

Bulletin of the

NATIVE PLANT SOCIETY OF OREGON

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

VOLUME 24 NUMBER 4

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OUR 30TH ANNIVERSARY YEAR

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

1 Apr., Mon.

MEETING. 7:30pm in Room 113, Morrow Hall, BMCC. Berta Youtie will give a presentation concerning The Nature Conservancy.

6 Apr., Sat.

FIELD TRIP to Twin Sisters in Washington to observe early spring wildflowers. Leave from the BMCC greenhouse at 8am.

Corvallis

13 Apr., Sat.

FIELD TRIP to Mary's Peak in search of early season bloomers around the receding snow near the peak. Bring warm clothes, rain gear, and a sack lunch. Leave from the parking lot across from the Monroe Beanery at 9am. For more information call Esther McEvoy (754-0893).

8 Apr., Mon.

MEETING. (Note change of place this time only): 7:30pm in the Large Conference Room, Forest Sciences Lab, 3200 Jefferson Way. Joint meeting with the North American Truffling Society to view videos on frostbite and hypothermia by Dr. Frank Heyl of Portland; discussion following.

13 May, Mon.

MEETING. 7:30 at the Herbarium Library (Room 4083 Cordley Hall, OSU). Our guest Speaker will be Dr. Aaron Liston, Director of the Herbarium. His topic is "Botanical Travels in Northwest China".

Emerald

13 Apr., Sat.

FIELD TRIP. Buford Park Botanizing. Ever wonder whats over the hill from the Arboretum? Join Tom Pringle for a visit to the Buford Park botanical Area to view and document early spring wildflowers. Observe first hand why cattle and wetlands don't mix. Depart from South Eugene High School parking lot (NE corner) at 10am. Bring handlens, rain clothes, lunch, drink. For further information call Tom Pringle (484-0669).

8 Apr., Mon.

MEETING. 7pm at the Kennedy Middle School, Bailey Hill Rd. and West 18th. Wendell Wood of the Oregon natural Resources Council, and Tom Ribe, editor of *Inner Voice*, a publication of the Association of Forest Service Employees for Environmental Ethics, will discuss "Protecting Ancient Redwood Forests in the Siskiyou".

27 Apr., Sat.

FIELD TRIP: Curry County Redwoods. Joint trip with Siskiyou Chapter. All NPSO members welcome. Representatives of Siskiyou National Forest will take us to Wheeler Creek Redwood RNA, to the Redwood Nature Trail, to the northernmost redwoods on Snaketooth Ridge and to see some fine remaining old growth redwoods on Peavine Ridge. Overnight camping available at Loeb Park and at the Redwood and Winchuck Campgrounds on the National Forest. Meet at Chetco Ranger Station, 555 5th St., Brookings, at 10am. Wear hiking gear and bring lunch and drink. For more information call Rhoda Love, 345-6241.

13 May., Mon.

MEETING. 7pm at the Kennedy Middle School, Bailey Hill Rd. and West 18th. John Christie of the Oregon Natural Heritage Program will speak on "Mosses, Lichens, and Liverworts...Ranking for Protection".

High Desert

6 Apr., Sat.

Glide Wildflower Show. This long-running annual show highlights freshly collected plants from all over Oregon. Its a great chance to learn about our native flora firsthand. Several High Desert members are planning to attend. Call Betty Bahn (389-4192 for details and carpooling.

11 May, Sat.

FIELD TRIP to the Fort Rock District in Deschutes National Forest. Both natural and prescribed burns will be visited. A dramatic change in the non-forested steppe areas bordering the east side of the National Forest will be seen. A beautiful meadow-steppe area has been created from a heavy cover of sage and bitterbrush. The 1988 North Paulina fire will be visited. Easy Hiking. Call trip leader Stu Garrett for more information 389-6981 evenings.

Mid-Columbia

3 Apr., Wed.

MEETING. 7:30pm at the Mosier School. Bill Weiler, Wildlife Biologist for the Washington State Dept. of Wildlife in Yakima, will present the program "Oregon White Oak: Its Biology, Uses, and Conservation Strategies".

North Coast

11 Apr., Thurs.

MEETING. 7pm at the State Office Building, 3600 Third St., Tillamook. Ed Stiernberg will give a slide presentation on plant nomenclature.

FIELD TRIP --to be announced. For more information call Ron Exeter (842-4171).

Portland

9 Apr., Tue.

MEETING. 7pm at First United Methodist Church, 1838 SW Jefferson St., Portland. Don Barr will be showing slides from the Siskiyou Mountains.

6 Apr., Sat.

FIELD TRIP. Nancy Russel will coordinate a field trip NE of Lyle with the Friends of the Gorge. Leave at 9am from the DOT lot 60th & Glisan. 2nd pickup at south end of Hood River Bridge, 10:15am. Beware of ticks & poison oak. 1000 ft elevation gain over 4 miles.

6 Apr., Sat.

FIELD TRIP. Burdoin Mountain. Leader will be Christa Thie. Leave at 9:15am from the Bingen Winery on SR14.

27 Apr., Sat.

FIELD TRIP. Visit three local areas--each in the urban area. Limited driving, only a little walking. We will visit Berry Botanic Garden with its diverse plantings in the morning, spectacular Camassia Natural Area in the afternoon, with lunch on the banks of the Clackamas River overlooking a mass of the only sagebrush species native to the Willamette Valley. Leave from 82nd & Milwaukee Express way K-Mart lot at 9am. Call leader Bryan Boyce (655-4457) for more information.

Siskiyou

11 Apr., Thurs.

MEETING. 7:30pm in Room 171 of the Science Building at Southern Oregon State College. Rick Prusz, natural resource specialist for BLM, and Dr. Frank Lang, chairman of the SOSOC Biology Department and editor of the upcoming NPSO journal *Kalmiopsis*, will present a slide show of the Chapter's field trip to Mount Eddy in the summer of 1990.

27 Apr., Sat.

FIELD TRIP: Agate Desert Preserve. *Lomatium cookii* monitoring on the preserve. Meet at 9am, corner of Table Rock Road and Antelope Road. Darren Borgias, Southern Oregon Preserve Manager for The Nature Conservancy and Siskiyou chapter NPSO President, will provide material for sampling and instruction. This is an opportunity to contribute to the Conservancy's work in Southern Oregon and learn something about monitoring rare plants. Information 482-8196.

27 Apr., Sat.

FIELD TRIP: Curry County Redwoods. Joint trip to the Chetco Ranger District with Emerald Chapter. All NPSO members welcome. See the writeup under Emerald Chapter above.

Umpqua Valley

11 Apr., Thurs.

MEETING. 7pm in Room 216, Douglas County Courthouse Auditorium, Roseburg. Dr. David Wagner of the University of Oregon will have a program on ferns. For more information call Mary Carlson (672-3479).

FIELD TRIPS to be announced. For information call Barbara Rupers (364-0774 Salem).

27-28 Apr., Sat.-Sun.

FIELD TRIP. Glide Wildflower Show. Meet at the BLM parking lot, 777 Garden Valley Rd., Roseburg at 7:45am for carpooling, leave at 8am. Spend the morning examining exhibits, spend the afternoon in the field one had and the forest the other day.

VOLUNTEERS NEEDED

For the Glide Wildflower Show! We have scheduled two field trips in conjunction with the Glide Wildflower Show and need volunteers to meet participants at the BLM carpooling point. We also need people to help with the preparation of plant materials, be it collecting, keying, cataloging, or cleanup. Call Jean Cross (496-3236) or Mary Carlson (672-3479) to volunteer and to share our diverse plant resources.

9 May., Thurs.

MEETING. Frank Callahan will present a *Calochortus* species update. 7pm in Room 216, Douglas County Courthouse Auditorium, Roseburg. Frank will lead a field trip on to see *Calochortus* the following Saturday. For more information call Mary Carlson (672-3479).

