

Bulletin of the
**NATIVE PLANT SOCIETY
OF OREGON**

Dedicated to the enjoyment, conservation, and study
of Oregon's native vegetation

VOLUME 24 NUMBER 2

FEBRUARY 1991

ISSN 0884-599

CHAPTER NEWS

IMPORTANT NOTE TO FIELD TRIP PARTICIPANTS

Field trips take place rain or shine, so proper dress and footwear are essential. Trips may be strenuous and/or hazardous. Please contact the trip leader for information about difficulty, mileage, and terrain. Participation is at your own risk. Bring water and lunch. All NPSO activities are open to the public at no charge (other than carpool mileage), and friends, newcomers and visitors are always welcome.

Notice to field trip chairs and leaders: The Forest Service and other Federal agencies have set policies limiting group size in wilderness areas to 12. The reason for this is to limit the human impact on these fragile areas. As we are often in the position of asking them to follow their rules and regulations for conservation of our natural resources, it's time for us to do the same. Each group using wilderness must be no larger than 12.

Blue Mountain

4 Feb., Mon.

MEETING. 7:30pm in Room 130, Morrow Hall, BMCC. Mary Corp, Umatilla County Weed Officer, will give a presentation concerning the County weed control program.

Corvallis

11 Feb., Mon.

MEETING. 7:30pm at the Herbarium Library (Room 4083 Cordley Hall, OSU). Our guest speaker will be Bob Meineke talking on "Review of Recent Field Activities of the Oregon Department of Agriculture's Endangered Plant Species Program".

Emerald

2 Feb., Sat.

FIELD TRIP ---"Horton Pond Revisited". A visit to Horton Pond aka Hult Reservoir to see if *Lycopodium inundatum* survived the draining of the pond. Leave from South Eugene High School (19th and Patterson) at 9am. Bring rain clothes, boots, lunch, drink. Leader: John Koenig (935-7677).

16 Feb., Sat.

FIELD TRIP. Join Dave Wagner for a study of the lush diversity of bryophytes and ferns within the mist shrouded conifers of Fall Creek. Learn the common mosses, lichens, and liverworts of this magnificent forest. Depart from the South Eugene High School parking lot at 9:30am. Bring lunch, handlens. For more info call Dave Wagner (346-3033).

High Desert

For information, call Bill Hopkins (388-7434).

Mid-Columbia

6 Feb., Wed.

MEETING. 7:30pm at the Mosier School. Mary Jean Sargent will present "Wildflowering in Western Australia", a selection of slides from her last visit there.

6 Mar., Wed.

MEETING. 7:30pm at the Mosier School. Roger Yerke, from the Portland Metro Zoo, will present the program "Ferns of the Northwest".

North Coast

14 Feb., Thurs.

MEETING. 7pm at the State Office Building, 3600 Third St., Tillamook. In keeping with the symbol for Valentine's Day, members are asked to bring information and/or specimens of native plants having heart-shaped flowers, leaves, ect.

FIELD TRIP to be announced.

Portland

12 Feb., Tue.

MEETING. 7pm at First United Methodist Church, 1838 SW Jefferson St., Portland. Tom Chereck will be showing native plant species of Oregon.

TURN TO page 23 for information about Portland's important Lecture Series this February.

Siskiyou

For information, call Darren Borgias (482-8196).

South Coast

For information on formation of this pending chapter, contact Jim Curran (396-4939).

Umpqua Valley

14 Feb., Thurs.

MEETING. 7pm in Room 216, Douglas County Courthouse Auditorium, Roseburg. A daisy workshop---The *Asteraceae* lead by Russ Holmes. For more information call Mary Carlson (672-3479).

16 Feb., Sat.

FIELD TRIP. A plant identification workshop. Leave from the BLM parking lot, 777 Garden Valley Rd., Roseburg. For more information call Mary Carlson (672-3479).

Willamette Valley

18 Feb., Mon.

MEETING. 7pm at First United Methodist Church, Room 225, 600 State St., Salem. Mark Wilson will give a talk and video showing on Restoring Native Willamette Valley Wet Meadows.

18 Mar., Mon.

MEETING. 7pm at First United Methodist Church, Room 225, 600 State St., Salem. Peter Frenzen, Mt. Saint Helens National Monument Botanist, will give a slide show and talk on revegetation of Mt. Saint Helens after the blast.

William Cusick

For information, contact Karen Antell (963-0267).



