

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. 2

FEBRUARY 1983

FOUND: NEW EDITOR! see BOARD MEETING HIGHLIGHTS - p.2

ANNUAL MEETING - MARK YOUR CALENDAR

TIME: May 14-15
PLACE: EUGENE

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.

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 are available from your local chapter.

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 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!

VOTING TIME AGAIN: WATCH FOR BALLOT & QUESTIONNAIRE IN MARCH BULLETIN

It is time again to cast your ballot for state officers and board members. Resumes for nominees follows; ballots will be included in your March Bulletin.

Included with the ballot will be a questionnaire. Last year's questionnaire was a very useful survey of the membership's feelings about content of the Bulletin. Since a new editor is coming on board, it is very important that you use this opportunity to communicate to her what you do and do not like to see in the Bulletin. Your thoughtful comments and ideas are appreciated.

NPSO NOMINEES FOR 1983-84. RESUMES

President: Dr. Rhoda Love. Emerald Chapter member and NPSO member for years before the Emerald Chapter was formed. President, NPSO, 1982. She studied at the U. of Washington, where she received B.S. and M.S. degrees, and at the U. of Oregon, where she received a Ph.D. in Biology. Her graduate work was on hybridization between and insect predation on native and introduced species of Crataegus (hawthorn). She has taught botany at all levels from Junior High through University, most recently at Lane Community College for 7 years. Her special interest is to see state legislation passed to protect our R. & E. species.

Vice-President: Wilbur Bluhm. Willamette Valley Chapter, being one of the original organizers. He is Horticulturalist and staff chairman, Marion County office of OSU Extension Service. A frequent NPSO field trip leader, active in rare plant work, a photographer whose slides have been seen at both local and state NPSO meetings.

Secretary: Linda Johnson. Emerald Chapter member from its inception, Vice-President for three years. Works with Springfield Community Schools, L.C.C. Adult Education, and WISTEC Science Center; teaches elementary science and adult wildflower identification. Currently involved as chairperson for Mt. Pisgah Arboretum educational program, and as a student finishing a degree in Environmental Education. Long time wildflower admirer and amateur photographer.

Treasurer: Nadine Smith. 1982 Treasurer for NPSO, Amateur botanist in the Emerald Chapter, locally active in the Mt. Pisgah Arboretum.

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NOMINEES, continued

Board of Directors, At-Large Members:

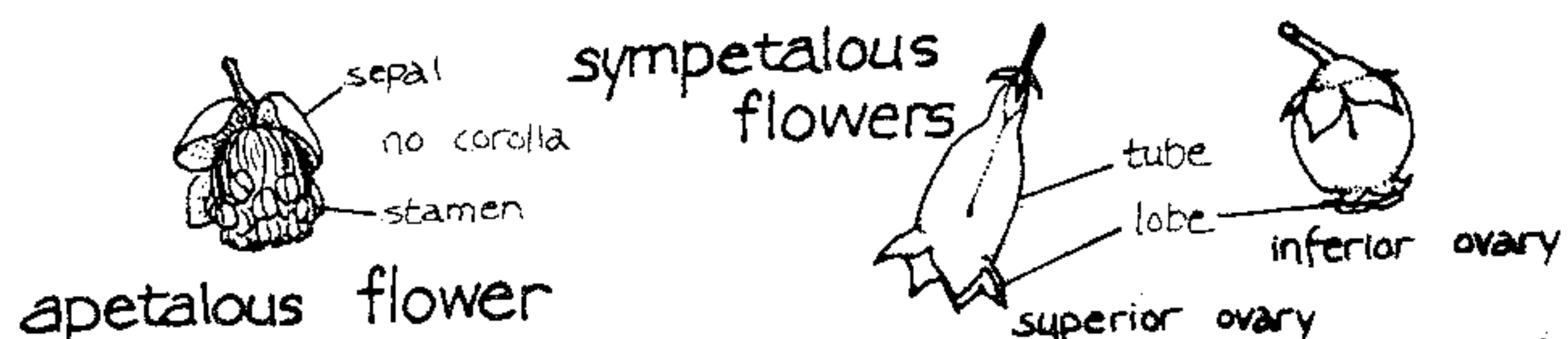
Virginia Crosby. Siskiyou Chapter, a professional botanist who has worked 5 years for the BLM in Lakeview, graduate of OSU with 2 years experience working for the Herbarium collecting, keying and mounting specimens. She is interested in alpine flora, ethnobotany and getting people interested in their native flora.

Alan B. Curtis. Emerald Chapter. Forester/botanist with the Eugene District, BLM. Responsible for plant inventory and protection of rare species and unusual botanical habitats. He has lead NPSO field trips and presented programs at local meetings. NPSO member since 1980.

Marge Ettinger. High Desert Chapter. Currently completing the Board position left vacant when Dr. Garrett was elected Chapter President. She has helped at COCC Herbarium for several years on a volunteer basis, collecting and photographing.

Shep Wilson. Portland Chapter. An amateur in botany, a past chapter president, perennial field trip chairman. He was president of General Metalcraft, Inc., Portland, before retirement.

Ronald Kranz. Siskiyou Chapter. B.S. in Biology and Geology from SOSC. Member of The Native Conservancy, Lower Table Rock Preservation Committee; Conservation Chairman, Siskiyou Chapter NPSO; surveyed plants of Agate Desert and prepared site analysis and conservation. Presented this to Jackson County Commissioners.



HIGHLIGHTS OF THE JANUARY 22 BOARD MEETING
OF THE NATIVE PLANT SOCIETY OF OREGON

Rhoda Love, President, called the meeting to order at 1:00 p.m. at the Oregon State Forestry Conference Room, 2600 State Street, Salem.

Present were: Rhoda Love, Annie Kowalashin, V.P., Nadine Smith, Treasurer, Mary Falconer, Linda Vorobik, Florence Ebeling, Charlene Simpson, Wilbur Bluhm, Jean Siddall, Rick Brown, Harold Dunn, George Schoppert, Martha Blau, Mariana Bornholdt, Marge Ettinger, Veva Stansell, Cynthia Roberts, Esther McEvoy, Virginia Diegel, Carolyn Wright, and Susan Kephart.

(We had a fine turnout. I was especially pleased to see a number of our regular members in attendance. Thank you, everyone, for coming and participating. And, thank you, George Schoppert, for arranging a most attractive and comfortable meeting room.)

The meeting opened with brief reports from 6 of our 8 chapters. Nadine Smith, treasurer, then reported that we have total current assets of approximately \$6,000. Mary Falconer, Membership Chairman, reported that as of January 10 the membership stood at 310 statewide. (We estimated that over 200 renewals will still come in before the March 1 deadline.)