Willamette Valley

15 Apr., Mon.

MEETING. 7pm at First United Methodist Church, Room 225, 600 State St., Salem. Peter Zika will give a slide show and talk on The Mountain Flora of the Adirondacks.

18 May, Sat.

FIELD TRIP. Elaine Joyner will give a guided tour of the Willamette University Botanical Garden. Meet at 10am in front of Sparks Center on the Willamette University Campus.

William Cusick

For information, contact Paula Brooks (523-7564).

WAGNER'S 1-IN-20 RULE OF THUMB FOR PLANT COLLECTORS

The arrival of spring makes many botanists think about the arrival of "the field season". This is when we get out to search for plants in flower, make new discoveries, and, back in the good old days, make lots of nice collections.

These are not the good old days, however. The field season still means its time to look for plants but it doesn't necessarily mean making lots of collections. We recognize that past attitudes towards collecting often resulted in damage to plant populations that would be considered unconscionable today. Two examples of this come to mind immediately, both involving *Botrychium pumicola*, the rare pumice grapefern I have been studying for 12 years.

The pumice grape fern is known from very few sites. It was discovered on the rim of Crater Lake in 1897 and was known only from there until 1928, when a population was found by LeRoy Detling on the rim of Newberry Caldera. In 1941 W. B. Cooke found it on Mt. Shasta. His collection is in the herbarium at UC Berkeley. When I borrowed the specimen to verify its identity, I found it is, indeed, *B. pumicola*. On the label Cooke reported, "only two seen". The single specimen on the sheet represents 50% of the population! It has not been found on Mt. Shasta since, despite considerable searching, and is presumed extirpated in California.

In the early 1950s a student intern at Crater Lake National Park, Roy L. Rogers, undertook a search for additional sites for *B. pumicola*. He went to Newberry Caldera and found a new, healthy population on The Dome. It was a different site than Detling's, one recently rediscovered by Dr. Stuart Garrett of Bend. The Dome continues to be the most accessible site for seeing this fern and botanists looking for new sites regularly visit it to see the fern and develop the 'eye' needed to find this inconspicuous plant. However, when Rogers went to Tumalo Mountain, he found, and collected (dug up), two plants. He found only one plant on the east side of Broken Top, which he collected. It has not been found again at either of these sites.

These examples demonstrate very clearly how well-meaning botanists, in the pursuit of increasing knowledge about plants, have destroyed the existence of a species at certain sites by documenting their discoveries with collections. We hope that this wouldn't happen today, that botanists finding only one or two plants would document their discovery with photographs and notes. Good photographs and careful field notes are increasingly acceptable for recording plant discoveries. Nevertheless, from time to time, a field worker is likely to encounter a small population of an unknown plant and feel it is necessary to collect a small amount for positive identification and documentation. The Native Plant Society of Oregon Guidelines and Ethical Code recognizes this situation and advises that collecting be done as inconspicuously as possible so that casual observers will not be encouraged to follow suit.

The guidelines for field work go on to state, "Collecting must never endanger a plant population....avoid excessive collecting: this calls for exercise of good judgment by the collector. Consider the use of rules of thumb for judging whether to pick or not to pick". Sage advice, but what is a good rule of thumb? I remember this question being asked over a dozen years ago at one of the rare plant conferences organized by Jean Siddall in Portland. None of us, professional or amateur, had a good answer at that time.

During the past half-dozen years I began using a rule of thumb which I now call the '1-in-20 Rule'. I cannot recall from where the idea came, if it was in some piece of literature, picked up in conversation, or an original insight. The notion grew gradually in my mind, becoming clearly articulated only as it was put into strict practice, by myself, over the last few years. This practice has satisfied me of the general utility of this rule of thumb and I am now prepared to advocate its widespread use. I will take credit for the idea until somebody shows me an earlier source (not unlikely, since I have a vague sense that I heard it somewhere).

Simply put, the '1-in-20 Rule' dictates that one never collects more than one out of twenty plants. It means *not* collecting one plant until you have found at least twenty. This runs counter to the traditional collector's mentality. As a teenage fern collector the sight of a rare fern sent my hand out to pluck it from the rocks as a prize. Having the plant safely in my vasculum, I started looking around for more. Now, if I run across an unusual plant I suppress my traditional impulse and think, "Can I find twenty?" Only if twenty are found will I consider collecting one plant. And forty should be present before two are taken, and so on. Leave at least nineteen for every one taken. This applies to parts of plants, also: remove no more than five percent (one-twentieth) of a shrub, one frond from a clump of twenty, 5% of a patch of moss. I use the 1-in-20 Rule whether I am doing rare plant work or gathering common species for classroom use.

There is at least a modicum of scientific logic behind this rule. When we do statistical analyses of populations, we generally consider the difference between two populations to be not statistically significant if results of what we are counting or measuring are within 95% of each other. A population sample of 19 is not significantly different from a sample of 20. Note that I recognize that one plant out of a *total* of 20 is significant and statistics has nothing to do with it. Nevertheless, although the statistical argument for justifying the 1-in-20 Rule is weak when dealing with small populations, it is the most reasonable one I can devise. A population geneticist has advised me that statistical arguments will not speak against the 1-in-20 Rule. Between this advice and having proved to my own satisfaction the utility of the 1-in-20 Rule, I advocate its use by all field botanists.

The 1-in-20 Rule does not obviate the need for good judgment. Any collecting should be both necessary and permitted. Any pertinent factor relating to the survival of a population needs to be superimposed on the 1-in-20 Rule. The main value of a rule of thumb is to provide a clear point of reference from which to begin assessing a situation. I suggest this one as a minimal criterion to be met before any taking of a plant be considered.

---David H. Wagner
Emerald Chapter
Curator, U of O Herbarium

FENCING PARTY AT CATHERINE CREEK

Catherine Creek is a special place in the Columbia River Gorge, well known to many NPSO members. At least nine different rare plant species are found there, plus a host of other native trees, shrubs, grasses, and wildflowers. In 1988, over 2000 acres around Catherine Creek were acquired by the Forest Service, so that the area is now national forest land.

Unfortunately, during the past year ORVs, mostly four-wheel-drive vehicles, have invaded these beautiful grasslands, crushing plants and bulbs, making deep ruts in the thin fragile soils. Some of the ruts will scar the land for years to come.

The main reason for this desecration is the absence of a decent fence along the Old Highway. The existing fence is old and decrepit, almost non-existent in places, elsewhere so weak that one can push the fenceposts over or press the wires to the ground. What is needed is a strong new fence.

The Forest Service has agreed to supply the necessary materials and a Forest Service coordinator if the NPSO can supply volunteers to build the new fence. From our experience in building .3 mile of fence at the Dalles Mountain Road in 1989, we know we can build a fence to protect Catherine Creek. In fact, this one would be easier, since the fence is along the road, so that no time or effort need be expended carrying materials to the site.

In all, about a mile of new fence is needed, but the Forest Service recommends it be built in short installments. The proposal for 1991 is to build the section from the Catherine Creek gate west to the cliff edge--a little less than a quarter mile. We should be able to complete it in four sessions. The first session will be on a weekday soon after April 14th. Members who are interested in helping on one or more of the fence-building sessions should please contact Russ Jolley (286-2350) or Portland Chapter President Mike Fahey (206-694-2902).

