

THE BULLETIN OF THE
NATIVE PLANT SOCIETY OF OREGON

• OBJECTIVE •

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

VOLUME XVI No. 1

JANUARY 1983

RENEWAL TIME!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Thanks to all of you who have sent in your renewals Dues should be in by the first of the new year, and if not received by 1 March 1983, you will not receive your Bulletins from April on. Renewal forms were included with your November and December Bulletins, or available from your local chapter. You may also use the form on page 9.

MEMBERSHIP FORM IN BULLETIN

A membership form will now be included in every NPSO Bulletin. The form on page 9 of this issue may be used for renewals, new memberships, changes of address, or contributions. The form includes explanations of full and quarter memberships, and lists dues categories. Use this form to invite others to join the NPSO, and to help support our native plants!

ANNUAL MEETING. TIME: MAY 14-15 MARK YOUR
PLACE: EUGENE CALENDAR

Emerald Chapter members are beginning to plan for the NPSO Annual Meeting. The weekend of 14-15 May has been chosen to coincide with the Mt. Pisgah Arboretum Wildflower Show on Sunday, 15 May. Any persons who wish to help with organization or field trip leading, etc., please contact Charlene Simpson at 686-1094.

JEAN DAVIS MEMORIAL AWARD: SCHOLARSHIPS

The NPSO will be awarding a scholarship to a worthy student in an Oregon college, with their major study in plant systematics or plant ecology. The scholarship is in the amount of \$1,000, and is to be used toward the student's tuition within the following academic year. Deadline for applications is April 1, 1983. The award will be made by May 1, 1983.

This would be a good time to remind all members that donations to the scholarship fund are tax deductible and would be welcome at any time. All interest earned from the donations will be apportioned out to as many scholarships as possible in the spring of each year, at \$1,000 each.

Any communication in regard to this fund should be addressed to Mary Falconer, Committee Chairman, 1920 Engel Avenue N.W., Salem, Oregon 97304. A slight revision to the rules is being made that will affect graduate students, and when completed we will make available through the Bulletin the full rules. Most colleges in Oregon will have rules and instructions for students to apply, also. Final date for receipt of applications is April 1st of each year.

PRESIDENT'S LETTER

New Year's Greetings to all NPSO Members and Friends of Oregon's Flora.

Rick Brown, new energetic Chairman of the NPSO Legislative Committee for 1983, had his first meeting of those individuals interested in drafting our 1983 Endangered Species Bill. The meeting was on December 7 at Martha Blau's home near the Capitol in Salem. Harold Dunn and I drove up from Eugene. In addition to Rick, Martha, Harold and myself, the meeting was attended by Mike Houck, Char Corkran of the Oregon Environmental Council, Lin Herring of the Audubon Society, John Christiansen of the Sierra Club, and Liz and Bob Frankel from Corvallis.

I was very pleased by the expertise exhibited at this meeting. Excellent legislative strategies were suggested and discussed. I will leave it to Chairman Rick Brown to report on the details, however, I know that with such a group working on our bill we will surely make successful strides toward protecting Oregon's rare plants this year.

Flowers forever!

Rhoda Love, President

NPSO LEGISLATIVE COMMITTEE REPORT

Our initial discussion at the Dec 7 meeting in Salem (see Rhoda's letter) focused on a general approach to be taken, using "Some Issues to be Addressed for an Oregon Endangered Species Act" developed during the 1981 legislative effort as a starting point. The following points (among others) were touched upon:

1. Species Coverage
 - a. Include plants & animals as in the Federal ESA
 - b. State of Oregon as geographical level
 - c. Use "endangered" & "threatened" as refers to distribution in Ore., thus including peripherals and disjuncts
2. Criteria
 - a. Model on the Federal Act with "endangered" defined so as to limit it to those species "critically" endangered as commonly conceived
 - b. No use of "rare"
 - c. Endangered species to receive legal protection, threatened listed to provide opportunity to avoid future endangerment
3. Listing Process
 - a. Authority--Oregon Natural Heritage Advisory Council would appoint experts
 - b. Public Review--this is necessary for Ore. to be eligible for cooperative Fed. funds
 - c. Documentation
 - d. Periodic Review

4. Recovery Action--review Federal ESA to learn criteria for qualification for coop funding
5. Responsible Agency--use existing framework as much as possible

A second meeting in Portland brought together myself, Nancy Peterson, Lynn Herring, Ann Whitmyer, Mike Houck and Jean Siddall. The consensus of the group was to prepare a comprehensive Endangered Species Bill for protection of Oregon endangered plants and animals.

I believe we have made important strides in these initial meetings. I appreciate the help of all those who attended &/or contacted me. My committee members can expect to hear from me early in 1983. Please call or write with your comments.

222-1146 or Rick Brown, Chairman
667-0511 3425 SW 12th
Portland, OR 97201

BUY...SELL...GIVE...USE...BUY...SELL...USE

NEW RARE PLANT NOTECARDS JUST OFF THE PRESS!

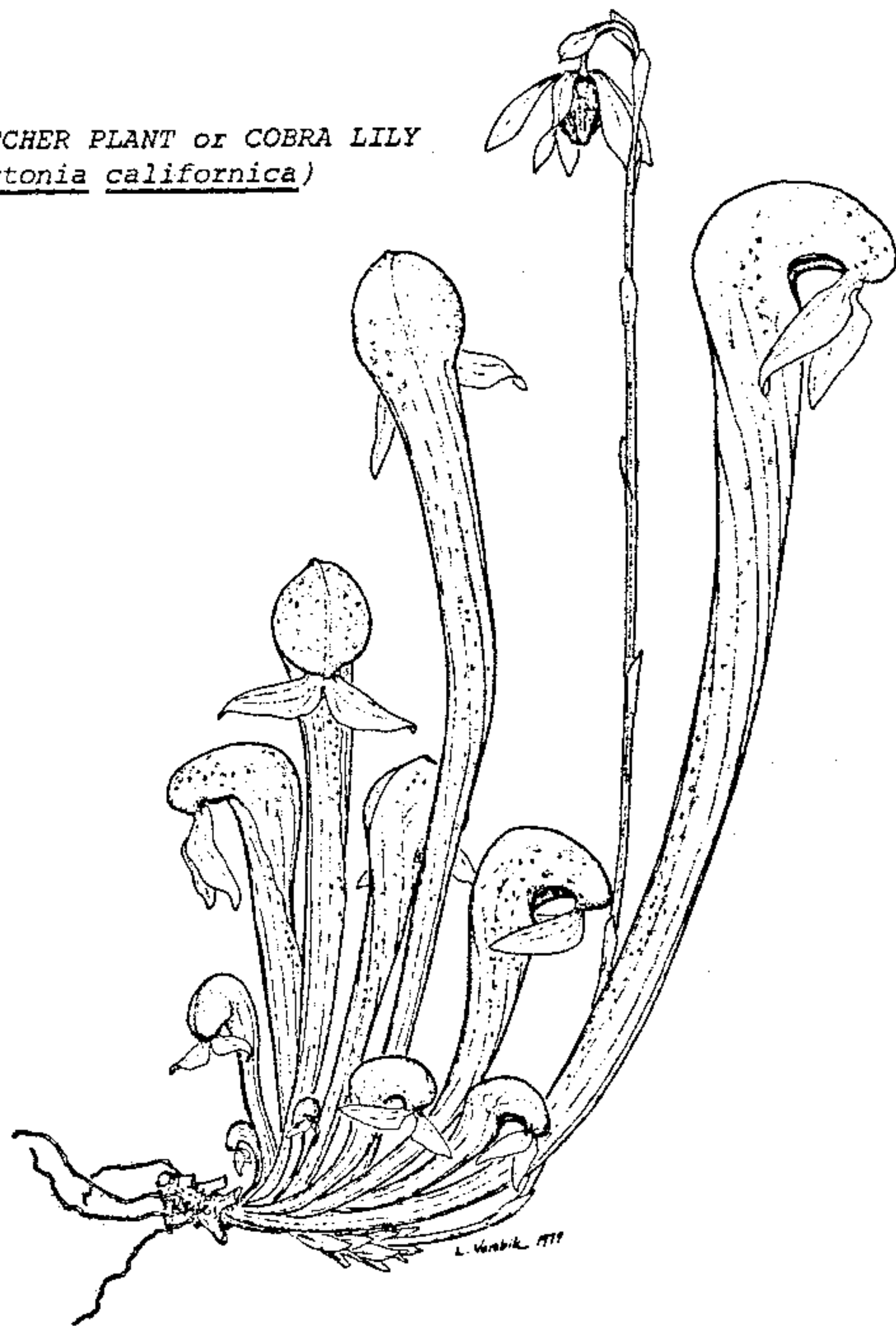
The Native Plant Society of Oregon's new edition of notecards came off the press just in time for the holidays!

