerns about timber supply.

A BRIEF PERSPECTIVE: Of Oregon's 62 million acres about half is forested. Of this 31 million acres, just over one million acres (especially the high "rock & ice" portions of the Cascades & Blue Mts.) is currently part of the National Wilderness System. Another 4.5 million acres remain as undisturbed and unprotected wildlands. But most of Oregon's forests, over 25 million acres, is roaded and used for logging and other developed purposes.

Of the 4.5 million acres of eligible de facto wilderness, conservation and sportsmen's organizations want significant portions designated by Congress as Wilderness. Some organizations, such as the Oregon Natural Resources Council & the National Audubon Society, favor classification of 3.4 million acres as Wilderness. That would leave 80% of Oregon's forest acreage and 95% of the available timber productivity for industrial interests. In this way we could protect some important fish & wildlife populations, leave a few streams intact and maintain a semblance of forest ecosystem diversity & structure while not unduly harming timber production.

The 1.2 million-acre HR 1149 provides for a moderate representation of Cascade Mountains ecosystems, but certain boundary adjustments are needed. Important fish & wildlife habitat in the Coast Range & Blue Mts. of NE Oregon is not adequately protected in the bill. It is important to urge Senators Hatfield & Packwood to support conservationists' recommended Wilderness proposal (including all the areas in the House bill).

There are particular areas which should be added to this bill. HR 1149 is not the conservationists' bill, but rather is a severe compromise and needs expansion.

Senator Hatfield will play a major role in the fate of this bill. It is up to us to convince him that the 1.2 million-acre House bill should be the minimum size of the Senate bill. It is imperative that both senators hear of your support not only for the areas contained in HR 1149 but for the important additions to it.

TOP PRIORITY AREAS FOR ADDING TO HR 1149:

DRIFT CREEK (11,260 acres) Finest representative sample of old growth Douglas-fir forest left in Coast Range; habitat for bald eagle, spotted owl, marten & other dependent species. Also a state-designated "wild fish" stream. Less than 2% of the Coast Range remains in a natural condition.

DEADHORSE RIM (13,615 ac.) Together with Coleman Rim (in HR 1149), the only remaining pileated woodpecker, marten & fisher habitat left on Fremont National Forest. Deadhorse Rim was the eruptive center caldera while Coleman Rim is an excellent example of a fault block formation.

LOOKOUT MOUNTAIN (15,577 ac.) Most rugged terrain on Ochoco Forest; spectacular recreation with outstanding views, wild horses, critical wildlife habitat.

MURDERERS CREEK WILDERNESS STUDY AREA (30,683 ac.) Optimum habitat for elk & deer, adjacent to state Wildlife Management Area; bighorn sheep, pronghorns, wild horses, steelhead. Includes BLM Wilderness Study Area.

WHAT YOU CAN DO

1) Immediately write a brief letter to Senator Mark Hatfield of the Energy & Natural Resources Committee (United States Senate, Washington, D.C. 20510). Ask that your letter be included in the official hearing record. Your letter must be received by September 8, 1983 to be included.

a) Tell him in your own words that you support the conservationists' proposal to protect the finest of Oregon's remaining forest wild lands as Congressionally designated Wilderness. Let him know how strongly you support HR 1149 as a good first step in sound land stewardship, and that you oppose any reductions in it.

b) Please ask specifically that the areas and boundary adjustments listed in this article be included in the Senate version of the bill.

c) Mention any other areas with which you are familiar and would like to see protected as part of the National Wilderness System.

2) Send copies of your letter to Senator Bob Packwood (Senate Office Bldg., Washington, D.C. 20510) & to your representative in the House: Les AuCoin (1st District), Robert Smith (2nd), Ron Wyden (3rd), Jim Weaver (4th) or Denny Smith (5th). The address: House Office Bldg., Washington, D.C. 20515. This is very important! Whatever the Senate does, the bill will be finalized in a House-Senate Conference Committee.

3) Plan to attend the August 25th hearing in Salem at Willamette University's Kresge Auditorium from 8 a.m. to 4 p.m. The Salem hearing will deal with areas west of the Cascades. While testimony is by invitation only, it is vitally important that the Committee see a room packed with wilderness supporters. A hearing was held in Bend on July 21st for areas east of the Cascades.

SENATOR HATFIELD'S PORTLAND OFFICE: 221-3386

WAPITI (51,904 ac.) 3000 of 4000 Rocky Mountain elk in the Heppner Unit depend on this 25% that remains in wilderness condition. Also important spawning habitat for salmon & steelhead.

CHIEF LOOKINGGLASS (6500 ac.) Critical fisheries habitat for wild salmon & steelhead; provides vital high water quality for fish hatchery designed to help restore fish runs on Grande Ronde System.

GRANDE RONDE CANYON (22,978 ac.) 20 miles of wild river canyon; important anadromous fish producer & big game range; ponderosa pine, mixed conifer & lodgepole. River in State Scenic Waterway bill.

AREAS IN HR 1149 NEEDING BOUNDARY EXPANSIONS

SALMON-HUCKLEBERRY (2000 ac. expansion) Add 2 miles of Lower Eagle Creek.

MOUNT JEFFERSON (5681 ac.) Key lower-elevation ponderosa pine and Douglas-fir forests.

MIDDLE SANTIAM (2500 ac.) Additional critical old growth forest.

OLD CASCADES (22,500 ac.) Pyramids, Jumpoff Joe, Browder Ridge & Moose Creek units should be added for important ecological diversity. Entire proposal needs upgrading from "Wilderness Study" to "Wilderness".

THREE SISTERS (38,000 ac.) Rainbow Falls, Cultus Mountain, outer Squaw Creek Falls & lower-elevation areas on E side, as well as western forests of the Waldo Country.

SKY LAKES (12,000 ac.) Lower Cherry & Red Blanket Creeks, other low-elevation areas for ecological diversity; not including Pelican Butte.