--Russ Jolley
Portland Chapter

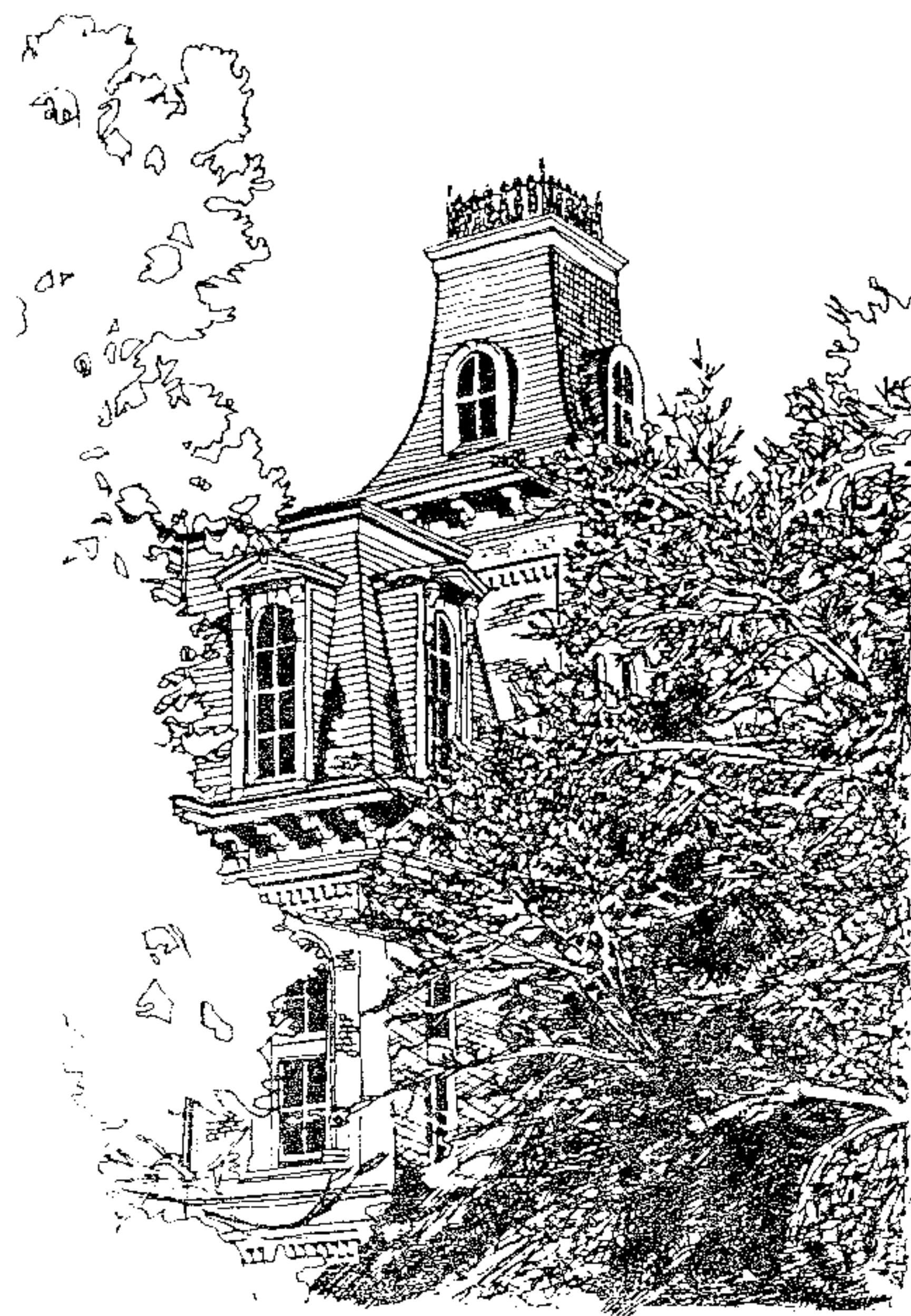
NPSO ANNUAL MEETING, JUNE 14-16: MONTHLY UPDATE MEETING SCHEDULE & REGISTRATION MATERIALS ENCLOSED

ANNUAL MEETING PLANS: WITH ONLY TWO MONTHS TO GO, Emerald Chapter, under the direction of Charlene Simpson, continues to plan for NPSO's big 30th Birthday Annual Meeting in Eugene. Dates are **Friday, thru Sunday, June 14, 15 and 16.** The Saturday night banquet, which will be served in elegant Gerlinger Hall, will include wine and a gorgeous NPSO 30th Birthday cake! Banquet speaker will be **Dr. Linda R. McMahan** of Berry Botanic Garden.

REGISTRATION MATERIALS: This is the second and last time registration forms will appear in the Bulletin. If you forgot to fill yours out and send your check last month, please do it now! **Deadline for registration is May 1.** If you have registration questions, please call Evelyn Everett at 345-1746. If you have questions about the field trips, please call John Koenig at 935-7677.

ANNUAL MEETING SCHEDULE: A schedule of annual meeting events with times and places is in this *Bulletin*. This is the only time this schedule will appear, but all annual meeting participants will receive an updated schedule when they register. If you have questions about the schedule, please call Charlene Simpson at 465-1059.

POSTER SESSION: At most scientific conferences, poster sessions are held for participants who wish to give attendees an idea of research in progress, but who are not presenting formal papers. Rhoda Love has adopted this idea for our Annual Meeting. When Rhoda was NPSO president, she realized how important Chapter Reports are. Each chapter gains from hearing the important things other chapters are doing, yet there is often little time at meetings for these very important idea exchanges. Thus, the poster session was born! **Each chapter is asked to bring a poster illustrating one or more of your activities.** Easels will be provided. Emerald Chapter's poster will illustrate how Federally-listed *Lomatium bradshawii* at Buford Park was fenced to exclude cattle. Stu Garrett reports that High Desert Chapter is at work on their poster. Jerry Igo, of Mid-Columbia, will present a video of chapter activities. Posters will be displayed on Saturday night, June 15, before the banquet. Questions? Call Rhoda Love at 345-6241.



NEW NPSO NOTECARDS TO SUPPORT SOCIETY

The new NPSO Notecards are now available from your local chapter. They feature seven rare plants illustrated by Julie Kierstead plus one by Eugene artist Valerie Sloane. Included in this collection are Gentner's fritillary (*Fritillaria gentneri*), Kamchatka lily (*F. camchatcensis*), red clintonia (*Clintonia andrewsiana*), Myrtle Creek mariposa (*Calochortus coxii*), Barrett's penstemon (*Penstemon barrettiae*), rough popcorn flower (*Plagiobothrys hirtus*), triplet lily (*Triteleia laxa*), and Gorge daisy (*Erigeron oreganus*). Printed on pastel parchment-style paper in beige, grey blue and green with matching envelopes, these notecards make lovely gifts. Proceeds go to the NPSO's Rare and Endangered Plant Fund. For further information, contact Nancy Fredricks at (509) 427-8778, Box 127, North Bonneville, WA 98639.



CONSERVATION BIOLOGY PROGRAM FIELD PLANS

Its spring and the field season is again upon us! In 1991, we are looking forward to a rewarding season of cooperative projects with the Bureau of Land Management and the US Forest Service studying rare plants throughout Oregon. Here is a brief description of our plans.

Our work with BLM should cover at least five species. Already this year we have conducted inventory, monitoring, and disturbance ecology on *Montia howellii*, a tiny plant with a historic range from California to British Columbia, but which is now restricted to only a few known sites. Soon we will initiate long-term population studies of *Astragalus tyghensis*, a Wasco County endemic, and *Haplopappus radiatus*, a rangeland species from the Snake River Area. In Eastern Oregon near Harper, we hope to study the pollination and breeding system of *Amsinckia carinata*, an annual plant in the borage family, and examine substrate requirements of the species. Last, we will work with the BLM to establish a monitoring program for *Cordylanthus maritimus* at Coos Bay.

