

Bulletin of the

Native Plant Society of Oregon

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

Volume 26 Number 4

April 1993

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State News

- June 4th-6th **The NPSO 1993 Annual Meeting** will be held in Corvallis on this weekend. More details inside!
- April 3rd, Sat. **NPSO Board Meeting** will be held 10 am in Room 214 of Southern Oregon State College in Ashland. Open to all.

Chapter News

Blue Mountain

For information, contact Jerry Baker at 566-3381.

Corvallis

April 3rd, Sat.

Field Trip: Visit to the site of the proposed Berg Park (east bank of the Willamette on both sides of the new Highway 20 Bypass). What should be done with natives? Leave from the parking lot across from the Monroe Beanery at 9:30 am

April 10th, Sat.

Field Trip: A joint field trip with the local Sierra Club Chapter to Finbley Wildlife Refuge to look at the early spring wildflowers. Meet at 9:30 am at the Monroe Beanery to carpool to the Woodpecker loop trail. An easy walk, children welcome, bring raingear and a snack. Leader is Esther McEvoy (754-0893).

April 12th, Mon.

Meeting: 7:30 pm at the Unitarian fellowship, 2945 NW Circle Blvd., Corvallis. Ed Alvorson will talk on "Nature Conservancy Preserves in the Willamette Valley".

Emerald

Directions to meetings: From downtown Eugene, take Willamette St. south to Crest Dr., (right thru "Y" for Donald, between 32nd & 33rd Ave. E.). Turn right (W) on Crest and proceed about 4 blocks. Turn right into Morse Ranch Park parking lot. Walk east to the white farmhouse.

Mar. 27th, Sat

Field Trip: Early spring flora and native vegetation communities of Doris Ranch Park, southwest Springfield, OR. Meet 1 pm at Doris Ranch parking lot. Contact Jennifer Dimling, trip coordinator at 343-3242 for directions and details.

IMPORTANT NOTES FOR 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 or chapter representative about difficulty, mileage and terrain to be expected on field trips. Bring water and lunch. Participation is at your own risk. All NPSO field trips are open to the public at no charge (other than carpool mileage), and newcomers and visitors are always welcome.

NOTICE TO FIELD TRIP CHAIRS AND LEADERS:

The Forest Service and other agencies have set policies limiting group size in wilderness areas to 12. The reason for this is to limit human impacts on these often fragile areas. Each group using wilderness areas must be no larger than 12.

April 10th, Sat. **Field Trip:** Buford Park/Mt. Pisgah plant inventory and spring wildflower party. Meet at 9 am at South Eugene High School parking lot, near southwest corner of 19th and Patterson St., or 9:30 at Summit Trail gate, Mt. Pisgah. Contact trip coordinator, Tom Pringle at 484-0669 for details.

April 26th, Mon. **Meeting :** 7:00 pm. Dr. Aaron Liston, curator of O.S.U. herbarium, will give a lecture / slide show titled "Astragalus, a wide angle & macro lens view." Dr. Liston has studied species relationships in loco weeds of the *A. umbraticus* complex with a special interest in similarities between Western North American and North West China species.

More information? Call Bruce Newhouse (president) 343-2364 or Ethen Perkins (programs) 345-3944.

High Desert

For information, contact Cindi O'Neil at 389-3085.

Mid-Columbia

April 7th, Wed.

Meeting : 7:30 pm at the Mosier School. Bob Misley, Botany Professor at Clackamas Community College, will speak about his work on the white rock larkspur found on Little Rock Island in the Willamette River.

April 18th, Sun.

Annual Wildflower Show: 9 am to 4 pm at the Mosier School. Previous reports of a April 11th date are incorrect. This Show with the unique east Gorge flora should not be missed.

May 5th, Wed.

Meeting: 7:30 pm at the Mosier School. A panel discussion on noxious weeds. Do we pull, spray, or bug 'em? Come listen to experts charged with managing this "growing" problem.

North Coast

April 17th, Sat.

Field Trip: Hike to the top of Neah-Kah-Nie Mountain. Meet at 9 am at Tillamook PUD, 1115 Pacific, Tillamook. A 5 mile round trip. Bring water and lunch. Trip leader is Jim Winslow (842-4131).

April 19th, Mon.

Meeting: This replaces our regular meeting of April 27th. Meet at Christian Church Fellowship Hall, 2203 4th, Tillamook. at noon with the American Association of University Women. Neah-Kah-Nie High School student teacher team will present a program on the Lake Lytle system in Rockaway Beach. A light lunch will be served. For more information, call Jim Winslow at 842-4131.

May 1st, Sat.

Field Trip: Peninsula Park on the Trask River. Meet at 10 am at Tillamook PUD, 1115 Pacific, Tillamook. Easy hiking. Bring a lunch. Trip leader is Jim Winslow (842-4131).

Portland

April 4th, Sun.

Field Trip to The Dalles Mountain. Stroll through this Columbia Hills wildflower area east of Lyle, WA in Klickitat County high above the Columbia. Leave from Lewis and Clark State Park, off I-84 just east of the Sandy River at 8:30 AM. A second meeting location will be at the Junction of the north end of The Dalles Bridge and SR-14 at 10 am. Leader is Elizabeth King (292-6539).

April 13th, Tue.

Meeting: 7 pm at the First United Methodist Church, 1838 SW Jefferson St., Portland. Don Eastman, author and photographer of Rare and Endangered Plants of Oregon, will present an update on his book with a beautiful slide presentation. He will provide a review of his book, showing changes, corrections and additions he would make today if the book was being updated.

April 17th, Sat.

Field Trip: Silvas Creek located in east Columbia Gorge. Special plants to observe include *Cynoglossum grande*, *Viola sheltonii*, *Orobanche uniflora*, *Zigadenus venenosus*, several lomatiums and other spring flowers. Leave from Lewis & Clark State Park at 8 am, with a second meeting place at the Winery in Bingen, Washington at 9:30 am. For more information call the Kings at 292-6539).

April 25th, Sun.

Field Trip: Weldon Wagon Trail. The early blooming spring flowers give way to beautiful valley views as we ascend an old wagon road out of Husum, WA. Leave from Lewis & Clark State Park at 8 am, with a second meeting place at the west end of the parking area of Hood River Inn at 9:30 am. For more information call the Kings at 292-6539).