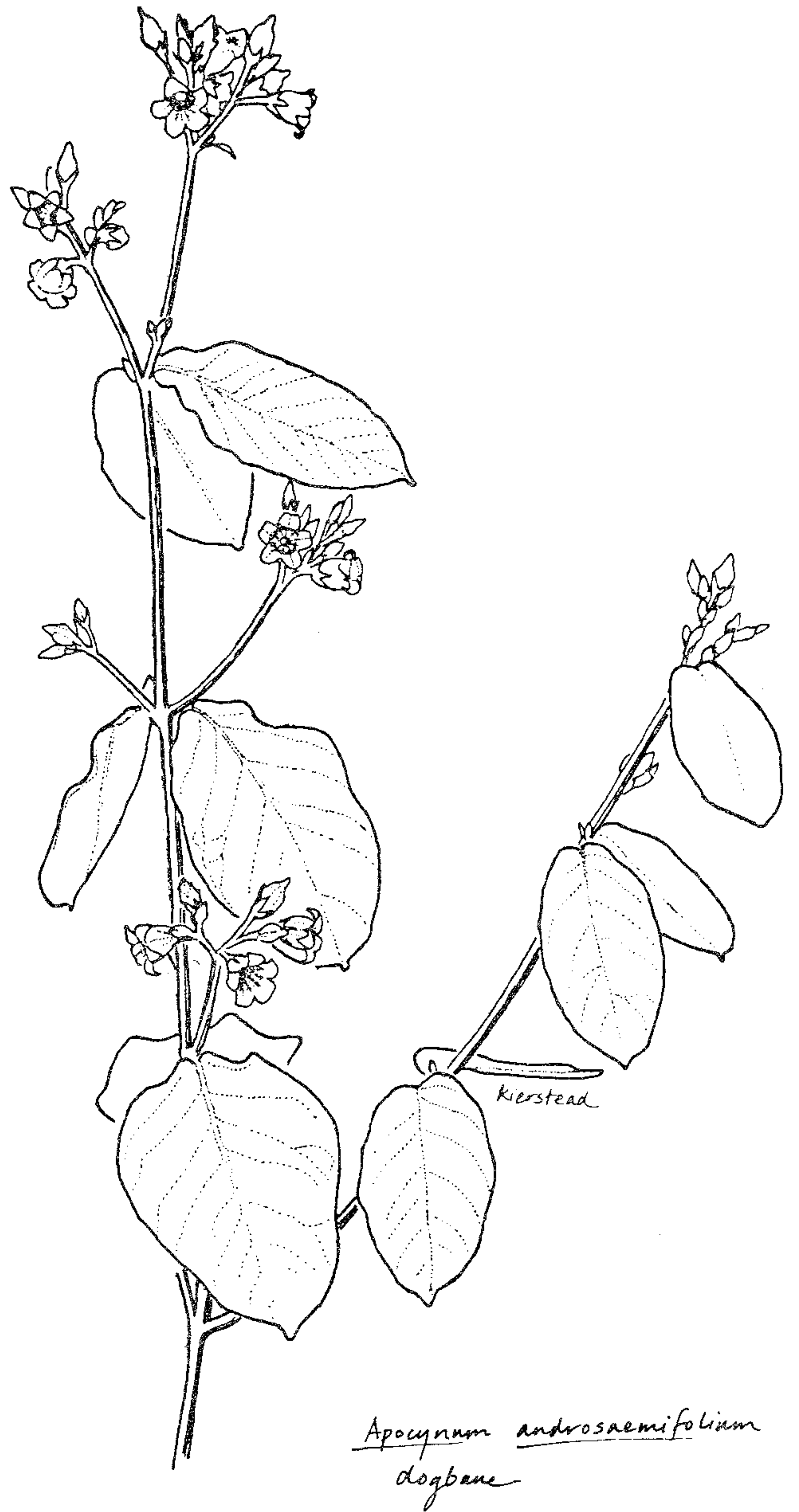
MOUNTAIN LAKES (1500 ac.) Little Aspen Butte & BLM Wilderness Study Area for wildlife habitat.

GRASSY KNOB (13,030 ac.) Copper Mountain, a key watershed.

GEARHART MOUNTAIN (770 ac.) Section of North Fork of Sprague River.

NORTH FORK JOHN DAY (94,000 ac.) Battle Creek, Squaw Creek, Elkhorn Range, South Ireland & Beaver Creek units.

EAGLE CAP (35,000 ac.) Wing Ridge, Boulder Park, Pine & Eagle Creeks.



Rare, Threatened, Endangered list out

The Oregon chapter of the Nature Conservancy has just published a report entitled "Rare, Threatened & Endangered Plants & Animals of Oregon". Compiled by the Oregon Natural Heritage Data Base in cooperation and consultation with The Native Plant Society of Oregon, the Oregon Department of Fish & Wildlife, the Oregon Rare & Endangered Plant Project, the U.S. Fish & Wildlife Service and many botanists and zoologists throughout the state, its plant list will serve as an update to the 1979 interim report by Siddall, Chambers and Wagner. Based in large part on status information on file at the Data Base, it is designed to reflect the very great increase in knowledge of many species in the last four years. About thirty pages in length and including drawings by wildflower artist Jay Miner, each NPSO chapter will receive a copy. Additional copies may be obtained at cost (\$2.00) by writing The Nature Conservancy, 1234 NW 25th, Portland, OR; or by calling 228-9550.

For native plant gardeners

The May NPSO newsletter contained a note in which I suggested a few alternatives for those of us who garden with native plants. I invited those who are interested to contact me so we can gather information and make it available to all our members. Several people called and wrote and, on 9 July, Jeff Stone and I went to Phil and Sunná Ingallinero's place outside of Eugene for our first meeting.

Meeting with the Ingallineros was going to the source: they run a native plant wholesale nursery, Northwest Natives Nursery, which sells only plants propagated from seed or cuttings. We discussed their concerns and our ideals and they showed us around their stock, as well as their property which is landscaped with natives.

The main problem the Ingallineros have had is the low demand from the public for natives. Retail nurseries say they aren't interested in handling natives since their customers are not asking for them; the result is that NW Natives Nursery sells to only one retail outlet, Paddock-Bauer in Springfield. The rest of their business goes to landscape architects who realize the value of native and use them in park, highway and business plantings all over the state. Landscapers have the same problem the Ingallineros do: their private customers are not aware of the values and attributes of native plants, and would rather have the plants found in all too many other landscaped homes just because they are familiar.

You as NPSO members recognize the values of native plants, but I will outline them again for those of you who haven't thought of them in terms of landscaping.

1) Native plants, once established, don't need special care. They can tolerate our rainy wet winters & hot dry summers. A native plant from a heavily shaded forest does well on the north side of a house; species from dry oak-covered hillsides thrive in places where ornamentals shrivel up in summer sun.

2) They survive in the wild without pruning, spraying or fertilizing, so if you do give them that care they often flourish. They are adapted to our soils and our diseases.

3) Native plants are a good alternative to ornamentals because they do not bring in new diseases and do not spread to become obnoxious weeds.

BUYING NATIVE: As native plant admirers you should buy only propagated plants. Many people sell plants dug from the wild, which we do not condone. Not only do diggers deplete native plant populations, but dug plants have a poor survival rate in your garden. If you can add to the sources listed below, please tell me and we will spread the word.

Be aware that propagated trees and shrubs available are often small. These young plants are not inferior: they have healthy, growing roots and once planted out will suffer much less shock than older, larger pot-bound plants. Beautiful landscapes take time to create!

We need to swamp nurseries with demand for propagated native plants. Once the owners see we are serious they will stock natives. Next time you visit a nursery, look around. Are there native plants there? Ask if they are propagated or dug. If they are dug do not even consider buying unless they have been grown in the pot for at least one year. (Editor's note: Transplant survival aside, it would be appropriate to boycott nurseries which offer dug wild plants for sale & make it clear to the management why you are doing so.) If you don't see any natives, ask the salesperson. The more times they hear the word "natives" the sooner they will stock them. Finally, for those of you who are inspired to begin gardening with native plants but don't know what to use, I will submit short articles on some natives which are especially valuable in future newsletters.

Daphne Stone
Emerald Chapter

— TIMELESS & TIMELY —

(an excerpt from "Pertinent pointers on wildflower gardening" by Robert S. Lemmon; Real Gardening, June 1940)

... I should like to take this opportunity to explode with a loud bang the widely held belief that buying from dealers in native plants, instead of doing your own collecting, is true conservation personified and automatically leaves one with a clear conscience.

It is probably safe to say that, taking the dealers and the species as they come, at least one hundred and ninety-five out of every two hundred wildflowers which are offered for sale were originally dug up in the wild-- and frequently in a very wasteful manner. A few nurseries are beginning to propagate the choicer species by seed, cuttings or division, thereby actually producing more plants and doing the finest kind of constructive

conservation work. But this admirable practice is far from widespread and, to be perfectly frank about it, is unlikely to increase much as long as so many of those amateurs who shout so loudly about preserving the floral beauty of our countryside continue to buy thousands upon thousands of rare and sorely depleted plants every year just because, having been rudely dug out of the woods at very slight expense, they can be had at a low price. Don't blame the professional collectors for this destruction of our natural supply of native plants--it's the customers who are really responsible for it, and membership in all the conservation societies in the country can't alter the importance of that fact!