A trip to Hell's Canyon in the Wallowa-Whitman NF will kick off our field work with the USFS. There we will establish additional monitoring plots for *Mirabilis macfarlanei*, one of only three Oregon Plant species listed by the US Fish and Wildlife Service as endangered. On the Fremont NF near Lakeview, Dr. Aaron Liston from Oregon State University and his graduate student, Jeff Green, will work with us to examine possible hybridization of *Castilleja chlorotica* with other *Castilleja* species. In a third project, probably underway as you read this, we will work with the Berry Botanic Garden in their cooperative effort with the BLM and the Siuslaw NF to monitor population trends of *Erythronium elegans* (elegant fawn-lily) in the Coast Range.

With these projects keeping us busy, we are hoping an interested person will come forward to help out with field work for one to two weeks. Funding may be possible through an NPSO Research Grant matched by ODA. Write or call Stephanie Schultz or Dan Luoma soon if you are interested.

--Tom Kaye and Bob Meinke

LETS GO SEE OUR OREGON REDWOODS!

Please join us in Brookings on Sat. April 27 for a guided tour of our beautiful Oregon redwoods. District Ranger Michael Frazier and other representatives of the Chetco District of the Siskiyou National Forest will be our guides for a day on the Chetco and Winchuck Rivers to see what's left of Oregon's old growth redwood forest and to hear how the redwoods will be managed by the Forest Service in the future.

The trip is sponsored by the Emerald and Siskiyou Chapters and all NPSO members and other interested guests are welcome. Meet at the Chetco Ranger Station, 555 Fifth Street, Brookings at 10 am Saturday, April 27. Wear hiking clothes and boots and bring lunch and drink. For more information, call Rhoda Love (345-6241).

FACING PAGE, BOTTOM:

Sequoia sempervirens

Coast redwood

From Manual of trees of North America

By C.S. Sargent

BELOW:

Penstemon barrettiae

Drawn by Julie Kierstead

From Oregon Rare and Endangered Plants

NPSO Notecards



WILDFIRE IN CENTRAL OREGON: LIVING WITH THE INEVITABLE

The fire season of 1990 is one that vividly remains in the minds and lives of Central Oregonians. The loss of 22 homes in the Awbrey Hall fire is a graphic example of the potential for holocaust.

Why do we have the current situation? What can be done about it? Can we prevent a similar dilemma in the future? In recognition of NPSO's 30th year, the High Desert Chapter will sponsor a series of fieldtrips to examine, in a non-judgemental way, the causes and effects of fire. We will travel to forested and non-forested areas and examine the urban and rural aspects of the problem.

Trips depart from the Juniper Park parking lot (7th and NE Greenwood in Bend at 8:30am unless otherwise noted. Arrive a few minutes early to carpool. We normally return to Bend by 5pm. Fill your gas tank. Bring water, lunch, boots, day-pack, and consider layered clothing, sunscreen, hand lens, camera, binoculars, ect. Riders are encouraged to reimburse the drivers; 22 cents per mile total is a suggestion. Weather may be severe and trails and roads can be rough. No smoking due to fire danger. No picking or collecting of plants allowed. Please leave pets at home. Please privately inform your triplader of important medical conditions. You participate at your own risk. Call trip leaders for more information about specific outings, or Field Trip Chair Stu Garrett (389-6981 eves) for general information.

FORT ROCK DISTRICT, DESCHUTES NATIONAL FOREST Saturday, May 11th.

Both natural and prescribed burns will be visited. A dramatic change in the non-forested steppe areas bordering the east side of the National Forest will be seen. A beautiful meadow-steppe area has been created from a heavy cover of sage and bitterbrush. The 1988 North Paulina fire will be visited. Easy Hiking. Call trip leader Stu Garrett for more information (389-6981 evenings).

HATFIELD'S HIGH DESERT RANCH Saturday, June 8th.

Doc and Connie Hatfield have invited us to their ranch 15 miles from Brothers. They practice innovative ways of ranching which are kinder and

gentler on the land. Prescribed fire, juniper control, and riparian protection are some of them. Easy hiking. Trip leader is Stu Garrett 389-6981.

METOLIUS RESEARCH NATURAL AREA Saturday, June 29th.

In 1989 the USFS used prescribed fire in this ancient forest. We will visit the area to see the results and understand the benefits. We may also visit sites for Peck's penstemon, a rare plant. Easy hiking. Call trip leader Stu Garrett 389-6981

PRINGLE FALLS EXPERIMENTAL FOREST/RNA Saturday, July 20.

Both natural and planned fires will be seen. We will also visit the planned "Turn of the Century Forest" and understand the role fire will play in its development. Easy hiking. Call trip leader Bill Hopkins for details at 389-3330.

CRATER LAKE NATIONAL PARK Saturday-Sunday, July 27th-28th.

We will visit Oregon's only National Park on this overnight campout. Our tour will include an examination of fire management in the ancient forests of the Park and a visit to some rare plant locations. Moderate hiking. Please **preregister** with trip leader Stu Garrett at 389-6981 evenings.

BROKEN TOP VOLCANO Saturday August 17th.

Our annual hike to view the spectacular display of alpine wildflowers and glacial geology on Broken Top. A five mile RT moderate to strenuous hike with a 1500 ft. elevation gain, mostly off-trail in the Three Sisters Wilderness. Number of hikers limited due to USFS restrictions, call trip leader Stu Garrett to **preregister** at 389-6981 evenings.

AWBREY HALL FIRE Saturday, September 14th.

Those interested in the urban-forest interface will find this trip interesting. We will examine the area burned and talk about prevention. Recovery of the 1979 bridge Creek Burn may also be observed. Easy hiking. Trip leader is Stu Garrett, call 389-6981 evenings for more information.

NEW BOTANICAL AREAS ON THE ROUGE RIVER NATIONAL FOREST

With the approval of the Rogue River National Forest's Final Plan, twelve new botanical areas were designated this past year. All of these botanical areas (nine in Oregon and three in California) are found in the Siskiyou portion of the Forest and ten of the twelve areas are located on the Applegate Ranger District. These botanical areas were chosen because they contain concentrations of rare species, exceptionally rich and diverse floras, or plant communities that are rarely found in an undisturbed condition. Wayne Rolle, long-time NPSO member and Rogue River/Siskiyou National Forest zone botanist, was the driving force behind the designation of these botanical areas.

Botanical areas provide a cornerstone for maintaining biological diversity on the Forest. The US Forest Service Manual defines a botanical area as a unit of land that contains plant specimens, plant groups or plant communities that are significant because of form, occurrence, habitat, location, life history, arrangement, ecology, rarity or other features. When conflicts exist between botanical

area management and other resources, the conflict will be resolved in favor of the botanical resource, subject to rights under law and regulation.

The Oregon botanical areas are: Dutchman Peak, Grayback Mountain, Hinkle Lake, Lyman Creek/Doe Hollow, Miller Lake, Observation Peak, Mount Ashland, Red Mountain, and Whisky Peak. The California botanical areas include: Cook and Green Pass, Scraggy Mountain, and White Mountain. The majority of the botanical areas are found along the high crest of the Siskiyou Mountains. The Klamath National Forest is proposing botanical areas in the Mount Ashland and Cook and Green vicinity which would adjoin the Rogue River National Forest botanical areas creating larger areas of protection for these botanically unique communities.

Some of the sensitive plant species located in these botanical areas include: *Horkelia hendersonii*, *Lupinus aridus* spp. *ashlandensis*, *Haplopappus whitneyi* spp. *discoideus*, *Cypripedium californicum*, *Gentiana newberryi*, *Carex scabruiscula*, *Castilleja schizotricha*, *Erigeron petrophilus*, *Lewisia leana*, *Epilobium siskiyouense*, *Gentiana pleurisetosa*, *Ribes marshallii*, *Sedum laxum* spp. *heckneri*, *Lewisia cotyledon* var. *howellii*, *Sedum oblanceolatum*, *Arabis koehleri* spp. *stipitata*, *Mimulus kelloggii*, *Taushia howellii*, *Calochortus nudus*, *Draba howellii*, and *Pedicularis howellii*.

