



Bulletin of the

NATIVE PLANT SOCIETY of OREGON

25th ANNIVERSARY 1961-1986

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

Volume 19 No. 1

January 1986

ISSN 0884-5999

CHAPTER NEWS

Blue Mountain

- 21 Jan., Tues. Meeting, 7:30 p.m. Pendleton Far West Federal Building, Community Room. Bring slides from this summer to share with everyone.
- 25 Feb., Tues. Meeting, 7:30 p.m. Far West Federal Bldg., Community Room. We will plan field trips for 1986. Presentation to be announced.
- 18 Mar., Tues. Meeting 7:30 p.m. Far West Federal Bldg., Community Room.

Corvallis

- 13 Jan., Mon. Members will be contacted regarding details of the January meeting. Call Chapter President Tammy Maurer, 752-6170, for more information.

Emerald

- 13 Jan., Mon. Meeting, 8:00 p.m. Amazon Park Community Center, North Craft Building. Speaker will be Chester Wilson: SUBALPINE BOGS IN THE CASCADES.

High Desert

- 28 Jan., Tues. Meeting, 7:30 p.m. Room 104, Ochoco Hall, Central Oregon Community College. The main speaker will be Terry Broch, a soils scientist, who will talk about the local soils and their relation to plant ecology. Members who went on the June, 1985 field trip to the Shelton Antelope Refuge are also asked to bring their slides. For more information call Stu Garrett, 389-6981.

Mid Columbia

- 8 Jan., Wed. Meeting, 7:30 p.m. Mosier School.

North Coast

---- For information about January activities, call Ingeborg Day, 368-5629.

Portland

- 14 Jan., Tues. Meeting, 7:00 p.m. First Methodist Church, 1838 SW Jefferson St. Nancy Peterson of the Oregon Natural Resource Council will present a slide show on HELL'S CANYON with emphasis on its current problems and proposed legislation.
- 18 Jan., Sat. Workshop, 10:00 a.m. First Methodist Church. ASTERS AND ERIGERONS IN THE COLUMBIA GORGE, with Russ Jolley.
- 25 Jan., Sat. Workshop, 10:00 a.m. First Methodist Church. HOW TO COLLECT, STORE AND GROW NATIVE SEEDS, with Julie Kierstead.
- 1 Feb., Sat. Workshop, 10:00 a.m. First Methodist Church. EDIBLE AND POISONOUS PLANTS, with Cal Burt.
- 8 Feb., Sat. Workshop, 10:00 a.m. First Methodist Church. "BROWN PLANTS OF OREGON"; IDENTIFYING PLANTS IN WINTER, with Louise Godfrey and Esther Kennedy.

- 15 Feb., Sat. NO WORKSHOP.
- 22 Feb., Sat. Workshop, 10:00 a.m. First Methodist Church. INTRODUCTION TO MOSS IDENTIFICATION (to be followed with a field trip in March), with John Davis. Bring hand lense, Some Common Mosses of British Columbia by Schofield, B.C. Provincial Museum, or How To Know the Mosses and Liverworts by Conrad.
- 1 Mar., Sat. Workshop, 10:00 a.m. First Methodist Church. QUICK AND EASY METHODS OF PLANT I.D. with Lois Kemp. Share your shortcuts for telling apart similar plant families or species.

Siskiyou

- 9 Jan., Thurs. Meeting, 7:30 p.m. Room 171, Science Building, SOSC. Jeff Lalande will give a slide presentation on the GRAND CANYON. This action packed slide show is a lively float down the Colorado River set to even livelier music.
- 13 Feb., Thurs. Meeting, 7:30 p.m. Room 171, Science Bldg., SOSC. Paul Pearson from Prospect will present a slide show on the ROGUE-UMPQUA DIVIDE. Paul is an excellent photogragher offering an armchair view of the scenic qualities and history of this beautiful, new wilderness area.

Willamette Valley

- 20 Jan., Mon. Meeting, Carrier Room, First United Methodist Church, 600 State St., Salem. Use Church St. entrance
6:30 p.m. PLANNING COMMITTEE MEETING FOR MOTHERS DAY FLOWER SHOW.
7:30 p.m. Chapter meeting. A joint presentation. PLANT, INSECT INTERACTIONS: OREGON SILVERSPOT BUTTERFLY (by Dave McCorkle, Western Oregon State College) and TANSY RAGWORT AND ITS BIOLOGICAL CONTROL AGENTS (by Cathy Macdonald, The Nature Conservancy).

Wm. Cusick

---- For information about January activities, call Andrew Kratz, 963-9358.

STATE BOARD MEETING

The next board meeting will be held at the Leach Garden on January 18 at 1:00pm. Anyone who wishes to may come early to see the garden.

THREE SISTERS WILDERNESS AREA CHECKLIST

Anyone who would like a current checklist of vascular plants of this area should send a stamped #10, self-addressed envelope with 56¢ postage to:

David Wagner
Dept. Biology
University of Oregon
Eugene, OR 97403

This list is undergoing constant revision, so if you send for one every couple of months you will keep up-to-date with progress in our study of the flora of that region.

WILLAMETTE VALLEY NATURE CALENDER * 1986

David Wagner's calender is available for \$4 by sending a check payable to Dave Wagner to:

Wagner
Box 30064
Eugene, OR 97403

WISTEC PRESENTS ALASKA TRAVELOGUE

Willamette Science and Technology Center will kick off its 1986 travelogue series on January 21 at 7:30 pm with a slide lecture on Alaskan wilderness areas by field biologist Gail A. Baker. Baker will tell of her experiences backpacking and camping from the Kenai Peninsula to the Brooks Range. The highlight of the presentation is a kayak trip down the North Fork of the Koyukuk River in Gates of the Arctic National Park. Handouts with travel information and an annotated reading list will be distributed to audience members. Maps, books, and informative articles will be on display, and the audience is invited to ask questions.

Admission is \$2 for adults, \$1 for senior citizens and college students, and 75¢ for children; admission to WISTEC exhibits is included in the fee.

WISTEC is located at 2300 Centennial Blvd., Eugene, just next to Autzen Stadium.

