

THE BULLETIN OF THE

NATIVE PLANT SOCIETY of OREGON

• OBJECTIVE •

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

Vol. XV No. 5

MAY 1982

PACKARD TO SPEAK AT ANNUAL MEETING

Dr. Patricia Packard, an authority on the native plants of Oregon's Owyhee Uplands will be the keynote speaker at the annual meeting of the Native Plant Society of Oregon. A longtime member of the College of Idaho's Biology Department, Dr. Packard will speak on "Evolutionary Problems in Plants of the Owyhee Uplift."

The annual meeting will be held at the Malheur Field Station which is located 32 miles southeast of Burns, on Saturday, May 29. Dinner will be at 6:00 p.m. in the Field Station's Cafeteria and Dr. Packard's speech will begin at 7:30 p.m. See the March and April Bulletins for further details.

THE PRESIDENT SPEAKS: IN HIS OWN WRITE

This being the last issue of the Bulletin to be produced while I am President of NPSO, it seems right to write in the first person to all of the membership. First the important news:

The ballot counting committee reports:

President: Dr. Rhoda Love
Vice-President: Anne E. Kowalishen
Secretary: Paula Vincent
Treasurer: Nadine Smith

New At-Large members of Board of Directors:

Wilbur Bluhm, Florence Ebeling, Marge Ettinger, and Larry Scofield. (Having the fourth highest tally of votes, Marge Ettinger will serve to fill in the second year of Stuart Garrett's term. She will be eligible to run again next year.) These people will join Cynthia Roberts and Veva Stansell on the Board of Directors as At-Large members.

All newly elected officers will be installed at the annual meeting in Malheur Field Station at the end of this month.

Almost as exciting as the above news is that NPSO has been granted tax-exempt status by the IRS! This means that contributions to the NPSO are tax-deductible. Once again, thanks to Jim Conley, Salem lawyer, for engineering this determination. We have also filed a form permitting us to spend money on lobbying.

I will be spending a little of our postage money to lobby for re-authorization of the Endangered Species Act. Basically, I will be informing the appropriate parties that the results of our poll indicated only one person felt this was not as important as other conservation issues, 43 felt it was as important as any other issue, and 30 felt it was the most important conservation issue. I guess I can legally urge each who responded to write also.

I've been a pretty low-profile NPSO officer this past year, but we have kept up our strength well, and I think the society business is running smoothly. I commend our new officers (& continuing officers) to you. Thanks for your support; keep it up.

ENDANGERED SPECIES ACT REAUTHORIZATION: URGENT letters needed now.

Before May 15 1982, both the House and the Senate will have completed their analysis of the ESA, and, most likely, will have developed draft legislation to amend the Act as needed. Crucial amendments/issues are:

1. one- vs. multi-year reauthorization,
2. weakening of CITES Treaty (international trade of endangered species is controlled),
3. protection dropped for plants and (or?) other lower life forms, and
4. no matching federal funds for state endangered species programs for FY 1983 (Oregon has never received such funds).

If you are planning to influence your government concerning this Act, DO IT NOW. The final legislation should be signed by September 30, 1982, the expiration date of the current Act. Sponsors of the ESAR Senate Bill S2309 are Senators John Chafee, George Mitchell, and Slade Gordon. They are to be commended.

The Senate Environment and Public Works Committee will be voting on the bill to pass it to the Senate. Key members of this committee follow. Write to them at U.S. Senate, Washington D.C., 20510.

Senators

Howard Baker	Lloyd Bentson
Pete Domenici	Gary Hart
Alan Simpson	Max Baucus
Jennings Randal	

CHAPTER NEWS

CORVALLIS CHAPTER

Meeting:

Thursday, May 20, 7:30 p.m., Cordley Hall, Oregon State University, Room 2082. Kate Field, a graduate student at the University of Oregon, will speak on "Penstemon peckii, a rare plant." Also, Sarah Greene from the Forest Science Lab will present a talk on The Research Natural Area Program in the Pacific Northwest.

Field Trip:

Sunday, May 16. Bob Meinke will lead a field trip to Finley Wildlife Refuge. Meet in Wilkinson north parking lot, southwest corner of 26th and Monroe at 10 a.m. Bring lunch.