May 1st, Sat.

Field Trip: East bank of the Deschutes River. This area east of The Dalles offers the chance to observe some desert plants as well as more familiar flowers. Beautiful views of the Columbia River may be enjoyed from a loop trail. Leave from Lewis & Clark State Park at 8 am. For more information call Sara Barnum at 639-3353.

Siskiyou

April 10th, Sat.

Field Trip: Upper Table Rock. Meet 10 am at the Upper Table Rock trailhead (Table Rock Road to Modoc Road—follow signs). Bring lunch and water. For more info, call Barbara Mumblo, trip leader at 770-3953 pager message.

April 15th, Thur.

Meeting: 7:30 pm in Room 171, Science Building, Southern Oregon State College. The public is invited. Sarah Greene, Research Natural Area Scientist for the Pacific Northwest Region, will present a talk on Research Natural Areas in Southwest Oregon and Threats to Management.

April 24th, Sat.

Field Trip: Forest Farm Nursery in Williams—Ray & Peg Prag are well known for their native plant selection and ethics in plant propagation. A great time to explore what they have and maybe pick something up to plant in your garden. Meet at the Medford K-Mart at 9 am near McDonalds, bring a lunch. For more info., call trip leader Barbara Mumblo at 770-3953 (pager message).

South Coast

April 17th, Sat.

Field Trip / Work Party: Meet at Ophir Rest Area between Port Orford and Gold Beach at 10 AM. We will be pulling and digging European beachgrass. Bring leather gloves and rake (optional). Bring a dish (main dish, salad or anything) for the potluck around 4 pm for all participants. If you are interested please call Bruce Rittenhouse at 756-100 (work) or 888-9328 (home).

May 12th, Wed.

Organizational Meeting at 7 pm in North Bend High School. Joint NPSO / Cape Arago Audubon meeting. Bruce Rittenhouse, Botanist with the Coos Bay BLM, will present a slide show on "Wildflowers of New River ACEC". This will be an organizational meeting to start a new NPSO chapter on the south coast. All NPSO members from the area are encouraged to attend and bring a friend. For more information call Bruce Rittenhouse at 756-0100 (work) or 888-9328(home).

Umpqua Valley

April 8th, Thur.

Meeting: 7 pm BLM Building, 777 NW Garden Valley Road, Roseburg. Come join us in an Open House to see what we do on field trips and at meetings. Bring a friend, bring a native plant to ID, or members bring refreshments. We hope to invigorate our UVC with fresh sap.

April 17th, Sat.

Field Trip: See marine conglomerates and early flowers at Irwin and Bushnell Rocks, then to Coos County to see the 338 ft. champion Douglas fir in the Brummet Creek drainage. The tree is about 3 miles NE of Sitkum. Meet at 8 am at the BLM parking lot, 777 Garden Valley Blvd. For information call Russ Holmes at 672-4635.

Willamette Valley

April 10th, Sat.

Field Trip: to Airport Park in McMinnville with Don Eastman to see an unusual trillium—*Trillium Parviflorum* and also *Erythronium oregonum*. Bring your lunch for a picnic in the park afterwards.

April 17th, Sat.

Workshop: Dr Dan Norris has agreed to give us a workshop on the mosses at Silver Falls State Park! Dan has taught moss identification for over 20 years at Humbolt University in northern California. We are indeed privileged to have such an expert teacher for this workshop! No previous knowledge necessary. Dan also knows many of the wildflowers that will be blooming. So, weather permitting, we plan to spend a delightful exploring-time outdoors at this beautiful location. Meet at the main lodge at Silver Falls State Park at 10 am. For more information, call Kathy Connelly at 327-1212.

April 19th, Mon.

Meeting: 7 pm in Room 225 of the First United Methodist Church, 600 State Street, Salem. We will be privileged at this meeting to have Kareen Sturgeon, Melissa Peterson, and JerLynn Peck present "An Arctic Dream Come True: Botanizing in Alaska by Bush Plane and Canoe". For more information, call Kathy Connelly at 327-1212.

William Cusick

April 14th, Wed.

Meeting: 7 pm Forest and Range Sciences Lab, Geckler Drive, LaGrande. Mike McGiness, an Oregon State University Professor of Range Science stationed at the Eastern Oregon State College campus, will present a slide show about poisonous range plants. For information call Bob Ottersberg at 963-9660.

1993 NPSO ANNUAL MEETING

THE 1993 NPSO ANNUAL MEETING SCHEDULE

The 1993 NPSO Annual Meeting will be the 4th, 5th and 6th of June. Please fill out the enclosed registration form by May 15th. Check the May *Bulletin* for more details!

SCHEDULE OF EVENTS:

FRIDAY JUNE 4TH

Registration and check-in to OSU housing between 6 & 8 pm at Hawley Hall. A social gathering from 8-10 pm is being arranged with details in the next *Bulletin*.

SATURDAY JUNE 5TH

All day fieldtrips will meet at 8:45 am at the parking lot across from the Monroe Beanery. Half day fieldtrips will meet at 1:00 pm at the same location. Please bring a lunch, water and proper attire. If you need a lunch there is a grocery store next to the Beanery Coffee Shop on Monroe Street.

SUNDAY JUNE 6TH

Breakfast State Board Meeting at a local restaurant to be announced in the next *Bulletin*. There will be a sign-up sheet at the Banquet for those interested in a morning local fieldtrip (for those not going to the Board Meeting).

SATURDAY FIELDTRIPS FOR THE 1993 NPSO ANNUAL MEETING

All scheduled fieldtrips will take place on Saturday, June 5th. We will carpool. Bring a lunch if you are going on an all day fieldtrip. Come prepared for varying weather conditions, including warm clothes, raingear, good walking boots and a hat. Choose from the following list of fieldtrips; state first, second and third preference on your preregistration form. Remember, some of the fieldtrips will be limited in the number of participants. Sign up early for best selection!

HORSE ROCK RIDGE RESEARCH NATURAL AREA

In the Coburg Hills, Horse Rock Ridge overlooks the Willamette Valley. A one hour drive with moderate hiking. High diversity of wildflowers, in a mixture of meadow and forest. Fieldtrip leader will be Dan Luoma.

