

Bulletin of the

NATIVE PLANT SOCIETY of OREGON

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

Volume 22 No. 6

June 1989

ISSN 0884-5999

CHAPTER NEWS

IMPORTANT NOTE TO FIELD TRIP PARTICIPANTS

Field trips will 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. Your participation is at your own risk. Bring water and lunch.

Blue Mountain

For information, contact Bruce Barnes (276-5547).

Corvallis

3 June, Sat.

Field trip to Saddle Mountain State Park in Clatsop County. Leave at 7 am from parking lot off 27th St. north of Wilkenson Hall, OSU campus. Leader: Phil Hays (753-1065).

12 June, Mon.

Meeting. 7:30 pm at Rm. 4083 Cordley Hall, OSU, Corvallis. Program by Teresa McGee, "Grassy Balds, Wild Flowers, and Invading Trees on Mary's Peak."

8 July, Sat.

Field trip to Iron Mountain in the Old Cascades. Leave at 8:30 am from parking lot off 27th St. north of Wilkenson Hall, OSU campus. Leader: Dan Luoma (758-8063).

Emerald

3 June, Sat.

Field trip to Eagle's Rest, to see *Phacelia verna*. Leave at 10 am from South Eugene High School parking lot. Leader: Charlene Simpson (465-1059).

12 June, Mon.

Meeting. 7 pm at Westmoreland Community Center, 1545 W. 22nd, Eugene. Charlene Simpson will show slides of rare and endangered plants.

24 June, Sat.

Field trip to West Eugene wetlands and prairies. Leave at 8 am from South Eugene High School parking lot. Leaders: Steve Gordon (687-4283) and Peter Zika (683-6495).

High Desert

15-16 July, Sat.-Sun.

Field trip to Rooster Combs Research Natural Area, Steens Mountain. A midsummer trip to what may be Eastern Oregon's most unique area. A stop near the Riddle Ranch for some botanizing. We may camp out on Steens Mtn. Moderate hiking and spectacular scenery. Leader: Joyce Bork (389-5579).

22 July, Sat.

Field trip to Pringle Falls Research Natural Area. This trip will feature remnants of the once vast low elevation ponderosa forests that blanketed Central Oregon prior to white contact. We will visit a forest that has not been logged, and the effects of fire and results of fire suppression will be observed. Experts on forestry and fire, Bill Hopkins and Joyce Bork, will be along. Easy hiking and driving. Leader: Stu Garrett (389-6981 or 382-2811).

5 Aug., Sat.

Field trip to Broken Top volcano. Limited to 18 people. To register, call leader: Stu Garrett (389-6981 or 382-2811).

Mid-Columbia

- 3 June, Sat. **Knapweed Pull.** Meet at Mayer State Park Overlook at 9:30 am for a day's work pulling the noxious diffuse knapweed (*Centaurea diffusa*).
- 7 June, Wed. **Meeting.** 7:30 pm at Mosier School. Janice Merz will present a slide program "Our World of Wildflowers" featuring the Hood River Valley and local community.
- 5 July, Wed. **Meeting** 7:30 pm at the Mosier School. Chris Topik, Associate Areas Ecologist for the Gifford Pinchot and Mt. Hood National Forests will present the program "Using Plant Communities in Forest Management," and will discuss our July 29th field trip.
- 29 July, Sat. **Field trip** and inventory work party at Gumjuwac Tolo, a proposed Research Natural Area in the Mt. Hood National Forest. Leave at 9 am from the Hood River Inn parking lot, or 9:30 am from the US Forest Service office parking lot on Hwy. 35 just south of the community of Mt. Hood, or meet at 10 am at the Gumjuwac Saddle trailhead. Leaders: Chris Topik (666-0700) and Dave Gross.

North Coast

- 1 June, Thurs **Meeting,** 7 pm at State Office Building, 3600 3rd St., Tillamook. Members report on the flowers they saw on the trip to Hancock Station.
- 3 June, Sat. **Field trip** to Cascade Head. Leave at 9 am from the Tillamook PUD. Leader: Al Krampert (842-2308).
- 18 June, Sun. **Field trip** to Mt. Hebo. Leave at 1 pm from the Tillamook PUD, or at 1:45 pm from the schoolgrounds in Hebo. For information call Al Krampert (842-2308) or Margaret Willets (842-7985).

Portland

- 3 June, Sat. **Knapweed Pull.** Self-organizing carpools leave at 8 am from Gateway MAX Park-and-Ride. Meet the leader at Mayer State Park Overlook at 9:30 am for a day's work pulling the noxious diffuse knapweed (*Centaurea diffusa*).
- 10 June, Sat. **Field trip** to Opal Creek Ancient Forest. Leave at 8 am from Tualatin K-Mart (east end of parking lot), or 8:45 am from North Santiam (Salem) exit from I-5. Leader: Elizabeth Handler (244-5320).
- 13 June, Tues. **Meeting.** 7 pm at First United Methodist Church, 1838 SW Jefferson St., Portland. Program on "Flowers of the Alps," by Dave and Jan Dobak.
- 17 June, Sat. **Field trip** to South Prairie Bog and Meadows, north of Willard, Washington. Leave at 8 am from Gateway MAX Park-and-Ride, or 9 am from north end of Bridge of the Gods. Leader: Tom Chereck (284-5156).
- 25 June, Sun. **Field trip** to Multnomah Marsh. Friends of the Gorge Weekend. Leave at 9:30 am from ODOT parking lot, NE 60th and Glisan, or 10:15 am from Women's Forum State Park. Leaders: Esther Kennedy and Elizabeth Handler (244-5320).
- 1 July, Sat. **Field trip** to Monte Carlo. Leave at 8 am from Gateway MAX Park-and-Ride, or 8:45 am from north end of Bridge of the Gods. Leader: Elizabeth Handler (244-5320).

Siskiyou

- 4 June, Sun. **Field trip** to Oregon Mountain and Wimer Road. Many serpentine endemics and associated species from Southwestern Oregon are found here. This should be a prime time for many of these species. Leave from Medford K-Mart at 8:30 am or from Cave Junction Forest Service Ranger Station at 9:45. Info: 482-0093.
- 8 June, Thurs. **Meeting.** 7:30 pm at Rm. 171, Science Building, SOSC. Tom Atzet, Southwest Oregon area ecologist with the US Forest Service will talk about the classification of Cascade Range vegetation and how to incorporate ecosystem principles into forest management.
- 10 June, Sat. **Field trip** to Round Top Butte Preserve. Rogue Valley lowland plant communities, native grasses, and early summer flowers. Leave at 9 am from Medford BLM, 3040 Biddle Road, one mile south of Medford Airport. Info: 482-8196.
- 17 June, Sat. **Field trip** to find *Calochortus greenei*. Moderate difficulty. We will search the unique habitat of the Pilot Rock area for any new populations of this beautiful cat's ear. Leave from Ashland Bi-mart at 8:30 am. Info: 482-4111.

