

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

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

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CHAPTER NEWS

IMPORTANT NOTE TO FIELD TRIP PARTICIPANTS

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

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

Blue Mountain

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

Corvallis

For information, call Wes Messenger (929-4002).

Emerald

14-19 Aug.

For information, call Diane English (484-9287).

LANE COUNTY FAIR. Emerald Chapter will be having a booth promoting NPSO interests. If you can assist with this call Diane English (484-9287).

High Desert

11 Aug., Sat.

FIELD TRIP to Broken Top Volcano. Our annual hike to view the spectacular display of alpine wild flowers and glacial and volcanic geology on Broken Top Volcano. A 5 mile round trip moderate to strenuous hike with a 1500' elevation gain, mostly in the Three Sisters Wilderness. Number of hikers limited due to wilderness regulations, call trip leader to register. Geologist Bruce Nolf accompanies trip leader Stu Garrett (389-6981 eves or 382-2811 days).

Mid-Columbia

1 Aug., Wed.

MEETING. 7:30pm at the Mosier School will be a very special guest: Dr. Robert Pyle, leading authority on butterflies of the Pacific Northwest, speaking about "Butterflies: Flying Flowers". This is one program you won't want to miss! See accompanying article.

5 Sept., Wed.

MEETING. 7:30pm at the Mosier School. Ron Halvorson will present an overview of selected botanical activities on the Prineville BLM district. Opportunities for chapter involvement will be discussed and plans made. The White River south of Tygh Valley will be one highlight.

North Coast

9 Aug., Thurs.

MEETING. Potluck Picnic at Cape Lookout State Park, in the day picnic area, starting at 5:30 or 6pm. Bring your own plate, silverware, and cup. Call Jean Gilbert (842-4801) for more information.

25 Aug., Sat.

FIELD TRIP. Linda Steiner leads us into the watershed behind Tierra del Mar. Leave at 9am from the PUD lot in Tillamook or 10am at the gate off the road near Tierra del Mar. For information call Al Krampert (842-2308).

Portland

4 Aug., Sat.

FIELD TRIP to Coffin Mountain. An opportunity to see several native rhododendrons. Other exciting species to enjoy include several spp. of *Penstemon*, *Mimulus* and *Lewisia*. Leave at 7:30am from the Tualatin K-mart off I-5, or from the Maples exit off Hwy 22 at Gates at 9:30am. Leader: Dallas Boge, contact Elizabeth Handler (244-5320).

11 Aug., Sat.

FIELD TRIP to Multorpor Bog. This is an easy trip, but dress to get wet and bring bug repellent. Leader: Lois Kemp (760-4998). Leave at 8am from the west end of the Gresham Fred Meyer parking lot.

25 Aug., Sat.

FIELD TRIP from Cloud Cap on the north side of Mt. Hood, towards Elk Cove. Leader: Doris Ashley (635-3911). Leave at 7:30am from the NE 122nd and Sandy K-Mart parking lot.

8 Sept., Sat.

FIELD TRIP to the Indian Heaven Huckleberry fields. Leader: Elizabeth Handler (244-5320). Wilderness regulations require no more than 12 persons in the group. Please call for advance registration. Leave at 8am from the NE 122nd and Sandy K-Mart parking lot.

Siskiyou

For information , call Richard Brock (482-4111).

South Coast

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

Umpqua Valley

Informal **FIELD TRIPS** every Tues. and Sun. with the Museum herbarium staff. Contact Mildred Thiele (673-5397) for more info.

16 Aug., Thurs.

MEETING. Get to know your fellow NPSOers at our Potluck Social, 6pm at Hillcrest Vineyard, 240 Vineyard Lane, Roseburg. Bring your favorite main dish and bread, or salad and dessert, and your own table setting. For info., call Donna Carlson (672-4430).

18 Aug., Sat.

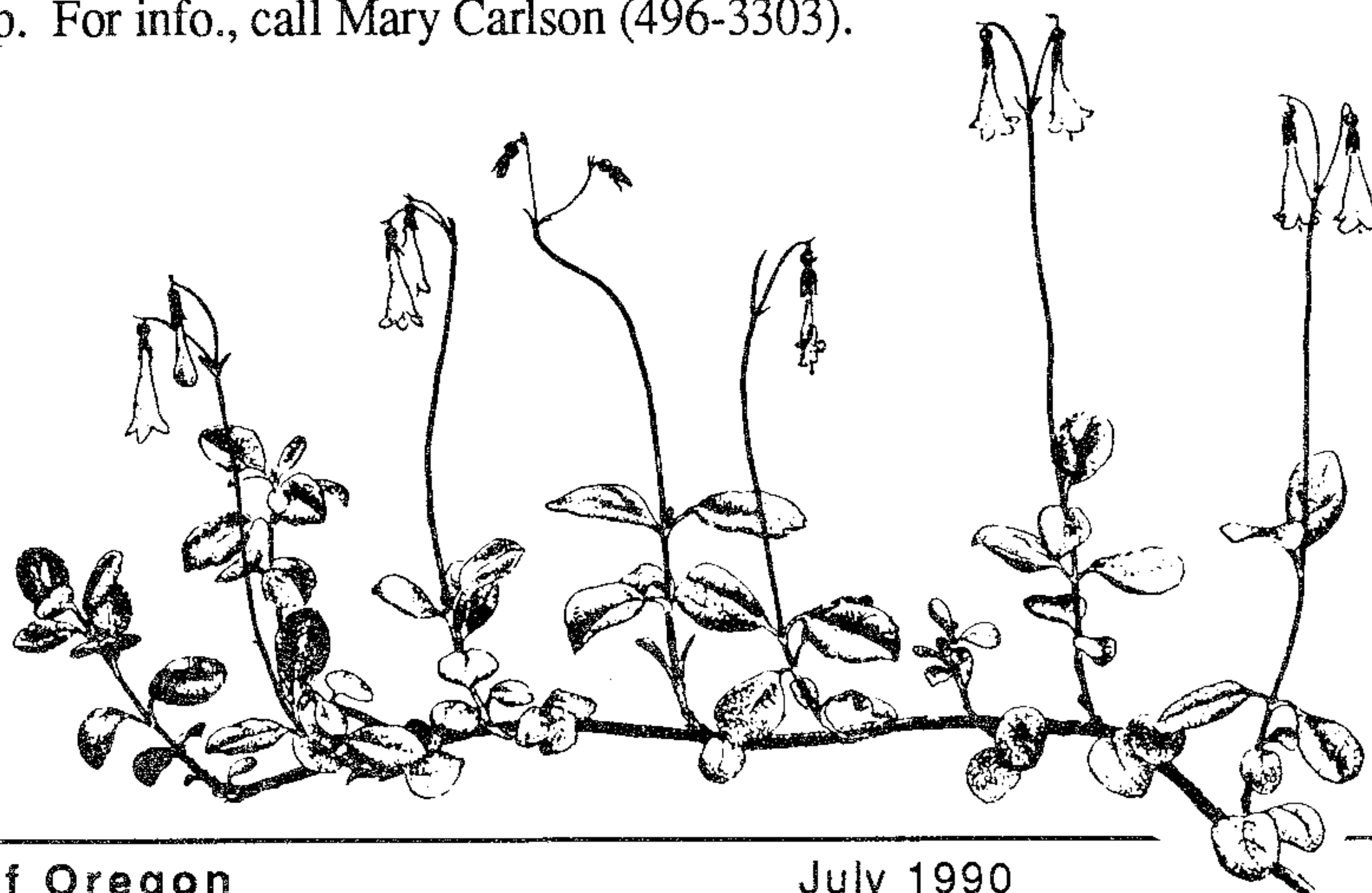
FIELD TRIP to Old Man Camp to view an alpine bog and pumice meadow. Leave at 8am from the BLM parking lot, 777 Garden Valley Blvd. Roseburg for carpooling, or meet at Whitehorse Fall CG sign at 9:30am (66 miles east of Roseburg on Hwy 138), and then proceed up Rd. 4785 (just east of the CG) to Old Man Camp. For info., call Mary Carlson (496-3303).