DELPHINIUM FIELDTRIP

A visit to the local rare *Delphinium pavonaceum* sites around the Corvallis area. Gaylee Goodrich will lead a small group to remnant sites. A *half day fieldtrip* with easy walking.

FINDLEY WILDLIFE REFUGE

A visit to a variety of remnant valley habitats at Findley Wildlife Refuge. Moderate walking to see the different habitats at the refuge. Fieldtrip leader is Ed Alvorson.

LOW ELEVATION FOREST

Phil Hayes will lead us through a remnant low elevation old growth forest with easy walking on a one and a half mile loop. The area is a short distance from Corvallis. This is a *half day fieldtrip*.

MOUNT HEBO

This Coast Range site has subalpine grasslands with a rich diversity of flora and fauna including orchids, penstemons and lilies. Driving time 2 hours one way, with moderate walking. Leader is Paul Hammond.

MARYS PEAK

A June wildflower mecca in the Coast Range, with a moderate 2 mile hike through forest, meadow and rock garden. Driving time one hour each way. Leader is Bob Frenkel.

CANDIDATES FOR THE STATE BOARD OF DIRECTORS NPSO 1993 ELECTIONS

The nominating committee is pleased to offer the following candidates for positions on the NPSO State Board of Directors. Ballots are included in this issue of the Bulletin, and must be received by May 5th to be counted. The ballot inserts are preaddressed and only need to be folded along the dotted lines, stamped and taped or stapled to be mailed. Results of the election will appear in the June issue, and those elected will be sworn in at the Annual Meeting in Corvallis on June 6th. Many thanks to all of our candidates!

THE CANDIDATES

For President: Lisa Croft, incumbent
Lisa Croft has a BS from the University of Hawaii, and a MS from the University of Washington. Her thesis was on the Holocene paleoecology of the John Day Basin. She was active in the Botanical Society of Hawaii before moving to southern California to work on the Cleveland National Forest. She has worked as Forest Botanist on the Ochoco National Forest for the last three years.

For Vice-President: Rhoda Love
Rhoda is a botany instructor at Lane Community College in Eugene and former State President of NPSO. She is a past West-side Conservation Chair and present Conservation Co-chair for Emerald Chapter, and an Associate Editor of *Kalmiopsis*.

For Treasurer: Kari Yanskey
Kari earned her BS from Boise State. She is presently the botanist for the North Fork Ranger District of the Umatilla National Forest, and has prior experience working as a seasonal employee. A member of the Blue Mountain Chapter, her interests include general botanizing and learning the native flora.

Julie Knurowski-Thiel
A member of the Willamette Valley Chapter, Julie is a botanist with the Salem BLM working on the Yamhill Resource Area. She has a biology degree from Western Oregon State College and has done additional post baccalaureate work at Oregon State. She enjoys teaching botany to children.

For Directors-at-Large: 2 year term, vote for 3:
Veva Stansell

Veva has been an NPSOer since 1972 and has previously served on the Board. She is native to Gold Beach and is well known for her knowledge of the interesting and challenging flora of southwestern Oregon. Veva is currently working on the Gold Beach Ranger District. Her interests include any aspect of natural history and photography.

Cathy Jean

Cathy has a BS from Southern Utah University and a MS in Forest Ecology from Utah State. Her Masters thesis was on clonal growth of subalpine fir in Cedar Breaks National Monument in Utah. Her interests include native landscaping. Cathy is interested in helping organize a chapter in the Klamath Falls area. She currently works on the Chiloquin Ranger District of the Winema National Forest.

Christine Lorain-Ebrahimi

Christine received her BS from Oregon State in Botany and MS from University of Idaho in Forest Ecology. Her thesis work was studying the coastal disjunct taxa for the northern Rocky Mountains. Christine has worked with the TNC at Cascade Head and has done contract work in Idaho with the Heritage Program. When in Idaho she was involved with the Idaho Native Plant Society as State Vice-President.

Nancy Wogen

Nancy earned a BS from Oregon State in Wildlife and Vegetation Ecology. She did both vegetation and entomological studies for the Forest Service Research Lab in Corvallis, and for OSU's Oak Creek Lab. Nancy worked as Botanist on the Salem BLM District, and in 1989 was hired by the Eugene District to manage the rare plant and special areas programs. This past year Nancy has served NPSO as Treasurer.

Jenny Dimling

Jenny earned her Masters in Ecology from the University of Oregon. She worked as a contractor for the Oregon Department of Agriculture for a study of *Sidalcea* in the Klamath Region, and is now the Forest Botanist with the Willamette National Forest. She is the past President of the Emerald Chapter, and is their current Treasurer. Jenny's interests include gardening, skiing, hiking and biking.

ON THE WINGS OF MOTHS

An afternoon hike along a small creek has led me through some thick willows into a glorious mountain meadow. The ground is still a bit spongy in spots, but luckily these areas dry out some in the fall, so there's a place to eat lunch without getting wet. As I munch away on my food, I see a brightly striped caterpillar also eating lunch. In fact, there are quite a few of them munching plants all around where I sit. Lying down in the sun to watch the clouds drift by, I wonder about those bugs. What stories could they tell me?

In the seventies, many people were alarmed at the rapid spread of tansy-ragwort (*Senecio jacobaea*). This introduced weed was taking over pastures and poisoning cattle. The scientific community responded by releasing an introduced caterpillar, the cinnabar moth (*Tyria jacobaeae*). This easily identified orange and black striped caterpillar could soon be seen munching away at the tansy-ragwort throughout the Willamette Valley. It is not uncommon to see this plant completely covered with these bugs.

Unfortunately, this insect along wasn't eliminating tansy. Completely eaten plants would resprout later in the season, sometimes even producing flowers and seeds. In response to this news another insect, the tansy flea beetle, was released. This beetle attacks the root system of the tansy. Together these insects are keeping the spread of this introduced weed in control.

At OSU, research was done into other plants the cinnabar moth might eat. It was observed eating the weed groundsel (*Senecio vulgaris*). Certainly no one would mourn the loss of a few of these plants, common weeds in alleys and sidewalk cracks. The cinnabar moth became established in the western interior valleys as the years rolled on.