Linda Vorobik, our Bulletin editor and one of the Northwest's finest scientific illustrators, has donated to NPSO eight of her loveliest drawings of Oregon rare plants. We have had these printed on ivory colored paper with matching envelopes. On the back of each card is the NPSO logo plus the name and a brief description of the plant and its habitat.

The cards will be sold with 8 designs per pack for \$2.50 a pack. For each pack sold by a chapter, 50¢ will be returned to the chapter treasury. Approximately \$1.00 from each pack sold will be used in our efforts to protect Oregon's endangered flora.

The 8 new designs are: Darlingtonia, Kurabayashi's trillium, Klamath fawn lily, Owyhee clover, Woolly meadow foam, Steens paintbrush, Smooth stickseed and Cusick's hyssop. Each drawing is a beautiful work of art.

CALIFORNIA PITCHER PLANT or COBRA LILY
(Darlingtonia californica)



What to do with the notecards:

BUY them yourself!

SELL them when and where you can. Local museums, gift shops and bookstores may take them on consignment. Take them to meetings of other natural history groups to which you belong.

GIVE them when and where you can. Give a pack to your Oregon legislator with a note about our concerns for the native flora.

USE them in your own correspondence. Write to your state senator or representative on our notepaper. Ask him/her to watch for our R & E Bill in '83.

REMEMBER: NPSO IS A NON-PROFIT TAX-EXEMPT ORGANIZATION--THE PRICE OF ALL OUR CARDS IS TAX DEDUCTIBLE!

NPSO Chapter presidents will receive a supply of the notecards at our January 22 Board Meeting in Salem. Remember, 1983 is the year of our legislative effort and sale of the notecards will help to finance our campaign, so please start to use the cards as soon as they arrive.

Thanks everyone for your help.

Flowers forever!

Rhoda Love, President

HELP! OVER 6,000 NPSO NOTECARDS STILL NEED FOLDING AND PACKAGING!!

Many thanks to the following who came to my house on Sat., Dec. 18 to package notecards for Holiday sales: Linda Vorobik, Helen Hughes, Nadine Smith, Charlene Simpson and Margaret Markley. Special thanks to Nadine who took the paper to the printer and later picked up 8,000 cards & envelopes. We will need at least 2 more workdays in order to have enough packaged cards ready for distribution to Chapters at our Jan 22 meeting. Emerald Chapter members & any others who can donate some time to this project, please come to my house 393 FulVue Drive (off Crest near the Morse Ranch) starting at 10 AM on

- ** Sunday, January 9 & / or
- ** Saturday, January 15

I'll provide hot cider, cookies and a wood fire. Bring your friends! Any help with this project will be greatly appreciated. --Rhoda Love
345-6241

REVISED STATE BY-LAWS ADOPTED

The voting deadline on the revised State By-Laws was December 15, 1982. I have counted all the ballots received by me on or before that date and approval was unanimous. I hereby announce that the By-Laws of the Native Plant Society of Oregon, as published in the Bulletin for November, 1982, will take effect immediately.

For additional copies of the new By-Laws, please write to Bulletin editor Linda Vorobik, Department of Biology, University of Oregon, Eugene, OR 97403.

BOARD MEETING JANUARY 22 IN SALEM

Our January Board meeting will be an important one. 1983 is a Legislative year in Oregon and 2 related and very important items on our state agenda are: Rare Plant Legislation, and strategy for continued research on Oregon's rare flora. Rick Brown, Chairman, Legislative Committee, will report on progress of his committee. Jean Siddall, our new R & E Chairman will be introduced. Other agenda items will be a report by Linda Vorobik and the choosing of a new Bulletin editor. We will also be distributing our new note cards.

Please write or call me by January 10 if you wish to suggest additional agenda items. All interested NPSO members are welcome to attend any Board meeting.

Rhoda Love, President
393 FulVue Drive
Eugene, OR 97405
345-6241

NEW EDITOR NEEDED

I will be resigning as the NPSO editor as of June, 1983. I would like to encourage anyone interested in this volunteer position to come forward. The editor's job for the NPSO is very rewarding. You are exposed to a variety of conservation and other literature, meet outstanding people, and gain useful experience. The NPSO needs an energetic, creative person(s) to fill this position. If you are curious, I would be very happy to answer any questions. Call me, Linda Vorobik, at 686-3033 (work) or at 689-9256 (home), or write me at NPSO, Dept. of Biology, U of O, Eugene, OR 97403.

NOTE: I have received inquiries about the editor's position. If you are interested in it, write NPSO President Rhoda Love, (address on masthead) now and plan on attending the January 22 board meeting in Salem.

NOMINATIONS

NPSO NOMINEES FOR 1983

In accordance with Article VIII, Section 2, of the NPSO By-Laws, the following nominees for state offices have been forwarded by the Nominating Committee (Veva Stansell, Chair, Ruth Hansen, Jacque Greenleaf, Juanita Manley, Harry Oswald, Darlene Southworth, and Mariana Bornholdt):

- President: Rhoda Love (incumbent)
- Vice-President: Wilbur Bluhm
- Secretary: Linda Johnson
- Treasurer: Nadine Smith (incumbent)
- Directors: Virginia Crosby, Siskiyou Chapter
- Alan Curtis, Emerald Chapter
- Marge Ettinger, High Desert Chapter
- Shep Wilson, Portland Chapter
- Ronald Kranz, Siskiyou Chapter

Additional nominees may be forwarded by any group of 5 or more paid members (with the nominee's consent). Contact Veva Stansell at the address and phone below, or any of her Committee members.

continued in next column

NOMINATIONS, continued

Resumes of all nominees will appear in the February Bulletin. Ballots will be distributed in the March Bulletin.

Veva Stansell, Chairman
Nominating Committee
PO Box 959
Gold Beach, OR 97444
Phone: 247-7153

CHAPTER NEWS

SISKIYOU CHAPTER

Programs and workshops:

January 13, 7:30 p.m., Room 171, Science Building, SOSC. Structure and function of plants or "what goes on inside?" This program by Dr. Ron Nitsos, SOSC Biology Professor, will give us a deeper perspective on the plant kingdom than we gain from ordinary experience.

January 15. WORKSHOP. Saturday, 9-12 noon, Room 365, Science Building, SOSC. Laboratory followup to Dr. Nitsos's presentation. With microscopes and other tools we will explore firsthand the world of plant structure and function. Oriented to people who don't normally have access to this type of learning. Dr. Nitsos, Barry Goldfarb and Jennifer Stone will assist in the lab.

February 10, Thursday, 7:30 p.m. Room 171 Science Building, SOSC. Umpqua River Flora, mountains to lowlands, program by Naoma Neyerlin of Winston, Oregon. With Naoma's discriminating eye and thorough knowledge of botany we can expect this to be a wonderful and informative program.

HIGH DESERT CHAPTER

Meeting:

Tuesday, January 25. The High Desert Chapter will meet in the Cascade Natural Gas Meeting Room at 7:30 p.m. Program to be announced.

CORVALLIS CHAPTER

Meeting:

Thursday, January 20, 1983, 7:30 p.m. The Amanita Mushrooms of North America. A slide presentation and talk by Paul Hammond. Paul studied with Orson Miller at Virginia Polytechnic Institute and State University. We will meet at Room 2082, Cordley Hall, Oregon State University.