24 June, Sat. **Field trip** to find *Calochortus coxii*. Take a firsthand look at this newly discovered species of cats ear, as described by Ray Godfrey and Frank Callahan. Frank and Ray will lead a field trip to the sites of several populations. A moderate hike of about one hour with some botanizing along the way. Meet Frank at 8 am in the parking lot of the Siskiyou National Forest headquarters. (At the north Grants Pass Exit off I-5, turn right at the stop, then another quick right onto Greenfield Road, driveway on left.) Interested people from Roseburg, meet Ray at 9:30 am at McDonalds. (Take Garden Valley Exit 125, then east to McDonalds.) Info: Frank 855-1164; Ray 673-5094.

Willamette Valley

Please notify the trip leader if you plan to go on any Willamette Valley Chapter field trip.

No meetings until the fall.

- 3 June, Sat. **Field trip** for monitoring of endangered species in various areas. Easy driving trip. Leave at 8 am from South Salem K-Mart. Leader: Wilbur Bluhm (393-2934).
- 10 June, Sat. **Field trip** to Cascade Head. Moderate hike. Leave at 8 am from South Salem K-Mart. Leader: Frances Schaeffer (393-7492).
- 17 June, Sat **Field trip** to Mt. Horeb in the Little North Santiam River area. Moderate cross-country hike. Leave at 8 am from South Salem K-Mart. Leaders: George and Harriet Schoppert, Stayton (859-2613). Salem contact: Barbara Halliday (371-1025).
- 24 June, Sat. **Field trip** to Willamette Valley Native Grasslands, southeast of Stayton. Easy walks. Leave at 8 am from South Salem K-Mart. Leader Ed Alverson, Corvallis (753-3051). Salem contact: Barbara Halliday (371-1025).
- 1 July, Sat **Field trip** to Opal Creek's Ancient Forest, the proposed Oregon State Park on the headwaters of Little North Santiam River. Moderate hike. Leave at 8 am from South Salem K-Mart. Leader: Wally Eubanks (390-2257).
- 8 July, Sat. **Field trip** to Cone Peak, near Iron Mountain. Leave at 7:30 am from South Salem K-Mart. Contact Barbara Halliday (371-1025).
- 16 July, Sun. **Field trip** to Sheridan Peak, west of McMinnville. A BLM ACEC. Contact: Barbara Halliday (371-1025).

If you want to be notified about unscheduled mid-week trips, call Clint Urey (743-2802) or Glenn and Barbara Halliday (371-1025).

Wm. Cusick

- 5 June, Mon. **Meeting.** 7:30 pm at the Forest Service Range and Habitat conference room on Geckler Lane. Bring your unidentified wildflower photographs and we will all pool our knowledge to help put correct names on your photos. If you don't have a collection of unidentified photos, bring some of your favorite wildflower slides to show.
- 8-9 July, Sat.-Sun. **Field trip** to Duck Lake. This will be an overnight camping trip to the southern end of the Wallowas. Duck Lake is a unique area, featuring several interesting plants, including insectivorous sundews. For details, call Karen Antell (963-0267).

New Chapter Officers

Corvallis Chapter

President: Wes Messinger
Vice-President: Nancy Webber
Secretary : Phil Hays
Treasurer: Tom Kaye

North Coast Chapter

President: Sallie Jacobsen
Vice-President: Mignon Johanson
Secretary : Margaret M. Willets
Treasurer: Al Krampert

In December, January, and February, about 190 *Penstemon barrettiae* seedlings were transplanted from the Hood River County Gravel Pit, where they were doomed, to the Mosier Interchange on I 84. Approximately 80-90% of the transplants have put on new growth this spring and a dozen have bloomed, some of them profusely. Participants in the project were: Jerry Igo, Julie Kierstead, Tom Chereck, Russ Jolley, Florence and Dick Ebeling, and Berta Youtie.

The hot and dry part of the coming summer will be a high stress period for the transplanted seedlings. Mid-Columbia President Keith Chamberlain has volunteered to get hold of a 100-gallon tank, so we can water the seedlings once or twice in July or August.