In time, this moth became acclimated to higher and higher elevations. Over the last few years I have seen these moths on the western slopes of the Cascades as high as 5,500 feet! There are very few introduced weedy *Senecios* at these elevations. Occasionally a lone tansy-ragwort can be spied alongside a logging road. The food of

choice for the moth at this elevation is *Senecio triangularis*.

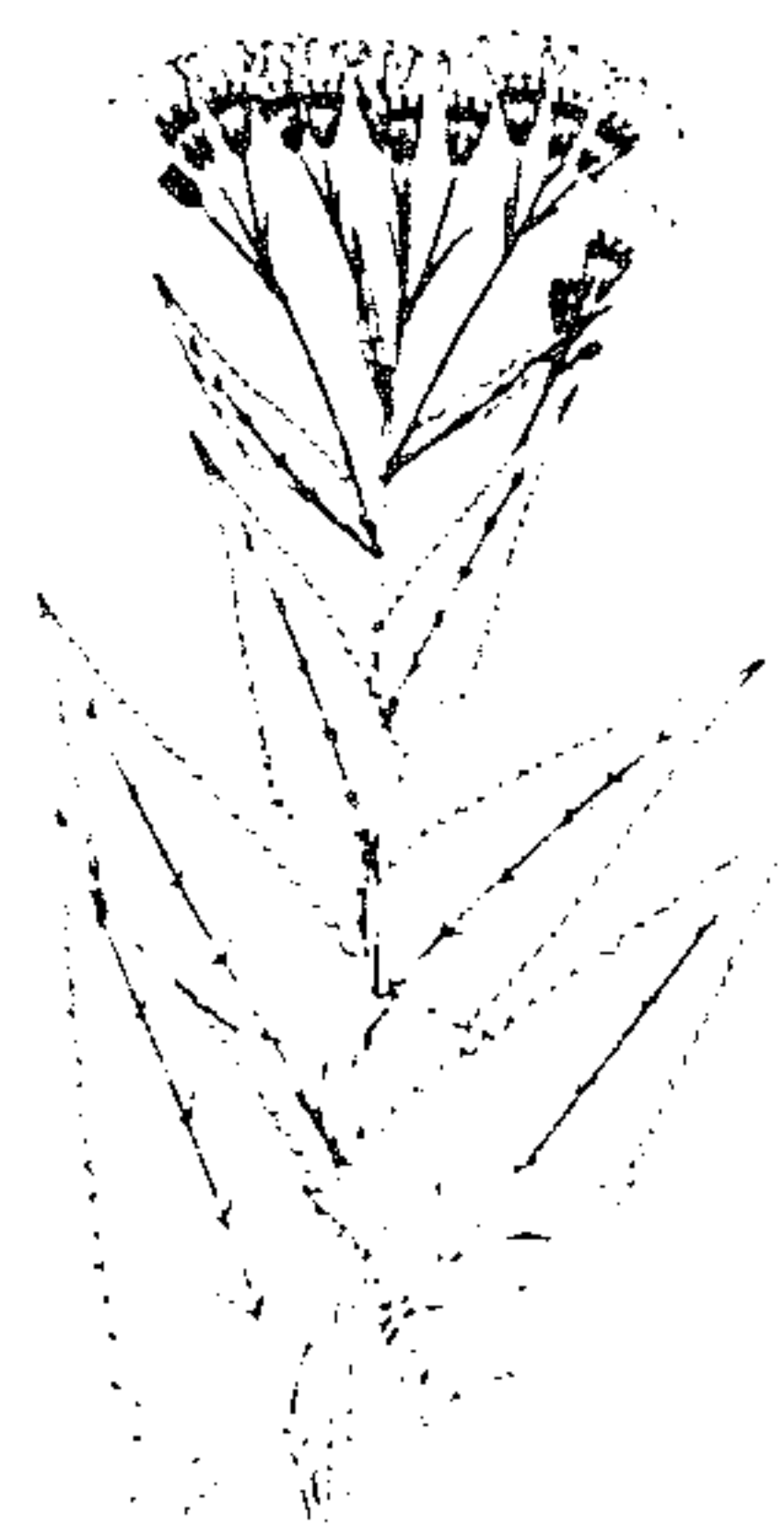
Senecio triangularis is a tall, unspectacular composite with many small yellow-rayed heads. It is very common in mid-elevation marshy meadows and a dominant plant in the drier areas. What a joy it is to wander the wet meadows splashed with the colors of numerous wildflowers, with the taller association of false hellebore (*Veratrum viride*), the ever-smelly valerian (*Valeriana sitchensis*), and of course *Senecio triangularis*.

My joy has been slightly marred by the fact that those little orange and black caterpillars have been voraciously attacking the native *Senecio* in the meadows. Last year I was hard pressed to find one uneaten stem in ten thousand in the meadows around Blair Lake (4800 ft.). This has been the case in other meadows in the Western Cascades.

It is not unusual in our world today to find nature out of balance. One may be comforted in the fact that this moth alone will probably not wipe out the native *Senecio*. Nevertheless, many questions come to me on the wings of this moth. How far east will it spread? Will the beetle also eventually move to these higher elevations? Is the moth actually damaging any native stands?

Like so many questions about the natural world, the answers provide only more questions. The more we know, the more we realize how much there is to learn. I know one thing for sure, as the clouds drift by, these mountain meadows will continue to bring me joy and questions year after year.

Howie Brounstein
High Desert Chapter



Senecio triangularis
Arrowleaf

Drawn by Jeanne R. Janish
From Flora of the Pacific Northwest, 1973

NATIVE PLANT SOCIETY OF OREGON
FIELD INTERN REPORT
ON *CIMICIFUGA ELATA*, TALL BUGBANE

Over the summer of 1992, I had the opportunity to study a rare plant in the Buttercup family, *Cimicifuga elata*, tall bugbane. This plant is a regional endemic to the Douglas fir forests between the Cascade and Coast ranges, historically ranging from southern British Columbia to Lane County, Oregon. Presently populations are known from the Elwha River at the northern tip of the Olympic Peninsula to the South Fork of the Umpqua River in Oregon.