Linnaea borealis

Twinflower

Drawing by Ramona Hammerly
from *Northwest Trees*

Used by permission.



Willamette Valley

To hear about unscheduled mid-week trips to places near & far, call Clint Urey (581-1805) or Barbara Halliday (371-1025).

- 5 Aug., Sun. FIELD TRIP to Cloud Cap, on north side of Mt. Hood. A moderate, 5-mile round trip. Trail is at 6000' but never level! Leaders: Bill and Lois Egan (393-2131). Leave at 8am from North Salem K-mart or meet at Cloud Cap Inn parking lot by 10:30am.
- 12 Aug., Sun. FIELD TRIP to a wetlands area in Rooster Rock St. Park in the Columbia River Gorge to see *Sagittaria latifolia* (Wapato) in bloom. Easy but wet walking. Leader: Dale Groff (Portland 223-6808). Leave at 9am from South Salem K-Mart or meet by 10:30am at the State Park headquarters.
- 18 Aug., Sat. FIELD TRIP to Breitenbush Meadows, near Breitenbush Lake in the Cascades. Easy hike---we'll be looking for gentians and other late-summer flowers. Leave at 7:30am from South Salem K-Mart. A 2.5 hour drive from Salem--with the last few miles over fairly rough road. Leader : Wilbur Bluhm (393-2934).

William Cusick

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

RARE AND ENDANGERED PLANTS OF OREGON

By DONALD C. EASTMAN
Forward by JEAN L. SIDDALL
BEAUTIFUL AMERICA PUBLISHING CO.
WILSONVILLE, ORE. 1990

This long-awaited book is destined to be known for its *sumptuous* photography. Other books may have photos as striking, but none have ones as informative. The photos are not only clear and attractive, but also they were selected to include sufficient detail to make identification of plants in the field a snap. The user can often identify species on the basis of the photos alone. A brief, non-technical written description assists identification. Also included in the two paragraphs that accompany each plant is information on rarity, habitat, range, time of bloom, and population trends. Small maps also help delineate the areas in which each plant grows.

This book should easily spur renewed interest in our rarest native plants. No photographic book before has concentrated on increasing our awareness of the rare and endangered plants around us; no book has made identification of these plants possible by the average amateur. Don Eastman has certainly filled a void in the literature. And this book will allow many of us to cross the bridge from curiosity about the often unknown rarities around us to real awareness and knowledge. At the very least this book will expose the reader to the diversity and beauty of our rare native flora.

This book is attractively designed and will serve anyone well as a coffee-table book. The main text is the plant photos and accompanying information, which account for more than 80% of the page count; the forward, introduction, appendices, bibliography, and index take up the remainder. The introduction has a commentary on conservation of rare plants, an article on their distribution in Oregon, and a discussion of the book's purpose and the selection process for choosing which plants were included. It also has a general map of vegetation types, brief articles on plant names and on his criteria in setting up his plant descriptions, and a longer article on plant photography. The appendices include a Glossary, Bibliography, and a listing of the botanical family classification of each species in the book. The index covers both common and botanical names, but no general index is included.

If I were to criticize this book, it would be for not including even more information, but this would perhaps be asking for it to go beyond its stated aim of promoting awareness of our rare and endangered plants. We still need our Hitchcock; this is not a definitive botanical treatise. It is a book best seen as a popularizer of subjects little known because of their scarcity. That it goes beyond this is a tribute to the dedication, expertise and enthusiasm of the author for our native flora.

---Bryan Boyce

"Flying Flowers Coming to Mosier!"