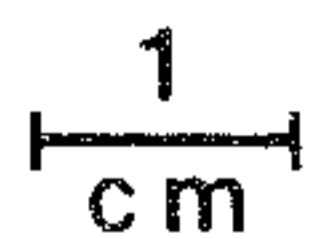
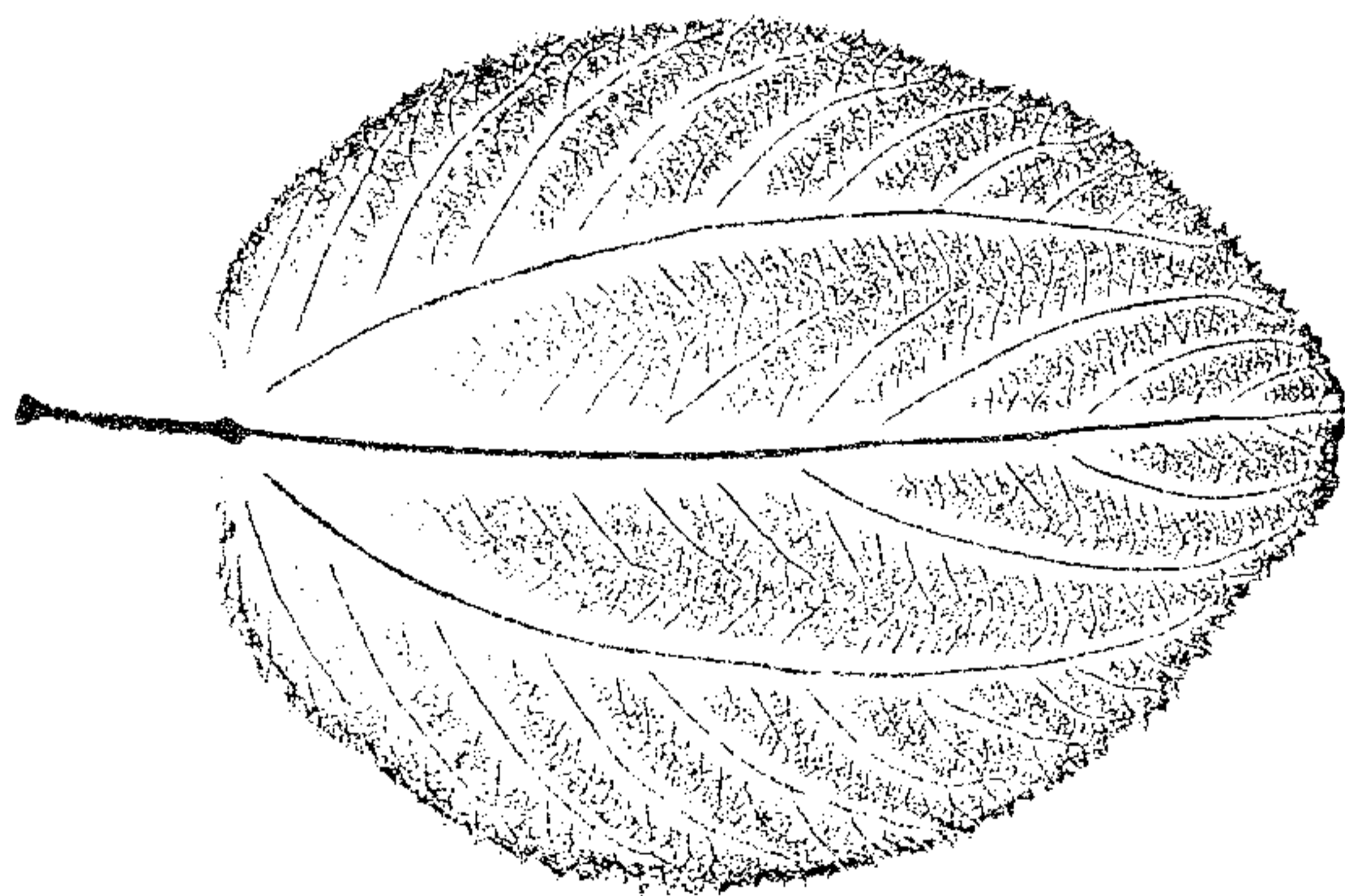
PLANT PUZZLE

Sponsored by the Emerald Chapter

Can you name this plant? The first person to give the correct scientific name will win a prize. The leaf illustration is from a woody plant growing wild in Oregon.

Send your guess on a postcard to:

Peter Zika
28681 Peoria Rd.
Halsey, OR 97348



May's prize winner was Barbara Rupers of Salem, who correctly identified *Ribes cereum*, squaw or wax currant.

Peter Frenzen, Monument Scientist, has written to NPSO soliciting our participation in research on the recovery of plants and animals at Mount St. Helens National Volcanic Monument. Interested individuals are needed to assist teams of scientists with the study of ecosystem recovery processes. Depending on knowledge of vascular plant taxa, participation can vary from recording data to assisting with visual estimation of plant composition and abundance.

Volunteers are needed primarily during two, one week long periods: July 24 - 28 and Aug. 28 - Sept. 1. Volunteers should be physically prepared for off trail scrambling over rough terrain in the blast zone and the potentially severe temperatures of mountain environments.

Scientists from across the country have been following the return of plants and animals on a series of permanent plots scattered throughout the blast zone. These studies offer an incredible opportunity to track ecosystem reassembly at long scales of time. Unfortunately as memory of the eruption fades so has funding for these studies. Resulting information will be extremely valuable for addressing global issues concerning long-term consequences of deforestation, widespread acid deposition, and climatic change.

Persons interested in volunteering during one (or both) of the main study periods or for some other block of time during the summer should contact Peter at his office (206) 247-5473 or at home during the evening (before 10 pm) at (206) 687-1529. Food, lodging, and transportation will be provided. — D. L.

DALLES MOUNTAIN ROAD FENCE COMPLETED

A beautiful fence (beautiful=effective) now protects the 60-acre national forest grassland and vernal pond from trespass by cattle from adjacent private land. The project was a joint effort of the Mt. Adams Ranger District of the US Forest Service and Native Plant Society volunteers Esther Kennedy, Sara Barnum, Joyce Beeman, Carroll Dubuar, Tom Chereck, Russ Jolley, Larry and Christy Yox, Mike Fahey, and Wayne and Jean Huffstutter. Located about one mile up the Dalles Mtn Rd, the area east of the new fence is open to public visitation. A stile will be built to facilitate access for foot traffic only.

Family Index to Reference Books

A family index to *Flora of the Pacific Northwest* (Hitchcock & Cronquist), *Wildflowers of the Columbia Gorge* (Jolley), and *Survey of Wildflowers and Flowering Shrubs of the Columbia Gorge* (Jolley and Kemp) is presented as a full page insert in this issue. Preparation of this index was by Roxie Rochat and Louise Godfrey, Portland Chapter.

Highlights of the Annual Meeting and State Board Meeting in Mosier May 6 and 7

by Rhoda Love

Once again the folks in Mosier served up great weather, super wildflower displays and a wonderful supper -- in other words, another first class Annual Meeting! Events began Friday night with an open house and slide show at Susan Kofahl's home. At 9:00 Saturday morning, field trips got under way. I toured the Washington side of the Columbia Gorge with Keith Chamberlain and had a marvelous time. Other trips covered the area east of The Dalles, the Mosier Loop, Hood River Meadows and the Mill Creek area.

After a delicious dinner at the Mosier Grange Saturday evening, retiring president Dan Luoma called a brief business meeting to order. He first thanked the Mosier folks for putting together the meeting: Susan Kofahl, Mildred Chapin, Doris Reeves and trip leaders George Lewis, Jerry Igo, Keith Chamberlain, Dave Gross and Carolyn Wright. After brief chapter reports, awards were given to outgoing board members and others who have made contributions to the Society this year. 1989 Summer Research Grants were awarded to Robert Misley, who was awarded the Leighton Ho Memorial Grant and to Carolyn Wright and Dave Gross. The year's new officers were then installed: Dr. Stu Garrett, President; Elizabeth Handler, Vice President; Rhoda Love, Secretary, Daphne Stone, Treasurer and Directors at Large Paula Brooks, Barbara Mumblo and Margie Willis. Stu Garrett accepted our yew-wood gavel made by Charlene Simpson's uncle from wood donated by Alan Curtis.

Dr. Garrett outlined important issues for the coming year: We must ensure that the Federal and State Endangered Species Acts remain intact; chapters must continue their involvement in local issues; we hope to launch a *Fremontia* type publication within the next year. To close the evening, Dr. Garrett presented his slide show and commentary entitled, "The Central Oregon Landscape Then and Now."