Bulletin editor Linda Vorobik reported that the cost of producing and mailing the Bulletin is approximately \$160 per month. Annie Kowalashin reported that a 15-minute TV show on rare plants of the Willamette Valley was produced in Portland and shown on KOIN On January 15 and 16. We are taking steps to acquire a copy of the video tape. Jean Siddal, T & E Chairman, described ways in which NPSO chapters can assist in research and listing of Oregon's Rare, Threatened and Endangered plants. Rick Brown's Legislative Report appears elsewhere in this month's Bulletin.

It was decided to computerize our membership roster this spring after renewals are complete. Viva Stansell displayed samples of wildflower posters produced by the California Native Plant Society and by the Mountaineers of Seattle, Washington. We still hope to produce an educational poster for Oregon, and we will gather more information to present at the Annual Meeting in Eugene May 14 and 15.

Rhoda Love reported that 1,000 packets of notecards were printed at a total cost of \$733.81. This breaks down to a cost of approximately 9¢ per card and 73¢ per packet. For each packet sold at \$2.50, \$1.77 will go toward research and protection of Oregon's threatened and endangered plants.

(If each member buys 2 packets--one to use and one to give--we will realize \$1,766 for this worthy cause.)

Virginia Diegel and volunteers from Portland Chapter will handle statewide distribution of the notecards. Chapters should order cards in lots of 20 packets for \$40.00. Chapter Treasurers: Send your orders and checks to Virginia Diegel at 16415 NW Brugger Rd., Portland, Oregon 97229.

A new Bulletin editor has been found. She is Julie R. Kierstead of Troutdale (Portland Chapter). Rhoda Love appointed Julie editor to succeed Linda Vorobik when Linda gives up the post next June. Julie's biography will appear in a subsequent Bulletin. (Spontaneous applause indicated the Board's appreciation to Linda for her splendid work.)

The annual Meeting will held on May 14 and 15 in Eugene, Oregon, with Emerald Chapter hosting. This date was chosen to coincide with the Mount Pisgah Arboretum's Wildflower Show which will feature over 200 species of Lane County wildflowers. More details in the March Bulletin.

Notecards were distributed following adjournment.

Rhoda Love
President

This year marks the tenth anniversary of the national Endangered Species Act (ESA), and last year's successful effort to protect the ESA from weakening amendments shows that public support is still strong. As important as the ESA is, however, it cannot do all that is needed if we are to preserve the remarkable natural diversity found in Oregon. Not only is the listing process often painfully slow, but because of the national/international focus of the ESA, many of Oregon's endangered flora and fauna could become extinct in the state without ever being considered by the U.S. Fish and Wildlife Service. State endangered species legislation would not only provide additional protection for species of state concern, but through cooperative agreements, could provide for more effective implementation of the ESA.

Long-time members of NPSO will be well aware that this is the third legislative session that we have pursued the prospects for state endangered species legislation. Previous work by Ann Whitmyer and her committees has laid an excellent groundwork for current efforts, and it appears that real progress is being made. Several environmental groups have expressed a strong interest and have been participating in discussions on what form the legislation should take. While there are still details to be worked out, it seems very likely that a bill will be introduced this session, covering both plants and animals. If you agree that the time has come for a state endangered species act, I encourage you to contact your State Representative and Senator and let them know of your interest. For additional information, contact:

Rick Brown, Portland Chapter
3425 S.W. 12th Avenue
Portland, 97201
222-1146

CHAPTER NEWS

PORTLAND CHAPTER

Meeting:

Wednesday, February 23, 7:00 p.m., Central Library, 801 SW 10th, Portland. Sharon Blair, naturalist for Bonneville Power, will describe the edible plants of Spring.

Saturday Workshops, all meet 10:15 a.m. in Room E, Central Library.

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.

Programs:

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

March 10, Thursday, 7:30 p.m., Room 171, Science Building, SOSC. Carousel Luck Slide Show! Everyone's chance to bring your own favorite slides for all to see. Margaret Holman from Ashland Ranger District will also be there to do a short presentation and make a proposal to our chapter about Wagner Butte. For those bringing slides, please limit to 10 per individual.

VOLUNTEER RECRUITMENT FOR THE SWEET HOME RANGER DISTRICT

The Sweet Home Ranger District is recruiting interested people as volunteers for 1983.

The Volunteer Program on the District has been very successful in the past. We have a number of areas that need volunteers. These include Archeology, Recreation (trails, campground hosts), Reforestation (tree planting, exams, etc.), Fire, Business Management, Timber Sales, Presale and Plans.

If someone is interested in something other than above mentioned, please give us a call. Our hours are 7:45 a.m. to 4:30 p.m.

The District will pay 20 cents a mile to and from your home. For more information please contact Wendy Carson or Terri Ego. Our number is (503) 367-5168.

SECOND ANNUAL DEATH VALLEY GREAT BASIN DESERT ADAPTATIONS TRIP April 8 to 17

Travel through the land of the Northern Paiute, and Great Basin Desert and discover the adaptations of prehistoric and present day residents.

View unique plants, animals and geology of the area.

Explore the history of ghost towns in the Great Basin Desert.

Fireside Series: March 20, 2-4 P.M.

A special slide-lecture program will be presented for persons who want to learn more about the Great Basin Desert. A film on Death Valley will be shown.

The meeting will be in the Fireside Room in Riley Hall on Linfield College Campus.

This program will also serve as an orientation session for program participants.

Information:

For more information or to register, please call Continuing Education, Linfield College, 472-4121, ext. 269 or toll-free in Oregon 1-800-452-4176, or Lucile Housley 472-6608.

CORVALLIS CHAPTER

Meeting:

Thursday, February 17, 7:30 p.m. Rare Plants of the Siskiyou Mountains. Jacqueline Greenleaf will show us slides and discuss the unique flora or an area that she has worked in for years.

EMERALD CHAPTER

Meetings:

Monday, February 7, 7:15 p.m., American Red Cross Building, 150 E. 18th, Eugene. Business: Election of Officers. Program: Chris Lunski, long time member of NPSO, Emerald Chapter, will share with us his most recent version of an award winning multi-image program, "Willamette Trails III." The images draw from a variety of scenes and flora in 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.

Monday, March 7, 7:15 p.m. American Red Cross Building, 150 E. 18th, Eugene. Steve Gordon, land use planner with the Lane Council of Governments, will make a presentation on the Willow Creek Natural Area. Steve is familiar with the unique land use planning history of this site which led to its protection as a natural resource area. He will explain the role of his agency, the City of Eugene, Lane County, LCDC, the Nature Conservancy, the property owners, and several citizen groups had in balancing urban needs and natural values. Future planning for the site will also be discussed. Slides, maps, and aerial photographs will assist our understanding of the planning history and the natural values of this site.