Synthyris reniformis
Snow Queen
Drawn by Esther McEvoy

THE PUZZLE OF THE TOFIELDIAS OF COOS COUNTY

There are so many things we don't know concerning the history and origins of Oregon's flora, that almost any group of species, when studied in detail, will offer one or more "puzzles" to an inquiring botanist. Sometimes the problem is whether a particular plant species is "native" to our state, or is "introduced"--the latter term usually implying that humans have acted as willing or unwitting agents for plant migration. Many species now happily growing "naturally" in Oregon were not members of the primeval, indigenous flora. Their homelands are elsewhere, but they are here now, thanks to mankind's activities as a disperser of plants. Most weeds fit this category, for example, along with cultivated plants that have "escaped" into nature (holly, daffodils, English ivy, periwinkle, and many others).

The genus *Tofieldia*, often called "false asphodel," is a north-temperate group of bog-inhabiting *Liliaceae*. Four species are currently recognized as occurring in North America; one of these, *Tofieldia glutinosa*, is found in Oregon. This species extends south well into California, north to Alaska, and east through Canada and the northern Rockies to the Atlantic, as far south as the mountains of Georgia. In Oregon, two subspecies (or varieties) occur: ssp. *brevistyla*, throughout the Cascades, and ssp. *occidentalis*, of the Siskiyou Mountains and California's Sierras. A revision of the classification of the species, done by Hitchcock in 1944, leaves no doubt that false asphodel is a true member of Oregon's native flora, long predating the existence of humans on this continent. Why, then, should the title of this article imply that something is puzzling about this species in Coos County?

Recently, while doing a routine study of *Tofieldia* specimens in the OSU Herbarium (in order to correct the annotated names on many older specimens that predate Hitchcock's 1944 publication), I noticed three collections from near Charleston, in Coos County, whose labels bore the name *Tofieldia occidentalis*. On one sheet, the walls of some of the capsules were torn open and the seeds inside were easily visible. I knew that the seeds of *Tofieldia* are a particularly important characteristic used to distinguish the two Oregon subspecies of *T. glutinosa* from the widespread one (called ssp. *glutinosa*) which grows from British Columbia and Alaska, across Canada and the upper Midwest, to the Atlantic Coast. I could

see that seeds of the specimens from Charleston were identical with those of ssp. *glutinosa*, not those of either "native" subspecies in Oregon! A seed of ssp. *glutinosa* is illustrated in "Flora of the Pacific Northwest," page 694; it has a tightly adhering seed-coat which extends from both ends of the seed as a long, twisted tail (appendage). Both ssp. *brevistyla* and ssp. *occidentalis*, on the other hand, have a loose-fitting, netlike seed coat, forming a kind of bag around the rest of the seed (also with an appendage, as in ssp. *glutinosa*).

When Dr. Hitchcock wrote his paper about *Tofieldia glutinosa*, he had not examined the seeds of any specimens from Coos County; he had only seen specimens in early flower, and from these one cannot distinguish between the several subspecies. Therefore, nobody before now has known that ssp. *glutinosa* occurs in that part of Oregon. So here is the *Tofieldia* puzzle: How did those plants get to the Oregon Coast in Coos County? They belong to a subspecies which until now was known on the Pacific Coast only from Vancouver Island north to Alaska, but which is common in the northeastern United States. Let me propose two possible answers to the puzzle and suggest how we might eventually decide scientifically which is the correct solution.

The *Tofieldia* populations in Coos County may be "native" there, existing as a southern extension of ssp. *glutinosa* that is disjunct from its main occurrences in coastal British Columbia and Alaska. This would fit the pattern of a number of other coastal plants, for example crowberry (*Empetrum nigrum*) and western swamp laurel (*Kalmia occidentalis*); such species may have migrated southward along the coast during glacial times, and have been left behind in isolated bog environments as the climate warmed and associated species migrated back to the north.

Alternatively, plants of ssp. *glutinosa* may have accidentally been introduced to the Charleston area by human activities--specifically, during the development of the cranberry industry. As early as 1885, cultivated cranberry bogs began to be established on the Oregon coast, including some sites in Coos County. Cranberries are propagated by cuttings, which were imported from the northeastern United States, e.g. from Cape Cod, Massachusetts (information from Art Poole, County Extension Agent, Coos Bay). It seems entirely

possible that rhizomes of *Tofieldia glutinosa* ssp. *glutinosa* could by chance have been included with the cranberry vines that were brought to Oregon. After all, it is a bog-dwelling plant that commonly grows with cranberries (*Vaccinium macrocarpon*) in many parts of New England.