RETAIL SOURCES OF NATIVE PLANTS:
SEEDS & PROPAGATED STOCK

Paddock Bauer Nursery
1566 Main St.
Springfield, OR 97477

Forest Farm
990 Tetherow Rd.
Williams, OR 97544
(mail order only for retail
purchases)

Oregon Desert Farms, Inc.
P.O. Box 709
Lakeview, OR 97630

Woodsman Native Nursery
4221 Hwy. 101
Florence, OR 97439

Pacific Forest Seeds
P.O. Box 1363
Medford, OR 97501

Frank T. Sesock, Seedsman
6045 Foley Lane
Central Point, OR 97502

Brown Seed Co.
P.O. Box 1792
Vancouver, WA 98663

Northplan Seed Producers
N.A.P.G., Inc.
P.O. Box 9107
Moscow, ID 83843

Arabis blasted

Arabis koehleri How. var. koehleri (Koehler's rock cress), a rare endemic of the Umpqua River drainage, suffered a recent setback when a third of its Winchester Dam population was destroyed by blasting and construction at the dam site. The species is known from only four or five sites, comprising fewer than a thousand individuals.

Winchester Dam, an old wooden structure on the North Fork of the Umpqua, is being upgraded by a local water district and a California-based company. A very brief environmental assessment, stating that no species of concern were present at the site, was submitted to and judged acceptable by the Federal Energy Regulatory Commission, the agency which oversees such projects. FERC did not require than an Environmental Impact Statement be written.

The error is attributed to oversight and a general loosening of the regulatory process. The Arabis site has been known for several years.

More about this in a later Bulletin.



Books reviewed

Plants of Wet to Moist Habitats in and around Eugene, Oregon

by Georgia Mason. Privately published, Eugene, 1983.
obtainable from the author for \$6.00; P.O. Box 3440,
Eugene, OR 97403

This book is a meritorious example of simplicity in book production. The 200+ page book is quick-copied from typescript and has a plastic spiral binding, which accounts for the very low price. Such a process is highly appropriate for a work which deals with such a specialized and restricted flora. The size of the book, 6" X 8.5", makes it convenient for carrying in the field, and the spiral binding allows the book to lie flat on the work table.

The book follows the format of Hitchcock & Cronquist's Flora of the Pacific Northwest in that it consists almost wholly of identification keys. The keys are frequently rather bulky since considerable descriptive material is incorporated therein, much more than in the Flora. Users will probably be happy to find that words are not abbreviated in Mason's book, as they are in the Flora. Line drawings occur occasionally in the margins, sometimes a bit crude but mostly effective. The bulky keys and paucity of illustrations will keep the book from being readily used by anyone except those with good botanical backgrounds. Although the introduction states that conscious effort was made to keep the vocabulary simple, technical accuracy has not been sacrificed for the sake of simplicity. A terse glossary follows the main text; an index is included. Except for genus names and well-known plants, common names are mostly not given.

The publication of a "florula" such as this is a most welcome addition to botanical references of Oregon. Mason is the author of another valuable regional flora, Plants of the Willowa Mountains of Northeastern Oregon. (Incidentally, this earlier work was reprinted, with corrections and additions, in 1980 and is available for \$7.95 + \$1.00 postage from Museum of Natural History, Univ. of Oregon, Eugene, OR 97403.) In particular, people working with wetland plants will appreciate Mason's new work. The species chosen for inclusion may seem puzzling at times, since "moist" means areas close to water. Many species are included with are not true wetland plants. Also, a few surprises (in terms of presumed occurrence around Eugene) will be found here, such as Gentiana sceptrum, a plant of the coastal wetlands, or Selaginella douglasii of the Columbia River Gorge. There are inevitable gaps to be filled in, too; for example, Salix fluviatilis and Alnus rhombifolia are both common along the Willamette River in Eugene and the grass genera Agrostis, Bromus and Poa are not represented in the book at all. We may expect future editions to be more finely tuned to the restriction implied in the title of the book. For now, I think that botanists working anywhere in the southern end of the Willamette Valley will be remiss if they do not add this to their working collections of botanical books.

David H. Wagner
Emerald Chapter

Agave (re)proposed Endangered

The Arizona agave (Agave arizonica Gentry & Weber), a succulent member of the Agavaceae restricted to a small area in the New River Mountains of Tonto National Forest, has been proposed for listing as an Endangered species by the U.S. Fish & Wildlife Service. This plant is jeopardized by collectors and by habitat disturbance due to cattle grazing, and was first proposed for listing in June 1976 (along with ca. 1700 other plants). Time limitations imposed by the 1978 Endangered Species Act forced its withdrawal in 1979. Since 1970, when the Arizona agave was first described as a species, its numbers have dropped from 25 individuals in 12-14 locations to today's count of 3 individuals in a single population. Land use at this site consists of leased cattle grazing. The agave's basal rosette of thick leaves and cluster of pale yellow flowers make it vulnerable to collection for trade.

In response to these threats the U.S. Forest Service has suggested that all taking of agaves in the west-central part of the Tonto Mts. be prohibited, though enforcement would be difficult. The Arizona agave is protected under Arizona's Native Plant Law, but this bars only collection. Listing under the 1978 Endangered Species Act would grant wider protection from possession, sales and shipment. Critical habitat designation for the agave is not being sought as such a designation currently requires publishing population locations in the Federal Register.

(from Endangered Species Tech. Bull.
Vol. VIII No. 6, June 1983)

Volunteers needed

HAZELNUT WATCHERS: Volunteer plant watchers are needed to help study wild hazelnut (Corylus cornuta var. californica) blooming times and nut ripening times. The results of this study will be used to select plants that will be used in hazelnut X filbert (Corylus avellana) crosses, for developing new commercial filbert varieties. Volunteers will make weekly surveys to determine when each plant in a group blooms (March) or when mature nuts appear (September). No experience is necessary. Plant watchers are needed in the Mt. Shasta, California area; the McKenzie River valley area; and east of Portland for one or more of the sampling times in 1983 or 1984.

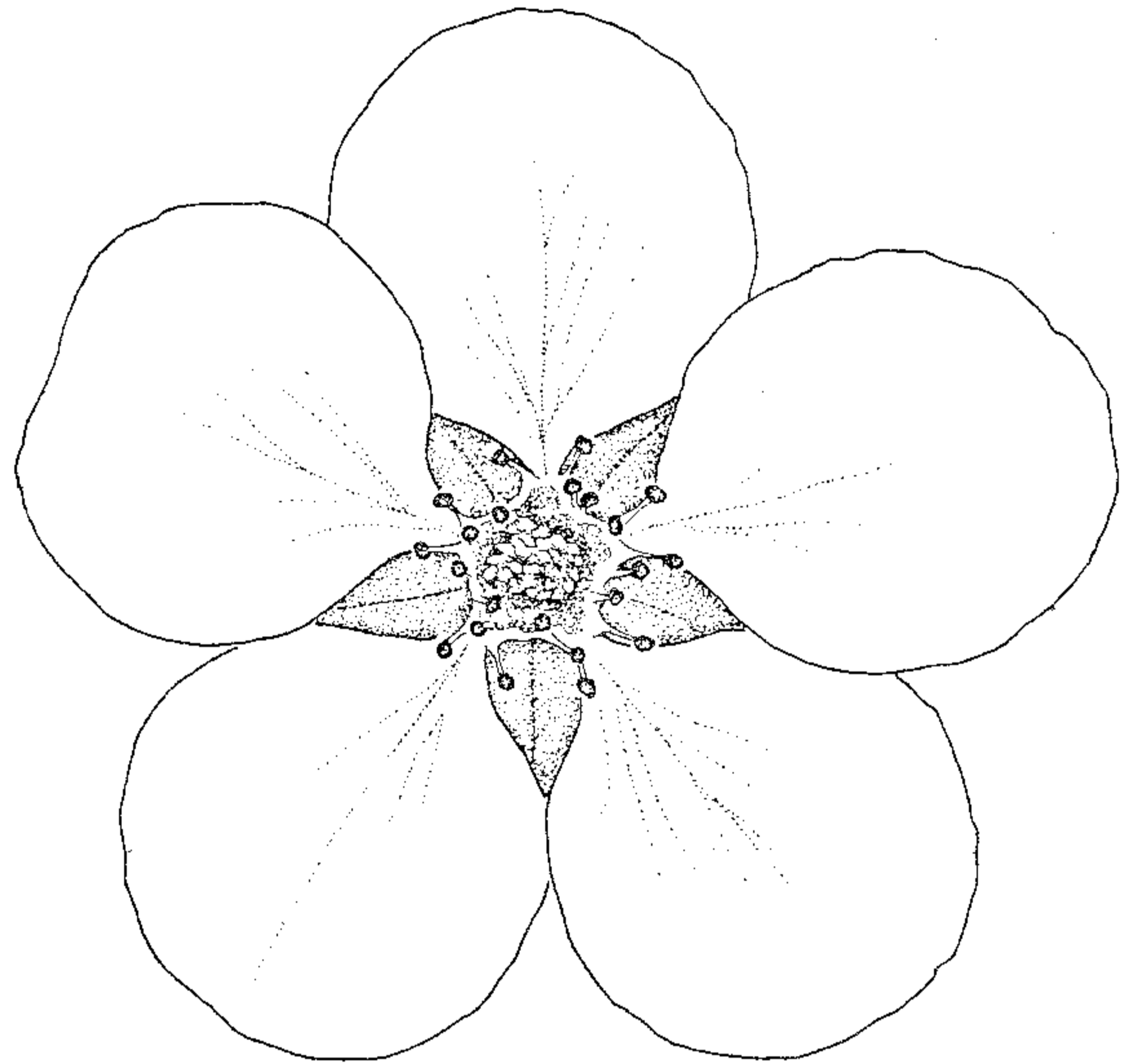
Please contact David Brenner, Geography Department, University of Oregon, Eugene, Oregon 97403, phone (503) 686-4970 or 686-4555.