Sunday morning the regular quarterly board meeting was called to order by president Garrett. It was announced that we have found a new editor for the *Bulletin* to take over from Jan Dobak who will be resigning from that post this summer. The new editor will be Bryan Boyce of Portland who is looking forward to working with us and with our MacIntosh publishing system.

Ed Alvorsen, Conservation Chair informed us that a major issue facing us now is commenting on the BLM's Draft Guidelines for Planning for Public Lands in Oregon. Each Chapter was asked to obtain copies of the plans and as many individuals as possible asked to comment on the plans. Cheryl McCaffrey has recently been appointed the State BLM botanist and is headquartered in Portland. She welcomes comments from NPSO members about plants on BLM holdings. (Address: Bureau of Land Management, Oregon State Office, P. O. Box 2965, Portland, OR 97208.) President Garrett added that NPSO's voice needs to be heard about Old Growth issues. He hopes NPSO will be at the table when Senators Packwood and Hatfield, Rep. AuCoin and Governor Goldschmidt meet to review Old Growth issues in June. Information about a number of other conservation issues will be appearing in forthcoming issues of the *Bulletin*.

Briefly, in other business: Dan Luoma volunteered to head our Grants Committee. It was announced that new notecards designed by Julie Kierstead will be printed within the next few months. Nancy Fredricks has agreed to be notecard chairperson. At its September meeting the Board will decide on a policy for limiting numbers of individuals to be taken on trips to wilderness areas. Dr. Garrett will contact a number of chapters to determine the location of the 1990 Annual Meeting. Word from Russ Holmes in Roseburg indicates that relatively soon an Umpqua Chapter may be forming giving NPSO eleven chapters statewide. The next state board meeting will be held Saturday, September 23 in Bend.

Vascular Plants of Northern Utah

The newly published *Vascular Plants of Northern Utah: an Identification Manual*, by Richard J. Shaw, identifies 1,935 indigenous, alien, and cultivated species found in the nine northern counties of Utah, in an easy to use, illustrated format. The desert and mountain landscape of this region supports a great diversity of plant life. Common names, recent synonymy, habitat, comments on poisonous plants, and flowering data are included, as well as an illustrated glossary and index. Richard J. Shaw is Professor Emeritus and Emeritus Director of the Intermountain Herbarium at Utah State University.

The book is available from:
Utah State University Press
Logan, Utah 84322-7800
(801) 750-1362

The price is \$27.95. Mail orders require \$2 for postage and handling for up to four books. MasterCard and VISA orders are accepted.



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

Calypso bulbosa

Three Early Botanists of Oregon

by Kenneth and Robin Lodewick

Kenneth and Robin Lodewick are Emerald Chapter members, who work with the genus Penstemon. In the process of checking plant names for their sources, they gathered some very interesting information about these early botanists of Oregon.

Thomas Howell, Pioneer Botanist

One of the first botanists in the Northwest was an amateur who had no more than three months' schooling in his life, yet became known worldwide.

Thomas Howell (1842-1912) was born in Missouri. His father brought his wife and two sons to Oregon, eight years later, so that the boys could be raised where there was no slavery. The family settled on Sauvie Island, near Portland, where they farmed.

Thomas and his brother, Joseph, were fascinated by the native plants growing around them. They found that seeds, bulbs, and dried specimens could be sold to gardeners and collectors in the East and even in Europe. Joseph came to prefer farming. Thomas spent all his spare time in the Oregon wilderness. His plants were sent to Harvard botanists Asa Gray and Sereno Watson for identification. Gray's *Manual of Botany*, covering the eastern United States, had come out in 1848. From that, and from his correspondence with experts, Howell must have taught himself.

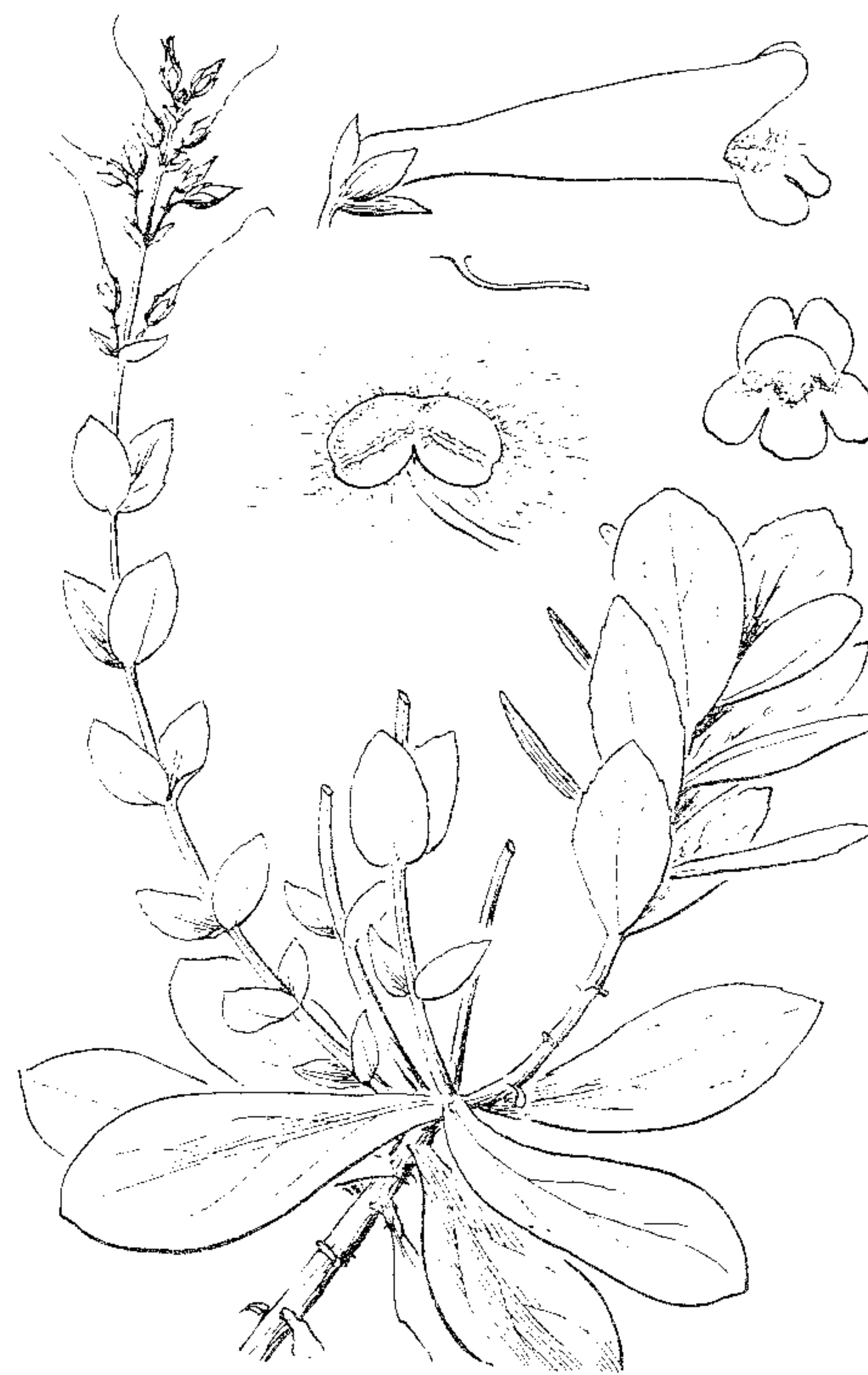
Asa Gray named genus *Howellia* in honor of Howell as early as 1878. A few years later Thomas Howell published his first catalog of the plants he was collecting. (Specimens sold from this and later catalogs are now found in herbariums in many parts of the United States and Europe.) When Gray's *Manual of Botany* was published, Howell must have studied it with devouring interest. Possibly he met Dr. Gray that year or the next, when Gray traveled in Oregon.