WILLAMETTE VALLEY CHAPTER

Meeting:

Monday, January 17, 7:30 p.m. at First United Methodist Church, corner of Church and State Streets in downtown Salem. The program will be The Monkeyflowers of Oregon, presented by Celeste and Vern Holloway, members of the Portland Chapter. Celeste has been studying our native Mimulus for several years, and Vern has been photographing them.

February 21 meeting will feature another plant workshop in our workshop series.

EMERALD CHAPTERMeetings:

Monday, January 3, 7:15 p.m. Dr. William (Bill) Bradshaw, U of O Biology Professor will present a program on the Pitcher Plant, (Sarraceniaceae family). Dr. Bradshaw has done his research on this very "insectivorous" subject. Meeting in the American Red Cross Bldg., 150 E. 18th, Eugene.

Monday, February 7, 7:15 p.m. Chris Luneski, long time member of NPSO, Emerald Chapter, will share with us his most recent version of an award winning multi-image program, called "Willamette Trails III." The images draw on the variety of scenes and flora of the Willamette National Forest. Chris has photo credits including the 1983 Sierra Club Engagement Calendar, Oregon Coast Magazine, Mother Earth News, and the Seattle P-I Sunday Magazine. Meeting will be in American Red Cross Building, 150 E. 18th, Eugene.

MT. PISGAH ARBORETUM-OUTDOOR EDUCATION

The Mt. Pisgah Arboretum Outdoor-Natural History Program will hold its monthly meeting on January 11, at 9:30 a.m. in the home of Denny Aldridge. The Arboretum program was a success last May and we are expanding our program in many ways, to accomodate over 2,000 school children. We will need your help; everyone has something they can offer in volunteer help. For more information and how you can fit into this program please call Linda Johnson, Chairperson, 747-4048, or attend the monthly meeting.

A WINTER PICNIC:FRIENDS OF THE COLUMBIA GORGE

Great things are happening Saturday, January 22nd - A Winter Picnic!

At the Yamhill Marketplace, downtown Portland: Eat - Drink - Dance for the Columbia River Gorge

Hot, tasty buffet dinner begins 7:00 p.m. Enjoy dinner with a serenading violinist, then pull up your socks and dance to Scott Brown and the Tempests 8:30 p.m. to . . . Admission \$5.00, including dinner \$12.00 Call Friends of the Columbia Gorge to order tickets: 241-3762, or pick them up at REI, Howells, and Oregon Mountain Community ticket outlets.

Mark January 22nd on your calendar and roust out your friends for this momentous occasion!

and

"Where the desert meets the forest, and the forest meets the sky . . ." Have you heard about the new hit song "Columbia River Gorge" on the airwaves across Portland and Vancouver, and up the Gorge? This beautiful, poetic song is now available at local record stores and Friends of the Gorge offices. You will have a chance to hear Scott Brown and the Tempests sing the Columbia River Gorge song and a good deal more good music on Saturday, January 22nd at the Yamhill Marketplace with Friends of the Columbia River Gorge in the evening.

PORTLAND CHAPTERMeeting:

January 26, 7:00 p.m., Central Library, 801 SW 10th, Portland. Russ Jolley will give a short presentation on endangered islands in the Columbia River. This will be followed by a description of Idaho Wilderness Areas to be presented by Del Blackburn. Del has spent several summers exploring the Idaho Wilderness Areas and will be speaking from firsthand experience.

The Portland Chapter is considering the possibility of changing location and day of our evening meetings from the downtown Library to another place for several reasons-- the parking problem, having to get out at nine, and the fact that the fourth Wednesday (only open time at the Library) is very awkward at certain times of the year, namely November and December.

Portland members having any ideas, suggestions, thoughts, and/or opinions about a change, please contact one of your officers.

Saturday workshops, all meet 10:00 a.m. in Room E, Central Library.

January 8. Pierce and Ives Islands with Russ Jolley. See Russ's article in the December Bulletin.

January 15. None scheduled.

January 22. Some Plants of the Ochoco Mountains with George Lewis.

January 29. Winter Twigs with Esther Kennedy.

February 5. Mt. Adams Country with Keith Chamberlain.

February 12. The Umbelliferae with Ruth Hansen. How to know our species of the parsley family. Bring a hand lens.

February 19. None scheduled.

February 26. R and E Plant Workshop. Some areas where chapter members could really help protect our rare and endangered native plants, for example: field checking, "circuit riding", monitoring known populations, mapping, literature searches, photography, and educating legislators. Learn how with Jean Siddall, head of OREPP and NPSO's rare plant committee.

VOLUNTEER WILDFLOWER LOVER NEEDED

Several acres on Mt. Tabor Park are slowly being turned into an exhibit of Oregon native wildflowers. Volunteers have been working for the past year and a half to collect wildflower seeds for planting at the park. As the project grows, it has become obvious that a coordinator from the exhibit is needed to help organize work parties and seed collection and to maintain records and assist with preparation of informational flyers on the exhibit. This is a great opportunity to learn about wildflowers of Oregon while putting organizational and creative skills to work. Interested? Contact the Portland Park Bureau's Volunteer Services office at 796-5113 or stop by the Park Bureau at 1120 SW Fifth in the new Portland Building. It is volunteers who really help make things happen in our parks. Join the Park Bureau's volunteers today.