PORTLAND CHAPTER MEMBERS: I NEED A TYPIST!!! To keep Bulletin costs to a reasonable level I am doing the copy typing, and I am very slow. I would be very grateful for a volunteer to help me for a few hours the third week of each month. If you can type without becoming irrational give me a call at 636-4112. To those of you who submit edited, typed and ready-to-go copy: THANKS. JRK

ALPINE SHOW

Vi Sobalik of our Chapter did a simply smashing slide show on Plants in High Places for Salem Audubon Society this last year. It deserves a larger audience. I feel you might like to know of this resource, just in case a program on alpiners by one of our most talented members would fit in somewhere.

Mariana Bornholdt
Willamette Valley Chapter



Potentilla fruticosa
(highly magnified)

Onion Peak fragile

I would strongly urge the NPSO to avoid trips to Onion Mountain. As one of several individuals responsible for the establishment and management of this preserve I can verify the extreme fragility of the site to visitor impact and the need for people such as ourselves who are dedicated to the protection of Oregon's native flora to be cautious in taking visitors to the parcel.

The site is managed by The Nature Conservancy under an agreement with Crown Zellerbach Corporation, the owner of the land. I believe the terms of the agreement include a stipulation that the site is to be used for scientific and research purposes. In any case, a proposed trip should be discussed with Mr. John Hoffnagle, Oregon Land Steward at The Conservancy (228-9561). Access to Onion Peak is difficult and the shallow, erodable "rock garden" community extends over less than 2 acres on slopes varying from 10% to over 120%. The several Filipendula occidentalis populations on the west and northwest sides and ravines are not as fragile.

If one is interested in seeing the establishment report that Bill Copeland and I prepared for the State Natural Heritage Program, I believe it can be secured through the Nature Conservancy. Alternative Coast Range localities that might not be quite as fragile include: Mount Hebo, Marys Peak, Saddle Mountain and Blue Lake Ridge Lookout (almost as fragile).

Bob Frenkel
Corvallis Chapter

Rainbow Falls trip

On 2 July 1983 Ben Ross and I led a group of 17 adults of mixed affiliation (NPSO, Audubon Society, Eugene Natural History Society) on an easy one-mile hike to Rainbow Falls View Point in the McKenzie Ranger District. The trailhead is reached from Foley Ridge Road 2643-460 (old #169) just east of the town of McKenzie Bridge on Highway 126. The trail follows a logging road south through a brushy cut-over area with dense growth of Douglas-fir, Western hemlock, cinnamon bush (Ceanothus velutinus), Pacific dogwood, black cottonwood (Populus trichocarpa), bitter cherry (Prunus emarginata) and an unidentified species of willow. The trail then enters a stand of large Douglas-fir with an understory of towering vine maple. In this area we observed two uncommon achlorophyllous orchids: the spotted coral-root (Corallorhiza maculata) and phantom orchid (Eburophyton austiniae). These plants are sometimes called saprophytic, a term describing organisms which derive carbon nutrition from decaying organic material; but this designation is incorrect. In fact these orchids obtain carbohydrates from nearby coniferous trees via mycorrhizal fungi, which are attracted to roots of the trees as well as the orchids. These orchids are, therefore, more accurately described as epiparasites, in contrast to true saprophytes and some direct root parasites like the ground-cone (Boschniakia hookeri)*.

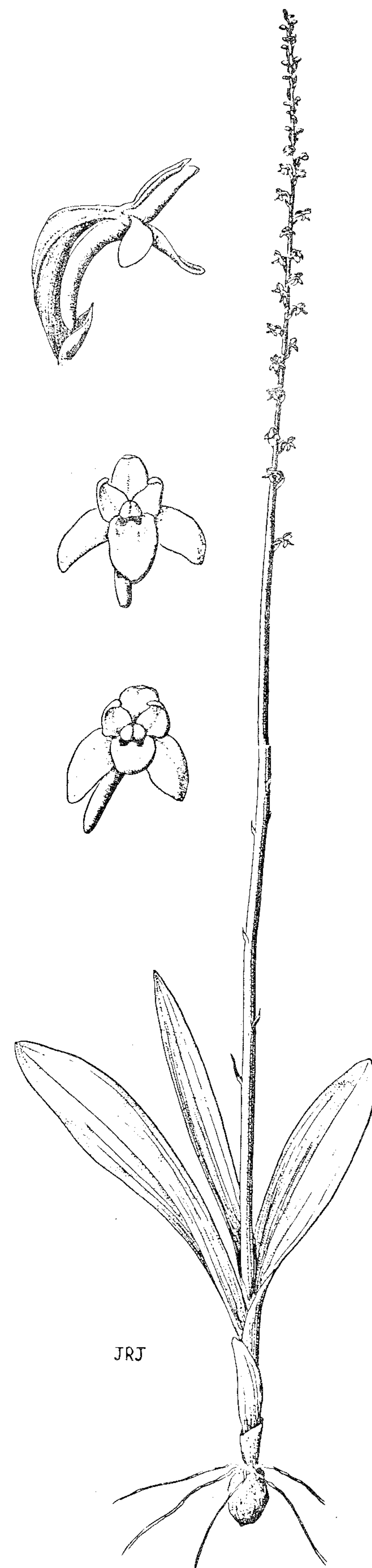
After a short distance the trail came to the edge of a deep glacial valley through which Separation Creek flows. The trail turned east and followed the rim to the view point. Since the exposure was southerly plants characteristic of dry sites were seen: madrone (Arbutus menziesii), ocean spray (Holodiscus discolor) and the elfin kidney lichen (Nephroma helveticum). We observed fire scars on trunks of Douglas-fir and incense cedar (Calocedrus decurrens). We found scattered specimens of gnome plant (Hemitomes congestum) and pinesap (Hypopitys monotropa), ericaceous mycorrhizal epiparasites. The Washington lily (Lilium washingtonianum) and few-flowered prince's pine (whose beauty is not diminished by its size) were in full bloom and received due attention.