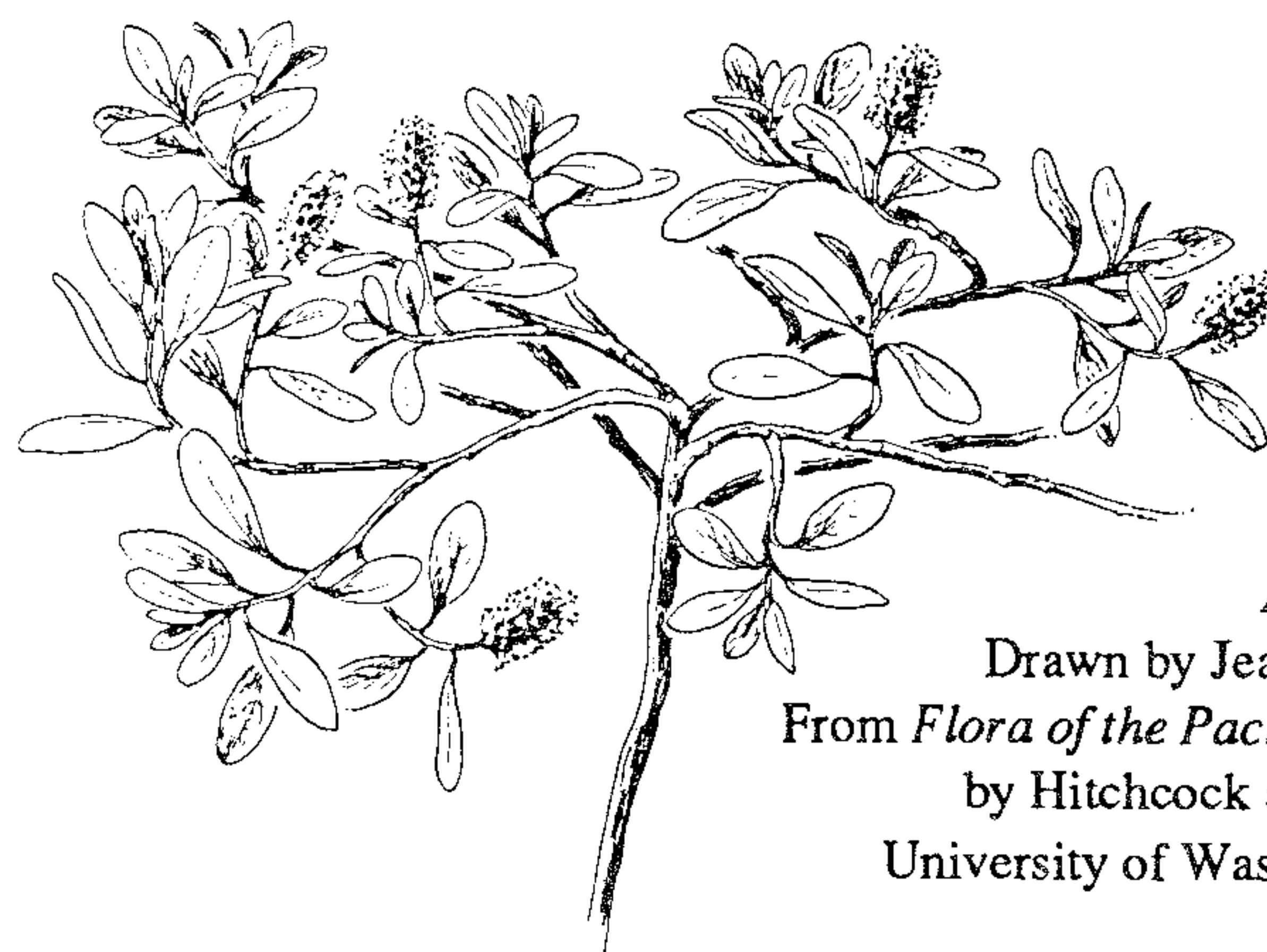
In the two scenarios mentioned above, *Tofieldia* is either entirely native in Oregon, or is partly native (ssp. *brevistyla* and ssp. *occidentalis*) and partly introduced (ssp. *glutinosa*). These alternative possibilities could be resolved by careful genetic comparisons of the Coos County plants of ssp. *glutinosa* with plants from British Columbia and Alaska with samples from cranberry bogs in New England. Modern genetic techniques in taxonomy allow us to make molecular comparisons involving protein enzymes, as well as DNA--the gene-coding macromolecule found in cell nuclei and chloroplasts. The proteins and DNA of Coos County *Tofieldia* will either be most similar to those of British Columbia plants or to those of New England plants; whichever way it works out, we will have the answer to our puzzle.