Tall bugbane is a large herbaceous perennial, potentially quite long-lived (Ed Alverson, pers. communication). The foliage grows from a woody rootstock, reaching up to two meters in height, although average vegetative individuals are a third of a meter high. Bi- or tritermately compound leaves grow individually from the rootstock, as well as being arranged alternately in decreasing size on a reproductive stalk. The terminal leaflets are similar in outline to thimbleberry, *Rubus parviflorus*. The flowers are apetalous and radially symmetrical, with many white stamens surrounding one to three (up to seven) carpels. Many flowers are arranged on a raceme, such that the raceme looks like a white bottlebrush of stamens.

Twelve species of the genus *Cimicifuga* are known world-wide. These species occur circumboreally in moist wooded areas (Ramsey, 1987). The genus *Cimicifuga* and closely related *Actaea* form a distinct and archaic species group in one of the most ancestral of herbaceous flowering plant families, the *Ranunculaceae* (Pellmyr 1985, 1986a, 1986b). Baneberry, *Actaea rubra*, is a common herb in western Douglas fir forests, with bright red poisonous berries. There are six species of the genus *Cimicifuga* in North America, three eastern and three western. Only one of these is a common species, *C. racemosa*, in the east. Two North American *Cimicifuga* species are rare endemics, two other species have a limited range or habitat, including *C. lacianata*, a Mt. Hood endemic, and one is the regional endemic *C. elata*. The habitats of *C. lacianata* and *C. elata* do not overlap.

Tall bugbane is listed with the U. S. Fish and Wildlife Service as a C2 species; that is, it is a candidate for threatened status, but information to make that decision is lacking. The pattern of the rarity of tall bugbane is unusual. Species may be considered rare because they are limited to a small geographic area, because they are limited to a very specific habitat, like a particular type of soil, or because all their populations are small (Rabinowitz, 1986). Tall bugbane has a wide geographic distribution for a rare plant, broad habitat specificity (although the issue of habitat specificity in tall bugbane is unresolved) and chronically small populations, with the exception of the population near the South Fork of the Umpqua River drainage.

The internship funded by the Native Plant Society of Oregon allowed me to join an interagency (Oregon Department of Agriculture, Plant Conservation Biology Program, Forest Service, and Bureau of Land Management) study of tall bugbane. Most known populations of tall bugbane occur in or along the margins of mature to old-growth stands of Douglas fir-Western hemlock forest (Ed Alverson, 1986). This successional state of the Douglas fir-Western hemlock forest community has been greatly reduced in the region by timber harvesting. The aim of the interagency study is to better characterize the habitat of tall bugbane, as well as to assess the effects of timber harvesting and other forest management practices on the demography of populations.

Each morning Tom Kaye, the crew and I met with the Forest Service or BLM botanist of the area we were working in and discussed the location of the population, its size, how the plants were distributed, and the nature of the habitat, including the history of fire and logging in the area. Once at the population, our team split into two working groups. One group took vegetation data from ten meter square plots, recording all species present and their percent cover. This data will be used to describe the habitat of tall bugbane. The other group set up a permanently marked transect through the population. Individual plants were

measured from the transect and a numbered metal tag marked their location, so that they could be found in following years. We took demographic data on these individuals, including their height, the size and number of leaves, the number of reproductive stems and racemes, and percent herbivory to vegetative and reproductive parts. The demography of populations at sites with different histories will be monitored, including sites that were logged five years ago, ten years ago, twenty-five years ago, sites where the population borders on a recent cut, and sites where the population lies both inside and outside the boundary of a cut. This data will be used to infer the effect of logging on populations of tall bugbane, and decide what kind of protection it should be given.

The internship came for me as an opportunity to complement my own study of the breeding system and pollination biology of tall bugbane in the Sandy River Gorge. My research was made possible through the Sandy River Research Fund of the Reed College Biology Department, established by Dr. and Mrs. Arch Diack. The Nature Conservancy generously allowed me to conduct research on their land. I studied various aspects of self-compatibility (the ability of a plant species to set seed when pollinated with its own pollen), and found that tall bugbane is at least a moderate selfer. I also found a significant difference between the proportion of aborted seeds that resulted from controlled selfed and outcrossed pollinations. Flowers that were self-pollinated had a greater proportion of aborted seeds. This could be either a late indication of self-incompatibility (Seavey & Bawa, 1986), or an early indication of inbreeding depression. Inbreeding depression is a loss of fitness associated with inbreeding.

I am continuing my research with tall bugbane in my undergraduate thesis at Reed College. I am using starch gel electrophoresis to study variation in enzymes in tall bugbane. This information will allow me (hopefully) to determine the amount and distribution of genetic variation within and among populations of tall bugbane, the level of inbreeding in populations, and the nature of gene flow between populations. This type of knowledge about the genetic constitution of tall bugbane may lead to an understanding of why it is rare, and will be useful for its conservation.

My thanks go to Tom Kaye and Keli, with whom I stayed while in Corvallis, for their incredible warmth and hospitality. My thanks also go to the crew: Angie, Lupine, Matt, and Melissa, for their humor and good-naturedness. With who else would I rather wade through six feet of blackberries and other thorny weeds in order to get a densiometer reading? With who else would I hang from cliffs to measure plants, inhale clouds of swordfern spores that are kicked up as we wade through the ferns, or suffer the gray dust that thickly coated all the vegetation at a population of tall bugbane by a gravel logging road?