The official view point is a rocky outcrop on the lip of the valley, the sort of ecosystem that rock gardeners strive to reproduce. The rocks were covered with miniature forests of mosses including the lesser club moss (Selaginella wallacei), not a moss at all but a fern-ally, as well as the strange pixie cup lichen (Cladonia pyxidata) of M. C. Escher fame. The diaphanous panicles of small-flowered alumroot (Heuchera micrantha var. diversifolia) could be seen where it grew in pockets of soil. Brilliant splashes of color were provided by the Cascade penstemon (P. serrulatus) and harsh indian paintbrush (Castilleja hispida). The banality of the dominant hairy manzanita (Arctostaphylos columbiana) was balanced by the snobbishness of the rein-orchid (Habenaria unalascensis). Since the day was wet the lichens were at the peak of splendor: brilliant green thalli of the warted dog lichen (Peltigera apthosa) and lung lichen (Lobaria pulmonaria), the elfin kidney lichen with peculiar reniform apothecia, the even dichotomous branching of intestine lichens (Hypogymnia spp.) and the favorite cute lollipop lichen (Pilophoron acicularis).

At the tip of the precipitous overlook we looked up and down the glacial valley as a vulture might, and beyond to the endless overlapping ridgelines, all covered with a green blanket of coniferous forest. The typical view from many mountaintops in the NW is a moth-eaten devil's patchwork quilt of clearcuts; instead each perfect conical tree stood out in sharp focus. The falls were initially obscured by clouds and swirling mists in the valley below. When the mist parted (as if by magic) we saw Rainbow Falls, a fierce cascade producing a roar that could be heard from some distance.

It is said that beavers will build dams until the sound of falling water can no longer be heard. Some humans appear to be afflicted with similar instincts: to them the sight of water falling without producing electricity is intolerable.

*for more about mycorrhizal plant relations, see Rhoda Love's article on non-green Ericaceae in the October 1982 Bulletin of NPSO



Habenaria unalascensis

illustrated by J.R. Janish
from Hitchcock, et al, Vascular
Plants of the Pacific Northwest

Ironically Rainbow Creek & Rainbow Falls are part of the Three Sisters Wilderness Area boundary, so that the falls itself, though one of the more spectacular features of the Area, is not protected from human beavers or whatever. Indeed, at the trailhead we examined a suspicious piece of flagging tape with the words "BOP WANGDOODLE 6-20-83", no doubt some sort of pre-timber sale activity in the immediate vicinity. Subsequent calls to the McKenzie Ranger District revealed that sale boundaries are scheduled to be surveyed this fall (see Eugene Register-Guard 11 July 1983, front page). The sale apparently will include the area where the four seldom-seen achlorophyllous plants grow. Friends of Rainbow Falls (1605 W 19th, Eugene, OR 97405) would like the upcoming Senate Wilderness bill (HR 1149--see article elsewhere in this issue) to include Rainbow Falls & adjacent areas in which so many bizarre & beautiful plants grow (about 600 acres) in the Three Sisters Wilderness additions. We urge you to visit Rainbow Falls yourself, and write to Senators Hatfield & Packwood (with a copy to your Representative) asking them to include Rainbow Falls in the Oregon Wilderness bill.

Leighton Ho
Emerald Chapter

Leach Garden Opening

Leach Botanical Park will celebrate its official opening with a month of free festivities for the public. Beginning September 1st, the Leach home & ground will be available for public use.

Some programs of special interest to NPSO members might be: Faith Mackaness' display of common Columbia Gorge & Leach Garden mosses with some how-to instruction of identification, Saturday Sept. 10th; George Lewis' special tour of conifers in Leach Park on Wednesday Sept. 28th at noon (bring a sack lunch); & Cascade Anderson's exhibit of her collection of herbs & wildflowers from October 2nd through October 8th.

Other activities scheduled throughout September include self-guided tours, Wednesday through Saturday, 11 a.m. - 4 p.m.; a display of bird houses, feeders & plants to attract birds; plant photography exhibit; classes on pine needle basket-making, botanical illustration, mushroom appreciation, bulbs, history of Leach Park & flower arranging & music in the garden.

A complete calendar of events will be available after August 15th. Call Leach Park for a program to be mailed to you: 761-9503.



HAVE YOU ORDERED YOUR NPSO T-SHIRT YET?



NPSO T-shirts with our very own trillium logo (artistically redesigned by Nadine Smith, State Treasurer) are available now. Having worn my shirt almost constantly since the Annual Meeting in May, I can testify that they are extremely comfortable. (I have had the shirt off occasionally for washing, and I can also report that they wash very well!)

The shirts are 100% cotton and generously cut. I especially appreciate the fact that they are nice and long and help to keep my buns warm! Also I have slept in mine a couple of times on backpacking trips and can attest to the fact that they make good pj's too.

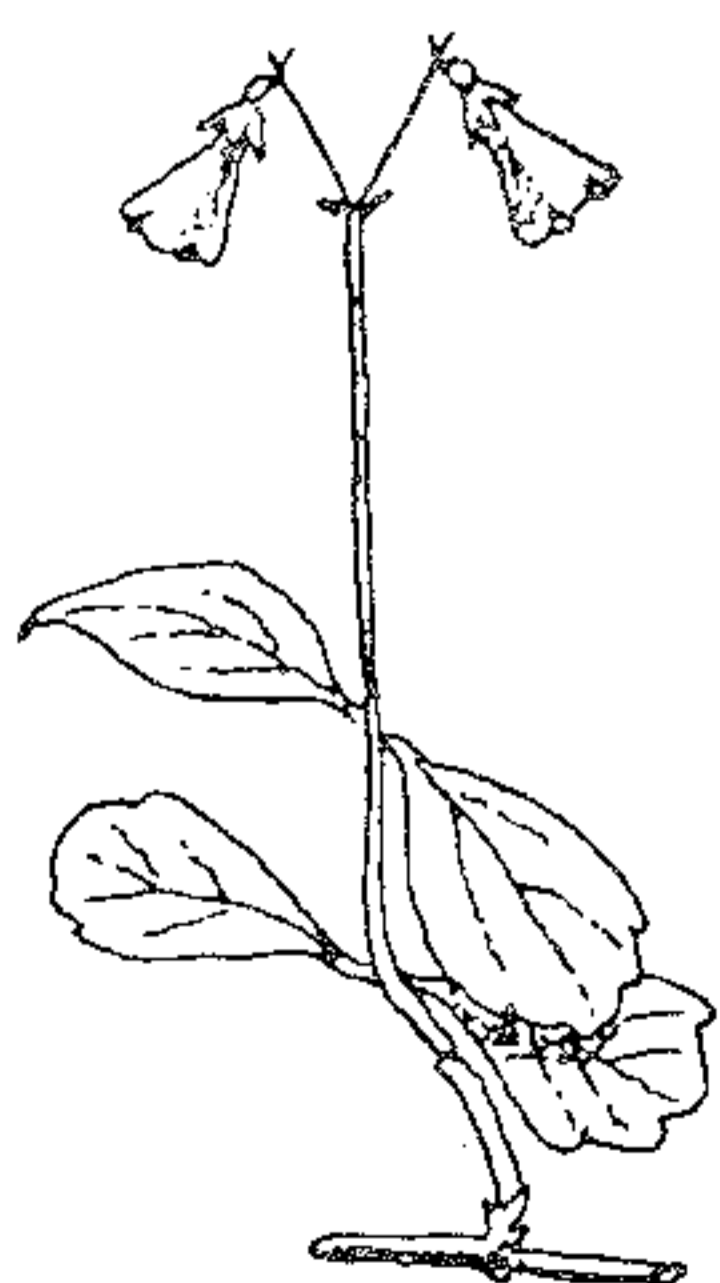
The shirts come in two colors and four sizes. All have the logo (see accompanying illustration) printed in green. Colors are tan and white and sizes are S (34-36), M (38-40), L (42-44), XL (46-48). Medium is just right for me, and a small fits my skinny 14-year-old daughter, Jenny.