No manual of botany existed for the Northwest. Howell saw that one was needed, and he wrote it. Because the printers could not decipher his handwriting, he had to set the type himself. In 1903, after seven years of work (and near bankruptcy) Thomas Howell's *Flora of Northwest America* appeared. The *Flora* listed over 3000 species. It has been the basis for all botanical work on the Northwest done since.

Howell also wrote articles on the floras of Mt. Hood and (with his friend William Suksdorf) of Mt. Adams. Many new species were discovered by the Howell brothers; at least thirty taxa are named for them. Soon after finishing the *Flora*, Thomas Howell gave his personal herbarium, containing 10,000 specimens, to the University of Oregon, where it forms the basis of the University's fine collection. Howell himself filled the post of curator of the collection until his death in 1912.

Origin of the Name *Penstemon cardwellii* Howell

Thomas Jefferson Howell probably knew Dr. James Robert Cardwell. They were contemporaries in western Oregon, and both were interested in plants, though in different ways.



Penstemon barrettiae

James Robert Cardwell (1830-1916) was born in Springfield, Illinois, though his family had come from France originally, by way of Virginia. His father (who was said to be a cousin of Robert E. Lee) was a doctor and furniture maker, but preferred farming -- a pattern that the younger Cardwell repeated. As a boy, James stayed home helping to care for younger brothers and sisters, while being taught by his parents. Later he studied at a nearby preparatory school, but he was always more interested in woodworking and music than in contact with other boys. To cover tuition James taught penmanship (a necessary skill in the days before typewriters) and worked one summer for a druggist in St. Louis. He hoped to go on to Harvard College and medical school. To earn money for that, he apprenticed himself to a dentist, and after two years in various dental offices, was able to set up his own practice.

In the fall of 1851, however, plans changed. One of his mother's brothers, who had gone to California as a "forty-niner," came home with stories about the Oregon country that persuaded over a hundred Illinois citizens to start west with him. Cardwell agreed to go, driving a covered wagon filled with grafted scions and ornamental plants, to start a nursery and fruit orchard. All went well until they came to the Snake River where, on a steep bank, the wagon overturned. Only one Chinese Daily rosebush was saved (its offspring may still be growing in Portland). Instead of a nursery, therefore, Dr. Cardwell started the first dental practice in Portland.

Dentists were scarce in Oregon, and so was money. Dr. Cardwell also "rode circuit" to Corvallis, Eugene, and Roseburg. He started several drugstores, which succeeded. But always, in his spare time, the doctor went on working with fruit trees, planting and grafting apples, establishing a hundred-acre prune orchard (the first in the state) and everywhere urging the importance of fruit growing.

It was probably this interest in horticulture that brought Dr. Cardwell to the attention of the Howell brothers, farmers and botanists. Thomas Howell named *Penstemon cardwellii* in 1901, but he would have known of the doctor before that. After helping to organize the Oregon State Horticultural Society, Cardwell served as its first president, from 1889 to 1909, and was involved in organizing an offshoot of the Society, Portland's famous Rose Festival. Head of the State Board of Horticulture for its first ten years, he was the commissioner who took Oregon's produce to the World's Columbian Exposition in Chicago, winning several thousand dollars in prizes for the state. During this time, Dr. Cardwell also wrote articles on Oregon's cultivated orchards and urged the cultivation of its native fruits, such as *Ribes aurea*, the golden currant.

Professionally, Dr. Cardwell took part in founding the Oregon State Dental Society in 1872 and served two terms as president. For ten years he was president of the State Board of Dental Examiners. Concern for education in dentistry led him to help establish the North Pacific Dental College (now part of the University of Oregon Medical School) and to teach dental history, ethics, and law on its faculty. Interests of a somewhat different sort led him to help found the Oregon Humane Society in 1872.

The doctor's hobbies were wide-ranging. A flute player since boyhood, he helped start the Philharmonic Club of Portland, and for two decades took part in its concerts. He had also, as a boy, had an interest in taxidermy. In Oregon this developed into a wider interest in all of natural history. He collected and mounted all the known animals and birds of the state, intending them for a proposed Portland Museum (some specimens later went to the Smithsonian). In addition he collected Oregon rocks and minerals, and collected and grew at his home all 17 of the Oregon conifers.



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

Penstemon cardwellii

Dr. Cardwell died on November 3, 1916. During his lifetime he was well known. Thomas Howell had no need, when he published *Penstemon cardwellii*, to explain the origin of the name. Today, when we were unable to find out who "Cardwell" might be, it was sheer luck that we saw him mentioned as head of the Horticultural Society and made the connection with Howell. But Dr. Cardwell was a pioneer who accomplished a great deal for this northwest frontier of the United States. His name should be remembered.

Origin of the Name *Penstemon barrettiae* Gray

It is entirely possible that both Howell and Cardwell knew Dr. and Mrs. Parry G. Barrett of Hood River. There is good evidence that Almeta Barrett, at least, was interested in the wildflowers of Oregon.