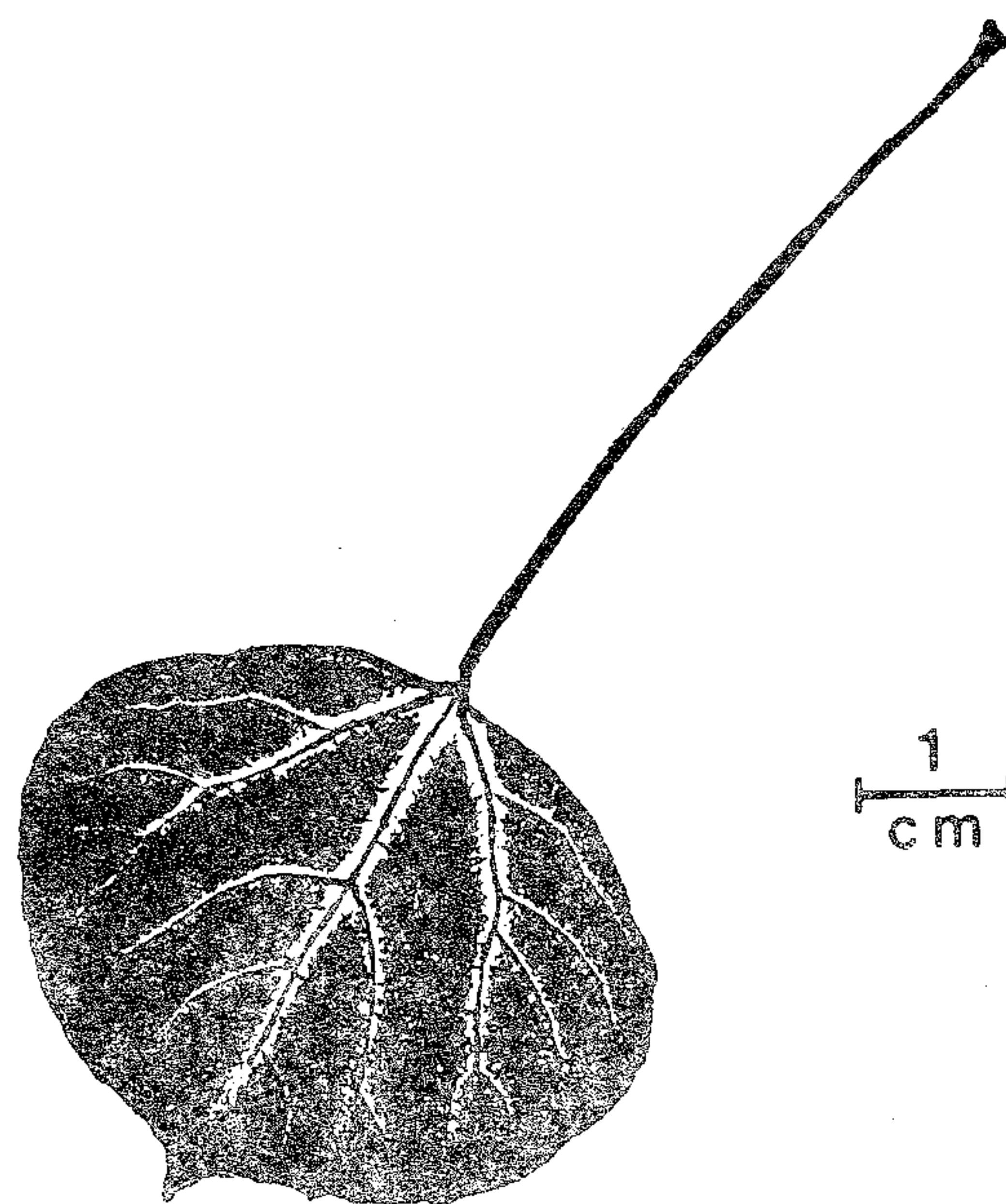
Margaret Evans
Reed College

THE PLANT PUZZLE

SPONSORED BY THE SISKIYOU CHAPTER

Do you recognize this native woody plant? The first person to give the correct scientific name will win a prize. Send your guess on a postcard to:

Peter Zika, 4230 NW Clubhouse Place #1,
Corvallis OR 97330.



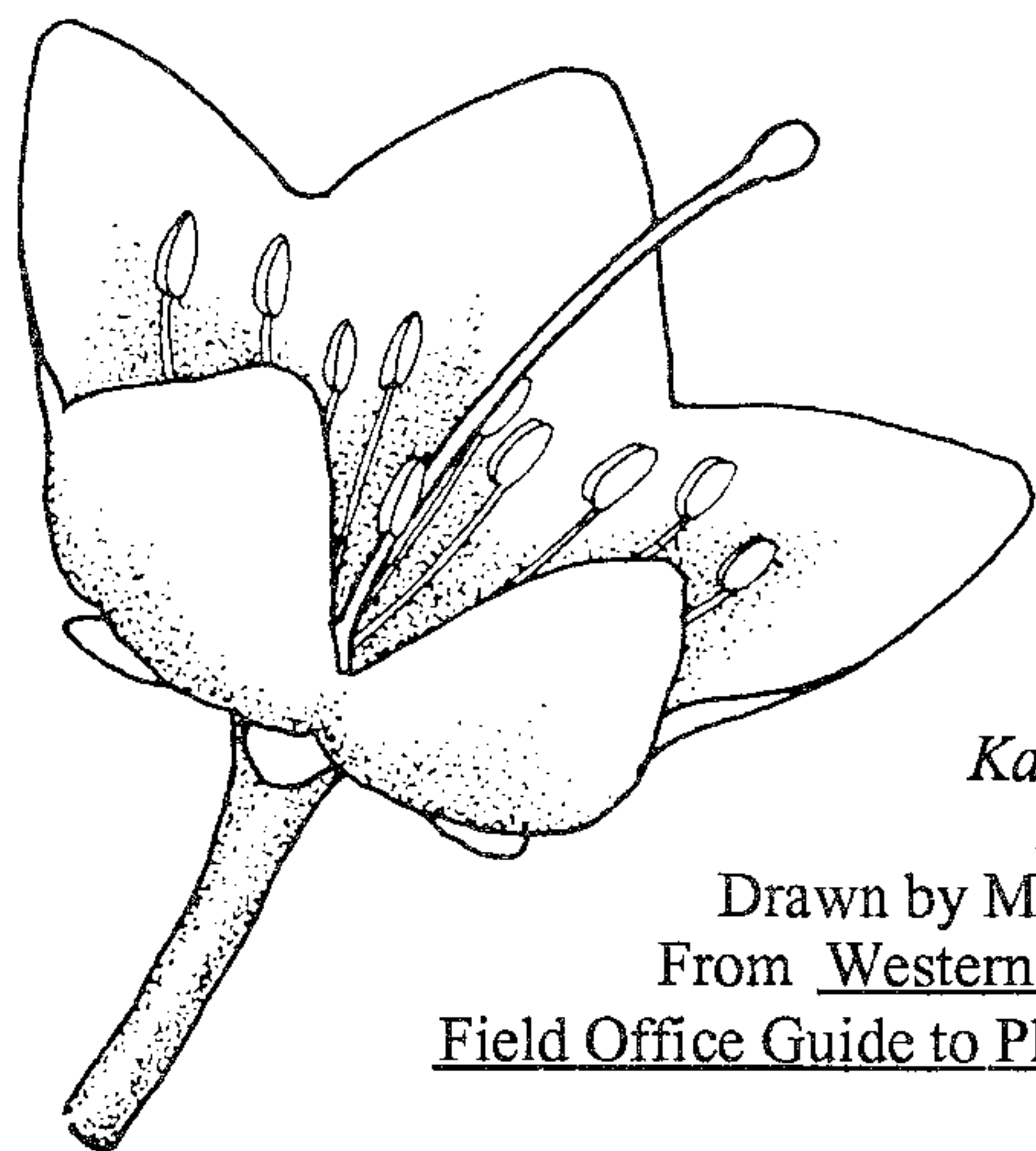
Rhoda Love of Eugene was the first to solve the February puzzle: *Floerkea proserpinacoides*, false mermaid.