What? What are flying flowers you say? Well you won't want to miss this exciting program to be presented at the August 1st meeting of the Mid-Columbia Chapter of NPSO. The Pacific Northwest's leading lepidopterist, Dr. Robert Michael Pyle, will bring this colorful show: BUTTERFLIES: FLYING FLOWERS to the Mosier School 7:30 P.M. that Wednesday evening. Although we may all be aware of the vital relationship which exists between flowers and butterflies, here's our inspiration to begin a more in depth study. Dr. Pyle is the author of the "Audubon Society's Field Guide to North American Butterflies". Currently a writer and consultant in biological conservation, his work has taken him as far as Papua New Guinea. There he worked on a government grant for birdwing butterfly conservation. He has a PhD in insect ecology from Yale University and founded the Xerces Society, an international organization for beneficial and rare insect habitat protection. He has also served as the Northwest Land Steward for the Nature Conservancy. Other books he has written include - "Watching Washington Butterflies" and the "Audubon Society's Handbook for Butterfly Watchers". The latter includes two chapters of particular interest to NPSO members: Butterfly Gardening and Butterfly Conservation. His latest book, "Wintergreen - Listening to the Land's Heart", describes his naturalist's experiences and observations in the Willapa Hills of Southwestern Washington. There are many references to flora and here is just a sampling:

"The *Clodius parnassian* and its host", (*Dicentra formosa*), "make one of the great aesthetic partnerships of the Northwest woods: the elegant green stands of lacy bleedingheart, flecked with aromatic pink flowers, frequented by the great floppy white butterflies, speckled with scarlet and jet."

"When I wonder at plant power, I think of marah. Also known as wild cucumber or manroot, this native cucurbit climbs high into the forests from its

base beginning underneath. Marah, honeysuckle, and wild clematis, or old man's beard, make our only true lianas - ground rooted aerial plants with high climbing vines. Marah dies back each year, then, beginning anew at ground level, clambers and twines fifty or seventy five feet into the air each summer, bedecking hemlock, cherry, and bare slope alike with its grapelike leaves, watch-spring tendrils, and fruits like little green hedge hogs. The name manroot grows out of its enormous tuber. A new path down to the beach at Oregon's Ecola State Park recently revealed such a root in the trail-cut. When we show it off, onlookers insist it must be some great stone imbedded in the soil. There lies the root of true growth."

Included in this 300+ page book are ten pages devoted to highlighting particular species and butterfly relationships of the more than 80 plant families found in the Willapa Hills. For example he says:

"Crassulaceae: Yellow stone crops clinging to the basalt bluffs, furnishing forage for the compact larvae of the early elfin butterfly."

"Cruciferae: The mighty mustards, including an arrangement of cresses besides the delicate pink *Cardamine pulcherrima* that nectars and forages the veined whites as the woodland begins to leaf out in Spring."

"Violaceae: Our violets are chiefly yellow (pioneer and evergreen) though the marsh violet is a clear violet blue. Spring azures nectar on the lemony flowers of *Viola sempervirens*, and *hydaspe fritillaries* lay their eggs on *Viola glabella's* leaves."

Such wonderful information as this you'll find in Dr. Pyle's butterfly books.

It is indeed a rare and unusual appearance Dr. Robert Michael Pyle is making at our Mid-Columbia Chapter meeting. We extend this special invitation to other chapters' members and friends to attend and share in our good fortune!

PRESIDENT'S MESSAGE

Hello NPSO members! I'm looking forward to representing the society in the coming year. I'd like to introduce myself, write briefly about the annual meeting, and give everyone an idea of what I see as goals for NPSO in the coming year.

I have lived in Oregon my whole life except for one winter in Hawaii. As a child in the Rogue Valley I remember the Agate Desert with its vernal pools, Climbing Table Rock, and flowers in the spring. Now I live in Eugene, and work for the US Forest Service as a landscape architect, camping and hiking in the forest, botanizing vernal pools in the Willamette Valley, and incorporating native plants in landscape designs whenever possible. I have been an NPSO member for 7 years, and have been an active chapter participant for 2 years, serving as vice-president and rare and endangered chairperson for the Emerald Chapter.

I would like to extend a warm "Thank You" and "Well Done" to the Blue Mountain Chapter for hosting an exceptional annual meeting at the Bar-M Ranch, a place that will live forever in the minds of all who were there. The lodge was a perfect base from which to explore the Blue Mountain flora. Thanks also to Jerry Franklin, guest speaker at the banquet, for the futuristic view of "New Forestry", and the concept of large conifers as giant sky combs---Great!

The board meeting Sunday was a productive one. We had another distinguished guest, Bob Parenti from the US Fish and Wildlife Service in Boise. He spent a good portion of the morning explaining the listing process of Threatened and Endangered (T&E) plants. The USFWS depends on the Heritage Program and the Oregon Department of Agriculture for information and listing recommendations. Many of the rare plant sites in Oregon are managed by public agencies such as the BLM and the USFS. Conservation agreements between the USFWS and the managing agency have proved successful interim management methods for rare plants before an actual species listing. Sensitive species that grow in specific habitats can be lumped together which makes for a stringer listing package. Think of an ecosystem approach when managing for rare species. When we have questions as to why it is taking so long to complete the listing process, letters should be written to the regional director of the US Fish and Wildlife Service asking for clarification on where in the process the listing package is. Other peo-

ple people that need to be reminded of the importance of native plant protection are the directors of the BLM and USFS and our congressmen.

Along the lines of rare plant protection, we have undergone some changes in our rare and endangered (R&E) board. Ed Alvorson and Jean Siddal have both stepped down from their posts, and possible re-organization of NPSO involvement in R&E issues is upon us. A committee of representatives from each chapter, along with Ed and Jean, met on the 20th of July to discuss the future of the conservation committee, the possibility of having a co-chair, one person from the eastside and one person from the westside sharing the duties at the state level, and chapters continuing to do local searches and monitoring.

There was other business discussed at the board meeting. Those topics can be found in the minutes. Now I would like to present what I see as the goals of the NPSO for the coming year.

- * Education, Education, Education! Continue to develop slide shows on common Oregon native plants to educate school children about biodiversity, ecology and related subjects. Have educational booths at all events around the state---fairs, flower shows, town festivals, ect.
- * Have some fantastic field trips!
- * Expand the number of state board meetings from 3 to 4. (The next one will be held in Ashland on Sept. 29th, 1990.)
- * Improve our R&E 'paper trail', or "the records". A lack of complete information hinders proper species management.
- * Have a successful annual meeting.
- * Improve our communications with federal agencies, aiming for more visibility and increased funding of rare plant programs, thereby increasing their protection and reducing damage to native plant habitats.
- * Provide the necessary 100 hours of volunteer time to the Environmental Federation of Oregon (EFO).
- * Add to our understanding of proper propagation techniques for native plants in landscaping, as well as their siting and use.