Dr. Barrett was a physician who had served as an army surgeon in the Civil War. He and his wife, Almeta, both born in Ohio, were married in Jefferson, Ohio, in 1866. She was probably 33 at the time. Four years after they moved to Erie, Pennsylvania, a fire destroyed their home and all their possessions. The doctor and his wife came west to make a fresh start; they settled on a farm at Hood River, Oregon, in 1871. The Barretts cared about their religion; the doctor helped found the Congregational Church in the new city. They cared for knowledge; they were known for having the best private library in the community. Thomas Howell must have started many of his collecting trips up Mt. Hood by way of the Hood River valley; the Barretts are very likely to have met him. The region, also, based its economy on fruit growing; James Cardwell's concern for orchards must have brought him there often. The dentist and the doctor may well have known each other.

Dr. Asa Gray, at that time the most prominent botanist in the United States, took a trip west, early in the 1880's, looking for new plants and plant locations. Someone (could it have been Thomas Howell?) referred him to Mrs. Almeta H. Barrett of Hood River, Oregon.

It seems likely that Almeta Barrett collected wildflowers. Perhaps she had searched out and transplanted unknown plants into her garden. At any rate, the doctor's wife showed the visiting botanist species that were new to him. She also took him to the place where one of the rarest and most beautiful of those plants grew. Dr. Gray took a specimen back with him, and later named it for Mrs. Barrett: *Penstemon barrettiae*.

After Dr. Barrett's death in 1900, history loses track of Almeta; no further information can be found. *Penstemon barrettiae*, endemic to the cliffs along the eastern Columbia Gorge, now has some protection due to its status on the federal list of rare and endangered species.

This is the story of an early Oregon botanist and of two people who had *Penstemons* named for them. We hope readers enjoy hearing the stories behind the names of some of our native flowers, as much as we have enjoyed finding them.

GETTING READY FOR CYANIDE LEACH MINING

Cyanide heap-leach gold mining has arrived in Oregon, bringing with it important environmental concerns. This relatively recent process of mining and extracting gold from low-grade ores is currently being used in over fifty mines in Nevada. Tens of thousands of gold claims have been filed in Oregon and more are expected if gold prices stay high or go higher. There are at least three mining proposals which seem to be progressing in Oregon: Grassy Mountain and Farewell Bend in Malheur County on Vale District BLM lands and Quartz Mountain in Lake County on Bly District of Winema National Forest lands. However this type of mining is potentially a problem in all gold-bearing areas of the state, not just in Eastern Oregon.

The gold-seekers look for hydrothermal systems in which gold has been deposited by circulating geothermal waters. These deposits are then strip-mined by either leveling a mountain or digging a pit which is usually hundreds of feet deep. The debris is crushed and piled in heaps many tens of feet high on plastic sheets over an area possibly covering several acres. Highly alkaline fluids containing cyanide are then sprinkled over the heap and leach down through it dissolving and capturing the gold. Other heavy and potentially toxic elements such as mercury, cadmium, and arsenic can also be extracted if present. The solution is collected and the gold extracted. Attempts are made to recover and recycle the cyanide. Fortunately the cyanide doesn't usually bioaccumulate like many heavy metals do but it does have its own set of environmental problems.

Actual and potential concerns become obvious. There is unavoidable and extensive destruction of the topography, loss of wildlife habitat, destruction of plant and animal communities, and impacts on surface water and aquifers. There have even been cases of chronic aquifer pollution. Several ponds are needed at these sites for collecting the gold-containing fluids and for treating the waste-fluids. These ponds are filled with toxic chemicals. The ponds attract birds, deer, and other wildlife. Animals have perished by the thousands in the Nevada projects. Deer have been unable to climb the plastic-sloped sides of the waste ponds. Birds which aren't killed outright may have been only partially poisoned and could die off-site. Trout and anadromous fish are especially susceptible to cyanide. A spill or leak from a truck or pond could have devastating results.

These operations can cover hundreds of acres. The mining area itself may involve a whole mountain or a deep pit and afflict hundreds of acres with essential destruction. The buildings, roads, ponds, and other facilities could cover 50 to 100 acres. The tailings and waste dumps will usually be larger than the original excavations due to expansion of the debris.

Oregon law does not require restoration of the topography as most Appalachian states now do for

strip mining of coal. This means that obvious and unnatural pits or stripped hills will remain, perhaps to be somewhat rounded and planted with grass, frequently of a non-native species. The tailing piles are treated similarly. In any other industry but mining, such refuse would be considered toxic waste.

Individual counties control siting through their zoning process. Rural counties perceive these mines as an economic windfall, bringing increased employment and tax revenue. When the economic "boom" is anticipated no one considers the "bust" and its effects. On private land the state Department of Geology and Mineral Industries supposedly controls the mining. However, Oregon has only two inspectors for the entire state. They are charged with overseeing over 500 mines, including these gold mines.

Oregon's first heap-leach gold mine was in Baker County where the owners of the Minexco Mine skipped the state leaving an inadequate bond. The state had to take over disposal of the residual toxics and oversee reclamation.

Oregon seems destined for more of this type of activity. It seems that there are certain safeguards which are prudent, and which are not presently in place:

- 1) This mining should be totally banned from certain sensitive and special areas;
- 2) If reasonable reclamation can't take place, strip-mining shouldn't occur;
- 3) Permits should be heavily bonded and carefully monitored;
- 4) Stricter reclamation laws need to be passed at the state level which, among other things, will mandate topographic restoration;
- 5) Absolute protection of water and wildlife should be guaranteed;
- 6) Oregon should consider passing a severance tax, as many states have, to pay for the long-term expense of dealing with the environmental problems that will result from this activity.

Interested persons should:

- 1) Contact local USFS or BLM districts where mining may occur and obtain information regarding claims and mining plans.
- 2) Let your county government know how you feel about cyanide leach mining.
- 3) Make your state representative and senator aware of the inadequacies of Oregon's current reclamation laws to deal with this problem and request that action be taken to strengthen the laws.
- 4) Support strengthening of federal laws and particularly changes in the 1872 Mining Act,

Concerned Citizens for Responsible Mining, POB 957, Ontario, OR 97914 is taking the lead on this issue. They plan to serve as a statewide clearinghouse for information, contact them and offer support regarding this important issue.

Stuart G. Garrett, MD
1501 NE Medical Dr
Bend, OR 97701

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 WM. CUSICK (LaGrande)..... Karen Antell..... Biology Dept., EOSC, LaGrande 97850; 963-0267

BULLETIN EDITOR..... Jan Dobak..... 2584 NW Savier St., Portland 97210; 248-9242

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Deadline: Copy is due by the 10th of the month, and should be sent to the Editor.