ANNUAL MEETING

ANNUAL MEETING

BLUE MOUNTAIN CHAPTER

Field Trips:

May 2. Umatilla Forks Area, North Fork Trail. Early mountain wildflowers abound in this area and can be easily observed from the North Fork Trail. Western coltsfoot (*Petasites frigidus*), wild ginger (*Asarum caudatum*) and many other "Cascadian" plants should be in full bloom for this trip. Leader: Karl Urban. Carpool from the south parking lot at BMCC at 9:30 a.m.

May 22. Sheep Creek, Imnaha River Drainage, Wallowa County. Our Wallowa Mountain experts Roy and Rachel Sines will share their knowledge of special Wallowa plants on this trip. Cusick's primrose should be blooming at this time. Meet at the Sports Corral parking lot in Joseph at 10:30 a.m. Carpool from the south parking lot at BMCC at 7:30 a.m.

May 29-30-31. State NPSO meeting.

June 6. Morgan lake, Union County. Meet with trip leaders Roy and Rachel Sines at the entrance to Morgan Lake Park at 10:30 a.m. Carpool from BMCC at 9:00 a.m.

June 19. Tollgate Area. This caravan-style field trip will begin in Woodward Campground near Langdon Lake at 10:00 a.m. After botanizing the meadows we will drive to Bald Mountain Viewpoint on the Jubilee Lake Road to observe the early summer wildflowers of the dry, open slopes. Trip leader: Karl Urban. Carpool from BMCC at 9:00 a.m.

HIGH DESERT CHAPTER

Meeting:

Tuesday, May 25, 7:30 p.m. Jack Schwartz will deliver the second half of his excellent program on Trees of the High Desert. He will discuss deciduous trees and shrubs. The meeting place has been changed to the lobby, Cascade Clinic, 361 NE Franklin, Bend.

Field Trip:

The High Desert Chapter will travel to "The Island" in Cove State Park on Saturday, May 15th. Jack Schwartz will lead us on this examination of one of the few non-grazed areas left in Central Oregon. We will leave at 8:30 a.m. from the MacDonalds Parking lot.

PORTLAND CHAPTER

Meeting:

Wednesday, May 26, 7:00 p.m., Central Library, 801 S.W. 10th, Portland. Oregon Wilderness Coalition. The program will be presented by Nancy Peterson of the Oregon Wilderness Coalition.

Field Trips:

15 May. Clackamas Area. Dr. George Jeffcott, leader. Carpool at Tri-Met's Handyman Park and Ride lot (15550 S.E. McLaughlin Blvd.) at 9:00 a.m. This is primarily a car trip with some brief hiking. Expect to see Erythronium oregonum and grandiflorum plus Penstemon rupicola on rock outcrops. NOTE: This trip appeared in last month's Bulletin as "Panther Rock." Dr. Jeffcott advises that due to our cold spring we may not be able to get to Panther Rock on 15 May. He will design the trip as the weather suggests.

PORTLAND CHAPTER NEWS, continued

22 May 1982. Volkswalken - A Peoples Walk in the Park. Meet at the picnic shelter at Hoyt Arboretum at 10:00 a.m. This is a series of guided walking tours of the Arboretum and parts of Forest Park, sponsored by Hoyt Arboretum. The walks vary by distance (1-2, 5-6, and 10-15 miles) as well as destination and degree of botanical interest. For more specific details call Gay Martin at 248-4709 or 228-8732. Families are encouraged.

29 May 1982. NPSO Annual Meeting - Malheur Field Station. See April Bulletin for details.

5 June 1982. No trip scheduled.

12 June 1982. Rowena Dell Nature Conservancy Work Party. Carpool at Department of Motor Vehicles parking lot at NE 60th & Glisan, at 7:30 a.m., or meet at Mayer State Overlook (on the hill) at 9:00. This is an opportunity to spend the day at Rowena Dell and assist our Nature Conservancy friends in their battle with the sticky thistles. Bring gloves, tools, work clothes and lunch.