Events:

Congratulations to Linda Vorobik and her assistant, Mary O'Brien, both of the Emerald Chapter, for leading a very successful Plant Illustration Workshop attended by 23 participants!

Annual Meeting:

The Emerald Chapter invites NPSO members, family and friends to attend the annual meeting of the Society to be held in Eugene, May 14-15. Mark your calendars. Details to follow in later Bulletins.

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' interest 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 number at 686-4502, or drop her a line: Dept. of Biology, University of Oregon, Eugene 97403.

NOTICE TO FRIENDS OF THE NORTH FORK AND WALDO LAKE

MASON WILLIAMS CONCERT: BENEFIT FOR OREGON STATE SCENIC WATERWAY BILL FOR THE NORTH FORK AND WALDO LAKE.

Mason Williams and friends will present "Of Time and Rivers Flowing" at the Soreng Theater of the Eugene Hult Center for the Performing Arts, March 19 and 20. The concert program of music and visual images is a benefit for the North Fork-Waldo Lake and the McKenzie Flyfishers conservation fund.

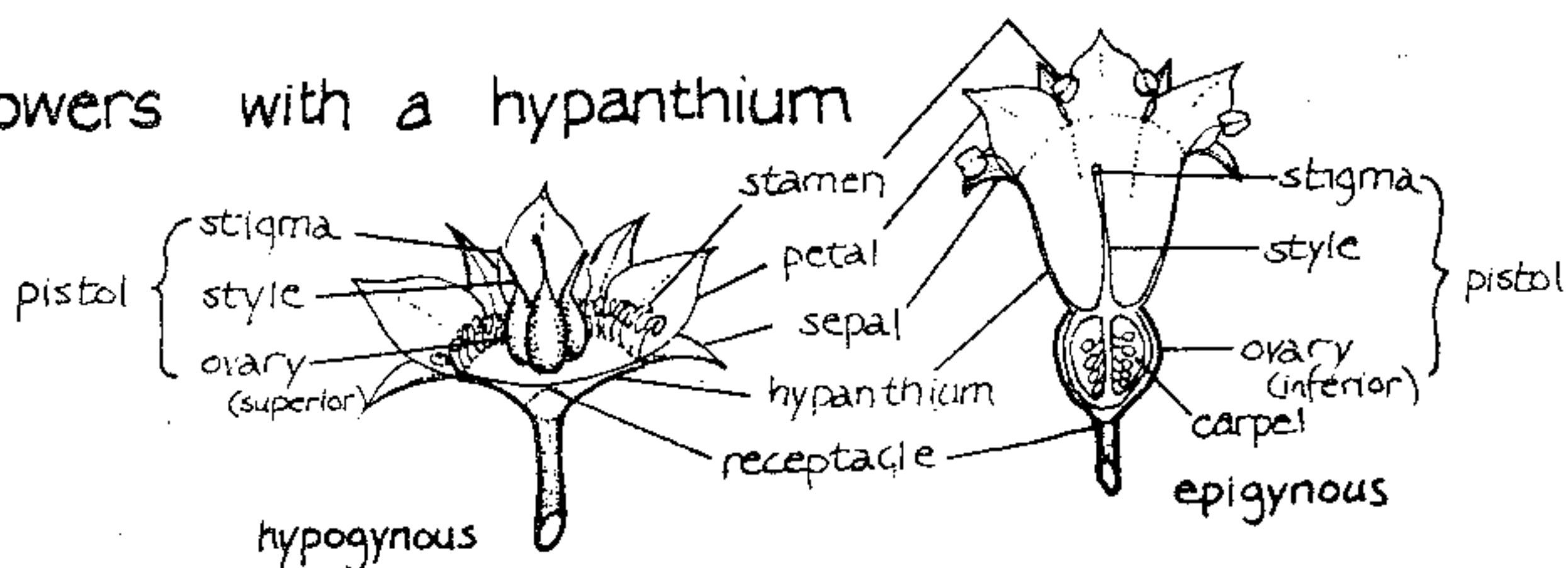
The concert is a celebration of free-flowing rivers and will support a bill before the Oregon State Legislature to designate the North Fork of the Middle Fork of the Willamette River and its source, Waldo Lake, as a State Scenic Waterway.

"Of time and Rivers Flowing" will be performed on Saturday and Sunday (March 19-20) evenings at 7:30 in the Soreng Theater of the Hult Center. There will be a no-host reception after each performance to meet Mason Williams and to talk about the North Fork-Waldo bill.

Tickets are \$8.75 and are available in person at the Oregon Bank, 10th and Lincoln Branch, 275 W. 10th, Eugene, OR 97401. Mail orders should be sent to Bob Karau at the above address, and should include a check and a self-addressed, stamped envelope. If tickets still remain after February 25--and don't count on that--they may be purchased from the Hult Center box office. Questions about tickets should be addressed to Bob Karau at 484-5763. For further information about the concert, call Jim Williams at 686-4331.

Flowers

flowers with a hypanthium



One of the functions of our NPSO President, Rhoda Love, is to correspond with our public officials about issues that affect Oregon's native flora. Printed here are two letters concerning the use of Pierce and Ives Islands for spoils dumping (see December 1982 Bulletin, p. 6-7, for details), and one letter responding to Rhoda Love's phone call which expressed support of the Oregon Wilderness Act of 1982. Also note the GOOD NEWS concerning Rock Mesa (lower right corner).

Engineering Planning
Army Corps of Engineers December 8, 1982
P.O. Box 2946
Portland, OR 97208

Dear Mr. Keough:

The Native Plant Society of Oregon with over 600 members statewide wishes to go on record as strongly opposed to the use of Pierce or Ives Islands in the Columbia River for the depositing of spoils from the proposed construction of new navigation locks at Bonneville Dam.

We know that the Washington State Department of Game has protested the use of these islands for spoils because of the resulting deleterious effects on wildlife habitat. We joint them in raising this objection and in addition we wish to call attention to the unique native plant habitats which would be destroyed or altered by spoils dumping. These islands support plant communities which have disappeared from the remainder of the Columbia Basin and which represent remnants of the river bottom communities which were present in 1805 when Lewis and Clark passed by them.

Especially serious from our point of view would be the threat to three extremely rare and endangered higher plant species endemic to the islands: Artemisia lindleyana, Artemisia campestris, and Rorippa columbiae.

We strongly urge that alternative, less sensitive disposal sites be found for spoils and that Pierce and Ives Islands be left in their present undisturbed state.

Yours sincerely,
Dr. Rhoda M. Love, President
Native Plant Society of Oregon

Dear Dr. Love: December 20, 1982

Thank you for sending me a copy of your letter to the Corps of Engineers regarding the disposal of spoils from construction of a new lock at Bonneville Dam.