Joint NPSO-Forest Service field trips are planned to compile species lists in several of the botanical areas this summer.

--Barbara Mumblo
Siskiyou Chapter

ROCKCRESS SEARCH

Linda Ann Vorobik, illustrator and botanist with the Jepson Herbarium, is currently revising the "purple-flowered" *Arabis* group (i.e. the *Arabis blepharophylla* group)

A. aculeolata---Waldo rockcress

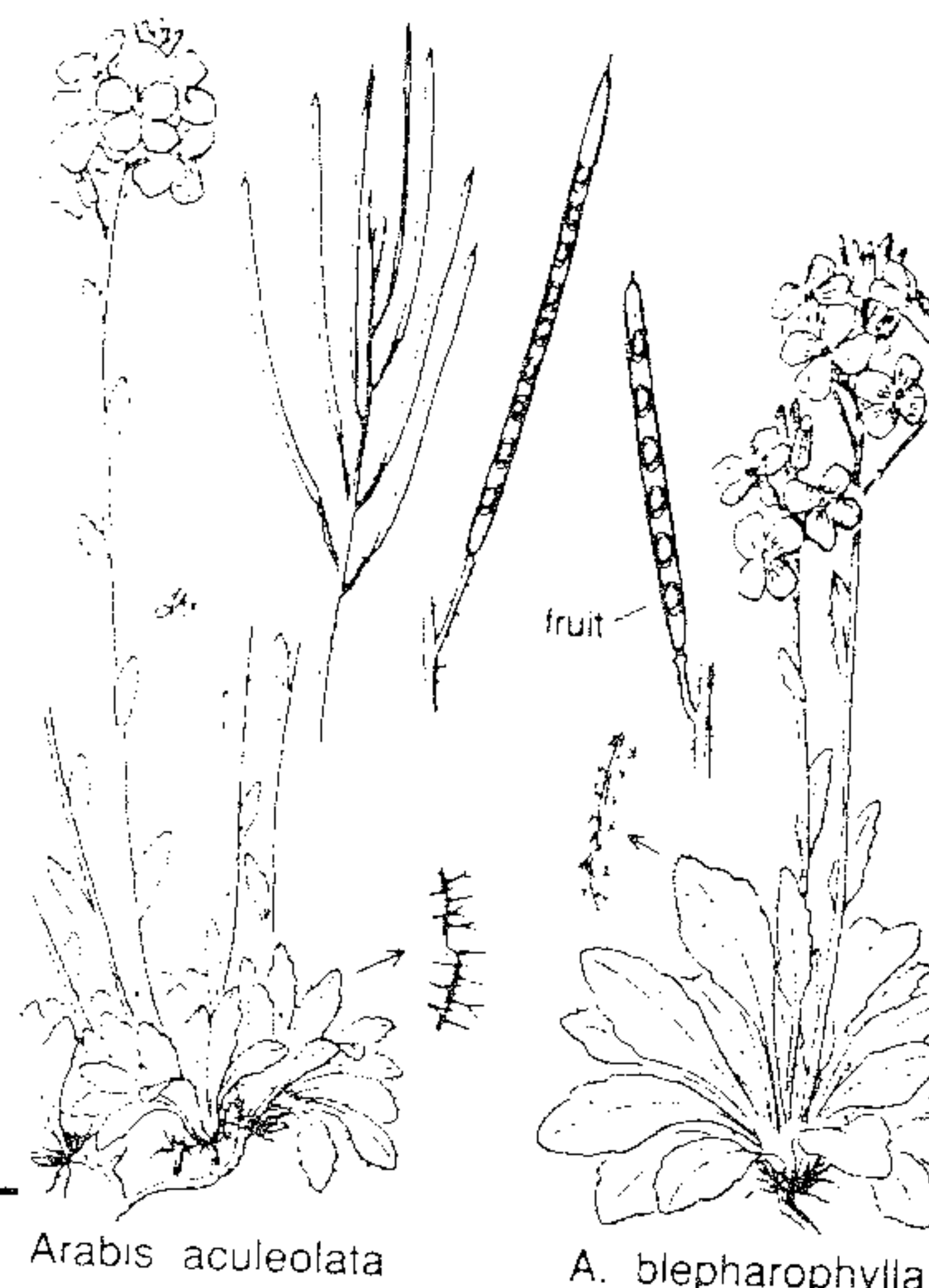
A. blepharophylla---Coast rockcress

A. mcdonaldiana---McDonald's rockcress

A. modesta---Rogue Canyon rockcress

A. oregana---Oregon rockcress

She will be publishing next winter, and so needs to visit as many populations of these species as possible this spring and summer. If you know of populations of any of these species that you think may not be well-known already, please contact Dr. Vorobik at the Jepson Herbarium, U.C., 6701 San Pablo Ave., Oakland CA 94608. Phone: (415) 643-7008 days, 527-3023 evenings or messages. Thank you.



Arabis aculeolata

A. blepharophylla

HIGHLIGHTS OF JANUARY'S NPSO BOARD MEETING

✎ NPSO participation in the Environmental Federation of Oregon has been very successful for our organization. We have been an important part of its statewide program and are starting to see the benefits of it our programs.

✎ The High Desert Chapter will proceed with the development of a car window NPSO decal.

✎ A report of the R&E Conference in Eugene was given and plans will be made for NPSO co-sponsorship of the 1992 conference.