MEETING NOTICE

Friends of Walker Creek Wetlands, Inc. will hold an organizational meeting on Saturday, Feb. 1, at 1:30 p.m. in the Nora Anderson Auditorium, Salem Public Library, 585 Liberty Street SE, Salem. All interested individuals are invited to attend.

BLM MANAGEMENT PLANS AVAILABLE

The Vale District BLM has completed management plans for the Honeycombs Research Natural Area/ Area of Critical Environmental Concern (RNA/ACEC). The RNA/ACEC is located east of Lake Owyhee in Malheur County and includes 11,930 acres within the larger Honeycombs Wilderness Study Area. The area is a "badlands" derived from Leslie Gulch volcanic tuff. The RNA/ACEC was designated to fill the big sagebrush/needle-and-thread grass (community) element for the Owyhee Uplands and to protect the Honeycombs' geologic formations, big horn sheep and several rare plant species.

Management plans for the Stockade Mountain RNA will be available this winter. The RNA fills two element needs for the Owyhee Uplands: western juniper/big sagebrush/bluebunch wheatgrass and low sagebrush/bluebunch wheatgrass communities.

Plans are available from the Vale District Office of the BLM.

TWO NORTHWEST BOTANISTS RECOGNIZED

The American Horticultural Society presented its second Wildflower Rediscovery Awards to five individuals who rediscovered populations of species that were thought to be extinct, or found new populations of extremely rare species. Two of these individuals are from the northwest.

Amsinckia carinata, a small annual herb in the Boraginaceae, was rediscovered in Malheur County, Oregon, by Elaine Joyal. This rare species had not been seen since its original discovery by John Leiberg in 1896. Joyal, who rediscovered A. carinata in June 1984, used information from the label on a herbarium specimen to identify the pages of Leiberg's field notebooks that referred to his discovery. Once she obtained copies of the appropriate pages from his journals and field notebooks, which are housed in the Smithsonian Institution archives, Joyal had the clues she needed to search for A. carinata. Joyal discovered several populations of the species, which seems to occupy a unique ecological niche; it grows in rocky soil and is intolerant of disturbance. The species is threatened by grazing, agriculture, and general surface disturbance.

Reid Schuller, a plant ecologist with the Washington Natural Heritage Program in Olympia, WA, located Arenaria franklinii var. thompsonii in Adams County, Washington. The species, commonly known as Thompson's sandwort, was previously known only from populations in Oregon along the Columbia River. All of the Oregon populations were presumed extinct, because nearly all of the species' habitat had been flooded behind dams. Thompson's sandwort had not been seen since 1955, and had never been recorded in Washington. Schuller discovered a large population growing in stabilized sand dunes.

"MUSHROOM MADNESS.. FROM THE WILD TO THE TABLE"

BY

MANDELL, LOVE &
MAYRSOHN

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BLM PUBLISHES MAP

The BLM has published a color map of western Oregon outlining the agencies' special management areas, according to William G. Leavell, BLM's Oregon-Washington state director. Features such as utility corridors and trails are included on the map which is available for \$4 at all Oregon BLM offices. The map is a companion publication to a similar map prepared earlier covering special management areas of SE Oregon. It identified all BLM-managed eastern Oregon areas under study for possible wilderness designation.

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

LETTER TO THE EDITOR AND THE NPSO BOARD

On behalf of those who attended the Rare Plant Symposium at Lewis and Clark College in October, I would like to express my appreciation to those, especially to Julie Kierstead, who made such a gathering possible.

Although the format of the day severely limited interaction between the audience and the speakers, I for one found this conference a particularly valuable experience. It is so important to meet, or at least, "see" the other players. Even though some weak and one-sided presentations were allowed to go unchallenged, nevertheless it was a most worthwhile day. I learned a great deal that will be helpful in fighting conservation battles, and I hear from others that they did too.

I am hopeful that there will be a follow-up conference soon to deal with the unanswered questions of the Lewis and Clark conference, to wit - "Rare Plants Where Do We Go From Here?" May I suggest to the NPSO Board and those that plan for the Annual Meeting in May to include an issue-focussed panel discussion with a moderator and discussants who are bound to disagree among themselves. Prepared questions from the audience, possible if the speakers are known in advance, presupposes that discussants would be speaking for their agencies.

Possible themes or key questions might be:

What kind of Oregon legislation would effectively protect our endangered plant species on public land as an interim measure until they make the Federal list? Who would enforce it?

How can the permit process provide a cost-effective means of protecting rare plants and regulating the commercial harvest of forest products including mushrooms on public and private lands?

What priority does your agency give to the protection of rare and endangered species? What % of your positions are allocated to this work? How many man hours and how many

dollars annually are allocated to this work? What percent of time is spent in the field inventorying, collecting and monitoring? Identifying? Reviewing? Consulting? Instructing? Reporting? What projects are your botanists assigned to in the current fiscal year? Anticipated for next year?

Mariana D. Bornholdt
Mariana D. Bornholdt
Willamette Valley Chapter

NOMINATING COMMITTEE REPORT

Six chapters responded to the request for nominating committee members. The five person committee consists of Rick Brown, Portland Chapter; Tammy Maurer, Corvallis Chapter; Chet Wilson, Emerald Chapter; Vi Sobolik, Willamette Chapter; and Susan Kofahl, Mid Columbia Chapter. You may contact any one of them to propose candidates. Susan is acting as the coordinator; her number (evenings) is 473-3576. They will be recruiting any additional nominations during this next month. Since mid November the committee has done a preliminary canvassing of the chapters. Progress so far has turned up three prospective candidates for Board Members at Large: Julie Kierstead and Angie Evedon from the Portland Chapter and Don Eastman from the Willamette Chapter. Our current Treasurer, Marge Ettinger, from the High Desert Chapter, has agreed to run again, as has our current Secretary, Florence Ebeling, from the Portland Chapter. We are most grateful to these people who have shown their dedication to the Society by their willingness to serve a new or another term. We encourage continued discussion and participation as we need a more complete list by January 10th for the February Bulletin. The nominating committee will follow through on any suggestions madeeven anonymous name dropping!!!!

The following article is the talk I prepared for the Plant Conservation Symposium in October at Lewis and Clark College. This is the full length version which was not given in its entirety due to time restraints at the conference.