It is essential to the future economy of our region that we move ahead with construction of the new lock. However, I believe that while the engineering and design effort is moving forward, alternative spoils disposal sites should be given consideration. I have been in touch with the Corps about this matter and understand that this is the case.

I appreciate knowing of your views on this matter and am sure that your letter will be useful to the Corps as this issue is reviewed.

Kind regards.

Sincerely,

Mark O. Hatfield
United States Senator

[Note. To date this amendment has passed both the house and the senate and has been signed by the President. The ultimate response of U.S. Pumice to the proposed purchase of Rock Mesa is not yet known.]

Dear Dr. Love:

Thank you for expressing your support for the Oregon Wilderness Act of 1982.

As you may know by now, on December 15th, the bill fell 12 votes short of a two-thirds majority needed for passage in the House.

Although this dashes hopes for a wilderness bill this year, I am hopeful we can get definitive action on this issue early in the 98th Congress. Quick action will not only provide protection of our pristine resources, it will also provide certainty for the multiple-use management and planning process in our state.

The Oregon Wilderness Act of 1982, as introduced by Congressmen Les AuCoin, Jim Weaver and me on December 1 of this year, includes all of the wilderness areas proposed in Senator Hatfield's S 2031, which was passed by the Senate in the 96th Congress. But it also increases acreage in certain cases and proposes additional wilderness areas that we feel are deserving of permanent protection in their natural state.

In total, this bill provides wilderness protection for an additional one million acres in Oregon.

The bill is the culmination of much hard work by citizens such as yourself who share my concern for enhancement of Oregon's recreational opportunities and protection of our pristine natural areas.

Thank you again for taking time to share your thoughts with me. If I can ever be of personal assistance to you in any way, please don't hesitate to contact me. It would be a pleasure to serve.

With warm regards,

Sincerely,

Ron Wyden
Member of Congress

AUCOIN AMENDMENT TO SAVE ROCK MESA APPROVED BY
SUBCOMMITTEE

An amendment to acquire and preserve Rock Mesa near Bend as a wilderness area was recently issued unanimously by a House appropriations subcommittee.

The amendment offered by Oregon Congressman Les AuCoin (D-1st) earmarks \$2 million from the federal Land and Water Conservation Fund to purchase 670 acres of Rock Mesa in the heart of the Three Sisters Wilderness Area. If this land is indeed purchased from the United States Pumice Company, holder of many mining claims in the area, a 10-year controversy over proposed mining in Rock Mesa will be ended.

"To allow mining of Rock Mesa to go forward would have resulted in degradation of the Three Sisters Wilderness, one of the nation's most scenic wilderness preserves, and would be a violation of the spirit, if not the letter, of the National Wilderness Act," said AuCoin.

According to AuCoin, U.S. Pumice has indicated willingness to sell its existing claims for \$2 million.

PUBLICATION OF INTEREST

Standardized Plant Names was prepared by the Editorial Committee of the American Joint Committee on Horticultural Nomenclature. It was first prepared in 1917 and published in 1923. The second edition, which I consulted, was revised and published in 1942. At that time the Editorial Committee consisted of Harlan P. Kelsey and William A. Dayton.

Standardized Plant Names includes the names of plants from all over the world that are used in horticulture in the U.S.A. That includes all the horticultural varieties known at the time of compilation. The "list" has 667 pages, each of which has 3 columns of plant names. Each natural species and variety is listed twice, one under its scientific name and again under its common name. For example, lodgepole pine will appear under Pinus contorta latifolia and under pine, lodgepole. Varieties are given common names only.

Standardized Plant Names includes 63 special lists, some of which may be helpful to you. For example, cactus genera, drug plant names, fruit and edible nut names, lumber trade names, plant patents, poisonous plants, to name a few.

Standardized Plant Names, published by the J. Horace McFarland Co., Harrisburg, Pa., is probably out of print. It can be found at University libraries.

Lloyd Hayes
[from Colorado Native Plant Society Newsletter
Oct.-Dec, 1982, Volume 6, No. 4.]

THE RUSSIAN BEAR: "WHO'S BEEN PICKING MY WILD-
FLOWERS?" Endangered Plant Protection in the
USSR - by Rhoda Love

As all Bulletin readers know by now, the NPSO, with the help of other conservation groups in Oregon, will be introducing state legislation in 1983 in hopes of passing an Oregon Endangered Species Act to protect the threatened plants and animals of our state. (The Federal ESA was passed in 1973 and reauthorized with strengthening amendments in 1982.)

Some of you may be surprised to learn that the Russian people too are concerned about extinction of species in the USSR. A very interesting article in Science describes Russian efforts to protect plants and to educate the Soviet public. (See Elias, T.S., "Rare and Endangered Species of Plants--the Soviet Side", Science, Jan. 7, 1983, pp 19-23.) Dr. Elias, the author, is the Assistant Director of the New York Botanical Garden. He has made 7 trips to Russia in recent years. His paper is well worth reading.

I can summarize only a few highlights here:

Recent strong interest in preservation of endangered species began in the Soviet Union and in the U.S. in 1973 following the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The Soviet Union and the U.S. in 1973 were in comparable positions with regard to protection of endangered species: neither could list its own species in need of protection!

Since then, both countries have made important strides, but have used contrasting approaches. The first step in our country was passage of the Endangered Species Act (ESA). Then various

agencies and organizations (including Oregon's Jean Siddall, Kenton Chambers, Dave Wagner, NPSO, Fish & Wildlife Service, Forst Service, BLM) embarked on a program of listing and documenting plant species that might qualify for protection.

In contrast, the first step in the Soviet Union was the establishment of a mechanism to identify and document the endangered species. Lists were prepared and are now being evaluated. At the same time a program of public education began. Specialists in the Soviet Union hope that once a revised list of species is published, a national law to protect endangered species will be passed.

The article discusses at length the process still continuing in Russia to list its endangered species. There are an estimated 21,000 species of higher plants in Russia and about 2,000 are in need of constant monitoring and/or protective measures while perhaps 200 are in immediate danger of extinction. In the continental U.S. we have approximately 20,000 species with about 1200 considered threatened.

Especially impressive, from my point of view, has been the Soviet Government's efforts to educate the public with regard to protection of endangered plants. Government pamphlets, books, and posters have been prepared and instruction is given to school children at various levels.

One Russian poster is shown in Science and the reader can identify a number of plants: a water lily, several club mosses, a number of orchids, a Campanula, Myrica gale, a Sedum, a Delphinium, several lilies an Anemone or Ranunculus, and several others.