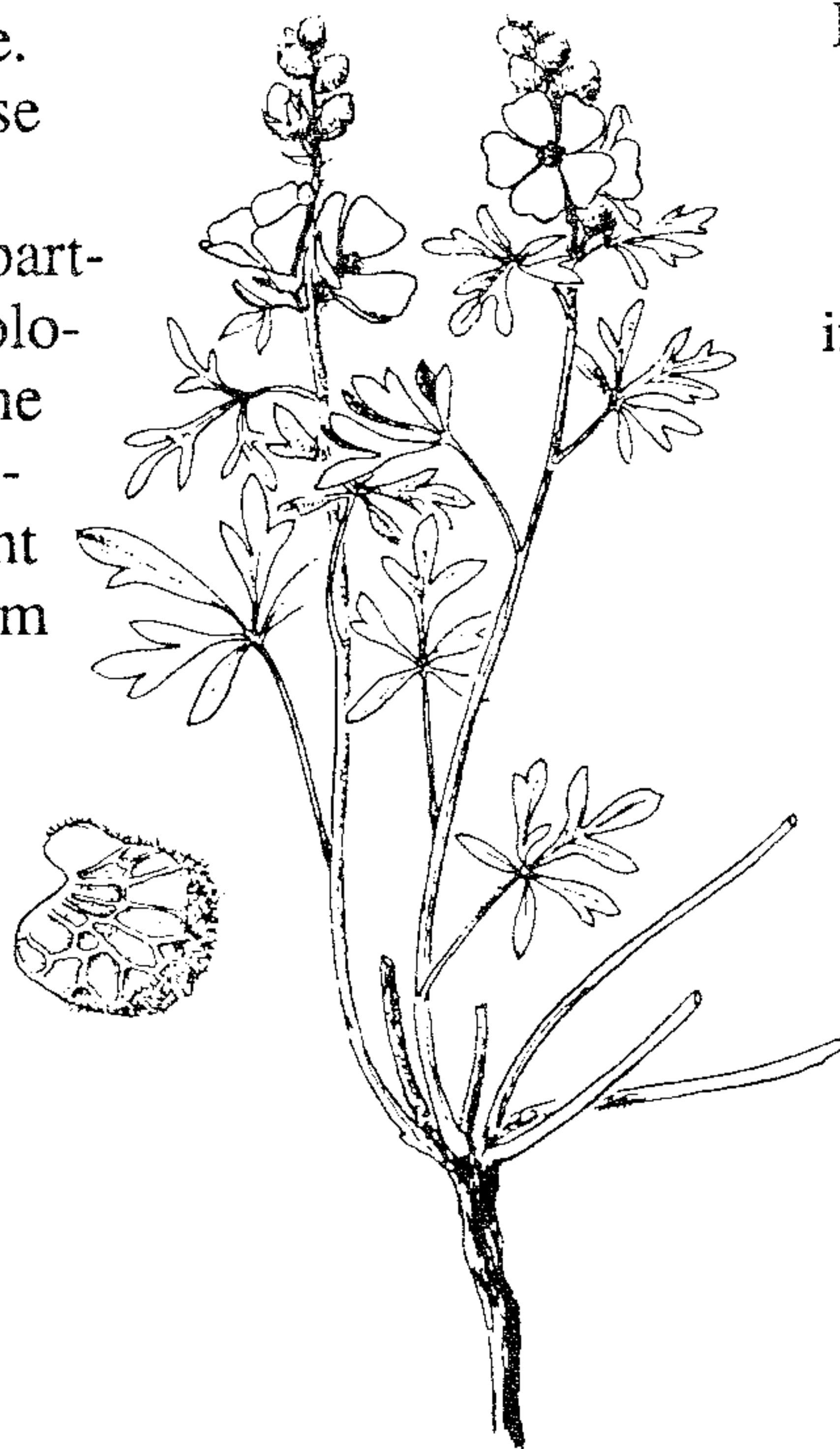
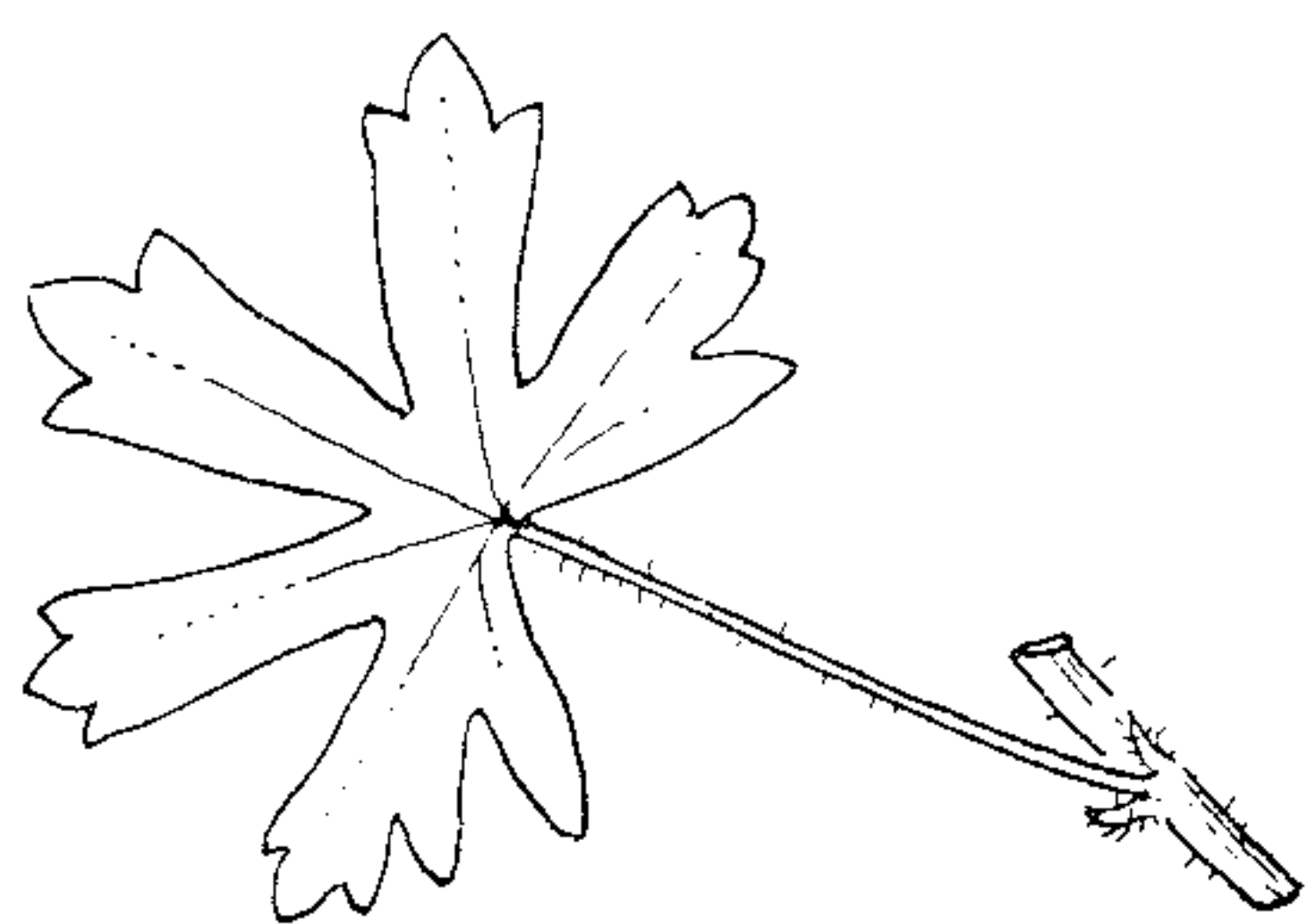
✎ A long discussion was held about the R&E endemic plants of Eastern Oregon and the threat to their survival of cyanide heap leach strip mining for gold. Plans are being made to ensure their protection.

✎ Initial reports indicate that Governor Robert's transition team has recommended a weaker stance on reclamation of cyanide heap mines than expected. Comments to the governor about this are appropriate.

✎ NPSO Research Grants to support studies of *Astragalus tyghensis*, *Silene spaldingi*, the Steens Mountain flora, and westside forest succession were reviewed.

✎ Esther McEvoy has been working hard to put together a slide show about Oregon's native vegetation. She has completed the introduction and is working now on each region of the state. She would appreciate slides and text from those interested.

✎ Concerns were raised that the Oregon Department of Agriculture's Plant Conservation Biology Program might face heavy budget cuts in the wake of Measure 5. Members interested in expressing support for the State of Oregon's Plant Systematics and Conservation Biology Program are encouraged to write Governor Roberts.



A KEY TO THE SIDALCEA SPECIES OF THE KLAMATH MOUNTAINS

This key (published as an insert in this *Bulletin*) was first developed in 1989 in fulfillment of a challenge cost-share agreement between the Oregon Department of Agriculture's Plant Conservation biology Program and the US Forest Service. The purpose of the project was to investigate the taxonomy and geographic distribution of the *Sidalcea* species in the Klamath Mountains region. One of my findings was that the taxon *Sidalcea setosa* is indistinguishable from *Sidalcea oregana* var. *spicata*. *Sidalcea setosa* is not in this key; I have proposed submerging *S. setosa* into *S. Oregana spicata*. Also, as Hitchcock was quick to admit in his 1957 monograph on the perennial species of *Sidalcea*, there is quite a bit of interbreeding between the *Sidalceas malviflora* subspecies *asprella* and *virgata*. Since the species are virtually indistinguishable in the Illinois Valley, I have proposed that these be treated as a single subspecies, that of *asprella*, and that the former subspecies be changed to varieties *asprella* and *virgata*. A longer paper explaining these results has been accepted by *Madrono* and will hopefully be published later this year.