Finally, a personal presidential goal---to visit each chapter this year, for a field trip or a meeting. I am looking forward to meeting as many members as possible, so enjoy the summer botanizing, and be sure to get a look at Don Eastman's book, *Rare and Endangered Plants of Oregon*, it is beautiful!

---Stephanie Schulz, NPSO President

FIELD SURVEY FOR THE TYGH VALLEY MILKVETCH IN WASCO COUNTY

Being a student in the field of art with a keen interest in botany, doing field work with the Oregon Department of Agriculture (on a joint ODA-BLM funded project) seemed ideal to combine the two interests. With gratitude I qualified for a NPSO Rare and Endangered Plant Fund research grant. This dream became a reality for me.

I was curious and excited about the completely different plant community, so different from that of the Willamette Valley. I was already acquainted with the wildlife of the High Desert of Eastern Oregon, but not with the flora. I'm amazed at how rich the dry side of Oregon is. The White River Canyon has a very unique combination of plants. The sight of *Juniperus occidentalis* (Pacific Juniper), *Pseudotsuga menziesii* (Douglas fir), *Quercus garryana* (Oregon White Oak), *Pinus ponderosa* (Ponderosa pine), *Calocedrus decurrens* (Incense cedar), and many shrub and herbaceous species was enough to excite the botanist of the survey crew, Tom Kaye.

Our first contact with *Astragalus tyghensis* (Tygh Valley Milk Vetch) was along the White River Road. The plant looks like many of the native plants of Central Oregon, with pale green foliage and yellow-green inflorescences. Up close the plant is covered with a fine coat of hair.

The first couple of days were spent surveying along the roadsides near the White River where populations of *A. tyghensis* had been reported by the BLM. A couple of these sites were found by Morton Peck back in 1950. However, we found no plants where Peck made his collections. I quickly learned about the attitude local ranchers have towards the wild plants in their area. Two ranchers in a beat up truck stopped on the road where we were taking a count of plants. They asked me if I had lost something. I told them I was working for the Department of Agriculture doing a rare plant survey. I began to tell them the name of the plant when I noticed that they had stopped listening to me and were looking at each other. The driver turned to me with a puzzled look and said, "Weeds?" I nodded in agreement and they wished me well.

After three days of surveying, the crew and I got a feel for where *A. tyghensis* likes to grow. It seems to like well-drained soil and open habitats, though we did find some growing under Oak and Juniper. One peculiar landform that *A. tyghensis* preferred is mima mounds or, as the pioneers called them, "Scab and Biscuit". It appears that at one time the entire Juniper Flats area was covered with the odd looking mounds. Many have been plowed over, but more are still intact. It is on these mounds that *A. tyghensis* best thrives. The mima mounds are two to five feet high and they look like piles of soil with bare rocks everywhere between them. We learned that cattle grazing and agriculture have probably reduced the extent of *A. tyghensis* populations.

On the last day of the plant survey I saw what looked like caterpillar fras or bird dung on some of the plants that are growing near the quaint village of Tygh Valley. A close look revealed that it is not caterpillar fras but some type of moth larvae that had built itself a curly shaped house made of sand and plant mulch. We collected some of the larvae to take back to the herbarium.

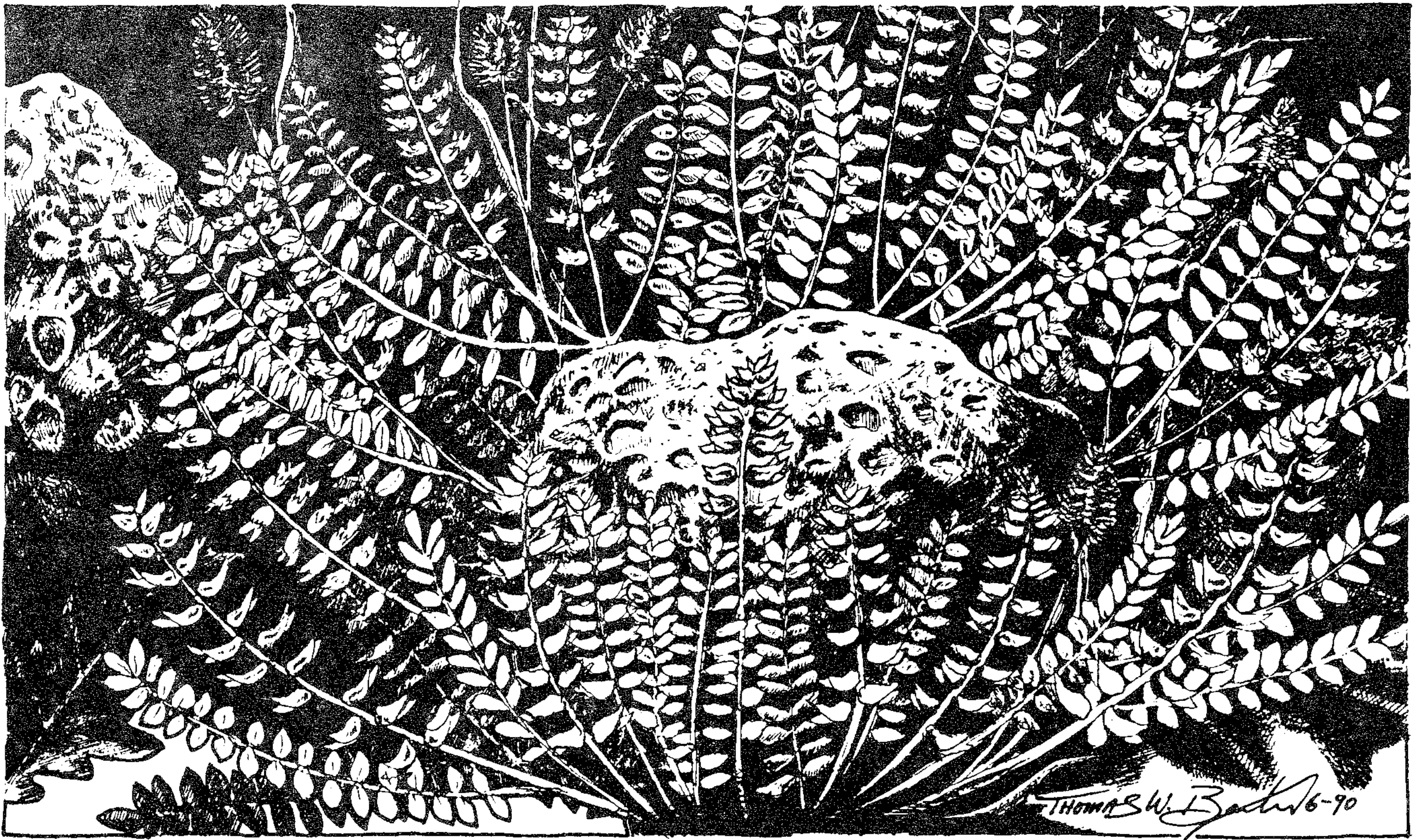
This experience has fueled a fire of deep curiosity for science in me. There was one big distraction for me on this trip; the old homesteads from the pioneers. The whole time I was aching to set up an easel and paint the beautiful weather-worn wood and stone buildings.