I have reproduced here part of one Soviet poster showing the Russian counterpart of Smokey Bear, seen with two companions, a rabbit and a hedgehog, agonizing over destroyed plant habitat.

Space prohibits me from writing more here, but isn't it good to know that the Great Russian Bear can take time from saber rattling to show concern for his country's rare and endangered flora? Can we do less?



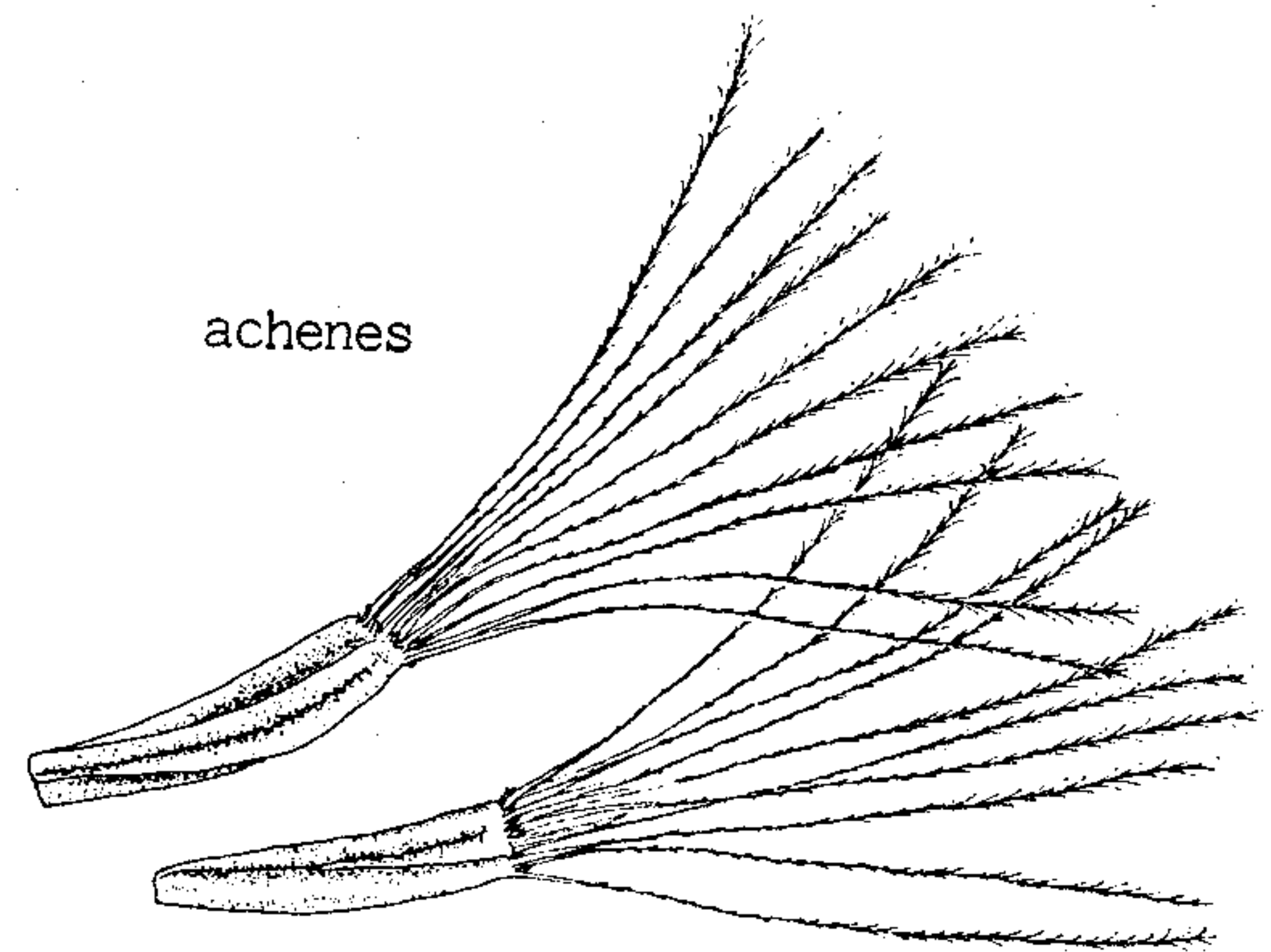
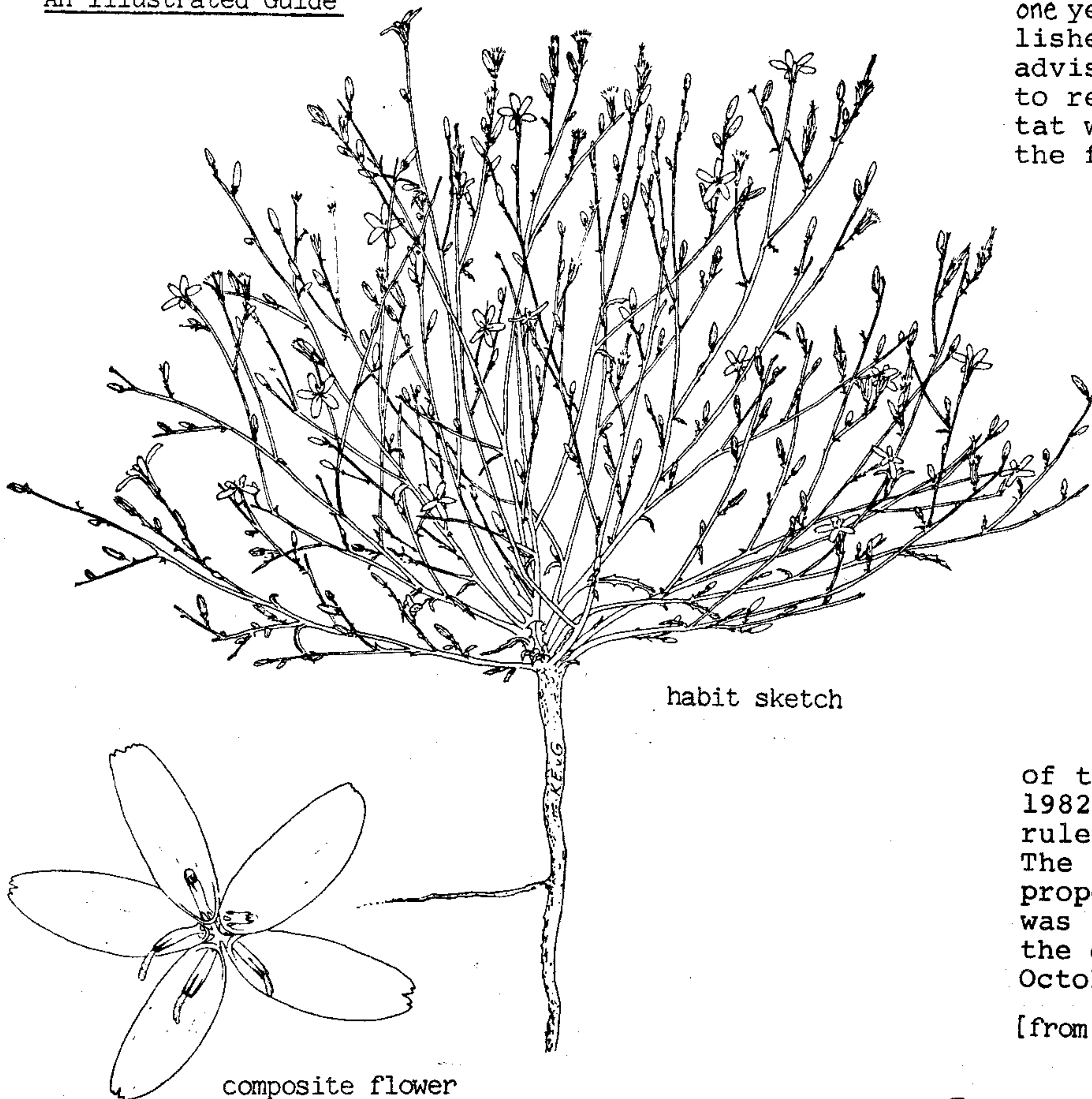
A rare southeastern Oregon plant, Stephanomeria malheurensis (Malheur wire-lettuce) was listed under the Acts as Endangered (F.R. 11/10/82). In addition, Critical Habitat has been determined for this species.