EMERALD CHAPTER

Meetings:

Monday, May 3, 7:15 p.m. Wildflowers of the Mount Pisgah Arboretum: a slide show as a joint effort by Dave Wagner, Arboretum Vice President, Rhoda Love, NPSO State President Nominee, and Charlene Simpson. The Arboretum will be the site of a wildflower show May 2. We'll have a native plant checklist on sale. Proceeds go to the Arboretum. Meet at the American Red Cross Building, 150 East 18th Street.

Monday, June 7, 7:15 p.m. Wildflowers of the South West: Utah, Arizona, California. Harold Dunn, Emerald Chapter member and long time plant lover, will show us slides from his many trips to the Grand Canyon, Joshua Tree National Monument, and the Anza-Borrego Desert. Meet at the American Red Cross Building, 150 East 18th, Eugene.

Monday, July 12, 7:15 p.m. NOTE: THIS IS THE SECOND MONDAY OF THE MONTH TO AVOID THE 4TH OF JULY HOLIDAY. Rainy Day Poppies and Other Delights. Malcolm Manley, Emerald Chapter member and long time photographer, will share his three part slide show, consisting of Oregon scenics, mushrooms, and wild flowers. Opportunity to discuss tricks of the photographer's trade following. This is due to be a splendid program not to be missed. Meet at the American Red Cross Building, 150 East 17th Street.

Field Trips:

May 9. Jasper Park Picnic and Wildflower Walk. Bring the family. Walk begins at 1:30 p.m., with Dave Wagner as leader. 686-3033.

May 15. Cogswell-Foser Reserve. Rhoda Love will lead us to the study area where she did her research on Crataegus. Meet at the south Eugene High School parking lot at 10:00 a.m. Bring a sack lunch. Call Rhoda, 345-6241 if you have questions.

June 5. Eagles Rest Trail in the Lowell Ranger District with Linda Johnson. This is a short 1/2 mile walk to a rocky outcropping which last year was covered with Orobanche. Also expect to see Allium, Fritillaria and Castilleja.

June 2. Cone Peak on the South Santiam. Helen Hughes, leader (ph. 344-6072). Meet at 8:00 a.m. in the South Eugene High Parking lot. In past years Helen has found Dicentra uniflora and Lewisia triphylla there.

WILLAMETTE VALLEY CHAPTER

Meeting:

No regular meetings until September 20.

Field Trips:

Carpool at south Salem K-Mart at 8:00 a.m. unless otherwise noted. Bring lunch and warm jackets.

May 8. Silver Falls State Park. Leader, Clint Urey (743-2802). Easy trip. There will be a native plant exhibit in the Lodge by Blanche Sweger on May 8, 9 and 10.

May 15. Cascade Head. With J. Morris Johnson (838-3995) and the WOSC botany class. Carpool in Salem at 7:30 a.m. or meet at the parking area south side of Hwy. 22 two miles west of the traffic signal at Hwy. 99W at the intersection with Hwy. 223. Leader, Mariana Bornholdt (585-2057). Medium effort trip.

May 22. Rickreal Ridge. Leaders, Vi and Tony Sobolik (623-2630). Carpool in Salem or meet Soboliks at Ellendale Road and Pioneer Road, two miles west of Dallas, at 8:30 a.m. Medium effort trip.

June 5. Rocky Top. Leader, George Schoppert (859-2613). Medium effort trip.

WILLAMETTE VALLEY CHAPTER FIELD TRIP REPORT

March 28, 1982. The excursion was related mostly to the development of knowledge of the ecology and floral details of Scolioopus hallii. Seven members heard the details of past studies on Oregon Fetid Adder's Tongue by research botanists of the Salem District Bureau of Land Management with an on-site evaluation to illustrate the concepts of the study. The cumulative results of the study thus far were reported in a scientific paper given in Walla Walla, Washington, in March 1982. NPSO members withing a copy should write a request to the Botany Office of the Salem BLM.