---Thomas W. Baxter

BIG BEES AND SMALL FLOWERS

Recently while working near a patch of Indian Pipe (*Monotropa uniflora*) out in my back yard I noted a large bee, probably a carpenter bee, light on the flowers. Wondering how this large bee was going to manage the small flowers I kept an eye on her. Instead of heading for the normal opening she concentrated her attention at the calyx end. Then I observed that there were holes cut into the bases of the flowers through which I assume she might have been obtaining nectar. At any rate, I can't see how she could have been helping out the next generation of Indian Pipes.

---Donald Botteroh, Portland Chapter



Astragalus tyghensis

An Alternative to Student Plant Collections

Springtime often finds botany students outdoors collecting plants for their botany course. Up to 100 species are needed to insure a high grade in the course. This requirement is being modified by many instructors due to concern for endangered species and their environments.

Much can be learned from traditional collecting activities, but an alternative method, offered by John E. Silvius in *Environmental Stewardship in Plant Collecting: Niche vs. Notch*, an article in *The American Biology Teacher* 52(2):112-115 (1990), outlines an effective approach to plant collecting which is consistent with NPSO philosophy concerning stewardship of and education about our native flora. Because of the way this approach is designed, the natural emphasis is the study of the species "niche" or ecological role. The article lists clear student and instructor objectives and ways to achieve them. Suggestions

on involving the student in developing the alternative collecting regime is also given. Examples of plant data sheets are provided and suggestions on how this method encourages the students to use herbarium material effectively are made.

Silvius evaluates his approach by comparing the objective of both new and old collecting methods and shows 3 more objectives are met with the alternative approach. He summarizes: "This approach (alternative) permits the accomplishment of all major objectives generally involved in traditional collection. In addition, it emphasizes systematic field observation and data collection, plant population and community relationships, and sensitivity to the issue of plant endangerment and extinction. We believe herein lies collecting in the spirit of stewardship as it should be".

---Gail Baker, Duvall Wa.

EMERALD CHAPTER VISITS PATTERSON MOUNTAIN PRAIRIE

Emerald Chapter members paid a long-anticipated visit to Patterson Mountain Prairie on the Lowell District of the Willamette National Forest, and found the area to be a stunning wildflower paradise.

Our chapter was contacted by the Lowell District late last summer and several of us were taken on a September visit to the meadow (actually one large and several nearby smaller meadows). At that time, we could see that the meadow and surrounding forest had a high diversity of ancient conifers, shrubs, forbs, and non-flowering plants. However, it was too late in the season for a complete survey so we scheduled a trip for July 7 of this year.

Last winter, after the fall visit, Emerald Chapter sent a 4-page letter to the Lowell District urging them to employ a full-time professional botanist, and indicating that we felt that, based on what we had seen, the meadow had significant botanical features. We also made some management suggestions. Principally, we indicated that, in our opinion, the meadow should **not** be fertilized and seeded with introduced grasses to increase its attractiveness to elk, a plan that the Forest Service was considering.

Approximately 16 people turned out for the field trip Saturday, July 7. Two carloads drove up from Eugene and we were met at the trailhead by several groups from the Willamette National Forest. Our trip leader was Jenny Dimling, Emerald Chapter member and USFS botanist.

An easy hike of about one half mile through magnificent old growth Douglas fir and western hemlock forest, brought us to the meadow, which was ablaze with flowers blooming in the sunshine. I am much indebted to Emerald Chapter member Charlene Simpson, who made notes of the plants seen and provided me with a list the following Monday. The tall flowers of the meadow first caught our eyes: the bright yellows of *Arnica latifolia* and *Senecio triangularis*; the white of *Polygonum bistortoides* and *Valeriana sitchensis*; the bright red of *Castilleja miniata* and the deep, deep blue of great masses of camas. Some of the smaller, low-growing jewels were found as we bent for a closer look. A gorgeous *Sisyrinchium*, tentatively identified as *S. idahoense* was everywhere; it had stunning greyish