Getting a State Bill Passed

The Native Plant Society is working with other conservation groups to introduce legislation for protection of Oregon's threatened native flora and fauna. Many states have enacted legislation and sponsored programs for endangered species conservation. How little protection actually exists for our endangered species in Oregon! The Endangered Species Act (ESA) has been inadequate to protect our plants. Over a hundred species are likely to be extinct within 30 years in this state, and only two are federally protected at this time.

The ESA of 1973 has encouraged state participation in conservation of endangered species both through grants and a mandated consultation process with states when federal projects affected endangered species. Section 6 of the Act authorized grants of 2/3 funding of state programs on behalf of federally listed species, and 3/4 funding from the federal government on projects in which two or more states cooperated on a specific endangered species project. Yet, in order to have a cooperative agreement states must meet certain criteria. None of our state programs meet the criteria for a full authorities agreement. To qualify for a full cooperative agreement states must meet the following criteria;

1. That the authority resides in the state wildlife agency to conserve resident wildlife determined by the agency to be endangered or threatened.

2. That the state has established acceptable conservation programs consistent with the purposes and policies of this Act for all federally listed species, and furnished details on its program to the Secretary of Interior

3. That the state agency has authority to conduct investigations to determine the status and requirements for survival of resident wildlife.

4. That the state agency is authorized to establish programs including land or aquatic habitat, or interests (such as leases) for endangered species conservation.

5. That provision is made for public participation in designating resident species of wildlife as endangered or threatened.

Congress passed amendments to the ESA in 1978 which loosened some of the criteria which states would have to meet in order to sign agreements. The 1978 amendments

allowed states a new option: limited authorities agreements could be signed for both plants and animals. Two of our state departments do meet the criteria for limited authority agreements.

The Natural Heritage Program does satisfy a few of the criteria. The Division of State Lands, through the Natural Heritage Program does not have the broad statutory authority to conserve endangered plant species in the manner required by the full authorities cooperative agreement under the Act. Oregon has no general state statute prohibiting or regulating commercial activity in Oregon's resident list of endangered or threatened species of plants. Therefore, Oregon does not satisfy the "law enforcement" requirement for a state conservation program set forth in the Act. However, the Oregon Heritage Program does meet part of the criteria for a limited authorities agreement.

On the other hand the Department of Fish and Wildlife has a broad enough authority to encompass the following elements of conservation for wildlife; research, census taking, law enforcement, protection, habitat acquisition and maintenance, propagation, live trapping, transplanting and limited regulated taking. However, there are a few limitations in the ODFW's authority that negate their eligibility for a full cooperative agreement. One major limitation is the lack of ODFW to include insects in its definition of "fish and wildlife". The Secretary of Interior has listed one Oregon resident insect species, the silver-spotted butterfly as a threatened species. The ODFW has adequate authority to investigate species of fish and wildlife over which it has regulatory jurisdiction. However, the commission does not have authority over all species covered by the ESA because it does not include insect species in its definition. So the ODFW can only qualify for a limited authority agreement also.

The NPSO would like to see a program for the state's sensitive species that would at least parallel that of the ESA, qualifying the agency responsible for the program to receive a full authorities agreement with USFW. Federal law protects plants and animals only on federal lands and from federal programs and federally financed programs. Candidate and proposed species are not protected under the existing law. State lands and private lands are unprotected even when the species is federally listed. A number of states, including California, have successful state Endangered Species Programs. The time has come for Oregon to follow suit with legislation that provides for a good program of protection of our sensitive plants and animals.

Please turn to page 10

(Regretably the article by Frank Callahan, Siskiyou Chapter, titled "New Plant Data For Oregon" that was printed in the October 1985 Bulletin was done using the wrong manuscript. The following is the correct one.)

NEW PLANT DATA FOR OREGON

Allium falcifolium H. & A. The Sickleaf Onion is heavily concentrated, on serpentine, in Josephine County. In May of 1980, I discovered said onion on a lower south facing slope of Gold Hill, in Jackson County. The plants are growing on pyroxenite scree. The location is 42°27'N 123°02'W 1900±' el., on private property. *Arctostaphylos viscida* (Whiteleaf Manzanita), *Eriodictyon californicum* (Yerba Santa) and *Eschscholzia californica* (California Poppy) also occupy this barren site. Herbarium specimens at CPH (Univ. of the Pacific), SOC (SOSC) and OSC (Oregon State University).

Significance: This isolated population of *Allium falcifolium* across the Rogue River, west of Lower Table Rock, possibly represents the easternmost range of said taxon in Oregon.

Betula occidentalis Hooker var. *inopina* (Jeps.) Hitchc. Trees scattered, in riparian habitat, along Muddy Gulch. Said drainage originates on Anderson Butte, Jackson County. Trees are located in Sec's. 13 + 14 T39S R2W or 42°10.5'N 122°53.2'W 2500±'el. Access is thru Trillium Trout Creek Farm on private property. Although the Water Birch is common in eastern Oregon and northern California, said trees are rare west of the Cascade Mtns., in Oregon. In Peck, this birch is listed under the name *B. fontinalis*. Reported 1981.

Calochortus nudus Wats., is a Californian species that just gets into Oregon. On July 3, 1981, I collected flowering specimens of said plant at the head of a post-glacial cirque on Observation Peak, Jackson County. *C. nudus* resembles *C. uniflorus*, in flower, but the stems are taller and the capsules are erect and narrow - it is also nonbulbiferous. A second locality is at 42°02'N 122°54.5'W 6400'el., s.w. slope of Observation Peak, growing in a wet lush seep, above F.S. rd. 2025. *Calochortus indecorus*, superficially resembles *C. nudus* - however, *C. indecorus* seems closer to *C. uniflorus* in its fruiting habit and capsule characteristics. OSC, SOC.

Significance: First report in Oregon; plant is widespread in northern California.

Cercocarpus betuloides Nutt. x *ledifolius* Nutt., collected July 11, 1976, east-west ridge of Whiskey Peak, Josephine County, 42°01.5'N 123°15'W 5900±'el. Both parents of hybrid are common on site.