Two of the specimens from Coos County which I studied were collected in 1926; the third was in 1946 ("Bog near Lighthouse Beach south of Charleston; July 17th"). No collections since 1946 have been seen, so it is very important to learn whether *Tofieldia glutinosa* still grows in that vicinity. The help of NPSO members is earnestly solicited in relocating this species. With living plants of it for study, we can hope to trace their history and migrations, and thereby answer this fascinating botanical puzzle.

--Ken Chambers, Corvallis Chapter



Campanula scouleri
Scouler's harebell
Drawn by Julie Kierstead



Salix arctica
Arctic Willow
Drawn by Jeanne R. Janish
From *Flora of the Pacific Northwest*
by Hitchcock and Cronquist
University of Washington Press

PORTLAND CHAPTER OFFICERS NEEDED

The Portland Chapter needs new people for all officer's position this year except for President. These positions requires a commitment to attend each monthly membership meeting (second Tuesday except in August) and a monthly half-hour officers meeting. Chapter President Mike Fahey will bring continuity to the executive board. Following is a brief description of the open positions.

1st Vice-President: Programs. This officer contacts potential speakers for slide, video or other presentations of interest for the monthly membership meetings. This officer also makes sure everything is ready for the speaker.

2nd Vice-President: Field Trip Coordinator. This officer contacts potential field trip leaders, and participates in as many field trips as possible. On occasion, coordination of joint field trips with other chapters or organizations is required.

Secretary: this officer tracks each member's and officer's meeting. The minutes need only be brief, one page or less.

Treasurer: This officer tracks the finances of the Chapter. This officer also is responsible for selling items for the Chapter at monthly member's meetings and other events.

Each officer is encouraged to locate volunteers to help with the Chapter's work. Anyone wishing to assist present or future officers can pitch in at any time!

--Tom Cherick, Jr.
1st Vice-President, Portland Chapter

**THE NATIVE PLANT SOCIETY
OF OREGON**
Umpqua Valley Chapter

December 20, 1990

Robert Devlin, Forest Supervisor
Umpqua National Forest
PO Box 1008
Roseburg, Oregon 97470

**RE: BOTANIST FOR UMPQUA
NATIONAL FOREST**

Dear Mr Devlin,

I am writing on behalf of the Umpqua Valley Chapter of the NPSO to express my concern that the Umpqua National Forest has no permanent botanist in the S.O. or in any of the Ranger Districts. The Umpqua National Forest has 31 sensitive plant species known or suspected to occur on Forest lands. One of these is listed as Endangered by the State of Oregon, 8 are Federal Candidates, and 4 are State Candidates. Some of these occur in forested habitats. All could be impacted by logging, road construction, or quarry operations. Most of the Umpqua National Forest has not been surveyed for sensitive plants and we suspect that the population trends of documented sites are for the most part unknown. Research or study needs to be conducted on at least two species included on the Forest's sensitive plant list (*Kalmiopsis leachiana* and *Allium bolanderi*).

The Forest Service is mandated to manage for multiple use. The NFMA specifically requires the Forest Service to manage for biological diversity. Forest Service policy (FS Manual 2670) requires consideration of sensitive plants in all NEPA compliance documents. With this in mind we would like to know the following:

1. How many acres in the Umpqua National Forest, by Ranger Districts, have been surveyed for sensitive plants during a time of year when positive identification could be made?
2. How many of the 89 and 90 timber sales were surveyed for sensitive plants during a time of year when positive identification could be made?
3. How many sensitive plant sites have been documented on the Umpqua National Forest?
4. How many of these documented sites are presently being monitored to determine population trends?

5. How many Species Management Guides have been prepared for Umpqua National Forest sensitive plants?

6. How many timber sales modified to protect sensitive plants have been monitored to determine if mitigating measures were adequate?

7. Is the Umpqua National Forest planning to hire permanent botanists in the S.O. and Ranger Districts? If so, when? If not, why not?

We look forward to your response and will be interested to see how yours EA's in FY 91 address sensitive plants.