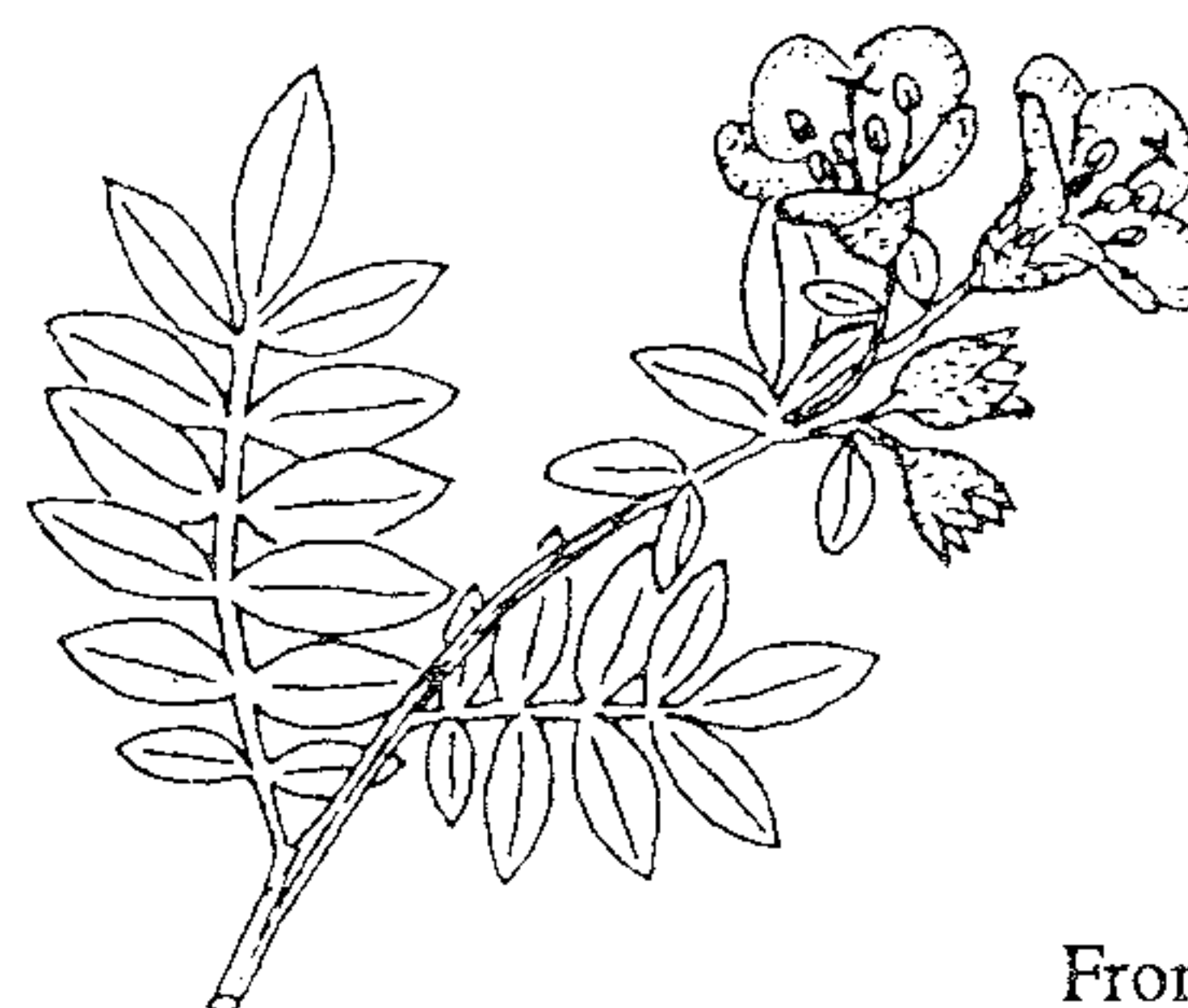
foliage. Other smaller gems were: *Vancouveria hexandra*, *Erigeron aliciae*, *Dicentra formosa*, *Hydrophyllum tenuipes*, *Phacelia heterophylla*, *Hypericum anagaloides*, *Prunella vulgaris*, *Smilacina stellata*, *Habenaria dilatata* and *H. saccata*, *Collomia heterophylla*, *Polemonium carneum* and too many others to mention here.

As a hawthorn lover, I was delighted to find the meadow ringed by shrubby *Crataegus douglasii* var. *suksdorfii* in full bloom, attracting its usual host of bee, fly and beetle pollinators. Also, since *Kalmia* has been much on my mind lately (I have been writing an article for NPSO's new journal *Kalmiopsis*), I was thrilled when Emerald Chapter member, Warren Pavlat, found *Kalmia microphylla* in the middle of the meadow.

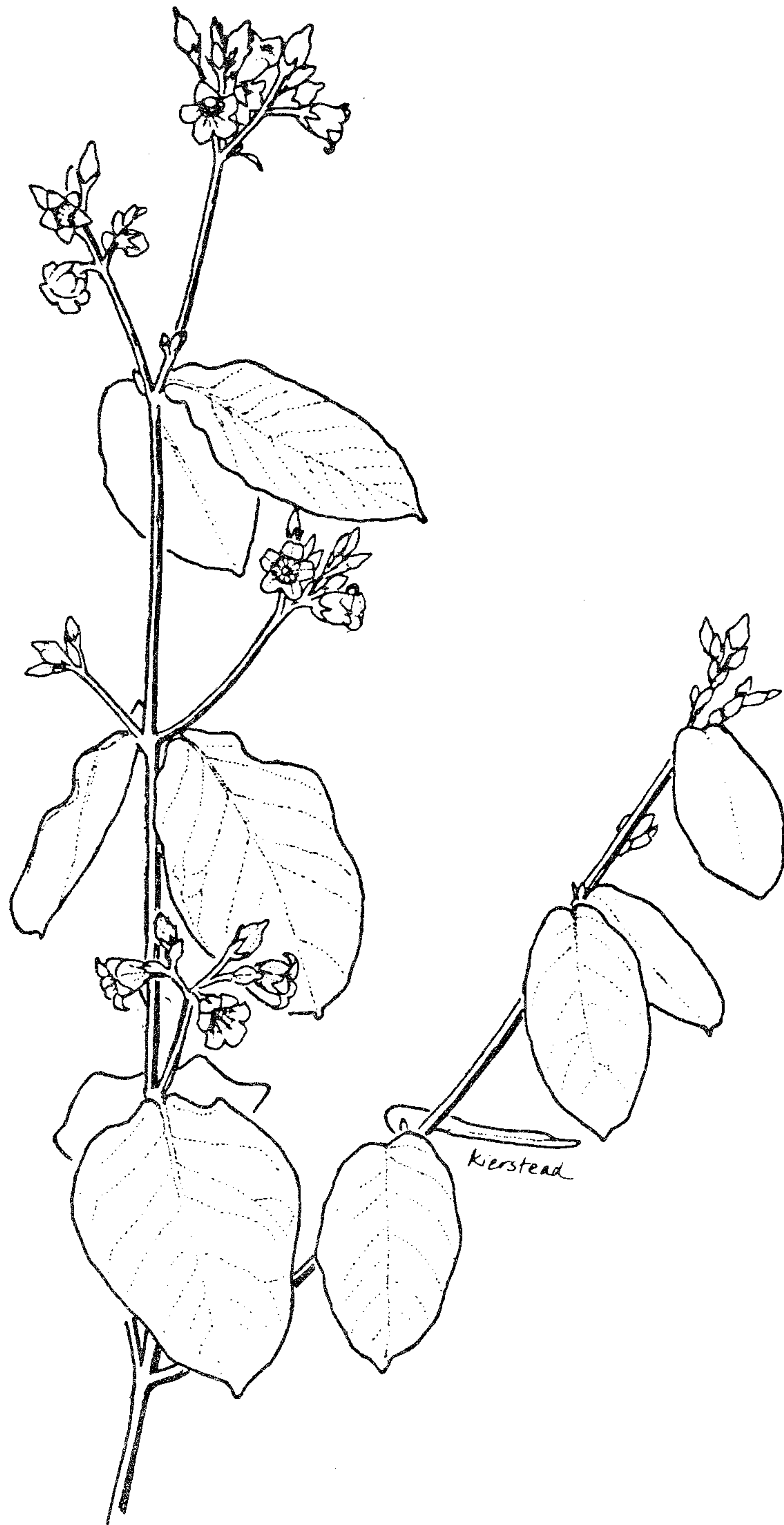
We were very excited about the *Sisyrinchium* mentioned above, which Jenny Dimling felt was truly different from others she had seen on the Forest. And, in a shady and boggy area at the edge of the meadow, the group was thrilled when Charlene Simpson pointed out *Streptopus roseus*, a rosy-flowered twisted stalk, which many of us had never seen before, growing beside its more common cousin, *S. amplexifolius*. Also, abundant in the woods near the meadow was a healthy growth of *Lycopodium clavatum*. This clubmoss is not an absolute rarity, but is an ancient fern-ally that botanists enjoy finding, especially when it is as obviously vigorous as this stand was.