Juglans hindsii (Jeps.) Jeps. Several reports of this Walnut are known from Jackson County: SOC 5280, June 1976, so. of Kirtland Rd., and e. of Bear Creek (Callahan) - Two mi. n. Ashland, Old 99, el. 2000' 5/19/68 J. Athey, Shiehl, Callan., and a riparian population on Meyer Creek, near Ashland. Several isolated large Walnut trees have been located on Bear Creek. The U.S.D.A. HANDBOOK 450 gives the range of *J. hindsii*, as "Central California (Shasta County through Stanislaus County)". Although *Juglans* is known in Oregon from the fossil flora of the Blue Mountains ("*Juglans browniana*"), Chaney & Axelrod assigned said species as closest to *J. nigra* - an East American species. Presently, it is quite difficult to determine the wild status of *J. hindsii* as a native or naturalized species. Its nuts were transported and utilized by the West Coast Indians and recently, *J. hindsii* is utilized as a rootstock in common orchard practice.

Juniperus californicus var. *siskiyouensis* Hend. coll: 5/24/48 Peck Herbarium. Henderson's use of the latin ending "us"

in the species name "californicus" is invalid - as the original diagnosis was published in 1854; *Juniperus californica* Carr., Rev. Hort. [Paris], Ser. 4, 3: 352, fig. 21. 1854. Type locality: "California" (exact locality unknown). The California Juniper ranges from northern Mexico, in Arizona and north to Shasta County, California. Original latin diagnosis of Henderson's publication was obtained from Dr. Elbert L. Little. Henderson's description is somewhat lacking in significant criteria for categorizing said collection as *J. californica* Carr. In fact, his description could easily fit that of *J. occidentalis* Hook., the Western Juniper. The only unusual note was "cones brownish 9-12 mm. long" Peck. The Western Juniper also rarely produces large brownish cones. Dr. Frank Vasek, U.C. Riverside, reviewed specimens from the site given to me by the late Oliver V. Matthews, and commented (in part): "Every characteristic I observed indicates *J. occidentalis* rather than any form of *J. californica*". Mr. Vasek also noted: "It may be desirable to submit a short note for publication in a journal like *Madrono*, indicating that *J. californica siskiyouensis* is an erroneous interpretation" (correspondence 2/27/74).

Mimulus kelloggii Curran. SOC 5457, a Jackson Co. population on peroxinite scree, Gold Hill, near Gold Hill Mine on so. slope, 1920'el. 5/4/80 Callahan. Gordon Larum noted an additional locality of *M. kelloggii*, s.w. of Gold Ray Dam, (site is several miles from aforementioned site). These are additions to other Oregon sites.

Rhamnus crocea Nutt. in T&G. ssp. *ilicifolia* (Kell.) C.B. Wolf. The Hollyleaf Buckthorn is quite rare in Oregon. I discovered said shrub while searching for *Opuntia fragilis*. *Opuntia fragilis* was found on a nearby knoll, growing on scabland conglomerate (the cactus was being destroyed by quarry operations). Dr. Frank A. Lang and I later surveyed a hill with approximately 27 small to large shrubs (to 2.5 m. tall) of Hollyleaf Buckthorn. Said site is on a hill s.e. of Pompadour Bluff T39S R1E Sec. 1 Jackson County - 42°12'N 122°37'W ca. 2000'el. substrate: decomposed siltstones and conglomerates. 6/5/76 SOC 5240

Significance: First record for Oregon, a northern range extension from Siskiyou County, California (known several miles north of Klamath River).

NEW PLANT DATA FOR CALIFORNIA

Heteromeles arbutifolia M. Roem. The Toyon or Christmas-berry is reported here as the new record location is only 10.5 miles so. of the Curry County line (Oregon). This location is an extension from the locality I discovered earlier on the Klamath River. The new northern range extension is in Del Norte, County in the vicinity of Hardscrabble Creek 41°05'N 124°-124°02'W. Plants are in redwood belt growing along steep precipice above Hwy. 199. Approximately 20 plants were noted growing in association with *Lithocarpus densiflorus* (Tanoak) and *Myrica californica* (Western Bayberry).

Significance: A new range extension for California 11/3/83. Specimens at SOC, OSC and University of California, Davis. Careful searching on like habitats for said species should be conducted in Oregon.

Frank T. Callahan II - Siskiyou Chapter..

W E L C O M E N E W M E M B E R S

CORVALLIS
Sosanna Egan

EMERALD
Rick Bickford

PORTLAND
Julia and Henry Vea
Lynn Braaten
Dan Guthrie
Susan Hanset
Debe Holland-Crowe
Alfhilde Jacobs
Joan Miller
Ron Stewart
Robyn Bluemmel

HIGH DESERT
Alan McCready
Cheryl McCaffrey

WILLAMETTE VALLEY
Dr. John Palmer
Kathy Palmer

RESEARCH NOTES

THE DWARF BILBERRY IS IN OREGON

Connoisseurs of the English common names of plants will recognize "bilberry" as one of the several names applied to the genus *Vaccinium*, along with blueberry, huckleberry, and cranberry. This group of common shrubs hardly needs any introduction to botanical enthusiasts in Oregon, since its species are not only abundant in various parts of the state, but they are a source of tasty edible berries as well. It is unusual, in such a familiar genus, to discover a species that has never before been reported to occur in Oregon. However, we can now verify just such a "find" in the Siskiyou Mountains of Josephine County--*Vaccinium myrtillus*, the dwarf bilberry.