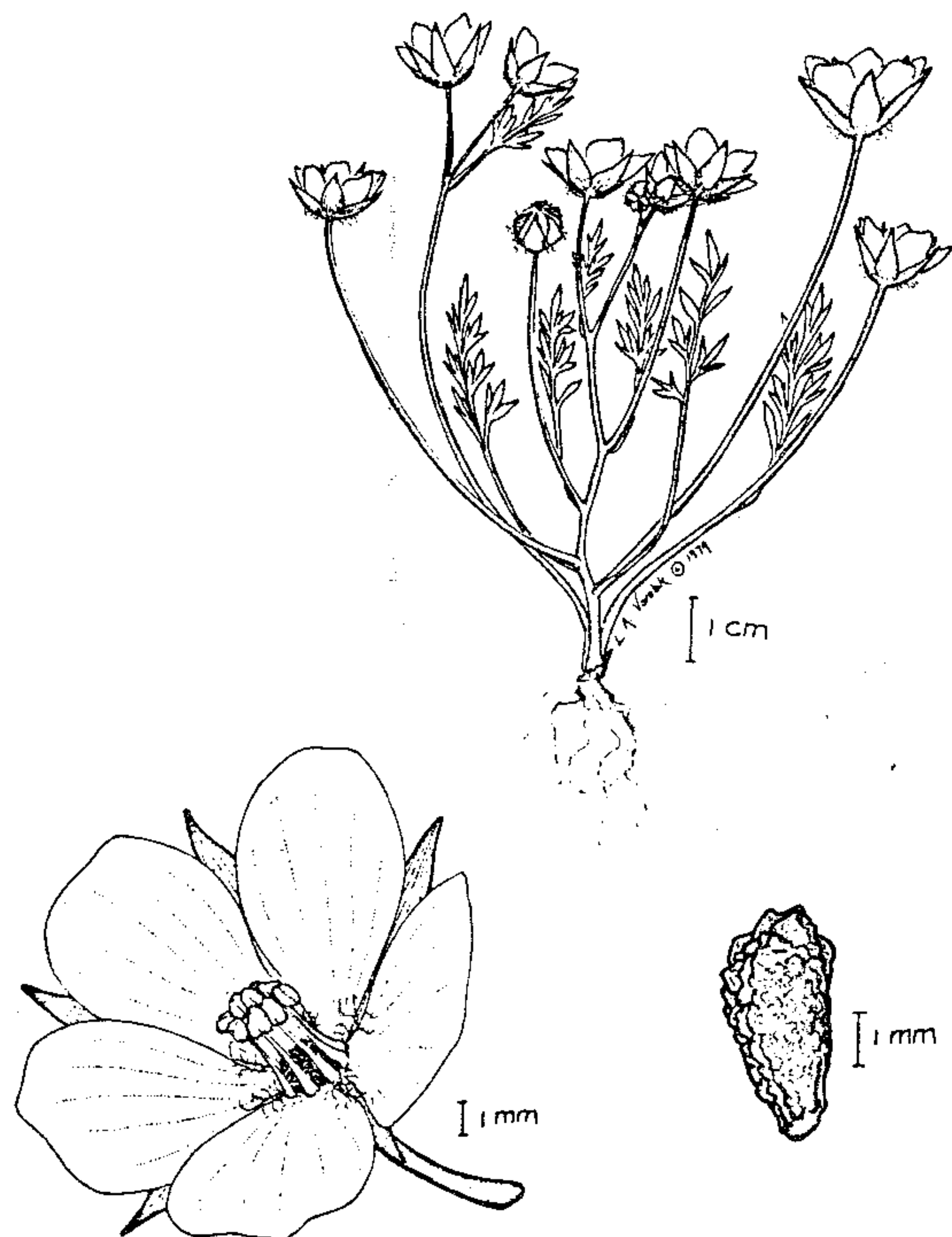
SPRING BREAK PLANT WORKSHOP AT MALHEUR

Are you interested in plants of the eastern Oregon High Desert? Would you like to learn more about their population biology by getting some firsthand experience in field techniques? If you answered yes to either of these questions, you might be interested in attending a one week workshop in Desert Plant Biology at Malheur Field Station from March 22-29.

Tammy Maurer, an NPSO Emerald Chapter member and graduate student at the U of O, will be teaching this workshop which will include: talks on major concepts, field trips to carry out short projects and guest speakers who work in the area of plant population biology. Possible topics include: plant-animal interactions, life history characteristics, reproductive biology, biology of rare plants. The class will be taught at a level scaled to participants' interests and experience, and the only prerequisite so far, is some familiarity with plant keys or field experience with plant identification.

At this writing, the cost of the class has not been determined, but it will include meals, lodging, materials and field trip transportation. There is also a chance that the workshop will be offered for college credit. If you would like to receive a brochure with further information, please call Tammy in Eugene at 344-5327 (eves) or leave your name and phone number at 686-4502, or drop her a line:

Dept. of Biology, University of Oregon,
Eugene 97403.



BIG-FLOWERED WOOLLY MEADOW FOAM
(*Limnanthes floccosa* var. *grandiflora*)

BOTANICAL ILLUSTRATION WORKSHOP

8 January, 1983. Room 33 Science II, University of Oregon Campus. Linda Vorobik will lead an illustration workshop for those of all abilities. See December Bulletin or call Linda at 686-3033 for details. \$5 registration fee.

BIRD SEED MIXES AVAILABLE

Our friends at Portland Audubon Society are offering several high quality wild bird seed mixes again this January. The sale helps support the society and its conservation and education programs. You may obtain order forms from Audubon House, 5151 N.W. Cornell Rd., Portland, OR 97210 (292-6726).

PRESERVATION OF THE AGATE DESERT

JACKSON COUNTY

Over the last two years, local members of the Siskiyou Chapter have been conducting an extensive field survey of lands in central Jackson County, specifically on the soil type known as Agate-Winlo. The purpose of our survey has been to find areas of relatively undisturbed vernal pool habitat that still retains a significant portion of its original plant community intact. Our eventual goal is the preservation of some of this fast disappearing habitat.

The ecological value and uniqueness of this plant community is recognized universally by botanists, ecologists and conservationists who have become familiar with the area. The geologic processes which have formed the typical "patterned ground," or mound/vernal pool complex are by no means ordinary. The hardpan and poor drainage that have made this soil type unable to support profitable farms or forests and give it another name, "Biscuit Scablands," are matched by a flora that is specific to this soil type. Many of the plant species will not occur elsewhere in our region. Two will not occur elsewhere on the planet. One of these, *Limnanthes floccosa* susp. *grandiflora*, has been considered for plant breeding programs to develop an oil highly resistant to heat for industrial use. The oil may be a suitable replacement for sperm whale oil, since sperm whale populations are seriously depleted, and the future of the whaling industry is uncertain. The other, is a newly discovered *Lomatium*, found by Jimmy Kagen of the Nature Conservancy. The *Lomatium* is currently known only to one site, a proposed industrial park.

During our field work, our interest was directed to a proposed zoning change the City of Medford was presenting to Jackson County. Here on city land proposed for an industrial park, the only known population of the *Lomatium* resided and represented habitat of high botanical diversity and relative naturalness. The Siskiyou Chapter prepared testimony and recommendations for County review. The Jackson County Planning Commission responded by imposing planning restrictions on the proposed industrial park. The restrictions will allow a three year study to be conducted by this Chapter in an attempt to identify and/or establish new populations of the *Lomatium* taxon. Future studies are likely to involve the combined efforts of the Nature Conservancy and the Siskiyou Chapter.

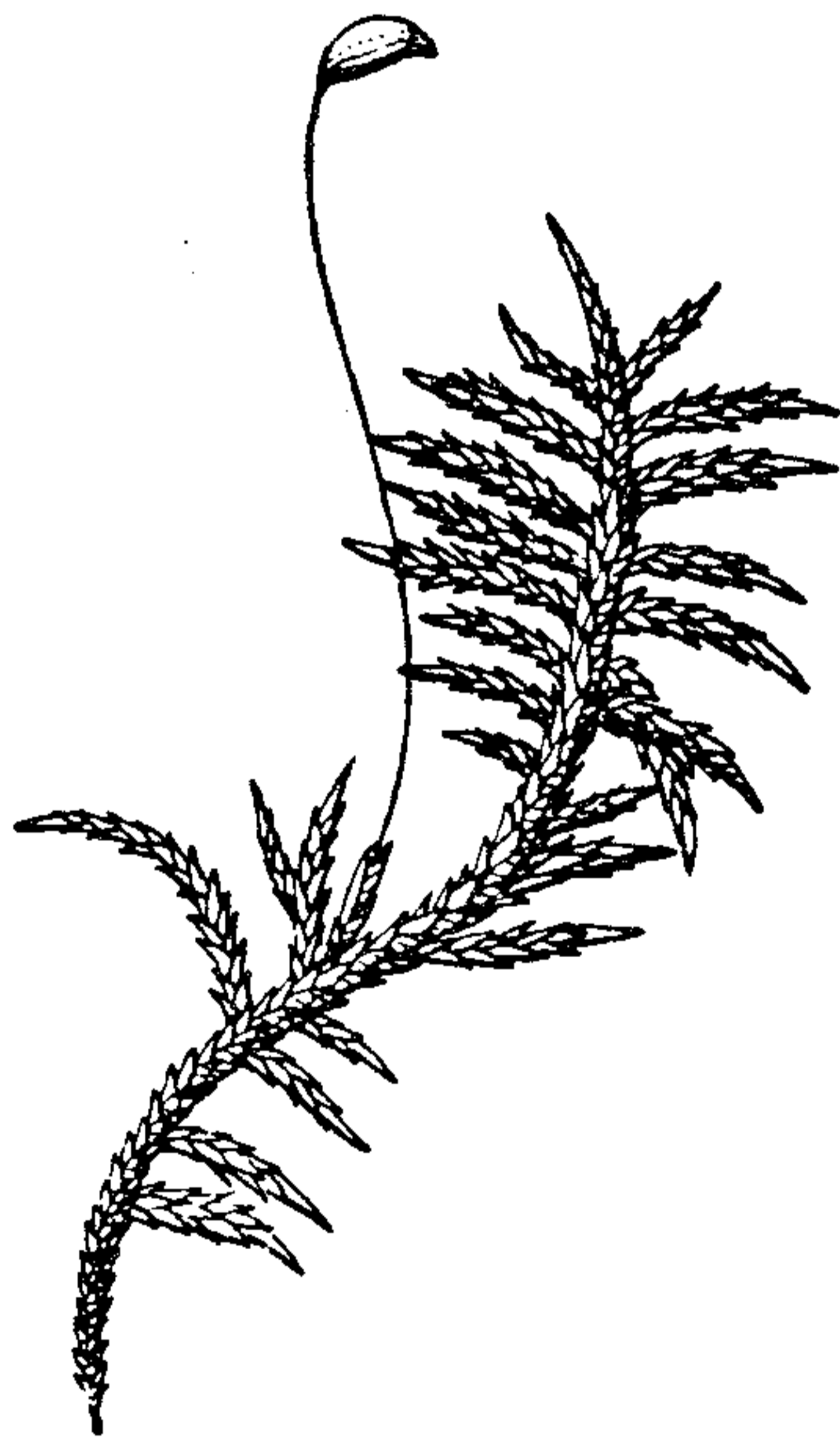
REVISED NPSO BOOK LIST READY THIS MONTH

Several of our members have been working to revise a Book List which we have traditionally sent to each new member who joins NPSO. The Book List is being brought up to date by Linda Johnson, Veva Stansell, George Lewis, Rhoda Love and others. It will be ready for distribution later this month. More on this in February's Bulletin.