Emerald Chapter is now preparing a letter to the USFS, reiterating our belief that Patterson Mountain Meadow and surrounding old growth forest, should be set aside and managed for their outstanding botanic features. We will include our plant list, prepared by Charlene Simpson and Jenny Dimling, of approximately 90 species seen on this outstanding Native Plant Society of Oregon field trip in the Willamette National Forest.

---Rhoda Love, Emerald Chapter



Polemonium carneum
Great polemonium or
Pink Jacob's-Ladder
Drawing by Herm Fitz
From July 1982 NPSO Bulletin



BITS AND PIECES

---News and Information From All Over

SOCIETY OF AMERICAN FORESTERS HUMAN RESOURCES WORKSHOP

The Oregon and Washington chapters of the SAF are jointly sponsoring a skill-building workshop titled "Alternatives to Conflict in Multi-Resource Forest Management". This workshop is designed for people who want to influence the goals and practices of those who are responsible for multi-resource forest management. It aims at helping participants develop skills for and provide practice in applying strategies to manage potential conflicts.

It will enable people with various interests to talk, share viewpoints and information, and to develop skills useful in preventing or resolving conflicts.

Speakers and facilitators for the two day workshop include individuals from government agencies, colleges, and conservation groups.

The workshop will be on Monday and Tuesday, October 15th & 16th, at The World Forestry Center's Miller Hall in Portland. The \$85 registration fee includes lunch both days. To receive more details and registration information, contact Bob Hosstetter, Society of American Foresters, 4033 SW Canyon Road, Portland, Or 97221 or phone 503-224-8046.

The old-growth forests of the Northwest in their natural state hoard huge amounts of carbon (removed from the carbon dioxide reserves of the atmosphere), stored in roots, boles, snags, duff and soil. Disturbances of the ancient forests (fire, logging) release much of this store back to the atmosphere, where nowadays carbon dioxide is one of the commoner greenhouse-effect gasses thought to cause global warming. In Oregon and Washington about three-quarters of the old growth of 100 years ago have been logged. The release of stored carbon back to the skies from the ancient forests of the two states is estimated to account for about 2 percent of the total man-caused release in the last century. Following logging it takes at least 250 years before the forests can again remove the same amount of carbon dioxide from the air.

BLM MOVES STATE OFFICE

The Oregon State Office of the Bureau of Land Management has moved. Formerly at 825 NE Multnomah St., its new *street* address is 1300 NE 44th, Portland, 97213. Their mailing address remains the same, PO Box 2965, Portland, Or. 97208-2965.

The State Office Botanist, Cheryl McCaffrey, has a new phone---(503) 280-7050.

The Public Room, which holds official public land records and case files of lands and minerals transactions for Oregon and Washington, has the new number of (503) 280-7001.

INDIAN PAINTBRUSH AND PARASITISM

It has long been assumed that the more than 150 species of *Castilleja* or Indian paintbrush are partial parasites. Many horticulturists early on assumed them to be impossible to grow, but reports of flourishing cultivated plants have appeared. Rock gardeners have grown them with daisys native and exotic, and a commercial grower in Colorado has grown them very well in gallon cans with some of their many local native daisys.

The National Wildflower Research Center in Texas has published a report on their research into this matter. Their study required growing three groups each of 100 plants. One group was of *Castilleja indivisa*, another of *Lupinus texensis*, and the third of both planted together. These fast-developing annuals provided quick results, and the test lasted only four months.

The results support the notion that *Castilleja* is indeed a partial (facultative) parasite. Nearly two-thirds of the paintbrush grown with its host had flowered, while none growing alone had (a few were setting flowering stems). Those paintbrushes growing with a host averaged eight times heavier than those growing alone. And it was noted that the host lupines wilted readily while those grown alone did not. In addition, the mortality rate among host lupines was high, and almost none flowered, while about one-third of those grown alone bloomed.