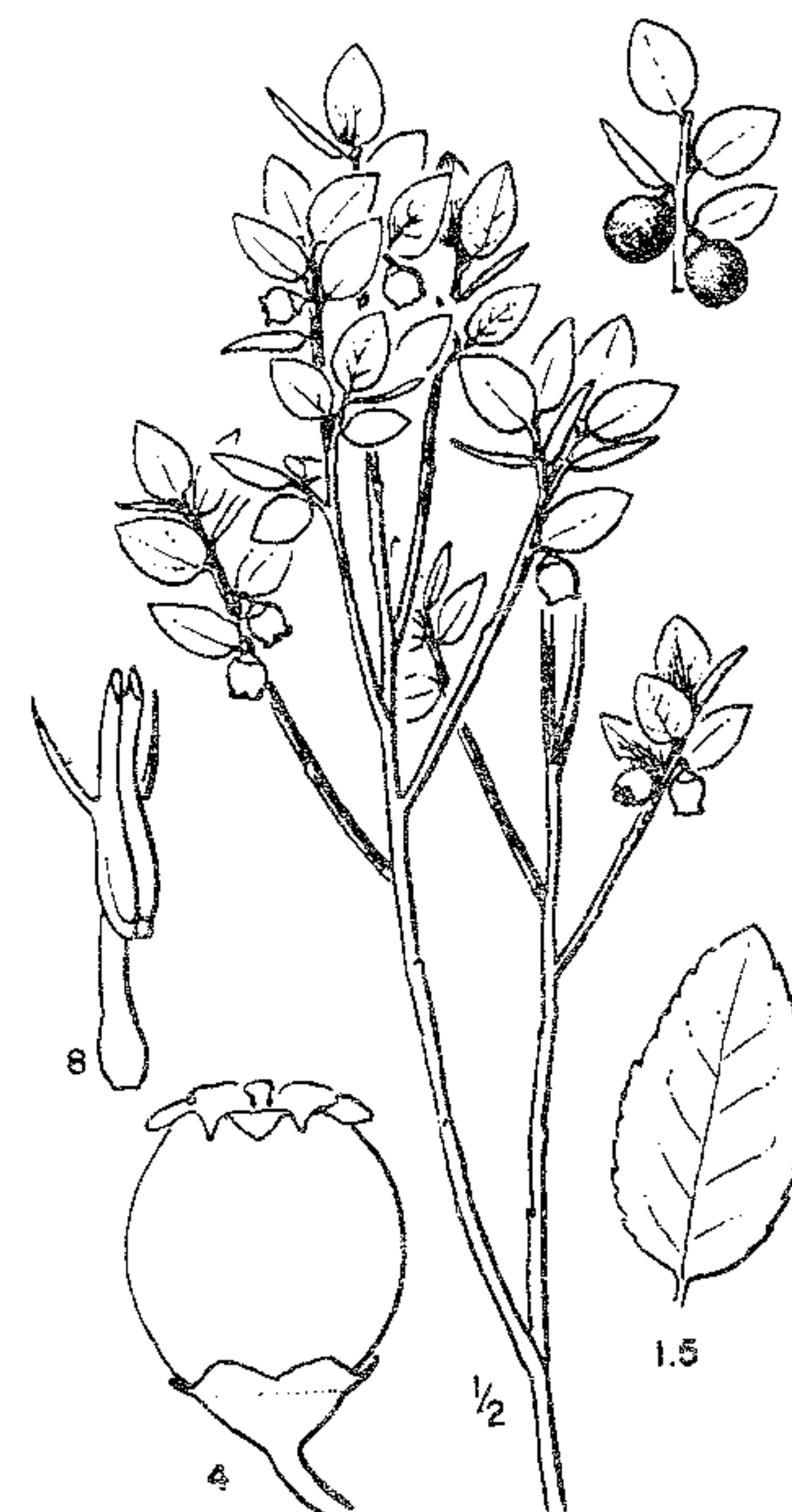
Credit for the discovery belongs to Veva Stansell, a member of NPSO, who first brought it to my attention in 1980 through a collection from the vicinity of Babyfoot Lake and Onion Camp, near the eastern boundary of the Kalmiopsis Wilderness. Only a tentative identification could be made at that time, since the location is far south of the expected range of *V. myrtillus* (as noted below), and there was the further problem of distinguishing this species from the closely related *V. scoparium*, the grouseberry. Fortunately, Veva persisted in her search for additional stands of dwarf bilberry, and in 1985 she found precisely the evidence needed--a location where *V. myrtillus* and *V. scoparium* grow right together, as clearly distinct species. The site is at Mud Springs, a *Darlingtonia* bog at 4300 feet elevation just 24 miles due west of Grants Pass. A third population of *V. myrtillus* discovered by Veva is on the road to Chrome Ridge, in Section 13 of Township 35 south, Range 9 west.

Vaccinium myrtillus is found in North America principally in the Rocky Mountains, from Jasper Park, Alberta, south to New Mexico and Arizona. It is in the Cascade Range to as far south as the Wenatchee Mountains of Washington, according to C. L. Hitchcock in "Vascular Plants of the Pacific Northwest," part 4, page 32. Although absent from Alaska and the Canadian arctic, it extends from eastern Asia to Europe (in fact, it is the species upon which Carl Linnaeus based the genus *Vaccinium* itself). Its closest relative in western North America is *V. scoparium*, which is similar in being very low-growing (usually 12 inches or less tall), having finely serrate leaves, and green twigs which are conspicuously ridged and grooved lengthwise. The illustrations in the book by Hitchcock mentioned above show the differences between *V. myrtillus* and *V. scoparium* very well. In the former species the

leaves are more broadly ovate, the branches are spreading rather than ascending and broom-like, and the fruits are bluish rather than red. An important difference noted by Veva Stansell is that the fresh foliage of *V. myrtillus* is thick-textured and shiny, while that of *V. scoparium* is thinner and dull-surfaced.

The newly discovered sites for dwarf bilberry are several hundred miles south of its previously known range. It would be a challenge for members of NPSO to find occurrences in the Oregon Cascades which might fill this gap in distribution. To those who are interested, I would offer a cautionary note, however; watch out that you are not fooled (as I have been) by juvenile plants of *Vaccinium parvifolium*, the red huckleberry. The leaves of the young, preflowering stage of this species are a nearly perfect mimic of *V. myrtillus* in being ovate and minutely serrate, whereas the adult plants have smooth-edged leaves and the familiar bright red fruits. Juveniles of red huckleberry are often found on rotting stumps and logs, but their lack of flowers plus the presence nearby of mature individuals of *V. parvifolium* should be ample proof they are not the sought-after dwarf bilberry.

Kenton L. Chambers
Oregon State University



Vaccinium myrtillus

(Illustration from Hitchcock et al., *Flora of the Pacific Northwest*; used with permission from the publisher)

Aster vialis,

a Study in Cooperation

Because of the coordination and cooperation of various individuals and agencies, it seems that the wayside aster, *Aster vialis*, may have a chance for survival at the present time.