Text Format: The *Bulletin* is not typeset; therefore typed, camera-ready copy is preferred, but no submission will be rejected because it is not typed. Copy should be typed in 4-1/4 inch wide columns, of any length. If laser printed, use 12 point "Times" font. Author's name and affiliation are typed at the end of the article. Double space between paragraphs, and do *not* indent the beginning of each paragraph. For special material (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.

Illustrations: Ink drawings or woodcuts are preferred to pictures

requiring halftone reproduction. We welcome small illustrations as well as larger works.

Credits: If the item is not original, provide name and date of the source. For original items, identify the author and indicate, for news items, whether a by-line is desired. Include instructions as to 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., where appropriate. Use of both scientific and common names is encouraged. Genus and species are italicized (underlined if italic is not available).

Return of Originals: Manuscripts and illustrations will not be returned unless expressly requested.

Membership in the Native Plant Society of Oregon is open to all.

Membership applications, renewals, and changes of address (including old address and zip code) should be sent to the MEMBERSHIP CHAIR.

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 If so, please write your *Old Address* here:
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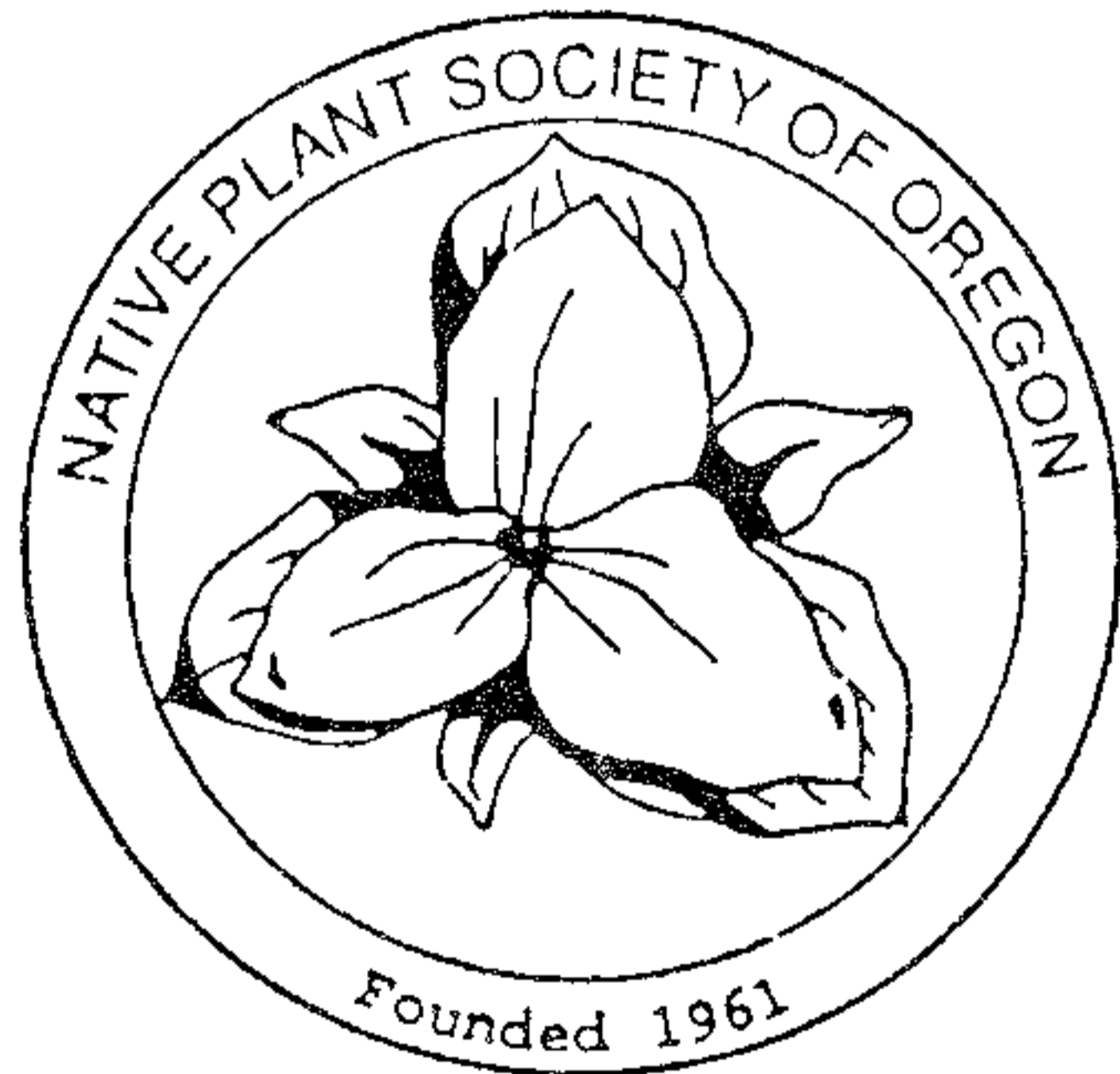
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FAMILY.....Common name	HC	CG	RJ	FAMILY.....Common name	HC	CG	RJ
ACERACEAE..... Maple	288	16	-	LYTHRACEAE..... Loosestrife	302	16	352
ADOXACEAE..... Moschatel	454	-	-	MALVACEAE..... Mallow	291	16	337
AIZOACEAE..... Carpetweed	104	6	-	MARSILEACEAE..... Pepperwort	55	3	-
ALISMATACEAE..... Water-plantain	557	3	1	MENYANTHACEAE..... Buck-bean	361	19	446
AMARANTHACEAE..... Amaranth	101	6	-	MORACEAE..... Mulberry	75	-	-
ANACARDIACEAE..... Sumac	287	16	329	MYRICACEAE..... Sweet Gale	72	-	-
APIACEAE..... Parsley	314	17	379	NAJADACEAE..... Water-nymph	562	-	-
APOCYNACEAE..... Dogbane	362	19	447	NYCTAGINACEAE..... Four-o'clock	102	6	94
ARACEAE..... Calla-lily	676	4	-	NYMPHAEACEAE..... Water-lily	122	7	120
ARALIACEAE..... Ginseng	313	17	378	OLEACEAE..... Olive or Ash	356	-	-
ARISTOLOCHIACEAE..... Birthwort	78	5	73	ONAGRACEAE..... Evening-primrose	303	17	354
ASCLEPIADACEAE..... Milkweed	363	19	449	OPHIOGLOSSACEAE..... Adder's-tongue	44	3	-
ASTERACEAE..... Aster	461	23	607	ORCHIDACEAE..... Orchid	698	5	50
BALSAMINACEAE..... Touch-me-not	289	16	333	OROBANCHACEAE..... Broomrape	444	22	575
BERBERIDACEAE..... Barberry	142	8	152	OXALIDACEAE..... Wood-Sorrel	281	13	-
BETULACEAE..... Birch	72	-	-	PAEONIACEAE..... Peony	124	-	-
BORAGINACEAE..... Borage	384	20	480	PAPAVERACEAE..... Poppy	143	8	157
BRASSICACEAE..... Mustard	146	8	163	PHYTOLACCACEAE..... Pokeweed	103	-	-
BUDDLEJACEAE..... Buddleja	356	-	-	PINACEAE..... Pine	59	-	-
BUTOMACEAE..... Flowering Rush	557	-	-	PLANTAGINACEAE..... Plantain	447	22	579
CACTACEAE..... Cactus	301	16	351	PLUMBAGINACEAE..... Plumbago	355	-	-
CALLITRICHACEAE..... Water-starwort	285	16	-	POACEAE..... Grass	602	28	-
CAMPANULACEAE..... Harebell	457	23	601	POLEMONIACEAE..... Phlox	366	19	453