STATE OFFICERS DIRECTORS..... Paula Brooks, John Christie, Tom Kaye, Barbara Mumblo, Kathy Schutt, Marjorie Willis
 PRESIDENT Stephanie Schulz. 652 W. 10th St. #1, Eugene 97402; 485-1868
 IMMEDIATE PAST PRESIDENT ... Stu Garrett. 21663 Paloma Drive, Bend 97701; 389-6981
 VICE PRESIDENT Dan Luoma. 2912 NW Arthur Ave., Corvallis 97330; 758-8063
 SECRETARY Sue Vrillakas. 1120 NE 162nd, Portland 97230; 253-7080
 TREASURER Diane English. 3383 W. 14th, Eugene 97402; 484-9287

STATE COMMITTEE CHAIRS RARE AND ENDANGERED Jean Siddall. 535 Atwater Rd., Lake Oswego 97034; 636-4633
 CONSERVATION Ed Alverson. 110 NW 31st, Corvallis 97330; 753-3051
 LEGISLATIVE Esther McEvoy. 3290 Willamette, Corvallis 97333; 754-0893
 MEMBERSHIP Mary Falconer. 1920 Engel Ct. NW, Salem 97304; 585-9419
 WILDFLOWER POSTERS Susan Gabay. P. O. Box 151, Mosier 97040; 478-3576
 NOTECARDS Nancy Fredricks. 34213 Riverside Dr. SW, Albany 97321; 967-1893

CHAPTER PRESIDENTS BLUE MOUNTAIN (Pendleton) .. Bruce Barnes. 731 NW 5th, Pendleton 97801; 276-5547
 CORVALLIS Wes Messinger. P.O.Box 1300, Corvallis 97339; 929-4002
 EMERALD (Eugene) Diane English. 3383 West 14th, Eugene 97402; 484-9287
 HIGH DESERT (Bend) Bill Hopkins. Silvicultural Lab, Bend 97701; 388-7426
 MID-COLUMBIA Keith Chamberlain. Box 271, Mosier 97040; 478-3314
 NORTH COAST Sallie Jacobsen. 6800 5th NW Cape Meares, Tillamook 97141; 842-4350
 PORTLAND Mike Fahey. 215 Phoenix Way, Vancouver, Wa 98661 206-694-2902
 SISKIYOU Richard Brock. 665 E. Main St., Ashland 97520-2115; 482-4111
 UMPQUA VALLEY (Roseburg) .. Russ Holmes. 322 Arcadia Drive, Roseburg 97470; 672-4635
 WILLAMETTE VALLEY (Salem) . Mary Anne Westfahl. 2375 Madrona Lane, Canby 97013; H-266-7967
 WM. CUSICK (LaGrande) Karen Antell. Biology Dept., EOSC, LaGrande 97850; 963-0267

BULLETIN EDITOR..... Bryan Boyce... 13285 S. Clackamas River Drive, Oregon City 97045-9411; 655-4457

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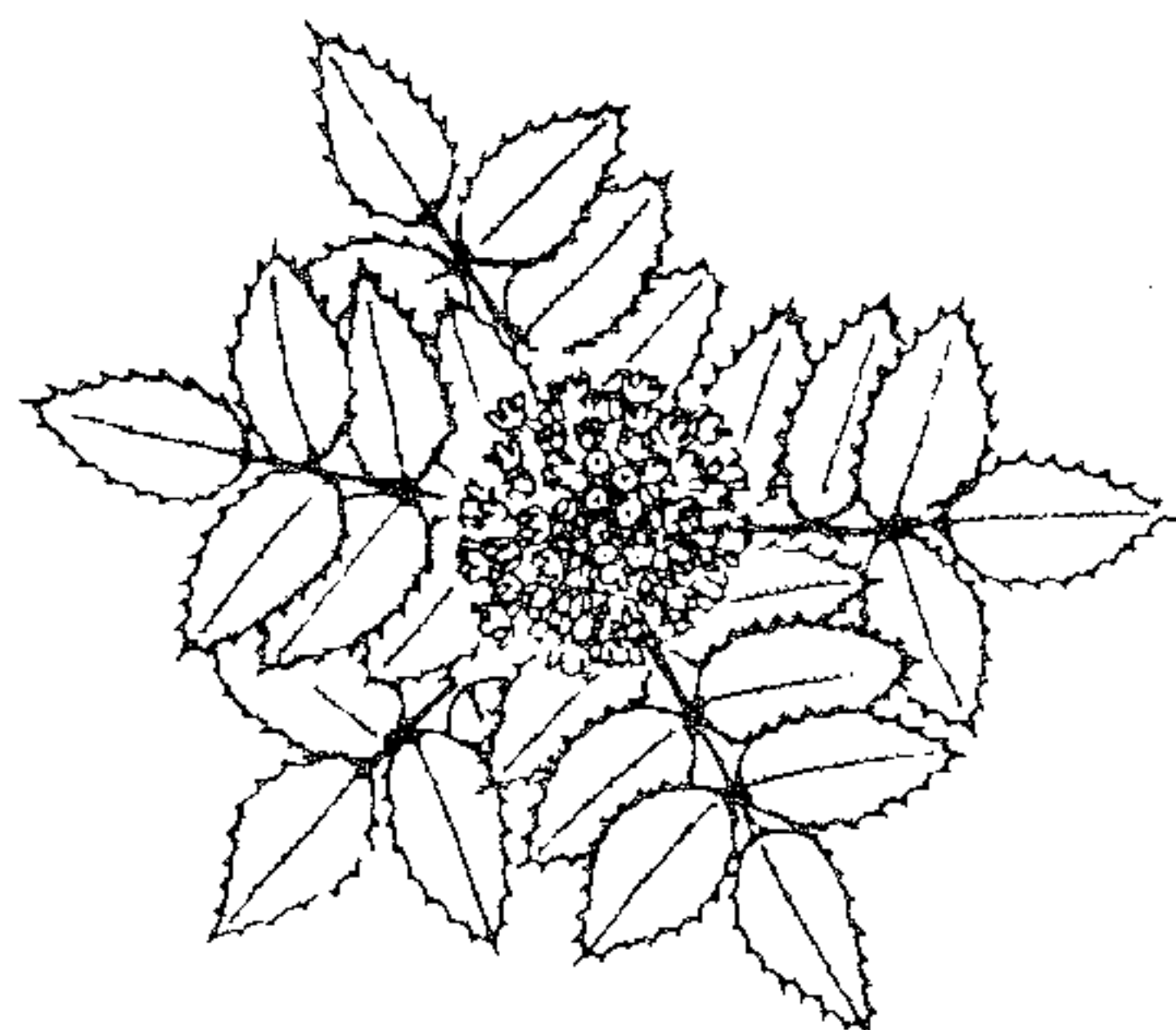
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