The wayside aster, a tall, rayless, perennial species, endemic to Lane and Douglas Counties, was considered possibly extinct in the 70's when Jean Siddall placed it on her list of species to be field checked in the Eugene area. The plant had not been collected or noted since 1933. I looked for it along roadsides south of Eugene in 1977 but could not locate it. At that time, Lane County was still regularly spraying roadsides with herbicide. This practice has since been halted due to cooperation between the county and local conservation groups.

In 1980, Georgia Mason, former curator of the UO Herbarium, found a small population of *Aster vialis* on Mt. Pisgah. That fall the Emerald Chapter of NPSO fenced the Mt. Pisgah plants to protect them from grazing. That same year, the US Fish and Wildlife Service gave the species an R&E Category 1 rating for Federal Listing.

A photo in the Eugene Register Guard, of David Wagner holding the flower, alerted local residents and some calls came in to the Herbarium from South Eugene residents who had spotted the plant. Charlene Simpson, Emerald Chapter R & E Chair answered a call from Mrs. Millie Schorr who lived south of Spencer's Butte and had found the aster on her private property. In 1982 David Wagner found a clump of the aster beside the Eugene Parks Department's newly constructed South Hills Ridgeline Trail near the Butte.

In 1985 the Natural Heritage Data Base of The Nature Conservancy and David Wagner of the Natural Heritage Advisory Council identified *Aster vialis* as a species to be field checked. Leighton Ho was employed by the Data Base and spent several weeks looking for the aster. He found it in several locations along roadsides south of Eugene. Alan Curtis of the BLM also found an isolated population of the plant in the Coburg Hills, northeast of Eugene.

Meanwhile, Mrs. Schorr had been carefully preserving this rare plant that was, after 5 years, getting very abundant in her garden!

This past September, Leighton Ho arranged for a visit to Mrs. Schorr and with her help, he and I collected both plants and seeds. The plants were donated to the Mt. Pisgah Arboretum in Eugene and to the Berry Garden in Portland and seeds were sent to Julie Kierstead of the Berry Garden Cryogenic Seed Bank (financed by a grant from the Fred Meyer Charitable Trust of Portland).

Perhaps I have inadvertently left out some individuals or agencies who took part in the *Aster vialis* story, and for that I apologize. However, I think this narrative illustrates the very best kind of cooperation that can take place in Oregon to save rare and endangered species, and I applaud everyone who was involved. --Rhoda Love



Aster vialis.

(Illustration from Threatened and Endangered Vascular Plants of Oregon: An Illustrated Guide.)

"GREAT BOTANIC GARDENS OF AUSTRALIA"

Australia is the only country in the world which is also a continent. It has a land mass the size of the United States. A journey from Sydney on the continent's east coast to Perth on its west coast is equal in distance to a trip from New York to Eugene. From north to south the continent stretches across 30 degrees of latitude, and half the country lies between the Tropic of Capricorn and the Equator and thus is in the true tropics. The city of Brisbane, capital of the state of Queensland, is at approximately the latitude of Miami, Florida; Sydney, capital of New South Wales, and Perth, capital of Western Australia, are at approximately the latitude of Los Angeles; and Melbourne, capital of Victoria, is at approximately the latitude of San Francisco.

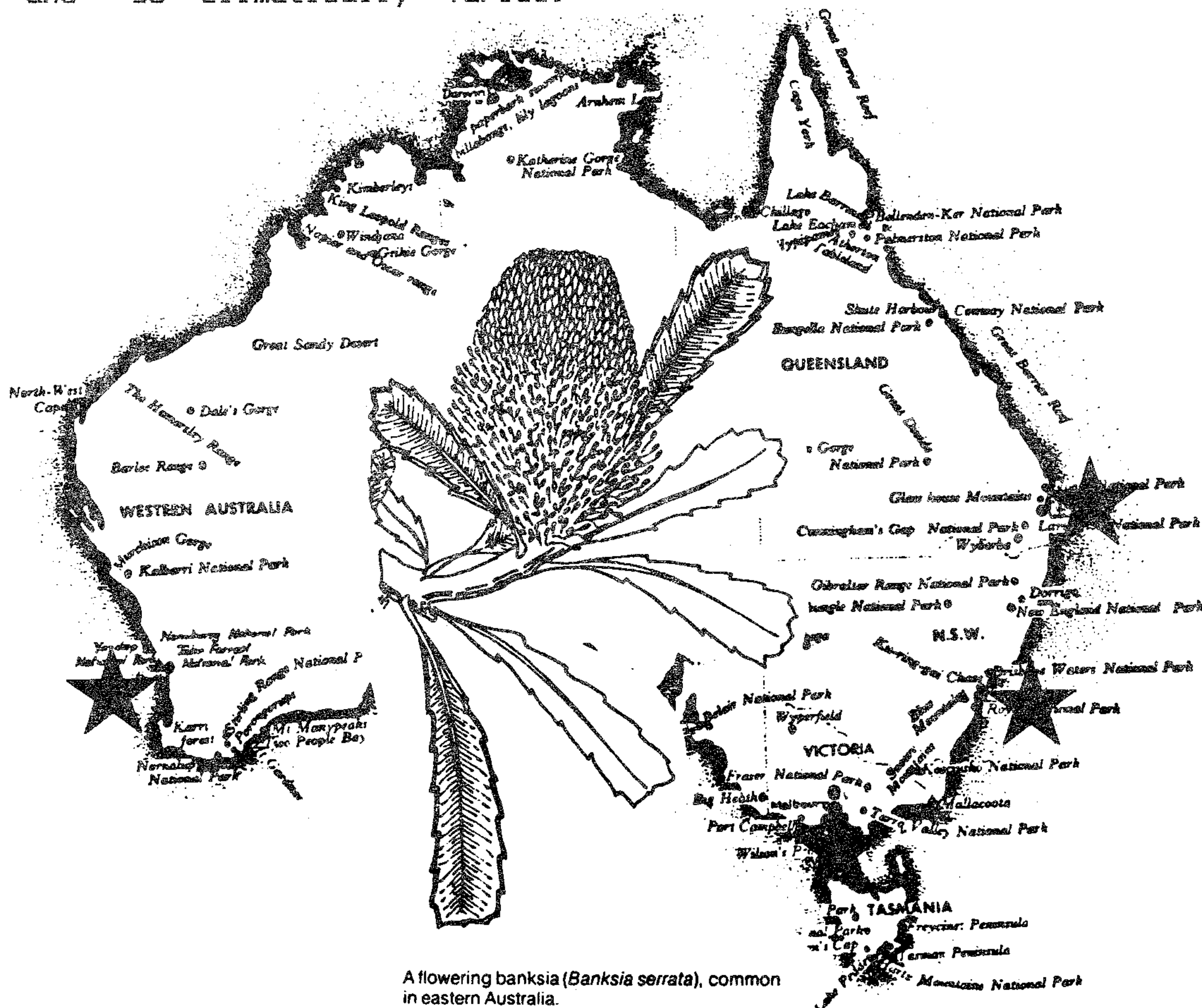
Rainfall in Australia varies from 140 inches per year in parts of the far north and east to less than 5 inches in the parts of the vast "Red Heart" or Outback. The vegetation varies from dense rainforest and jungle to bare and lifeless red sands. (However, it should be pointed out that most of the Australian "desert" is clothed with shrubs much as is our own Oregon high desert.)