SPECIES EXTINCTION

Humans are causing extinctions at rates that are unprecedented since the beginning of life on this planet. From 1600 to 1900, approximately 75 mammal and bird species went the way of the Dodo, at the rate of 1 every 4 years. From 1900 to the present, about 75 have vanished - nearly one each year. In addition to mammals and birds, numerous other vertebrates, invertebrates, and plants have been lost. Some biologists estimate that 1 to 3 extinctions are now occurring daily and the rate will increase to 1 per HOUR by the late 1980's. It is likely that over one million species will be lost in our lifetimes, most of these species have never been named, much less studied.

From the Endangered Species Act Reauthorization Bulletin, No. 1



FRIENDS OF THE FARLOW

The Farlow Library and Herbarium of Harvard University is devoted to the systematic study of lower plants including fungi, mosses, lichens, and algae. The institution consists of an herbarium of 1½ million specimens collected worldwide over the last 150 years, and a corresponding library of 60,000 books and journals.

The Friends of the Farlow is an international group of amateurs and professionals interested in the study of non-vascular plants and concerned about the future of this special institution. The Friends welcome your membership.

For further information and fees, write Friends of the Farlow, 20 Divinity Avenue, Cambridge, MA 02138.

*****BOOK REVIEW*****

FIELD GUIDE TO THE ATMOSPHERE
By Vincent J. Schaefer and John A. Day
Boston: Houghton Mifflin Co.
1981
Reviewer: Dina Greene

Roger Tory Peterson notes in the Editor's preface that this 26th book in the Field Guide series deals with a portion of the environment which has a daily effect on every person as well as all plant and animal life, influencing successful growth and reproduction or contributing to failure.

Topics covered include Global Atmosphere; Clouds, Air Condensation and Atmospheric Motion; Color in the Atmosphere; Severe Storms; Weather Modification; Precipitation; and Simple Experiments. In addition to descriptions of how the elements of the atmosphere interact there are diagrams of typical cloud profiles and varied forces: particles, water, chemical reactions and forms of light energy. There are photographs in both color and black-and-white of clouds and rainbows, and photomicrographs of hailstones, dust particles and ice crystals. Besides a glossary, there are appendices providing charts on wild-chill factors and safety information about tornados and lightning. Finally, there is a bibliography for each chapter as well as a general list of books.

For those of us who spend much time outdoors enjoying wildflowers and other plants this field guide has a practical application. Its very readable text and wealth of visual aids gives a new picture of our unfamiliar atmosphere and its fascinating complexity.

[from Wild Flower Notes and News, of the New England Wild Flower Society, Inc., Volume 1, Fall 1982.]

BLM WILDERNESS STUDY AREA HEARINGS

DEPARTMENT OF THE INTERIOR
Bureau of Land Management

Oregon; Intent to Prepare a Statewide Wilderness Environmental Impact Statement and Conduct Scoping Meetings.

The Department of the Interior, Bureau of Land Management, will be preparing an Environmental Impact Statement (EIS) on 85 Wilderness Study Areas (WSA) consisting of approximately 2.5 million acres of public lands located in the Burns, Vale, Prineville, Lakeview, Coos Bay and Medford Districts of Oregon. The purpose of the scoping meetings is to obtain public comment to help develop the various alternatives which can be realistically addressed in the EIS. Public participants will also be asked to identify significant issues to be discussed in detail in the EIS.

Each WSA will be addressed in an appendix to the statewide EIS. Through the public scoping process, a range of alternatives will be developed for analysis in the EIS. As a minimum, each appendix will address the impacts of a no wilderness/no action alternative and an all wilderness alternative for each WSA. Other alternatives

continued on next page

which may be considered, if applicable, are enhanced wilderness and partial wilderness. The State Director's preferred alternative will be developed using information collected through the Bureau's land use planning process and data from minerals inventories completed after the land use plans were prepared.

The EIS will be an analytical tool used for the determination of suitability or non-suitability of the WSAs for wilderness designation. Public hearings will be held at various locations during the 90-day public comment period on the draft EIS. The draft EIS is scheduled to be completed in 1984. The process will result in the recommendations by the Secretary of the Interior to the President as to which areas or portions of areas should be designated as wilderness. The final decision as to whether the WSAs should be designated components of the National Wilderness Preservation System will be made by Congress.

The public scoping meetings will be held as follows:

- January 4, 1983, Halfway, Oregon; High School Library, 7:30 p.m.
- January 5, 1983, Canyon City, Oregon; Grant County Courthouse, 7:00 p.m.
- January 5, 1983, Baker, Oregon; County Extension Building, 7:30 p.m.
- January 5, 1983, Condon, Oregon, County Courthouse, 7:00 p.m.
- January 6, 1983, Grass Valley, Oregon, Grade School, 8th Grade Room, 7:00 p.m.
- January 6, 1983, Lakeview, Oregon; BLM District Office, 1000 S. 9th St., 7:30 p.m.
- January 6, 1983, Gold Beach, Oregon; Curry County Fairgrounds, 2:00 - 7:00 p.m.
- January 6, 1983, Medford, Oregon; BLM District Office, 3040 Biddle Road, 7:00 p.m.
- January 11, 1983, Klamath Falls, Klamath County Library, 7:30 p.m.
- January 11, 1983, Ontario, Oregon; Treasure Valley Community College, Weise Building, Room 10, 7:30 p.m.
- January 12, 1983, Burns, Oregon; Harney County Museum Club Room, 7:00 p.m.
- January 13, 1983, Bend, Oregon; River House Motel, 3075 N.W. Highway 97, Mount Bachelor Room, 7:00 p.m.
- January 18, 1983, Portland, Oregon; Bonneville Power Administration Auditorium, 1002 N.E. Holladay St., 7:30 p.m.
- January 19, 1983; Eugene, Oregon; Lane County Courthouse, Harris Hall, 7:30 p.m.