The single known population of the plant, found on 70 acres of Bureau of Land Management (BLM) land in Harney County near the Malheur National Wildlife Refuge, is vulnerable to any substantial habitat alteration. Recently established mining claims that include the habitat of S. malheurensis hold potential threat for the plant. However, the Anaconda Minerals Company, which holds mining rights in the entire Critical Habitat area, has indicated its willingness to cooperate with the Service to conserve the species. The company has further indicated that mining (for zeolites) in the habitat area is not imminent.

An immediate threat to the taxon^{is} competition from weedy grasses, especially the introduced cheat grass (Bromus tectorum) with which it competes for moisture in the spring when both species are in seeding stage. Cheat grass invaded the area following a controlled burning in 1972 which accidentally swept the habitat area. Grazing by small herbivores, presumed to be blacktailed jack-rabbits (Lepus californicus) is also detrimental to the wire-lettuce.

In 1974, the BLM established a 160-acre Scientific Study Area that includes the habitat area. The study area has been completely fenced, preventing grazing of the species by livestock. The BLM has also monitored the status of S. malheurensis.

Stephanomeria malheurensis
illustration by Kate van Gelder
from Meinke, Threatened and
Endangered Vascular Plants of Oregon:
An Illustrated Guide



S. Malheurensis is a member of the sunflower family (Asteraceae) and grows to 5 dm. tall. It has a basal rosette of leaves, a much branched stem with scale-like leaves, and numerous pink to white (rarely yellow-orange) flower heads. It is an annual species and the numbers of individual plants vary greatly from year to year depending on the amount of precipitation prior to and during the spring growing season. It flowers in July and August.

The first discovery of S. malheurensis was made in 1966, when seeds of this species were collected along with those from a population of the parental plant, S. exigua ssp. coronaria. Both taxa are found together, at the northern end of the range of the parental subspecies.

Studies by Dr. Leslie Gottlieb of the University of California, Davis, have demonstrated consistently distinguishable field characteristics, physiological differences, and reproductive isolation between these two taxa, thus recognizing S. malheurensis as a new species. It has been considered of significant scientific and educational value in understanding the processes of speciation, especially the sympatric evolution of a diploid species.

Regulatory History

This plant was first proposed by the Service for protection under the Act on June 16, 1976. Because the Endangered Species Act Amendments of 1978 required that all proposals over 2 years old be withdrawn, the Service published a notice of withdrawal that included this plant on December 10, 1978.

In August 1980 new field work was carried out at the site of the S. malheurensis. It was discovered that the exotic cheat grass had heavily invaded the area. Only fewer than several dozen wire-lettuce plants could be found after a diligent search. Previously as many as 750 individuals of S. malheurensis were estimated to have grown at the site in any one year. On October 31, 1980, the Service published a second proposed rule on the plant, advising sufficient new information was on file to repropose the Stephanomeria. Critical Habitat was also proposed on October 31, 1980, for the first time.

This listing took advantage of a provision of the Endangered Species Act Amendments of 1982, which extended the deadline for a final rule from October 31, 1982 to October 13, 1983. The 1982 Amendments state that all species in proposed status at the time the new legislation was signed are to be treated as if proposed on the date of enactment of these amendments, October 13, 1982

[from Endangered Species Bulletin, December 1982]

PLANT DIRECTORY IS OUT

A revised and expanded edition of the publication Sources of Native Seeds and Plants has just been released by the Soil Conservation Society of America.

Copies of the 36-page booklet are available for \$3 for SCSA, 7515 N.E. Ankeny Rd., Ankeny IA 50021-9764.

The new edition contains the names and addresses of nearly 300 growers and suppliers of native vegetation of 40 states and Canada. This represents about twice as many listings as in the previous edition.

The booklet is organized by states and includes an alphabetical listing of native plant sources.

ECOLOGICAL NOTES

Nature Can Be Deceptive - by A. R. Kruckeberg

(For this month's ecology column I am borrowing--with his permission--Art Kruckeberg's piece on pollination in wild ginger and coralroot orchid from the Fall, 1982 issue of Douglasia, the newsletter of the Washington Native Plant Society. Dr. Kruckeberg is currently the president of WNPS and editor of Douglasia. He is also a long-time friend of mine, as he was my first professor of biology when I entered the U. of Washington as a freshman in 1950! If you are interested in joining WNPS and receiving Douglasia, write to Dr. Kruckeberg c/o Botany Dept., U. of Washington, Seattle, WA 98195)

--Rhoda Love)

NATURE CAN BE DECEPTIVE

To us humans, a given contrivance of nature must have a consequent function. Surely a showy or otherwise specialized flower must be insect pollinated to achieve cross-breeding. But the cautious naturalist will not leap from perceived structure to inevitable function so readily. Two examples from our Pacific Northwest flora beautifully illustrate this apparent deceptiveness of nature. Seeing is not believing, or - things are not always as they seem to be. In both instances, with wild ginger and coralroot orchid, the expectation has been that their specialized flowers surely must be visited by insects which ensure the plants' hybrid vigor through outcrossing. Yet in both cases, self-pollination is the rule, despite the showy flowers. Diligent observation by two botanists has given us the true story - one of seeming deception.