Participants also enjoyed an early season flora of the Coast Range foothills which included stops to see Viola howellii, Trillium chloropetalum, and an early-blooming saxifrage near the falls at Falls City. On the horticultural side, Wayne Ward, a rural resident, took the group on a tour of his grounds where there were eleven or more varieties of daffodils. The group also visited Alder Root Falls near Socialist Valley, a historical farming community now abandoned. We had rain and a little hail but the weather cooperated for the most part.

Larry Scofield
Botanist at Salem BLM

Meetings:

Thursday, May 6, 7:30 p.m., in 171 Science Building, SOSC. Dr. Stephen Cross, professor of biology at SOSC will present a program about Riparian Habitat in our Forest Communities. His presentation is the result of research done during a recent sabbatical, working as a wildlife biologist for the BLM. Topics of discussion will be the web of plant-animal interaction and the ecological transitions from the streamside community to dryer uplands. The small mammals will receive special emphasis in the program.

Tuesday, May 11, 7:00 p.m., at 84 Alida, Ashland. The Board of Directors and interested members will meet to develop a financial budget for the remainder of 1982. At the June meeting, a brief financial statement will be available and a budget will be proposed and voted on.

Field Trips:

A complete field trip schedule for the spring and summer will be available at the May meeting.

8 and 9 May. Eight Dollar Mountain Workshop will be held Saturday at the Science Building, SOSC, from 9:00 a.m. - 4:30 p.m., Sunday. A field trip on Sunday will visit various habitats on the mountain. Carpools will form in front of SOSC's Science Building in Ashland at 8:00 a.m., and at the Albertson's parking lot off I-5 Exit #48, at 9:00 a.m. So that we have sufficient field trip leaders, please register at workshop or contact Barry at 488-0533 or Cynthia 482-0899, if you wish to attend.

15 May. Hollenbeck Research Natural Area Field trip. Vern Crawford will lead us to this unique Cascades meadow/forest edge site, which gave us our most popular field trip last year. We will be making short forays from the cars for this trip. Bring your lunch and meet at the Medford K-Mart at 8:00 or the Ashland Bi-Mart at 8:30. Call 482-9196 for more information.

22 May. Old Orchard Field Trip. Entomologist Larry Gut will take us to a local, abandoned pear orchard and neighboring brushfield/forest area near Tolo Road. This will be a half-day trip, starting at the Ashland Bi-Mart at 9:00 a.m., and the OSU Agricultural Experiment Station on Hanley Road (between Medford and Jacksonville) at 9:30. Call 779-5242 for more information.

29 May. The Native Plant Society State Meeting at Malheur. For arranging car pools to eastern Oregon, contact Cynthia Roberts at 482-0899.

5 June. Rogue Valley Weed Trip. An easy half-day excursion to identify and discuss the escapes and exotics on the valley floor. We will visit a few garden, agricultural, and disturbed sites. For more information, call Wayne Rolle at 482-0093. Meet at the Ashland Bi-Mart at 8:00 a.m., and Medford K-Mart at 8:30.

19 June. Gold Basin (Kalmiopsis Wilderness Area) Trip. This moderate to strenuous walk will be led by Diane Meyer and will start at Onion Camp and hike over the ridge tops to the Gold Basin. This will be an all-day affair, starting at the Ashland Bi-Mart at 9:00, and the Medford K-Mart at 9:30.

LETTERS NEEDED TO CLOSE BEACHES TO OFF-ROAD VEHICLES

Public hearings were recently held in Eugene and Reedsport by Oregon Parks and Recreation to consider off-road vehicle closures along some of the beaches of the Oregon coast. As has been so often the case in the past, the off-road vehicle owners were the most numerous in attendance (particularly in Reedsport) and were adamantly opposed to any beach closures.