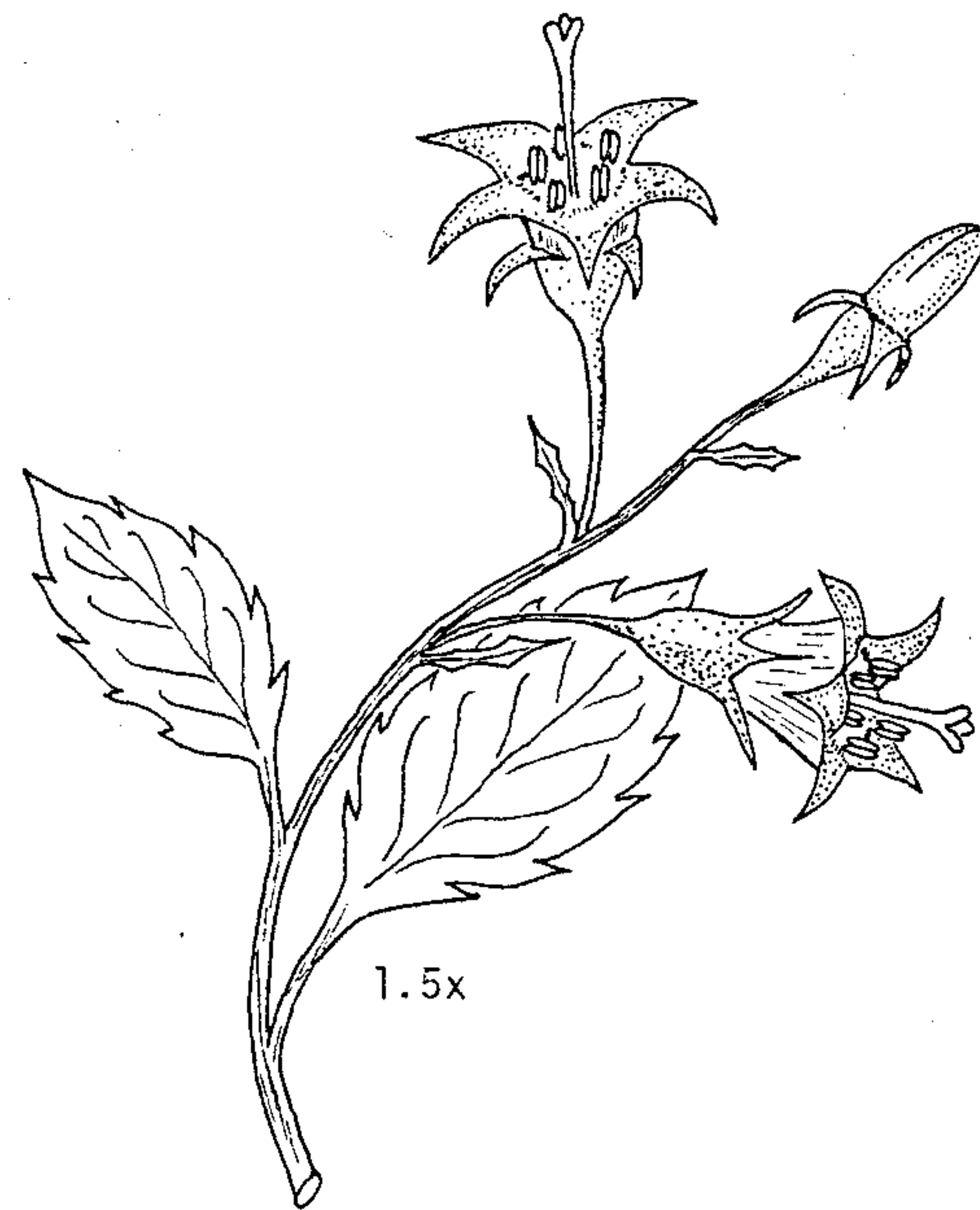
Suggestions on issues and alternatives to be addressed in the EIS may be presented at the public meetings or they may be sent to the Oregon State Office, Bureau of Lane Management (935), P.O. Box 2965, Portland, Oregon 97208. Suggestions should be submitted by February 4, 1983.

A complete list of study areas in Oregon is available at the Oregon State Office.

For further information, contact Gerry Fullerton or Don Geary at the above address, telephone 503-231-6951.

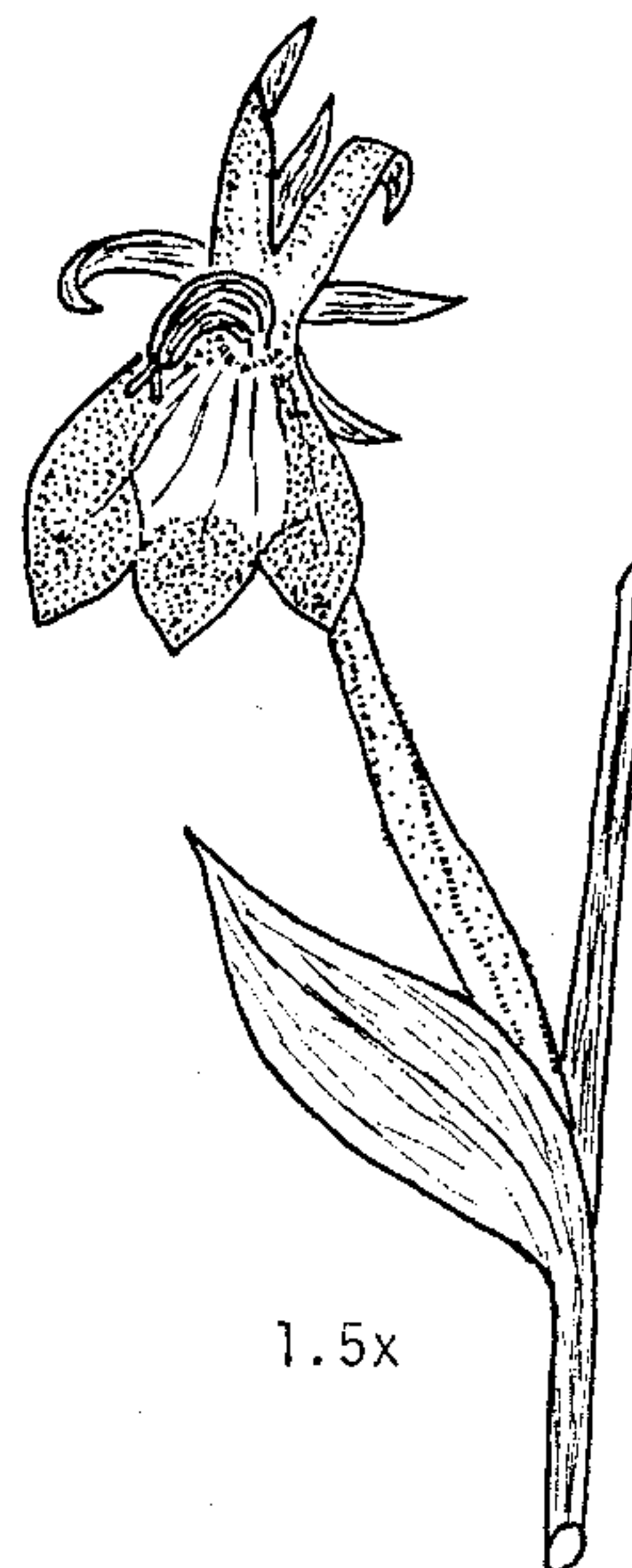
The Campanulaceae - BELLFLOWER FAMILY

The Bellflower, or Harebell, Family is a good-sized family with some 1800 species in about 65 genera spread throughout the world. The family at once can be seen to consist of two subfamilies: the Campanuloideae, mainly of north temperate and boreal distribution, but occurring in the tropics mostly at high elevations, and less abundant in the southern hemisphere; and the Lobelioideae, chiefly tropical and subtropical, and especially common in the Americas. Some authorities have divided the family into Campanulaceae and Lobeliaceae respectively, but their characteristics in common exceed their few differences (discussed below). The family is represented in Oregon by nineteen species in nine genera: Of the Campanuloid group, the Bellflowers, Harebells, or Blue-bells of Scotland (*Campanula*) are represented by four native species in a variety of habitats from open to dense woods at medium elevations to higher elevation, even alpine, rock outcrops and talus slopes; Bluecup (*Githopsis specularioides*) in dry open ground from the valleys and foothills to medium elevation ridges and outcroppings, mainly west of the Cascade Crest; Heterocodon (*Heterocodon rariflorum*) in moist, open places or mossy seeps and wet banks from foothills to lower elevations in the mountains; and two species of Venus' Looking-glass (*Triodanis*) on open grassy hillsides or disturbed sites at lower elevations. The Lobelioid group is represented by six species of Downingia (*Downingia*) in vernal pools, wet meadows (often alkaline), or at the edges of ponds; Porterella (*Porterella carnosula*) in wet meadows and in mud about ponds of southeastern Oregon; the Water Lobelia (*Lobelia dortmanna*) in shallow water at margins of lakes, ponds or streams or bogs and springy places (known from a single collection in Oregon along the Metolius River; it is more abundant north to British Columbia and thence eastward); Howellia (*Howellia aquatilis*), a small, rather endangered aquatic of ponds and lakes near the mouth of the Willamette River, Sauvie Island, currently known from only two sites in Oregon (one near Salem, the other near Mosier); and two species of Nemacladus (*Nemacladus*), small, diffusely-branched annuals of dry slopes in southernmost Oregon.