To order your shirt, send your choice of size & color with a check for \$6.75 plus a dollar for postage, to: Leighton Ho, President
Emerald Chapter NPSO
1826½ Lincoln
Eugene, OR 97401

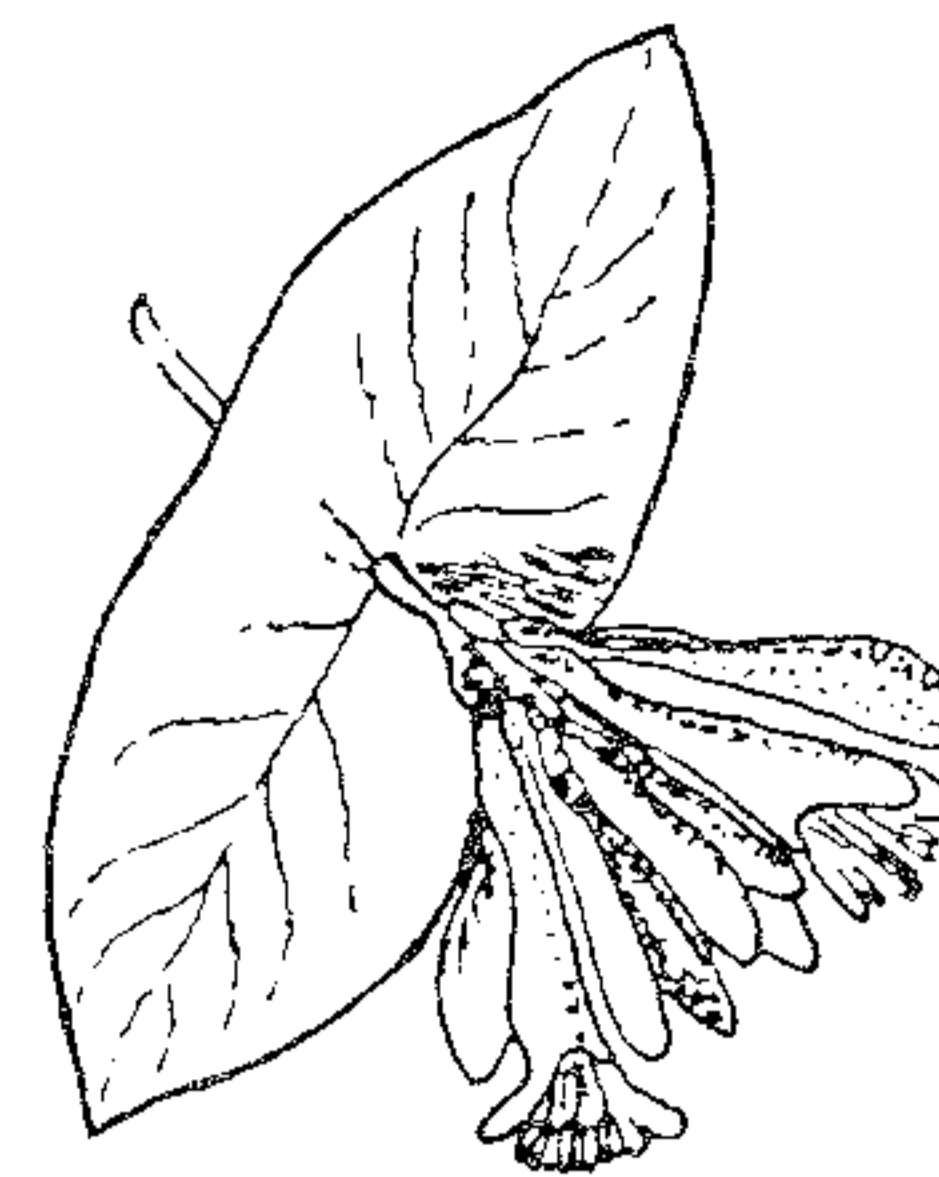
Plant Family Profiles: by Herm Fitz

The Caprifoliaceae - HONEYSUCKLE FAMILY

The Honeysuckle Family is small, with about 450 species in 18 genera of cosmopolitan distribution, but centered and richest in temperate parts of eastern North America and eastern Asia. Sixteen species in five genera are native or naturalized in Oregon. Quite familiar is the Elderberry (*Sambucus*), appearing in two basic forms: Blue Elderberry (*S. cerulea*), widespread from sea level to mid-elevations in the mountains; and Red Elderberry (*S. racemosa*), often at higher elevations and in several varieties with varying fruit color—mostly red, but some chestnut, yellow, rarely white, or black to purplish-black! Abundant as a groundcover, and circumboreal in open or dense woods at various elevations is the Twinflower (*Linnaea borealis*), named for Carolus Linnaeus, the Swedish botanist of two centuries ago who brought real order to systematics. Three species of Snowberry (*Symphoricarpos*) are here: Common Snowberry (*S. albus*), a widespread shrub of thickets and woodlands from lowlands to mid-montane; Creeping Snowberry (*S. mollis*), a lower, trailing shrub chiefly of the Cascade Mountains; and Round-leaved Snowberry (*S. oreophilus*) of dry stony ridges and meadows east of the Cascade Crest. Viburnum (*Viburnum*) claims two species: In thickets, bottomlands and open woods west of the Cascade Crest is found the Oval-leaved Viburnum (*V. ellipticum*); its counterpart in moist mountain woods and swamps from northern Oregon to Alaska and eastward is the Squashberry or High-bush Cranberry (*V. edule*). The Honeysuckles (*Lonicera*) represent half of the family in Oregon - eight species are found throughout the state: The Black Twinberry (*L. involucrata*) is widespread in moist thickets; both the Rocky Mountain Honeysuckle (*L. utahensis*) and the Wedded Honeysuckle (*L. conjugialis*) occur at high elevations in the mountains; Blue-fly Honeysuckle (*L. cauriana*) can be found in mountains of eastern Oregon; Orange Honeysuckle (*L. ciliosa*) grows from sea level to the mountains, mostly in the western Cascades and Coast Range; Hairy Honeysuckle (*L. hispidula*) in lower elevation thickets and open woods west of the Cascades from the Umpqua Valley northward; Chaparral Honeysuckle (*L. interrupta*) in the dry thickets from Table Rock, Jackson County, southward; and finally the Etruscan Honeysuckle (*L. etrusca*), a native of the Mediterranean region now established in coastal thickets from Florence, Lane County, southward to Curry County.



A flowering stem of Twinflower (*Linnaea borealis*). Note the paired flowers, nodding on slender pedicels, each with a united 5-parted regular corolla upon an inferior ovary. The leaves are opposite, and essentially entire.



A terminal flower cluster of Orange Honeysuckle (*Lonicera ciliosa*) subtended by a connate-perfoliate leaf pair. Note the irregular tubular and bilabiate corolla with a slight gibbosity at the base.

The members of this family are small trees, shrubs and subshrubs, some climbing lianas (*Lonicera*). Leaves are opposite, mostly simple, entire and without stipules (pinnate, toothed and with stipules in *Sambucus*). The terminal pair of leaves is sometimes connate-perfoliate in *Lonicera*. The flowers are bisexual, borne basically in cymes (as in *Sambucus* and *Viburnum*), often paired and nodding on slender pedicels (*Linnaea*) or sessile and even joined toward the bases of their ovaries (some *Lonicera*), or in opposite, 3-flowered sessile cymes (called "verticels"), then subtended by a connate-perfoliate leaf pair (some *Lonicera*), or in terminal and axillary spikes or racemes (*Symphoricarpos*). The corolla is five-parted and regular, rotate (*Sambucus*), campanulate (*Viburnum* and *Symphoricarpos*) to funnelform (*Linnaea*), though sometimes spurred, gibbous or ventricose (a slight bulge on one side near the base of the corolla), or irregular, tubular and bilabiate (*Lonicera*), with a 4-parted upper lip and a single lobed lower lip. The calyx is fused to the ovary wall and is surmounted by 5 small teeth. Five stamens arise from the corolla tube, alternate with its lobes (1 stamen is missing in *Linnaea*). The inferior ovary is somewhat variable with 2 to 5 united carpels with 1 to 5 locules, each bearing a single pendulous ovule on axile placentation. The single style terminates with a capitate or lobed stigma, if lobed, then the number of lobes being equal to the number of carpels. This ovary develops most often into a berry or drupe of varying color depending on the genus and species.