It is tempting to call Australia a country of strong contrasts, but not only would this be trite, but so obvious as to be meaningless given a continent which is so vast and so climatically varied.

Actually, it was the Australian accent that varied the least as we traveled about the country. Certainly our surroundings changed tremendously as we moved from place to place.

Glen and I flew 23,000 miles on our recent trip and visited 8 Australian cities (plus Ayers Rock) in one month! In Townsville, Brisbane, Perth, Melbourne, Canberra, and Sydney, the government arranged interviews for me with botanists, botanic garden directors, ecologists, and herbarium directors. In Townsville, Perth and Sydney, I visited natural areas with botanists. In Brisbane, Perth and Sydney, I visited herbaria and talked with the botanists there.

I came home with 260 slides and from those I have put together a show entitled "Great Botanic Gardens of Australia," which is now available for showing to NPSO chapters, garden clubs, arboreta, etc. The show lasts approximately 40 minutes and I have a printed script and map available for sale for \$1.00 (which covers printing costs). The show includes photos of such unique Australian endemic genera as *Epacris*, *Banksia*, *Grevillea*, *Hibbertia*, *Darwinia*, *Cephalotus*, *Macropidia*, *Caladenia* and many other fabulous and unusual Australian native plants. Give a call if you would like to "visit" Great Botanic Gardens of Australia." -- Rhoda Love 345-6241.



Strong support can be given for protection of sensitive plant and animal wildlife due to their aesthetic, scientific, and economic values. The primary scientific reason for plant and animal protection is the role they play in our local ecosystems. In order to save these threatened species, their habitat must be protected. Species consist of varied individuals. Just like humans, it is not enough to save just one or two representatives. We need to maintain our biological diversity for the future generations to enjoy an benefit from. There are many economic factors in protecting wildlife and plants. In the instance of plants, rare plants are valuable genetic resources, both in terms of future scientific study and potential for breeding and repopulation. They represent future sources of food, medicines, nonsynthetic insecticides, and other useful products. Evening primrose oil has been used to clear eczema, and can be used to treat female reproductive problems. Artemisia has been used in China as an anti-malarial drug. One of the most exciting discoveries in recent years has been meadowfoam oil. Meadowfoam is a promising new crop for Oregon. One of our rare species of meadowfoam from southern Oregon, Limnanthes floccosa ssp. grandiflora has recently been used by OSU scientists to develop a high seed yield cultivar. The high quality oil from meadowfoam seed will provide farmers with a new agricultural crop while supplying industry with an annually renewable source of oil.

The NPSO is working on legislation to produce a strong state program to protect Oregon's Endangered Species and the habitat that is vital for their existence. We are basing our bill on a Model State Endangered Species Conservation Act, drafted by the Environmental Defense Fund. If the genes of one Endangered Species can be used for Science it will be worth the effort of conserving our natural diversity in Oregon. I still have copies of the Model Conservation Act and if you are interested in a copy please drop me a note. Interested conservationists on my committee should have a copy so we can discuss it at our *Next Legislative Meeting, February 22, 1986 time and place in the next bulletin.....

The Washington Native Plant Society now has a draft of a bill known as the Threatened and Endangered Species Conservation Act for Washington State. This bill needs support and we should help our neighboring state get legislation! If interested in helping contact: Mark Egger, W.N.F.S. Conservation Chair, 4611-2nd Avenue NE, Seattle, Wa 98105.

Esther Gruber McEvoy
Corvallis Chapter

BOOK REVIEW

Botanical Latin

Botanical Latin often is a source of mystery and consternation to both lay and professional botanists alike. In 1966 much of the mystery and most of the consternation was removed with the publication of Botanical Latin by eminent British botanist William T. Stearn. This book has been variously available; in print, out of print, available in Britain only, etc. I am pleased to report that the 3rd revised edition is now available in the United States from David and Charles, Inc. North Pomfret, VT 05053 for the princely sum of \$33.50 (including postage). The book covers all aspects the use of Latin in things botanical. In four parts the book covers the development of botanical latin terminology, grammar, syntax, and vocabulary. The chapter on descriptive terminology is nicely illustrated and Chapter XXIV covers most of the common and uncommon symbols and abbreviations (viz., p.d., p.m.). The book contains good advice: "Botanical Latin is essentially a written language, but the scientific names of plants often occur in speech. How they are pronounced really matters little provided they sound pleasant and are understood by all concerned". If you need to write a Latin description of a new plant, need to put together a new name, or are just interested in scientific names, then this is the book for you.