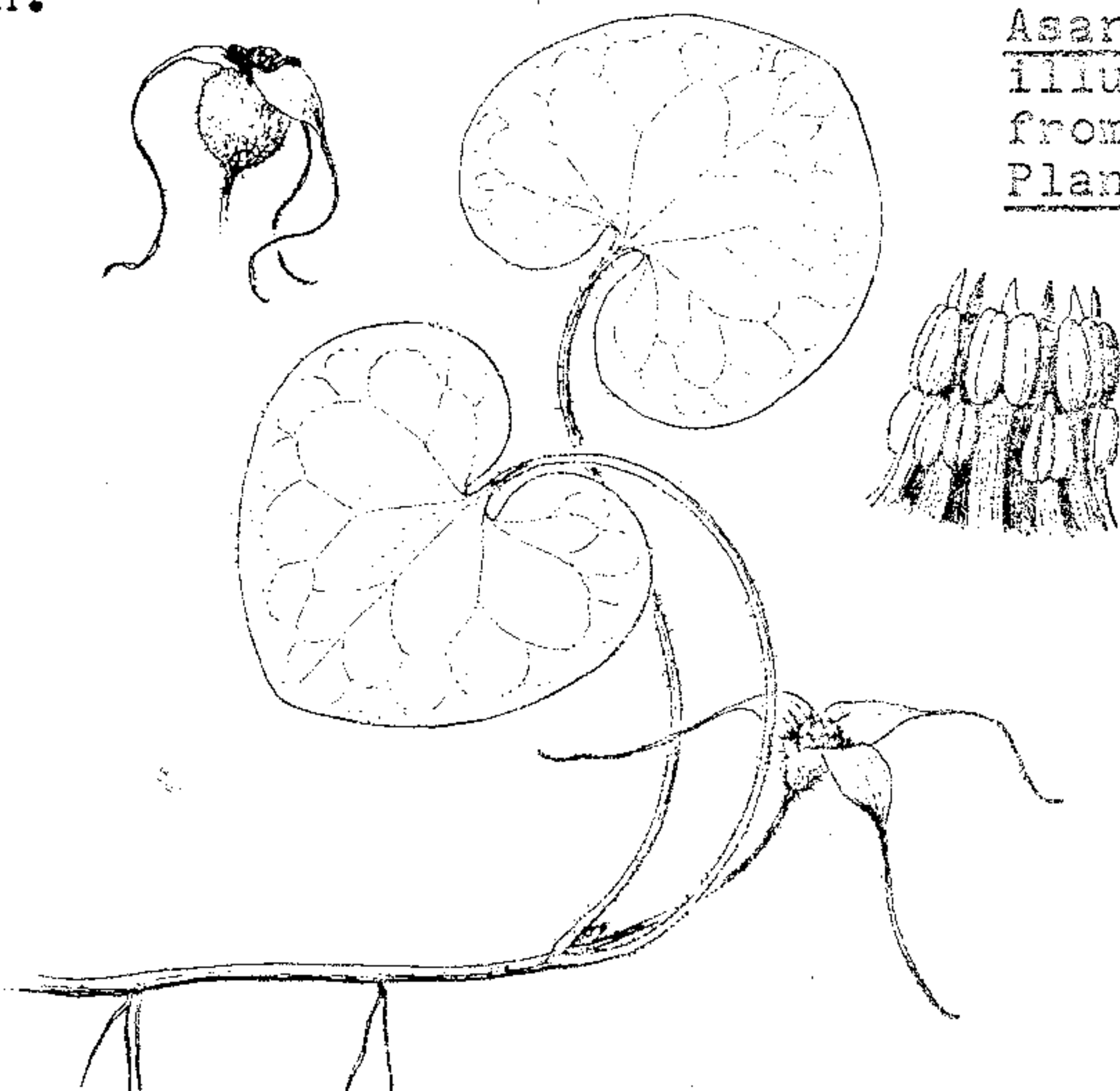
The common woodland herb, wild ginger (Asarum caudatum) has largish maroon flowers ornamented with three long and filamentous calyx lobes. The flowers, usually hidden by the large heart-shaped, aromatic leaves, have been thought to be pollinated by fungus gnats. The German floral biologist, Vogel, has argued that the flowers resemble (by smell or by sight) certain mushrooms and thus entice the gnats. Vogel's study was limited to wild ginger plants growing in European gardens. What happens in the wild?

Karen L. Lu of Humboldt State University in northern California has answered that question nicely (Systematic Botany(1982) 7(2): 150-157). Her painstaking study of over 1000 flowers in eight populations in Humboldt County, California, gives us a new appreciation of nature's ways. First off, she found that the flowers produced no nectar, are without any scent (good or bad) and that the female stigmas mature before the anthers ripen (that is, the flowers are protogynous = "first-female"). These are hardly the ingredients of a flower pollinated by insects!