A number of hardy ornamentals, notably the Honeysuckle, Snowberry, Elderberry and Viburnum, are used in landscaping, while the ripe Elderberry is sometimes used to make wine. The creeping evergreen Twinflower may be easily introduced from the wild to create an attractive ground cover for the native woodland garden.

The generalized floral formula for this family is written:

$$\underset{\text{Ca}}{5} \underset{\text{Co(z)}}{\textcircled{5}} \underset{\text{S}}{5(4)} \underset{\text{P}}{\textcircled{2}} - \textcircled{5} \text{ with inferior}$$

ovary. Representatives of this family are easily recognized by their opposite (+ broad) leaves, 5 distinct stamens (remember, 4 in Twinflower), united 5-parted corolla, and 2-5 carpellary inferior ovary. If you encounter a plant that combines all these characters, you will know that you have found a member of the Caprifoliaceae - the Honeysuckle Family.

Endangered, threatened and rare plant associations and habitats of Oregon

by Jimmy Kagan

WILLAMETTE VALLEY WETLANDS & WET PRAIRIES

(SECOND IN A SERIES)

As anybody who has been in the Willamette Valley this last month knows, it is a wet place. The area gets lots of rainfall and is a typical major river valley. The Willamette and its tributaries have created a large, flat valley which receives rainfall as well as runoff from both the east slope of the Coast Range and the west slope of the Cascades. Much of the Valley is covered by poorly drained, heavy clay soils supporting a variety of wetland ecosystems.

Since most of the people in Oregon live and work in the Willamette Valley many changes have been made in the landscape since colonial settlement: wetlands have been drained and diked, all the major rivers have been dammed and most of the bottomland prairies have been plowed. Additionally the entire Willamette Valley has been grazed, usually by both sheep and cattle. These factors make determination of the natural composition of Valley wetland plant communities a somewhat tentative operation.

For clarification ecologists sort plant assemblages into six major groups: terrestrial, marine, riverine, estuarine, lacustrine and palustrine. Most wetland types fall into the latter three categories. Estuarine communities are coastal wetlands with some marine influence, usually somewhat saline. Included are salt marshes and estuaries. Lacustrine types are those inland systems characterized by open water or floating plants, i.e. lakes. Palustrine communities are inland wetlands characterized by emergent vegetation. Distinctions among terrestrial, palustrine and lacustrine communities aren't always obvious. Lakes and ponds with water all year are considered lacustrine, though lake margins often have palustrine vegetation. In general if a community is characterized by shallow standing water it is classified as palustrine; if there is standing water for only half the year it can be terrestrial. For purposes of the Oregon Natural Heritage Data Base classification system we usually refer to those areas dominated by sedges and rushes (members of Cyperaceae & Juncaceae) as palustrine but grasslands (even if seasonally flooded) as terrestrial. The communities to be dealt with here comprise several palustrine freshwater marshes and one terrestrial wet grassland.

The terrestrial wet grassland is the tufted-hairgrass (Deschampsia caespitosa) valley grassland community -- one of the most threatened of our native plant communities. This type was described by Moir & Mika in 1976 at the Willamette Floodplain Research Natural Area and is also known from Willow Creek Nature Conservancy Preserve in Eugene. There are only a few other small remnants of this community, which probably covered much of the Valley floor before settlement. It is clearly dominated by tufted-hairgrass with 50-90% cover. Common associates include Hall's aster (Aster hallii), wood rush (Luzula campestris), California oatgrass (Danthonia californica), camas (Camassia quamash) and slender cinquefoil (Potentilla gracilis). A number of very rare species are largely restricted to this community in Oregon; among

them are Bradshaw's lomatium (Lomatium bradshawii), Willamette daisy (Erigeron decumbens var. decumbens) and white-topped aster (Aster curtus).

Palustrine wetlands in the Willamette Valley are also very threatened. These have not been completely described since wetlands usually occur as patchy groups of species rather than easily definable plant associations. There may be as many as 40-50 distinct communities which could be described, but it is easier to group these into larger assemblages. In channels and swales as well as low spots in the tufted-hairgrass prairies there is a sedge - meadow barley community dominated by one-sided sedge (Carex unilateralis), clustered sedge (C. arcta), golden sedge (C. aurea), slender sedge (C. lasiocarpa), pointed rush (Juncus oxymuris), tapered rush (J. acuminatus) and slender rush (J. tenuis) with meadow barley (Hordeum brachyantherum). Herbs include showy downingia (Downingia elegans), mint (Mentha arvensis), speedwell (Veronica scutellata) and coyote thistle (Eryngium petiolatum).

In deeper or faster-moving channels sloughgrass (Beckmannia syzigachne) and tall mannagrass (Glyceria elata) become dominant. A slough sedge (Carex obnupta) association, consisting almost exclusively of this one species, occurs frequently in Valley wetlands. Water parsley (Oenanthe sarmentosa) also dominates patches in many of these wetlands.

Extremely wet areas with shallow standing water most of the year are dominated by cattail (Typha latifolia), tule (Scirpus validus) and spike rush (Eleocharis spp.). Occasionally open water is present seasonally; these vernal pools dry up in August but do support some aquatic vegetation in spring and early summer, including the very rare Howellia (H. aquatilis). Natural vernal pools have been almost entirely eradicated from the Willamette Valley.

Some wetland types can be found in a number of areas throughout the Valley, but few good-sized, protectable wetlands remain. The best site known is the Jackson-Frazier wetlands, just north of Corvallis, which has a vernal pond and examples of most valley wetland types. Though the current owner is interested in draining the wetland to build low-income housing, an agreement may be reached with the Nature Conservancy to purchase 95 acres, most of the remaining wetland. Protecting our few remaining wetlands is essential for several reasons: They are highly diverse and complex systems which are poorly understood. Wetlands are important for numerous wildlife species because they provide surface water and an extremely productive food base, and because the structural complexity of wetlands ensures a great variety of habitats. In the Willamette Valley they support waterfowl, wading birds, songbirds and small mammals. Though these areas are often difficult to protect, manage and enjoy (especially on short hikes), they are an important and threatened part of our natural heritage.

WELCOME, new members

Some references:

Boss, Ted. 1982. Vegetation ecology & net aerial productivity of fresh water wetlands in Oregon. Ph.D. Diss., OSU, Corvallis, Ore.

Moir & Mika. No date. Prairie vegetation of the Willamette Valley, Benton County, Oregon. Unpubl. manuscript. OSU Forest Sciences Lab., Corvallis, Ore.