A sprig of Bellflower, or Blue-bells of Scotland (*Campanula scouleri*). Note the herbaceous habit, simple, alternate leaves, united corolla inserted at junction of calyx limb and tube, inferior ovary, five alternate, separate stamens and simple style with three stigmatic lobes. This represents the Campanuloideae.

Members of this family are herbs (ours) with simple alternate leaves, occasionally with milky juice (latex). Elsewhere in the world, some are shrubs and a few even trees. The flowers, often large and showy, predominantly blue, are regular (zygomorphic in Lobelioideae) and bisexual, borne singly or in racemes or cymes. The calyx tube is united with the ovary and has five separate lobes. The petals are partly united ("sympetalous") and the corolla is inserted at the junction of the calyx tube with its lobes. Five stamens alternate with the corolla lobes, are inserted low upon the corolla, and are free from each other (filaments and anthers are united into a tube surrounding the style in Lobelioideae). The pistil consists of an inferior ovary (ours) of carpels 2 (Lobelioideae), 3 (Campanuloideae) or 5 (some *Campanula*), each with the same number of locules (chambers) and axile placentation (*Downingia* and *Howellia* are unusual in having a unilocular ovary with 2 parietal placentae). In all cases the ovary contains a large number of ovules and bears a simple style with the number of stigmatic lobes equal to the number of carpels. The fruit is a capsule dehiscing (splitting open) laterally or on top, containing numerous small seeds.



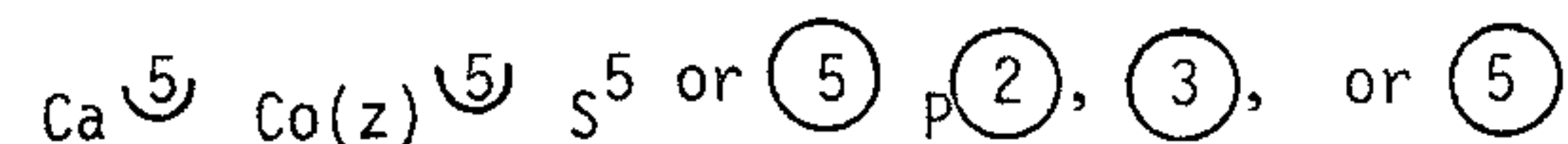
A single flower of Showy Downingia (*Downingia elegans*) taken from a leafy bracteate raceme. Note the axillary position of the flower, the inferior, stalk-like and half-twisted ovary, the bilabiate, united corolla, and connate anthers forming a rigid, curved tube around the style. The bilobed stigma is just protruding. This represents the Lobelioideae.

In both subfamilies, an interesting mechanism at flowering time (anthesis) helps to ensure cross-pollination, which in turn tends to maintain vigorous, variable populations responsive to environmental changes. Simply, the flowers are "protandrous," or the anthers, the male part, mature first, before the pistil, the female part, becomes receptive to pollen. In fact the pollen is shed upon the style (the stigma lobes are closed at the time) while the flower is still in the bud. The style is sticky or hairy to hold the pollen. The stamens wilt quickly as the corolla opens, and after a few days most of the pollen is carried off by insects. Then the stigma lobes unfold and become receptive to pollen being carried by insects to them from other flowers still in the male stage. A slight variation on this theme occurs in Lobelioideae as the style pushes through the cylinder of connate anthers, pushing the shed pollen ahead as a snowplow pushes snow. Both methods foster effective cross-pollination. But since self-pollination is better than no pollination at all, in some cases the stigma lobes continue to coil spirally to touch the style below and pick up any remaining pollen - just in case cross-pollination had not effectively occurred.

The ancestral stock of the Campanulaceae seems to have provided the substance for the development of the huge (and successful!) Composite or Sunflower Family - there are a number of close affinities to be found here: Head-like inflorescences appear in certain genera (*Jasione* and *Phyteuma*, not of Oregon); anthers are connate, especially in the Lobelioideae; the protandrous condition favoring outcrossing; the presence of latex or milky sap; and the presence of inulin, a peculiar polysaccharide found in some members of the Campanulaceae and Compositae. The latter is interesting as a biochemical character common to the families (some may know that this substance, a relative to sugars and starch, is quite concentrated in tubers of Jerusalem Artichoke of Compositae, and easily managed metabolically by diabetics). Indeed, when one ponders the form and structure of a flower of Bluecup, it is easy to see, with little change, the typical tube flower (disc flower) of the giant sunflower head!

The family is known economically for its cultivated Bellflowers (*Campanula*), Pendulous Bellflowers (*Symphyandra*), and Balloon Flower (*Platycodon*). The genus *Lobelia* has ornamental value due to the long period of flowering, several species being used for bedding and herbaceous border.

The generalized floral formula for the Campanulaceae may be expressed:



with an inferior ovary. You may feel certain, then, that when you find an herbaceous plant with simple alternate leaves, and 5-parted, regular bell-like or irregular bilabiate flowers, mostly blue, having an inferior ovary of 2 to 5 carpels, you have found a member of the Campanulaceae - the BELLFLOWER FAMILY.

SPECIES RANGES, or, IT AIN'T NECESSARILY SO

How dependable are the species ranges listed in botanical manuals? Sometimes, not very, shown by what has been happening near Eugene.

Three years ago John Christy, Margaret Markley and Charlene Simpson, all of the NPS, came across an unfamiliar Penstemon in the Cascade foothills south of Cottage Grove. The closest thing to it, in Hitchcock, was P. ovatus which grows only in the Sandy River-Columbia Gorge region. We doubted, but never had time to search for the plants.

This year, at the July meeting of the Emerald Chapter, Malcolm and Juanita Manley brought in a stalk of Penstemon from the Coburg Hills, ten miles northeast of Eugene. No Penstemon is supposed to grow that close to the Willamette Valley, and only P. serrulatus occurs nearby, in the Coast Range and Cascade foothills above 1500 feet. In addition, this Penstemon was unlike any other we have seen, its banner-like staminate node waving out beyond its lower lip. According to the Manleys, they had found plants of it in the same area (3000 feet up, near the boundary of Lane and Linn counties) fifteen years earlier, but no one had believed them.

Harold Dunn agreed to search the back roads in the Coburgs, near his home, with us. We finally found several clumps on an overgrown woods road, with one stalk still in bloom: dark green basal rosette, purple flowers, banner waving. But what was it? Harold said that the flower looked like the odd Penstemon that Alan Curtis, Charlene Simpson and he had located a week earlier at Elk Meadow (4000 feet up, south of Cottage Grove near the boundary of Douglas County). A phone call to Alan Curtis revealed that Charlene Simpson had identified the Elk

Meadow plant, from Abrams. Ours was the same, P. rattanii. Its range? Coast Mountains from Monterey County, California, to the southern edge of Lane County, Oregon. Here it was growing a hundred miles to the northeast.

Our flower stalk, along with seed heads we collected later beside a nearby road, went to Dave Wagner for the University of Oregon Herbarium. Fascinated, he looked through all his P. rattanii specimens, and found two more surprises. The species had been collected years before on Mary's Peak near Corvallis (Coast Mountains, but 100 miles north of range) and along Quartz Creek in the McKenzie drainage (fifty miles farther into the Cascades beyond the Coburgs).

Dave also noticed that the new seed capsules varied from what is shown in the manuals. Supposedly P. rattanii has attenuate sepals the same length as the capsule, while P. rattanii ssp. kleei (found in the Santa Cruz Mountains of California) is distinguished by oblong sepals exceeded by the capsules. Here, in the Coburg specimens, capsules and sepals from different plants, or even at different nodes of the same stalk, varied from equal to unequal. This suggests that the characteristic may sometimes be environmentally determined rather than genetic.