CAPPARIDACEAE..... Caper	180	10	195	POLYGONACEAE..... Buckwheat	78	5	74
CAPRIFOLIACEAE..... Honeysuckle	450	23	584	POLYPODIACEAE..... Common Fern	46	3	-
CARYOPHYLLACEAE..... Pink	109	7	106	PONTEDERIACEAE..... Pickerel-weed	678	-	-
CELASTRACEAE..... Staff-tree	288	16	332	PORTULACACEAE..... Purslane	104	6	95
CERATOPHYLLACEAE..... Hornwort	123	7	-	POTAMOGETONACEAE..... Pondweed	562	3	-
CHENOPODIACEAE..... Goosefoot	93	6	93	PRIMULACEAE..... Primrose	350	19	429
COMPOSITAE..... Aster	461	23	607	RANUNCULACEAE..... Buttercup	124	7	122
CONVOLVULACEAE..... Morning Glory	363	19	451	RESEDACEAE..... Mignonette	181	-	-
CORNACEAE..... Dogwood	339	18	407	RHAMNACEAE..... Buckthorn	290	16	334
CRASSULACEAE..... Stonecrop	182	10	197	ROSACEAE..... Rose	205	11	237
CRUCIFERAE..... Mustard	146	8	163	RUBIACEAE..... Madder	448	22	580
CUCURBITACEAE..... Cucumber	457	23	600	RUPPIACEAE..... Ditch-grass	566	-	-
CUPRESSACEAE..... Cypress	57	-	-	SALICACEAE..... Willow	64	-	-
CUSCUTACEAE..... Dodder	364	19	-	SALVINIACEAE..... Water-Fern	56	-	-
CYPERACEAE..... Sedge	576	27	-	SANTALACEAE..... Sandalwood	78	5	71
DIPSACACEAE..... Teasel	456	23	599	SARRACENIACEAE..... Pitcher-plant	182	-	-
DROSERACEAE..... Sundew	182	10	196	SAURURACEAE..... Lizard-tail	64	-	-
ELAEAGNACEAE..... Oleaster	302	-	-	SAXIFRAGACEAE..... Saxifrage	184	10	201
ELATINACEAE..... Waterwort	295	16	-	SCHEUCHZERIAE..... Scheuchzeria	560	-	-
EMPETRACEAE..... Crowberry	286	-	-	SCROPHULARIACEAE..... Figwort	413	21	520
EQUISETACEAE..... Horsetail	42	-	-	SELAGINELLACEAE..... Selaginella	41	3	-
ERICACEAE..... Heath	340	18	410	SIMAROUBACEAE..... Quassia	283	-	-
EUPHORBIACEAE..... Spurge	284	13	-	SOLANACEAE..... Nightshade	409	21	516
FABACEAE..... Pea	228	12	278	SPARGANIACEAE..... Bur-reed	674	4	6
FAGACEAE..... Beech	74	5	69	TAMARICACEAE..... Tamarisk	296	-	-
FUMARIACEAE..... Bleeding Heart	144	8	159	TAXACEAE..... Yew	56	-	-
GARRYACEAE..... Silk-tassel	339	18	-	TYPHACEAE..... Cat-tail	675	-	-
GENTIANACEAE..... Gentian	356	19	441	ULMACEAE..... Elm	74	-	-
GERANIACEAE..... Geranium	279	13	325	UMBELLIFERAE..... Parsley	314	17	379
GRAMINEAE..... Grass	602	28	-	URTICACEAE..... Nettle	76	5	70
GROSSULARIACEAE..... Currant	199	11	228	VALERIANACEAE..... Valerian	454	23	594
HALORAGACEAE..... Water-milfoil	312	17	-	VERBENACEAE..... Verbena	398	21	499
HIPPURIDACEAE..... Mare's-tail	313	-	-	VIOLACEAE..... Violet	296	16	342
HYDRANGEACEAE..... Hydrangea	204	11	236	VITACEAE..... Grape	291	-	-
HYDROCHARITACEAE..... Frog's-bit	559	-	-	ZANNICHELLIACEAE..... Horned Pondweed	566	-	-
HYDROPHYLLACEAE..... Waterleaf	377	20	469	ZOSTERACEAE..... Eel-grass	567	-	-
HYPERICACEAE..... St. John's Wort	294	16	339	ZYGOPHYLLACEAE..... Caltrop	282	13	-
IRIDACEAE..... Iris	697	4	44				
ISOETACEAE..... Quillwort	42	-	-				
JUNCACEAE..... Rush	567	27	-				
JUNCAGINACEAE..... Arrow-grass	561	-	-				
LABIATAE..... Mint	399	21	501				
LAMIACEAE..... Mint	399	21	501				
LEGUMINOSAE..... Pea	228	12	278				
LEMNACEAE..... Duckweed	677	-	-				
LENTIBULARIACEAE..... Bladderwort	445	-	-				
LILIACEAE..... Lily	678	4	8				
LIMNANTHACEAE..... Meadow-foam	287	-	-				
LINACEAE..... Flax	282	-	-				
LOASACEAE..... Blazing-star	300	16	350				
LORANTHACEAE..... Mistletoe	77	-	-				
LYCOPODIACEAE..... Clubmoss	40	3	-				

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