UNIVERSITIES COMBINE PLANT COLLECTIONS

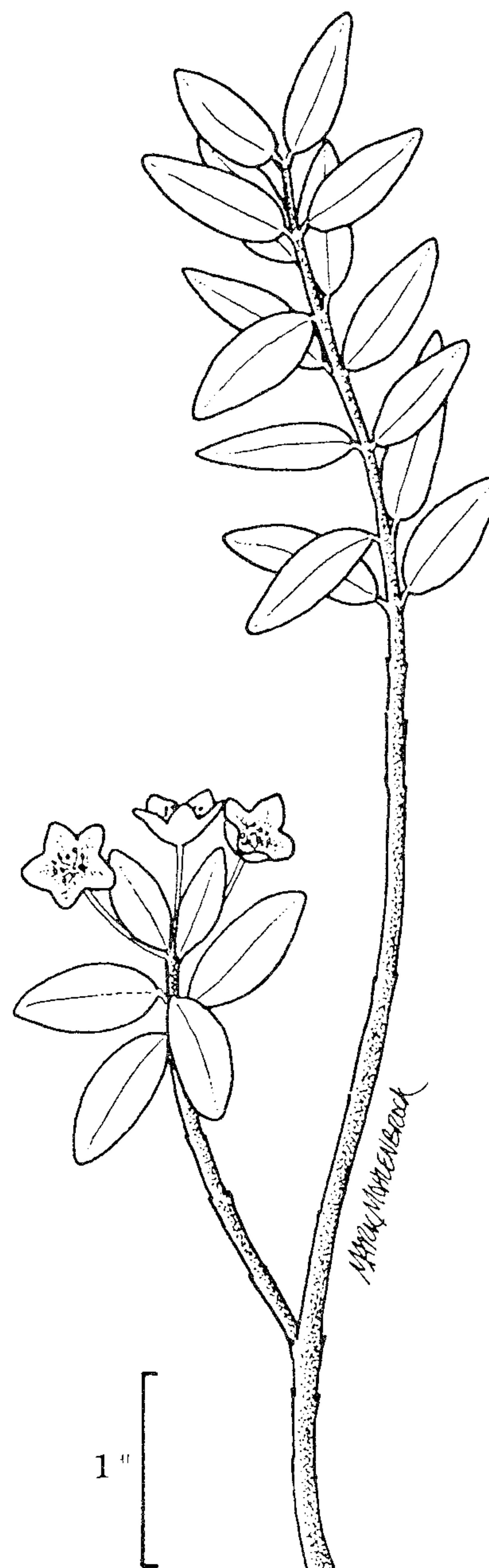
Oregon State University (OSU) and University of Oregon (UO) have officially announced an agreement to merge their two herbaria. The herbarium at UO will be closed and its collections, including library, will be transferred and integrated with those at OSU in Corvallis. The combined collections will amount to more than 336,000 plant specimens, the most useful and comprehensive selection of Oregon flora that exists anywhere in the world. It consists of fungi, lichens, liverworts and mosses as well as vascular ("higher") plants. Now, botanists needing to consult the state's botanical collections will need to visit only a single site.

The merger was triggered by budget pressures from Measure 5, having the effect that state agencies be as efficient as possible with less resources. The merger will permit access to the state's botanical collections to continue to be freely available with reduced administrative expenses. The director of the combined facility will be Dr. Aaron Liston, assistant professor of botany at OSU. The position of the director of the UO herbarium will be eliminated after the end of the fiscal year.

The newly expanded herbarium will be housed in Cordley Hall on the Corvallis campus, in ground floor space being specially renovated for the purpose. A grant is being sought from the National Science Foundation to install mobile storage units to facilitate access to the collections and provide room for future growth. The move is expected to be completed by this summer.



Kalmia microphylla
Alpine bog laurel
Drawn by Mark Mohlenbrock
From Western Wetland Flora—
Field Office Guide to Plant Species 1993



BITS AND PIECES

---NEWS AND INFORMATION FROM ALL OVER

VOLUNTEER NEEDED TO WORK ON LEGISLATION

The current Legislative Chair is seeking someone to take on the responsibilities of Legislative Chair for the NPSO or to co-chair the position. The job entails being involved with pertinent state and federal issues. Trips to Salem when the legislature is in session, writing articles for the *Bulletin*, staying current with the issues we are concerned with, and rallying the support of NPSO members when the need arises on critical issues. If interested, please contact:

Esther McEvoy
3290 SW Willamette
Corvallis OR 97333

WILDFLOWERS ACROSS OREGON

Tour led by Lucile Housley in conjunction with
the Native Plant Society of Oregon
May 9th to 15th, 1993

The spring wildflowers and plant communities of Oregon are spectacular and diverse, especially as you make a transect across Oregon. This tour will start in the Pacific Coast rain forest, cross the Coast Range, the Willamette Valley, the Cascades Mountains, the High Lava Plains and on to the Alvord Desert, which is the northernmost extent of the Great Basin high desert steppe. Returning from Harney County, the tour will visit the John Day Fossil Beds where ancient plants can be viewed in fossil form. This trip will pass through seven physiographic zones and visit locations from sea level to over 6,000 feet elevation.