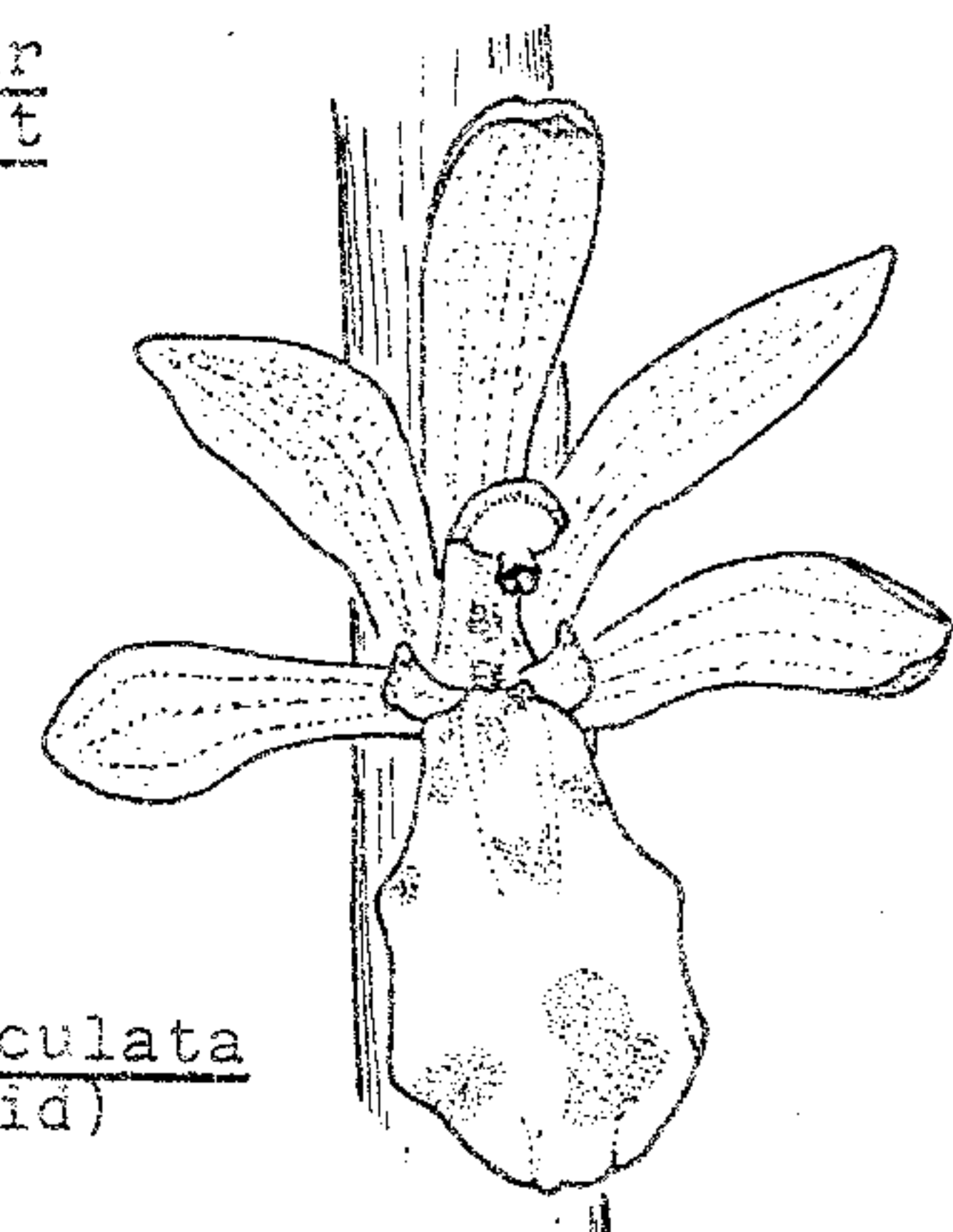
The protogynous condition does not exclude self-pollination. Ms. Lu found that the anthers are positioned in shallow grooves between the stigmas. Since the latter are still receptive, pollen can adhere to the stigmas and bring about self-pollination. This was readily confirmed by her finding that of 119 flowers bagged to keep our insects, 99% set fruit. Further, Lu observed a low percentage of cross-pollination but could not positively identify the agent of pollination. Seed set is thus assured by the largely self-pollinated flowers; their large and showy form seems not to achieve our pre-conception of their function.

When I read this recent case of Nature's beguiling ways, I was reminded of a similar instance, the work of Nicholas Hartwig (unpublished master of science thesis, 1963, University of Washington) on pollination of coralroot orchid (Corallorhiza maculata). Hartwig initially set out to find which insects were visiting (and pollinating) such attractive orchid flowers - after all, orchids are insect pollinated, or so we are told. So Nick began his long vigils, often through the night, watching for the expected insect visitors. None ever came! Yet the plants always set copious seeds. By now suspecting self-pollination, Hartwig confirmed that hunch most ingeniously. Besides the standard caged plant tests (many seed set on plants inside insect-proof cages), Nick used x-ray photography to see what was going on inside the flowers at the time of full flowering. The x-ray photos clinched the story. Sure enough, pollen masses (pollinia) were poised at the surface of the stigma before the

continued on next page



Asarum caudatum (wild ginger)
illustrated by J.R. Janish
from Hitchcock, et al, Vascular
Plants of the Pacific Northwest



Corallorhiza maculata
(coralroot orchid)

flower opened. Further, the x-ray photos disclosed the presence of germinated pollen in the unopened flower. Hartwig later found that other botanists had discovered this self-pollination behavior in several other temperate terrestrial orchids. Corallorhiza (and some other orchids) appear to push the self-pollination (autogamous) mode to extreme: assuring pollen placement before the flower opens. Botanists call this extreme form of selfing in unopened flowers cleistogamy (cleisto = closed; gamy = sexual reproduction).

So it would seem that things are not always as they appear to be. Prominent advertising with showy flowers, structured to appear singularly modified (adapted) to insect pollination may lead to false conclusions. Yet we are left with the inevitable further question: Why do these self-pollinated flowers persist in looking like they needed insects for pollination?

ENDANGERED WILDFLOWER CALENDAR

For the second year, the Rare and Endangered Native Plant Exchange has produced and Endangered Wildflower Calendar to help finance their work. The 1982 calendar was outstanding with beautiful flower photos on paper of excellent quality. We can anticipate that the 1983 calendar will be similar. It is described as 10 1/4 by 17 inches when opened and it contains information about the unique features, reasons for endangerment and conservation plans for each of the flowers illustrated; a map of the United States showing the number of endangered plant species in each state; a list of selected reading materials; and full-page monthly calendars with space for notes each day of the month. It includes 14 full-color photographs.

To obtain copies of this calendar send your name, address and \$5.50 for each calendar (\$4.50 each for orders of 3 or more) to Endangered Wild Flower Calendar, c/o Biology Dept., Brooklyn College, Brooklyn, N.Y. 11210.

In the January 1983 NPSO Bulletin, Ken and Robin Lodewick raised the question, "How dependable are the species ranges listed in botanical manuals?" I would like to relate my own observations with Baccharis pilularis var. consanguinea, commonly known as chaparral broom or coyote bush.

Hitchcock lists the range of this native woody shrub as "bluffs and thickets along the coast from Tillamook Co., Oregon, to southern California." Yet I have found it at a dozen locations in central Lane County, up to 62 miles inland from the Pacific Ocean. Several of these sightings are east of the Willamette Valley, in the foothills at elevations up to 1600 feet. All the plants found have been growing on disturbed soil of road cuts and fills. At these locations the plants are restricted to single individuals; the largest are now 6 feet tall and show about 10 annual rings.

Baccharis is a member of the Compositae (aster family) which blooms in the late summer. (August and September). The plants are dioecious (separate sexes), and I have not observed if fertile seed is being produced. But how did the existing plants arrive at their present locations? I believe the prevailing winter winds, which are out of the southwest and associated with storm systems, carried the seeds. These winds roar inland with speeds of 50 MPH and more nearly every year and are quite capable of carrying the small achenes (seeds).

Munz, in his A California Flora, states that this plant occurs locally as far east as the central Sierran foothills in California. What's happening in our State? I would be interested in hearing from others who have observed the Baccharis at inland locations in Oregon.

Alan B. Curtis, Emerald Chapter
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Chimophila
menziesii

little prince's pine