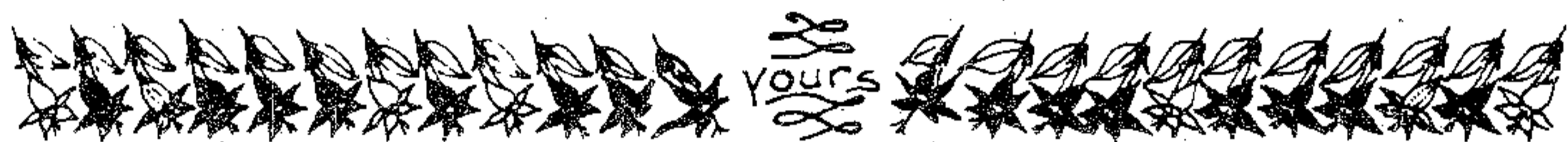
The proposed closures are adjacent to the dune closures in the Oregon Dunes National Recreation Area. The closures as described in the March and April Bulletins call for a little over 19 miles of closures out of this 42 mile span of beach. Several years ago, the U.S. Forest Service closed a portion of the Oregon Dunes National Recreation Area to vehicles realizing that the values of vehicle and non-vehicle recreationists are often in conflict. We believe it is time that the same philosophy be applied to our beaches and that beaches adjacent to the Recreation Area also be closed.

If our voice is to count we must write now to the Oregon Parks and Recreation Department, 525 Trade St., SE Suite 301, Salem OR 97310. Please send copies to Governor Atiyeh, State Capitol, Salem, OR 97310, and Senator Bob Packwood BPA Building, 1002 NE Holladay, Room 700, Portland Or 97232.

On the afternoon of April 18th a dozen members of the Emerald Chapter and their guests came out to my 40 acre property on the east slope of the geologic fault-block known as the Coburg Hills. The soils are predominantly weathered Dacite; elevation is just above 500 ft. As everywhere the vegetation here is much delayed this year due to cold weather (lows still below freezing). This east exposure holds plants some two weeks behind similar plants in the Mohawk River flood-plain. I am fortunate to have a good variety of micro-environments, and now have over 200 identified species. More are out there to yet be found!

Flowering forbs and other plants were seen before leaving the yard. Next the wooded sector (logged several times in the past half-century) was visited. Blooming herbs included Trillium albidum, Iris tenax, including a white variety not yet in bloom, Corallrhiza striata, and Calypso bulbosa. Herbs of a perennial spring included Dicentra formosa and Disporum smithii. The adjoining pasture was also botanized. Lastly was a climb to a rock outcrop to see Mimulus alsinoides. A new fern was discovered, to be keyed and added to my list. When my guests return, later-developing and overlooked species will be added to the experience. Sharing has its rewards.

Harold Dunn, Emerald Chapter



READERS TALK BACK

Whereas the Bulletin Questionnaire was relatively straight-forward, the "essay questions" on the reverse of the ballot are not readily tallied or summarized. The positive feedback is much appreciated by the Bulletin producers, and doesn't need to be treated further here. However, we should share the many comments, opinions, criticisms and suggestions in answer to the questions and as questionnaire marginalia. Following are quotes from these sources, unsorted and unclassified. They help to characterize our membership and will help keep the Bulletin and the NPSO Board sensitive to the diversity of the NPSO. Also, reading these will help potential contributors get a feeling of what will be appreciated. Occasional editorial comments are in parentheses.

"A club which promotes education and interest in the wild plants of Oregon."

"The organization should be more visible."

"(I would)like to see a seed exchange started ... selling books to members at a discount as a service and as source of income.."
(we need somebody to volunteer to handle the chores of organizing these functions!)

"...not only to identify, but to understand..."

"Perhaps a little strong on the academic side..."

"a few discouraging words for the trowel-happy botanists."

"What species of plants are actually rare & endangered?"

"The objectives on the masthead says it well."

"...more work with schools--expose youngsters & teens to our interests."

"Trips can be a bore with scientific snobbishness..."

"use common names"

"We should be devoted to all aspects of Oregon flora--plant geography, plant history, ecology, and so on. Avoid over-emphasis on rare plants."

"...would like to see NPSO become more political...could be very effective with the same pressure as the Calif. NPS."

"...emphasize patience with those of non-technical orientation."

"emphasis needs to be on chapter activities--that's where the action is..."

"conservation & education network"

"...inform how to write to senators and representatives..."

"focus on protection of habitats"

"the way it is only more so"

"I see Madrono referred to occasionally, what's it like?" (it is the journal of the California Botanical Society, a technical journal for west coast botanists. it's nice!)

"the shorter articles are preferred..."

"the Bulletin is so tiny..."