Warning! NPS members are hereby alerted to watch out for P. rattanii. It may have been hiding in our woods for thousands of years; it may be advancing its range now. But if you see a Penstemon with a big banner tongue, let us know. And . . . do not always believe the ranges given in manuals!

Kenneth and Robin Lodewick
Eugene Chapter

NATIVE PLANT SOCIETY OF OREGON MEMBERSHIP FORM

CHAPTER (if known) _____

NAME _____

ADDRESS _____ PHONE _____

CITY _____ STATE _____ ZIP _____

IS THIS A CHANGE OF ADDRESS?

if so please write your:

OLD ADDRESS _____

CITY _____ STATE _____ ZIP _____

*DUES. Dues include monthly news bulletin. Full membership runs from January through December. Quarter membership runs from September through December.

[] New [] Renewal [] 1/4 Membership (\$2.50)

[] Student.....\$ 7.50

[] Regular..... 10.00

[] Family Membership..... 15.00

[] Sustaining.....\$ 25.00

[] Patron..... 100.00

[] Life Member..... 500.00

*CONTRIBUTIONS,

Jean Davis Memorial Award Fund.....\$ _____

Rare and Endangered Plant Fund.....\$ _____

General.....\$ _____

*Remember, all contributions to the Native Plant Society of Oregon, a non-profit organization, are tax deductible. Please make checks for dues and contributions payable to NATIVE PLANT SOCIETY OF OREGON. Send completed form and full remittance to NPSO Treasurer, Nadine Smith, 1128 Jackson, Eugene OR 97402.



Non Profit Org.
U.S. Postage
PAID
Eugene OR 97401
Permit No. 437

The Editor
Native Plant Society of Oregon
Department of Biology
University of Oregon
Eugene, Oregon 97403

The NPSO Bulletin is published monthly by the Native Plant Society of Oregon incorporated under the laws of the state of Oregon. You are invited to join. Membership includes Bulletin subscription. Use the form provided by local chapters for membership applications or change of address; chapter presidents with addresses and phone numbers are listed below. Send forms to: Mary Falconer; Membership Chair; 1920 Engel Ave. NW; Salem OR 97304.

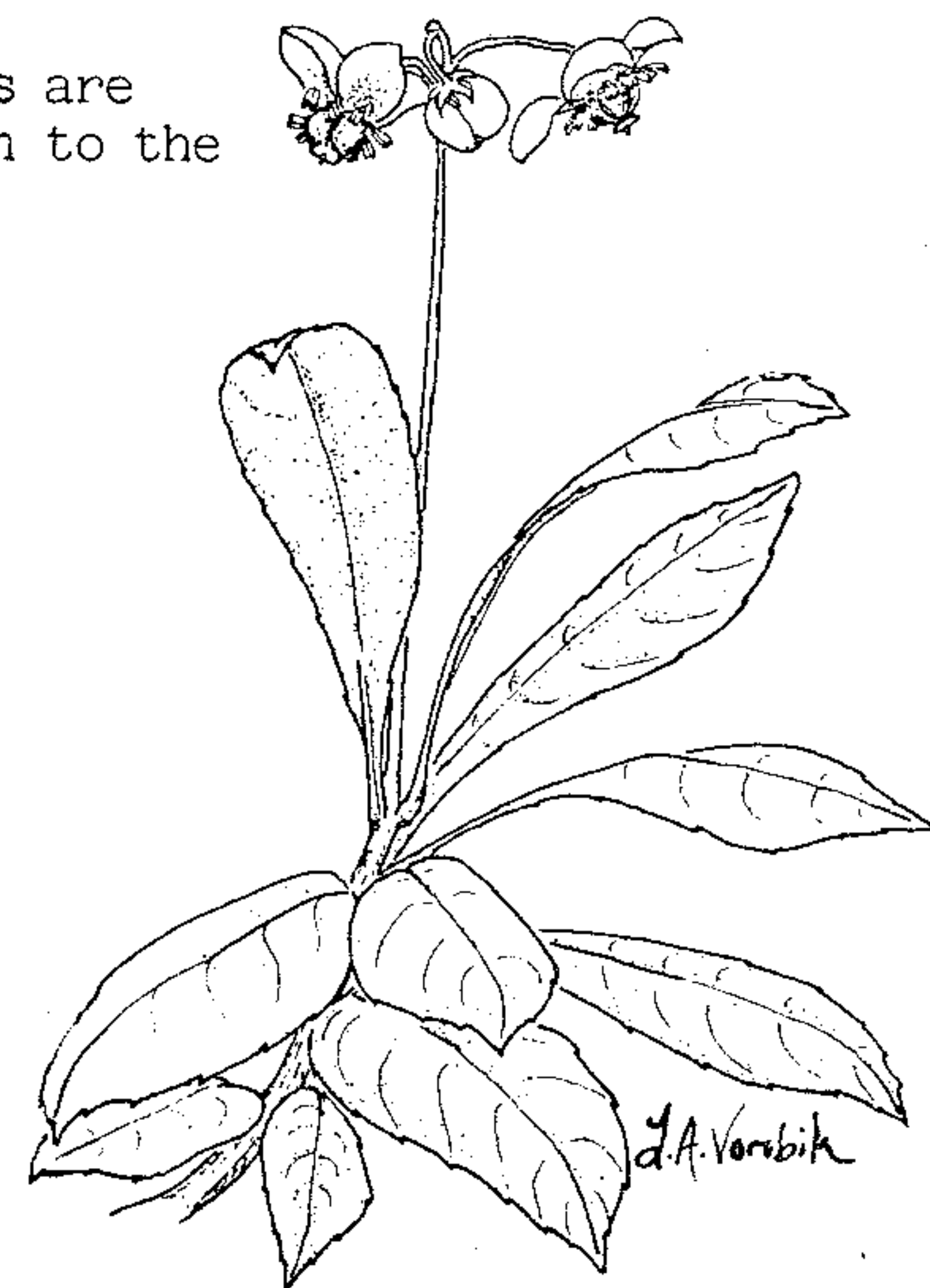
Contributions to the NPSO Bulletin or non-delivery notice should be sent to the editor. Others are welcome to use material from the NPSO Bulletin. Courtesy pleads, however, that credit be given to the author and to the Bulletin. Copy deadline is the 15th of each month.

NATIVE PLANT SOCIETY OF OREGON

President: Rhoda Love, 393 FulVue Dr., Eugene OR 97405, 345-6241.
Vice President: Anne E. Kowalishen, 4949 NE 34th, Portland OR 97212, 288-2736.
Secretary: Paula Vincent, 1836 Manzanita, Klamath Falls OR 97601, 882-9630.
Treasurer: Nadine Smith, 1128 Jackson, Eugene OR 97402, 344-6478.
Board of Directors: Wilbur Bluhm, Florence Ebeling, Marge Ettinger, Cynthia Roberts, Larry Scofield, and Veva Stansell.
NPSO Bulletin Editor: Linda Ann Vorobik, Department of Biology, University of Oregon, Eugene OR 97403, 686-3033.

CHAPTER PRESIDENTS

Blue Mountain: Harry Oswald, Box 459, Pendleton OR 97801, 276-2292.
Corvallis: Esther McEvoy, 3290 SW Willamette, Corvallis OR 97333, 754-0893.
Emerald: Charlene Simpson, 2455 Alder St., Eugene OR 97405, 686-1094.
High Desert: Kathleen Cooper, 61548 Oakwood Place, Bend OR 97702
Mid-Columbia: Keith Chamberlain, Box 151, Mosier OR 97040, 478-3314.
Portland: Virginia Diegel, 16415 NW Brugger Rd., Portland OR 97229, 645-1344.
Siskiyou: Darlene Southworth, 496 Beach St., Ashland OR 97520, 482-6341.
Willamette Valley: George Schoppert, 11265 Phantom Ln. SE, Stayton OR 97383, 859-2613.



Chimophila
menziesii

little prince's pine