--Jenny Dimling
Emerald Chapter President

Sidalcea oregana spicata
Oregon sidalcea
Drawn by Jeanne R. Janish
in *Flora of the Pacific Northwest*
By Hitchcock & Cronquist
University of Washington Press

NPSO POSITION STATEMENT ON CYANIDE HEAP LEACH STRIP MINING

ADOPTED BY THE NPSO BOARD ON JANUARY 26TH, 1991

The Native Plant Society of Oregon is deeply concerned about proposals to develop cyanide heap leach strip mines in Oregon. We are opposed to the development of these mines in the manner that has occurred in other states. If these mines are developed in our state, NPSO asks that the following guidelines be adhered to. We stand firmly with other groups seeking legislation to prevent the damage this technology can inflict on Oregon's natural ecosystems.

PRE-OPERATIONAL ISSUES

We request a moratorium on permitting until proposed changes in laws, rules, and regulations are in place. Cumulative effects of mining on people, hydrology, wildlife, ect., need to be addressed. Because these mines can significantly impact an area of thousands of acres, certain sensitive areas should be excluded from this activity. Such areas should include (but are not limited to) ones of archaeological, botanic, wildlife, visual, recreational, historical, or cultural importance. The federal, state, and local permitting bodies should have the authority to restrict mining from these areas.

The NPSO feels that planning is a crucial concern. Many potential impacts can be anticipated and mitigated. A diverse public representation is key. Oregon's open meeting law should apply. No private coordinating meetings by the state Department of Geology and Mineral Industries (DOGAMI) should take place. Early and heavy public involvement is vital. Require applicant planning and up-front financing for social, economic, and infrastructure impacts.

The practice of allowing a mining company to hire and pay a private consulting firm to perform the environmental analysis of their project should not be permitted any longer. We prefer the agencies' performing their own analysis, or, if necessary, choosing an independent contractor to do it. Full financial compensation by the mining companies to the agencies for this service is appropriate. A detailed and comprehensive reclamation plan should be submitted as part of the application process.

Redundant safety systems should be required in the initial design. Allow no contamination of surface or ground waters. Triple lines, continuous monitoring by outside authorities, same day reporting of spills and kills required with public disclosure.

Mines should not be eligible for Oregon Pollution Control Tax Credits for liners and pads.

Permit fees should cover all agency costs incurred for regulation, mitigation, and restoration.

Require solid, biodegradable (wood?) stakes for claims. replace open topped plastic pipes.

Adequate surveys for sensitive and rare species are required. Winter-time or drought-time surveys are not adequate.

OPERATIONAL ISSUES

Require strict rules regarding transport of cyanide, including a ban of liquid transport.

Mandate absolute protection for fish and wildlife. We should experience zero wildlife deaths and have full mitigation for habitat loss. No endangered plants should be impacted whatsoever. All ponds must be covered and fenced. Require drip nozzles rather than spray.

A 30% severance tax should be placed on the value of mined ore. These fees should go into a state trust fund designated for community and environmental remediation. These "host fees" help cover local infrastructure, social, and environmental costs incurred by the host community. Don't allow in-situ mining, where cyanide is pumped into the ground and recovered for gold extraction.

Update fines and penalties to be truly protective. Require regular reporting of electrical and water usage, including well and groundwater impacts.

Stipulate inspection by monitoring agencies without prior notice.

POST-OPERATIONAL ISSUES

All pits must be backfilled to original contours.

All tailings piles must be recontoured to original contours and replanted to resemble the original native plant community. No exotic species should be used. Any drainage should meet drinking water standards. Pre-mining hydrology should be preserved or fully restored.

No airborne toxics to be released, with a minimum of ten-year monitoring.

All topsoil should be preserved and revegetation should prevent establishment of alien species. Final reclamation to start and be an ongoing part of operations as any part of the process is completed and to be finished within two years of closure.

Increase bonding requirements, with no cap. Bonds should be posted prior to any disturbance and should be adequate to cover all costs for impacts, restoration, and should have no escape clause. Bonding requirements must be adjustable upwards if mine development warrants this.

Allow citizen enforcement of standards through citizen-suits of permittee or of state agencies for violations. Require treble damages and recoverable legal fees if all or part of suit is won.

MEMBERSHIP COMMITTEE CHAIR NEEDED!

Our long-time Membership Chair Mary Falconer has resigned due to health considerations. She served the society well over the years keeping track of all the member's changes and comings and goings. We all owe her a big thank you!

The Society will need a replacement as soon as possible. The membership list is up to date and on a computer disk. A volunteer with either an IBM-compatible or Macintosh computer could take this on without much start-up time. The Society can supply the necessary software. The position requires entry of new members and changes of address for present members. Each month address labels for *Bulletin* mailings are printed, and occasionally for other mailings. If you are interested in this contact President Stephanie Schulz at (503) 485-1868.

PROJECTS FOR RARE PLANT RESEARCH

At the November NPSO State Board Meeting, I volunteered to collect information from the Forest Service, The Nature Conservancy and the Plant Conservation Biology Program on plant taxa which need study. Basically this is an Oregon list which we encourage graduate students or other botany enthusiasts to work on. These Forest Service Species comprise Part I of a series of II. With each are the name of the contact and the forest at which they may be reached for more details.

WAYNE ROLLE: SISKIYOU/ROGUE RIVER NATIONAL FORESTS

Perideridia erythrorhiza---3 populations, geographically widely separated. Are they the same? (Umpqua Valley, Upper Klamath Lake, and south side of Eight Dollar Mountain.)

Sedum radiatum complex, 3 subspecies: *depauperatum*, *radiatum*, and *ciliatum*. Are these valid?

Astragalus accidens var. *accidens* and var. *hendersonii*---are these taxa distinct? Do both occur in Oregon?

Eriogonum douglasii/*E. caepitosum*---An *Eriogonum* on Dutchman's Peak has features of both species. A new taxon or just a hybrid?

Eschscholzia caepitosa---Are the Oregon occurrences really this species or a variety of *E. californicum*?

Monardella purpurea/*M. odoratissima*---Are these distinct taxa?

Salix tracyi---Is this a valid taxon?

Carex globosa---One or two dioecious members of the *Carex* group *Montanae* occur in Josephine and Curry counties. Are these populations of previously described taxa (usually monocious) or are they something new and different?

Fritillaria gentneri---Is this a valid taxon, a sporadically-occurring hybrid, or something else?

Triteleia hendersonii var. *leachiae*---Is this a valid taxon?

Lomatium ?---Keys to *L. nudicaule*, but with some differences. (Elevation 4000', Curry and Josephine counties.)

Viola ?---Identified as *V. lansdorfii* (looks like a miniature *V. adunca*) but the identification is questionable. (Coastal headland in Curry County, one population of 50-100 individuals.)

ANDY KRANZ: OCHOCO NATIONAL FOREST
Alliums on the east side---a good key is needed, many are on the Regional Foresters Sensitive Species List.

KARL URBAN: UMATILLA NATIONAL FOREST
Spirea densiflora var. *splendens*---Is this taxon valid?

PAULA BROOKS: WALLOWA-WHITMAN NATIONAL FOREST
Allium tolmei var. *platyphyllum*---This is impossible to distinguish from var. *tolmei*...are the taxa valid?
Adiantum pedatum var. *novum*---Undescribed species. (Seven Devil's Wilderness, Idaho.)

TERRY LILLIBRIDGE: Wenatchee National Forest
Sidalcea oregana var. *calva*---Is this a variety or a distinct taxon?

JENNY DIMLING: WILLAMETTE NATIONAL FOREST
Romanzoffia thompsonii---Undescribed species, the bulk of which is located on the Willamette and Umpqua National Forests. It is the only annual *Romanzoffia*.