"Field Trip Reports useful if they call attention to special attractions, mention unusual flowers, best seasons, length of trail, etc. Repeating lists of commonly seen plants is not worth the space."

"I do think endangered species should be cultivated. Where would Franklinia be?"
(A poor example. If not cultivated, Franklinia would still be growing in the wild, from whence it was extirpated by people collecting it for cultivation!)

"...would like more plant lists like Columbia River Gorge...needn't be part of the Bulletin." (Charlene Holzwarth is keeping a file of plant lists, available for mailing and copying expenses. Write c/o Portland Chapter.)

"A monthly "what to look for now" would be nice."

"I was hoping mostly for family profiles & identification hints & less lists of plants seen..."

"A financially solvent, but not wealthy, organization of Oregonians who love the outdoors and are hooked on vegetation of Pacific Northwest, who are willing to fight for its preservation, and who share their enthusiasm in a positive and constructive way in service to their communities."

"we are doing fine but we need an emphasis on greater public involvement rather than a raise in dues." (we can't have our cake and eat it, too)

"NPSO's major function should be to help individuals learn and appreciate Oregon's native flora, and then develop a public awareness and appreciation. Political issues are of much less importance."

"Our organization should be more vocal."

"...aggressively address the protection of our native flora on all fronts!"

"...should strive for 1 per year publication similar to Fremontia, Cal. NPS publication."

"How about a listing of those involved in research on specific plants? students' botanical projects?"

"identification, education, conservation.....& fun"



"more information about other conservation and nature oriented groups' activities."

"...should be more oriented towards conservation and recreation than toward sharing esoteric taxonomic knowledge."

"Field trips are what keeps us most interested..."

"The Bulletin should be a news bulletin...There are many publications & organizations covering general conservation material and we should not try to compete with them."

"Use LARGER PRINT. Make Field Trip Reports more detailed so we, who no longer can travel, enjoy them by armchair."

"Since education of the novice is important I would urge the use of the common name as well..."



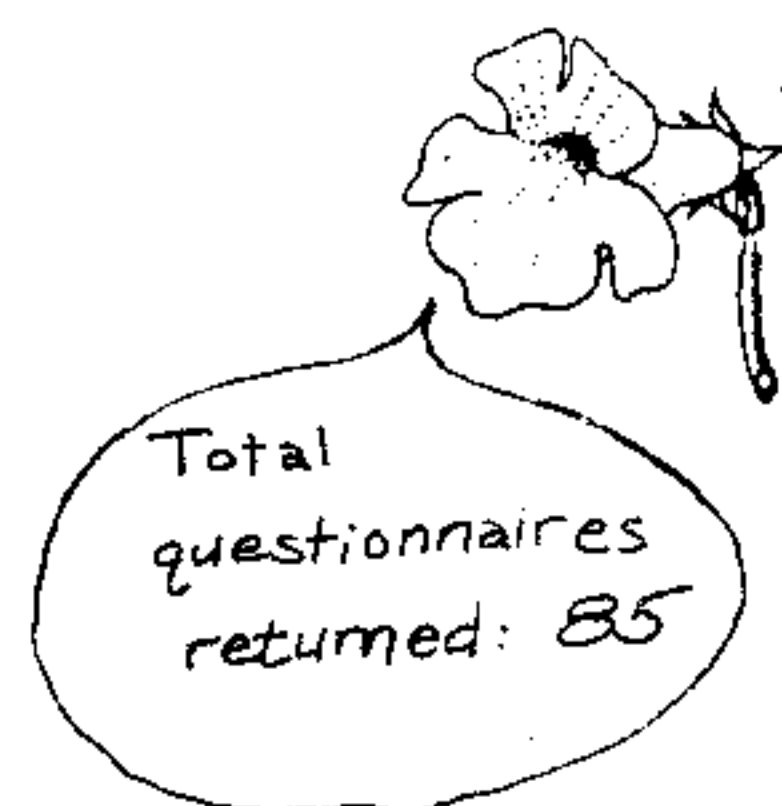
PLANT FAMILY PROFILES

By Herm Fitz

RESULTS OF BULLETIN QUESTIONNAIRE

In the Mar. NPSO Bulletin we added a questionnaire to the ballot. This was hugely successful, since many people seemed eager to fill this out even though not voting for the officers of the Society! Following are the results of this questionnaire; remember that 0 meant you didn't want something in the Bulletin at all, 1 = use only as a space filler, 2 = occasional feature is O.K., and 3 = should be regular feature. We added up all responses for each item, and then took an average. An analysis will follow the ranking, with average score:

- 2.79 Conservation alert; endangered plant
- 2.65 Plant Family Profiles
- 2.57 Chapter field trip reports
- 2.54 Ecological Notes
- 2.52 Plant Illustrations
- 2.50 Other Chapter news
- 2.49 Interesting Plant Discoveries
- 2.48 Taxonomic Notes
- 2.46 Identification Tricks
- 2.39 Conservation News
- 2.32 Botanical History, Oregon
- 2.23 Conservation Alert, General
- 2.20 Beginner's Botany
- 2.17 Botanical History, General
- 2.03 Native Plant Gardening
- 1.99 Book Reviews
- 1.87 Conservation Essays
- 1.86 Wildflower Photography
- 1.79 Letters to Editor
- 1.52 How to make specimens
- 1.31 Nature scenes
- 1.20 Cartoons



Analysis

In the first place, the results of this survey provide a pretty fair picture of the nature of our society. NPSO cares about plants, wants to learn about plants, and enjoys the sociability of doing botany in the company of others. The only surprise in this tally is the poor showing for cartoons (is NPSO really that humorless, or are the few cartoons we have used not your style?), and nature scenes. We will probably react to the information on cartoons, but will ignore the nature scenes pan: these are good dividers between articles.

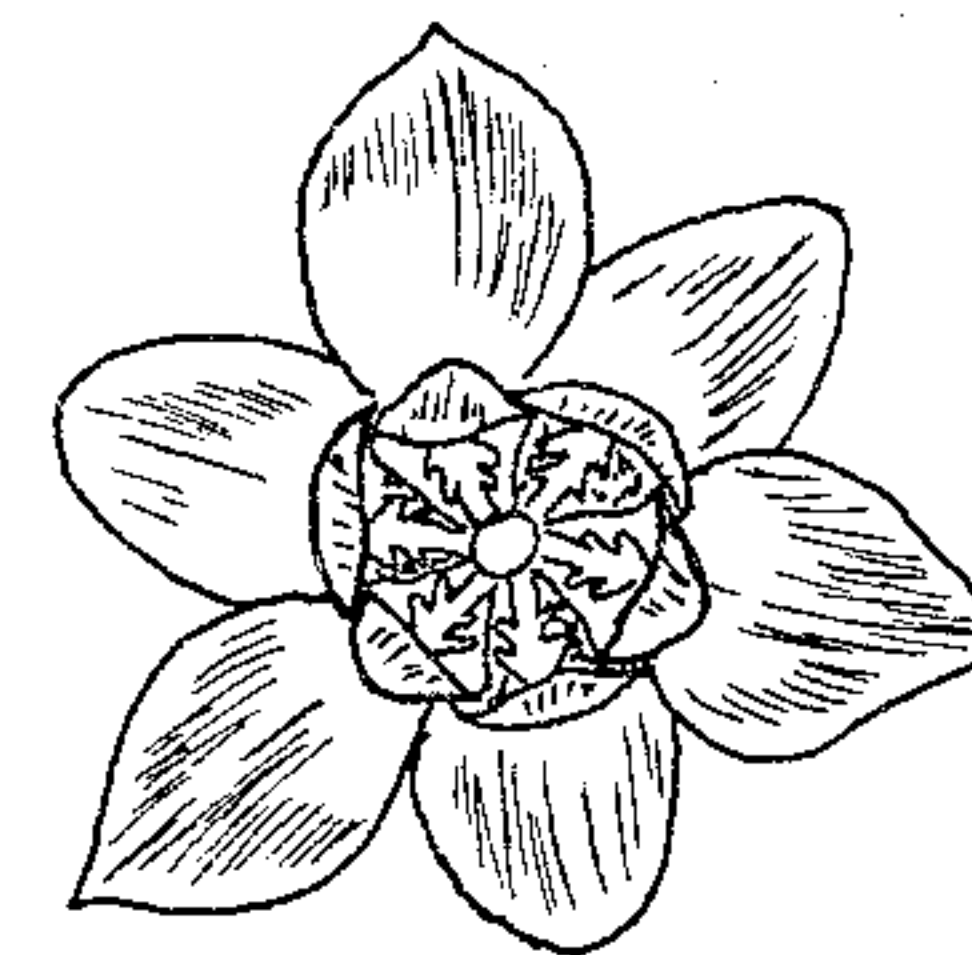
It is worth saying that there is a considerable variation in the responses of people. Some were down on conservation issues, others cared little for field trip reports (i.e., 0's rather than 3's). At least now we have some idea of where to aim, and you have some idea of what is wanted by our membership.