The tour will familiarize participants with individual plants and the plant communities in which they are found. There will be introductions to what plants and plant communities may be found before going into the field, field reconnaissance, and basic tools for identifying different plant families. This will be a "hands on through walking and a hand lens" approach.

This unique trek is designed for the novice as well as the advanced botanist to see the variety of Oregon's plant world: from the ocean, to the moun-

tains and to the desert. Photographers can enjoy fantastic flora and scenic photograph opportunities.

This tour is limited to ten participants and will be led by Lucile A. Housley. Lucile is a botanist with degrees in plant identification and plant ecology, and has led tours and taught classes in Oregon for the past 16 years. Cost for the tour is \$765, which includes tour leader, lodging, meals, transportation and a \$15 donation to the Native Plant Society of Oregon.

To register for the tour or for more information contact:

Full Circle Tours
1335 SW 66th Avenue, #405
Portland OR 97225
(503) 292-0189

DR. ALEX L. SHIGO COMING TO NORTHWEST FOR LECTURES, WORKSHOPS

Dr. Alex L. Shigo, a foremost authority on trees, will visit the Pacific Northwest in May for a week-long series of programs for the general public and horticultural professionals. Shigo is author of *A New Tree Biology*, *Modern Arboriculture*, and *100 Tree Myths*. He spent 26 years as a plant pathologist for the US Forest Service. He is a fellow of the American Phytopathological Society and the International Academy of Wood Science. He is currently in private practice in research and consulting with his company, Shigo & Trees of Durham New Hampshire.

On May 12th at Clackamas Community College in Oregon City he will present "Trees From the Inside Out", illustrating the biological workings of trees, showing how trees are affected by common horticultural practices such as pruning, fertilizing and planting techniques. Cost of the presentation will be \$15. Shigo will also give a presentation geared to tree care professionals on May 13th at the same location.

For information or to register, contact John Kirkland of Tree Care Educators, 605 SE 70th, Portland 97215 (503) 254-0482.

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DEADLINE: Copy is due with the editor by the 10th of each month.
Submissions can be in any form. Author's name & affiliation are at the end of the article. 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. Formatting assistance is available from your editor. All *Bulletin* articles now go into the new NPSO database via computer. Camera-ready copy is not used, with rare exceptions.
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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, or underline.
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.

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* **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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Jan Dobak, NPSO Membership Chair, 2584 NW Savier St., Portland OR 97210-2412.

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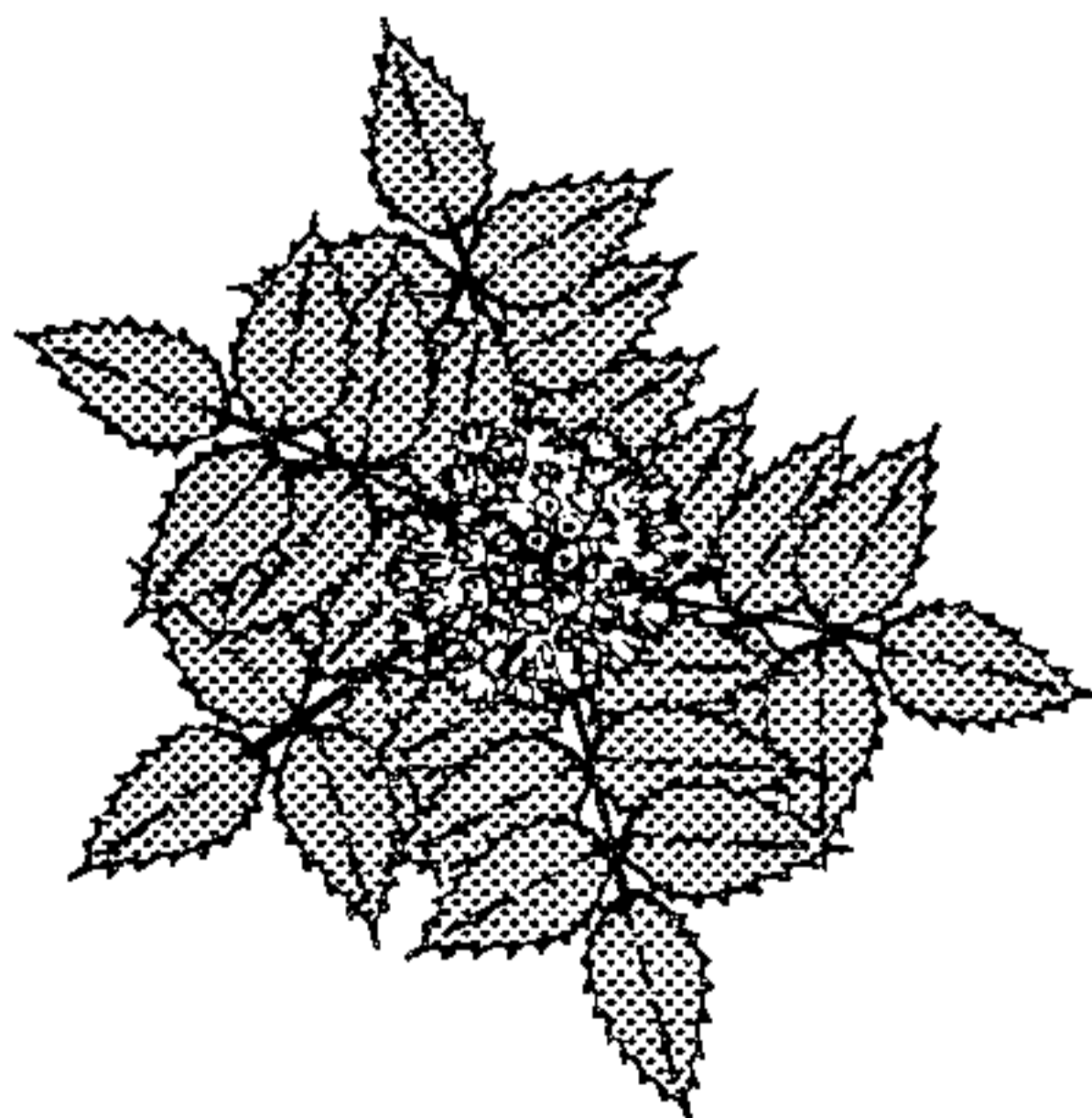
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