ANITA SEDA: SISKIYOU NATIONAL FOREST
Sophora leachiana---This species has a very limited distribution (mostly on the Galice Ranger District) and is frequently disturbed by management practices. The plant flowers profusely, but sets few seeds. Relatives in Asia have been used as herbal remedies for high blood pressure. Is this a disturbance tolerator, an early seral species or does it simply respond to an initial flush of nutrients? There is a need to monitor this species and perhaps study the reproductive biology.

---Jenny Dimling
Emerald Chapter

VOTE ON AMENDMENT TO THE NPSO BY-LAWS

At the January 26th Board Meeting I recommended that the State Board needed a quarterly report on the status of the Oregon Department of Agriculture's (ODA) Plant Conservation Biology Program as an agenda item at meetings. Such a report should be given by someone actively working in the program. This report would enable the NPSO to be in closer contact with how the program is doing and how we can strengthen it in the years to come. There was a discussion about this matter and it was recommended that the ODA Plant Conservation Biology Program appoint a representative to attend our Board Meetings as an ex-officio (non-voting) Board Member. This has been discussed with Bob Meinke of the ODA program and has met with approval. In order to appoint this ex-officio member, the by-laws need to be amended to provide specifically for such a member. To so amend the by-laws, our ballot sheet includes a proposal to add (no deletions made) to the by-laws a provision for an ex-officio member from the ODA program. This amendment will strengthen our links to the Departments of Agriculture's Plant Conservation Biology Program.

--Esther McEvoy

VOTE FOR STATE BOARD AND OFFICERS THIS MONTH

Its time to get out that trusty pen and mark your NPSO ballot again. Our annual election is in April, with installation of new officers at the annual meeting in Eugene this June (see the accompanying article and enclosed registration form in this issue). This year all four State officers are offering to return for another term. Three new Directors need to be elected to the Board. Fill in the enclosed preaddressed ballot and mail it in today!

BITS AND PIECES

---NEWS AND INFORMATION FROM ALL OVER

THIS SEASON AT TOM MCCALL PRESERVE

The Nature Conservancy is providing naturalist-guided tours at the spectacular Tom McCall Preserve on Rowena Plateau. This area combines one of Oregon's best wildflower displays with dramatic Columbia River Gorge vistas and landforms created by past catastrophic geologic events. A naturalist will be available at the preserve weekends through May 26th, 11am through 4pm. Hikers are reminded that conditions on the plateau are primitive. No restrooms are available, and pets are not allowed. Please preregister for all events (228-9561). Guided walks are scheduled for Saturdays, April 6th and 20th, and May 4th and 25th. Each walk will feature a different cast of flowers. Meet at the Preserve entrance at 1pm.

A guided birding outing is planned for Sunday May 19th at 9am. The area is noted for a wide variety of birds due no doubt to the diversity of habitats available.

Two Knapweed Pulls are scheduled for May 11th and June 29th. Elimination of the obnoxious weed aids in preservation of the area for its original inhabitants, our native wildflowers. These outings have always been a favorite of NPSOers. Bring trowels, weedpullers of any description, gloves, lunch, water, and energy. Please preregister for the pulls (228-9561). Meet at the Rowena Crest Viewpoint.

BOTANY JOBS AVAILABLE

Seasonal botanists are needed by the US Forest Service for spring and summer fieldwork. For work in the Malheur National Forest, contact Karen Haines at 528 E. Main, John Day, OR 97845; (503) 575-2110. For positions in the Deschutes, Ochoco and Malheur Forests, contact the Personnel Service Center, 1645 Highway 20 East, Bend OR 97701. The Native Plant Society of Oregon Botany Job Clearinghouse can be reached C/O Paula Brooks, Wallowa-Whitman National Forest, PO Box 907, Baker City, OR 97814. This reference service is designed to aid job seekers in finding jobs with the USFS and BLM in Oregon.

HITCHCOCK ET AL. BACK IN PRINT!

Yes, all five complete, uncondensed volumes were reprinted again in 1990. Powell's Books in Portland is selling the set for \$250, or you can order direct from:

University of Washington Press
PO Box 50096
Seattle, WA 98145-5096

--John Christy
Portland Chapter

NPSO MEMBER KENTON CHAMBERS RECEIVES MERIT AWARD

Kenton Chambers, a member of the Corvallis Chapter NPSO, was given a Botanical Society of America Merit Award August 8, 1990, which was announced in the December 1990 edition of *Plant Science Bulletin*, the newsletter of the BSA. Recipients of this award are judged to have made significant, outstanding contributions to the field of botany. The article describes Chambers as an "eminent biosystematist, internationally recognized for his studies of various genera of *Asteraceae*; a pioneer in the development of plant conservation in Oregon; stimulating teacher who has inspired many students to become botanists".

BLM RESPONDS TO EASTSIDE DROUGHT

Bureau of Land Management Vale, Lakeview, and Burns Districts are so dry that the BLM is acting to limit grazing in 1991. Discussions with grazing permittees have resulted in a voluntary 50% reduction in use of existing grazing permits. With record low soil moisture content, coupled with stream flow levels as low as 25% of normal, and up to 30% of streams simply dried up, the BLM is contemplating further involuntary restrictions on grazing. Wild Horses from the Warm Springs Herd Management Area have been moved to a holding facility where water is available to them. BLM specialists expect to stop grazing completely in some pastures. Others will see little restriction, as drought severity is being judged on a case by case basis. BLM officials state that critical habitats will not be sacrificed to grazing.

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GUIDELINES FOR CONTRIBUTORS

The NPSO *Bulletin* is published monthly as a service to NPSO members and the public. Contributions of all types are welcome.
DEADLINE Copy is due with the editor by the 10th of each month.
Text Format: Submissions can be in any form. Camera-ready copy should be in 3.334 in. wide columns up to 9.3 un. long, with .22 in column spacing. The *Bulletin* uses 12pt. 'Times' font. Author's name and affiliation are added at the end of the article. Do not indent but double space between paragraphs. For special materials (e.g., plant keys) choose an appropriate format, keeping in mind that readers may wish to carry your article pasted inside their favorite field guide.
Computer output: The editor prefers articles submitted on Macintosh or IBM disks, or via Macintosh modem. Contact the editor for details.

Illustrations: Line drawings, prints, and high contrast B&W prints are useable. Some Macintosh graphics can be used also. Contact the editor about our current needs, or send them along with your article.
Credits: If the item is not original, name and date the source. For original items, identify the author and indicate, for news items, if a by-line is desired. Indicate whether the item is to be used in its entirety or excerpted at the editor's discretion.
Scientific Names: Nomenclature should follow *Flora of the Pacific Northwest* by Hitchcock et al., when appropriate. Use both scientific and common names if possible. *Italicize* genus and species (underline if italic is not available).
Return of Originals: Submissions are not returned unless requested.

Membership in the Native Plant Society of Oregon is open to all.
 Membership applications, renewals, and changes of address (include old address and zip code) should be sent to the Membership Chair.

NATIVE PLANT SOCIETY OF OREGON MEMBERSHIP FORM

Name _____ Chapter (if known) _____
 Address _____ **Is this a change of address?**
 If so, please write your *Old Address* here: _____
 City _____ State _____ Zip+4 _____ - _____
 Phone (Home) _____ (Work) _____ City _____ State _____ Zip _____

* **DUES** include monthly NPSO *Bulletin*. Full membership is for a calendar year, January through December. New memberships enrolled during September through December are charged a reduced "Quarter Membership" rate.

- | | | | |
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| () New | () Renewal | () Quarter Membership (Sep.-Dec.) \$3.00 | () <i>Bulletin</i> Subscription only \$12.00 |
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 Jean Davis Memorial Award Fund. \$ _____
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Mary Falconer, NPSO Membership Chair, 1920 Engel Court NW, Salem, Oregon 97304.

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