Sincerely Yours,

Richard H Sommer, President
Umpqua Valley Chapter, NPSO

STATE FAIRGROUNDS NATIVE PLANTS

Anyone interested in volunteering to weed, plant or donate native plants for the State Fairgrounds, please contact Tom Cherick, Jr. (284-5156 eves or 378-2441 days). I hope to do plantings between March and May.

1990 RARE PLANT CONFERENCE NOTES

The biennial fall rare plant conference was held on November 30th and December 1st in Eugene and was quite well attended. It was especially encouraging to see the very large number of professional botanists who now work in the state.

In spite of reservations which some of those present expressed, the group agreed to a major reorganization of the lists which will appear in the next edition of "Rare, Threatened and Endangered Plants and Animals of Oregon". The result will make the booklet and lists more similar to the California Native Plant Society's format. I would like to take this opportunity to explain the changes, and some of their potential benefits and reasons for the change.

The most significant change was that List 3 from the last two booklets, entitled "Plants Rare Throughout Their Range But Currently Stable", was eliminated. The Review List has become

ACTION ALERT

List 3, and the Watch List (which is to be renamed something like "Species Which Are Vulnerable but Currently Stable") has become List 4. List 1 will remain as "Taxa which are Threatened or Endangered Throughout Their Range" with no distinction between Threatened or Endangered. List 2 remains "Taxa which are Threatened or Endangered in Oregon, but more common or stable elsewhere" with no distinction between Threatened or Endangered.

To accomplish this change, species which were formerly on List 3 were moved either to List 1 or to List 4, based on current information of their status. In the process of making this determination, the group generally gave the benefit of the doubt to the species. A few were moved to List 2, based on additional information from other states, and the Review List (now List 3) because of new taxonomic questions. Of the 62 taxa on List 3 in the 1989 book, 31 were moved to List 1, 8 were moved to List 2, 6 went to the Review List, and 17 went to the Watch List.

Eliminating List 3 made us make some difficult choices. Some local endemics were moved to the Watch List. With more than thirty new taxa being moved to List 1, there is a possibility that we have diluted the meaning and overall concern for List 1 species. Yet, I feel that even though we were forced to make some difficult choices, we created a list of species which currently need management attention and protection. The Federal and State Listed Threatened and Endangered species should represent the highest priority taxa in Oregon. As List 3 was historically defined, it was difficult for us to argue that federal and state agencies needed to manage for these taxa. With the new change, we have assured that all the Oregon or regional endemics which have existing threats (regardless of how minor some managers may feel they are), will continue to receive some management attention.

The Heritage Program, the Forest Service Regional Office and the State BLM office have sent copies of the proposed list changes to all of the conference attendees. If you did not attend, but wish to receive a list of changes, send a self-addressed, stamped envelope to the Oregon Natural Heritage Data Base, 1205 NW 25th Ave., Portland, OR, 97210.

---Jimmy Kagan
Oregon Natural Heritage Data Base

Your letters are needed to help stop a proposed windsurfing development that threatens the Squally Point Dunes. The dunes are located along the Columbia River west of The Dalles, near M.P. 80 on Interstate 84. Many characteristic dune plants are found there, including *Erigeron filifolius*, *Machaeranthera canescens*, *Erysimum occidentale*, *Oenothera pallida*, *Psoralea laceolata*, *Rumex venosus*, *Polygonum majus*, *Oreobanche ludoviciana*, and others. Though by no means the largest in the Gorge, the Squally Point Dunes are the westernmost, and one of the few that are open to the public.

The intensive Squally Point development, proposed by windsurfers and associated commercial interests, would put as many as 1000 people at one time next to the dunes, day after day, year after year. The result over time would be extensive, if not complete, degradation of the dunes and their native plant and animal life. Keep in mind that windsurfers have already commandeered most of the river access sites in the eastern Gorge, such as Swell City, Spring Creek, Viento Park, Doug's Beach, Mayer Park, and others. Squally Point would be one more in a long list.

Since Squally Point lies in the Columbia River Gorge National Scenic Area, the decision in this matter is in the hands of the US Forest Service. The Forest Service decision in this matter will be influenced by your letters. Please write a short letter urging the Forest Service not to permit intensive recreational development at Squally Point. Tell the Forest Service that it is not worth jeopardizing the dunes just so that windsurfers can drive to one more beach. Write to:

Jim Hulbert, Manager
National Scenic Area
902 Wasco Ave.
Hood River, OR 97031

--Russ Jolley,
Portland Chapter