Timber Line

A book that many members will find fascinating is Timberline: Mountain and Arctic Forest Frontiers by Stephen Arno and Ramona Hammerly published by the Mountaineers, Seattle, 1984, \$8.95. Arno, a forest ecologist, and Hammerly, an illustrator, have combined forces to produce a well-researched account of timberline ecology supplemented with fine pen and ink illustrations. The book is based on first hand observations and most of the published work dealing with vegetation at high latitude or elevation. The first part has chapters on the timberline environment, strategies for survival, biological succession, and the impact of man on timberline ecosystems. The second part is a comprehensive discussion of timberlines of the northern western hemisphere. Read the book before your next trip to timberline and you will find many of your questions answered. What causes tree islands? What is krumholz? What kind of vegetation is found in the Ruby Mountains of Nevada or the high mountains of Mexico? In my experience their account of the areas I have visited are accurate and give a clear picture of what the timberline vegetation is like. I recommend the book to all members.

Frank A. Lang, Siskiyou Chapter

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BULLETIN

Editor Jan Anderson
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 The NPSO Bulletin is published monthly. Copy is due by the 10th of the month, & should be sent to the editor. News, articles, photos, drawings, & non-copyrighted material are welcomed.

GUIDELINES FOR CONTRIBUTORS

The Bulletin is not typeset; therefore typed, camera-ready copy is much appreciated. But no submission will be rejected because it is not typed. Please proofread & check facts.

DEADLINE: 10th of each month
 FORMAT: Copy should be typed in 4 1/2 inch wide columns, of any length. Author's name & chapter affiliation (or other organization) are typed at the end of the article. There is no standard paragraph treatment; one of these is suggested:

* for long articles, double space between paragraphs, but do not indent the first word of the paragraph

* for short articles or short paragraphs, when double spacing looks odd, indent the first word of the paragraph instead
 Type your own headline, centered, all caps. In case of special formats, e.g. plant keys, you are free to choose the layout.

CREDITS: For each submission, provide

* title
 * author--specify whether byline is desired for news items

* instructions as to whether item is to be used in entirety or excerpted at editor's discretion

* source & date if item is not original

ILLUSTRATIONS: black & white prints, ink drawings, woodcuts, halftones, et al. We welcome small doodles as well as larger efforts. Please give source & date, if not original.

SCIENTIFIC NAMES should follow Hitchcock & Cronquist's *Flora of the Pacific Northwest* where possible. Use of both scientific & common names is encouraged. Genus & species names are underlined or italicized.

RETURN OF ORIGINALS: Manuscripts & illustrations will not be returned unless it is requested.

The Bulletin is published as a service to NPSO members & the public. Your suggestions & comments are always welcome.

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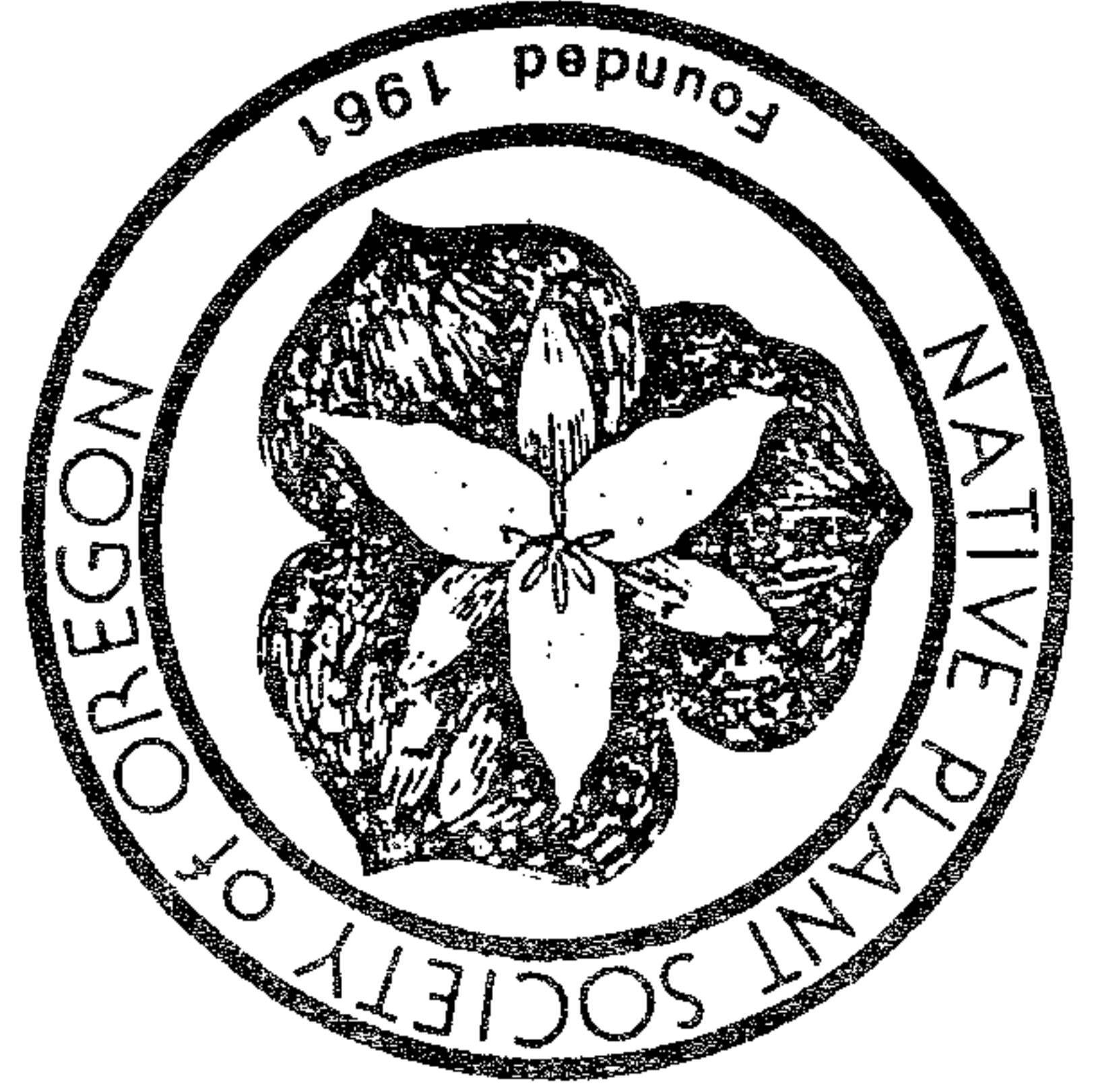
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