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Words to know

achlorophyllous (Gr. *a* without + *chloros* green + *phyllon* leaf); non-green, without chlorophyll & therefore unable to manufacture food

epiparasite (Gr. *epi*- upon + *parasitos* guest); an organism which gets its food from another live organism, through a third intermediary organism, e.g. pinesap--fungus--tree root

estuarine (L. *aestuarium* channel subject to tidal action at the mouth of a river); dwelling in an estuary

lacustrine (L. *lacus* lake); living or growing in lakes

marine (L. *mare* sea); living in the ocean

palustrine (L. *palus* marsh, bog, fen, swamp, morass); living in marshes or wet meadows

riverine (L. *rivus* stream); dwelling beside a river

saprophyte (Gr. *sapros* rotten + *phyton* plant); a plant which derives its nutrients from decaying organic matter

terrestrial (L. *terra* earth); inhabiting land as distinct from water or air

vernal (L. *ver* spring); of or occurring in spring

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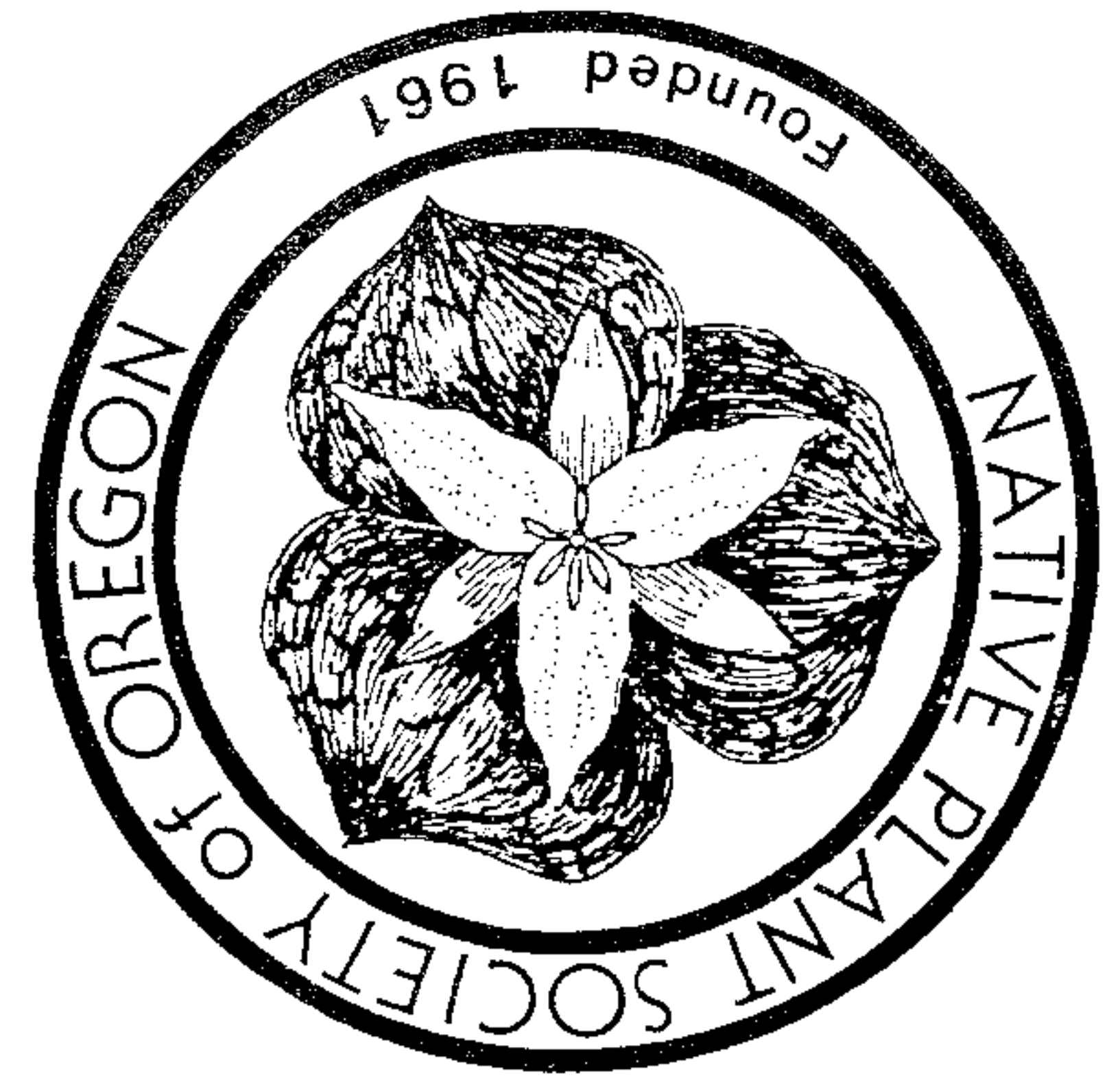
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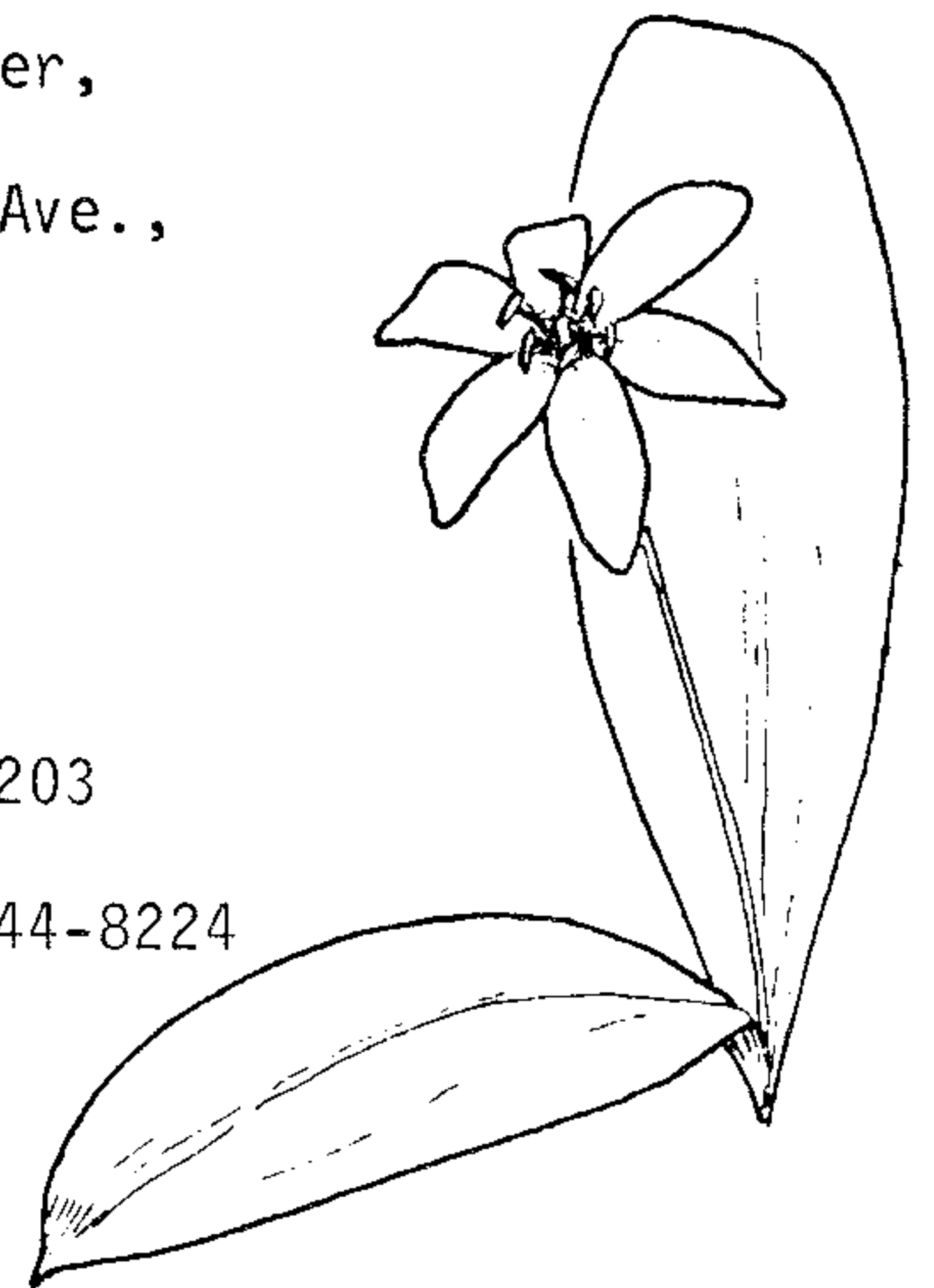
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