The Berberidaceae - BARBERRY FAMILY

The Berberidaceae is a small family of shrubs and perennial herbs with a dozen or so genera and perhaps up to 600 species. Its members are distributed chiefly in North Temperate regions of both the Old and New Worlds, with some shrubby species extending as far south as Tierra del Fuego. Three genera are represented in Oregon: the well-known Oregon Grape or Barberry (Berberis, often referred to as Mahonia) with 5 species; Inside-out Flower (Vancouveria) with 3 species; and the Vanilla-leaf or Deer-foot (Achlys triphylla).



A stamen of Oregon Grape (Berberis aquifolium). Note the basifixed anther which splits by two uplifting lateral valves.



Single flower of Oregon Grape (Berberis aquifolium) showing perianth parts in 4 whorls of 3 each. Note also the central capitate stigma and the 6 stamens in 2 series of 3 each.

Plants of this family normally bear alternate leaves, ours having either tough, shiny and spiny-toothed, pinnately-compound (Berberis), or soft-textured, ternately-compound (Vancouveria) or trifoliate (Achlys) leaves. The flowers are borne in racemes (Berberis), panicles (Vancouveria) or in dense, scapose spikes (Achlys), and are regular and bisexual. The perianth (ours) consists of several whorls of 3 segments variously differentiated, the outer whorls (sepals) often petaloid, and the inner (petals), also petaloid, bearing nectaries. Vanilla-leaf has neither a calyx nor a corolla, however, and has no nectaries. Ours bear six stamens, usually opening by uplifting valves, which are borne in two series of 3 each (biseriate), opposite the petals (except Achlys which has an indefinite number from 8 to 13, though most often 10). The single pistil, superior and of one locule, may be composed of one carpel (Vancouveria and Achlys) or 2 or 3 (Berberis), though appearing unicarpellate due to a suppression

continued on next page

of all but one carpel and the apparently parietal or basal placentation. There seems to be doubt and lack of agreement on the evolution of the pistil within this family. The style is short and the stigma is more or less capitate. Fruits may be a succulent, blue or glaucous berry (Berberis), a 2-valved capsule (Vancouveria) or a follicle (Achlys).



Inside-out Flower (Vancouveria hexandra). Note the flowers in a loose panicle, each with strongly reflexed petals, also in whorls of 3. The leaf part shows the ternate nature of the division.

Considerable variation exists within this family, and it is sometimes separated into two (even three!) distinct families. In one system the woody genera (including Berberis) are placed in the Berberidaceae, or further subdivided, while the remaining herbaceous general (including Vancouveria and Achlys) are placed in the Podophyllaceae or Mayapple Family, which also contains the American Mandrake or Mayapple (Podophyllum). Other systems divide the plants according to floral parts rather than growth habit into various subfamilies and tribes. Some authorities believe the Berberidaceae to be polyphyletic; i.e., to have been derived from more than one ancestor, and therefore not a natural group. Certainly when one ponders the similarity between Deer-foot and Oregon Grape, he would find it easy to believe that!!

This family is small enough in our state (9 species in 3 genera) that it is easy simply to learn all the representatives by name. But, if we generalize for ours only, a floral formula may be written:

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with the superior ovary.

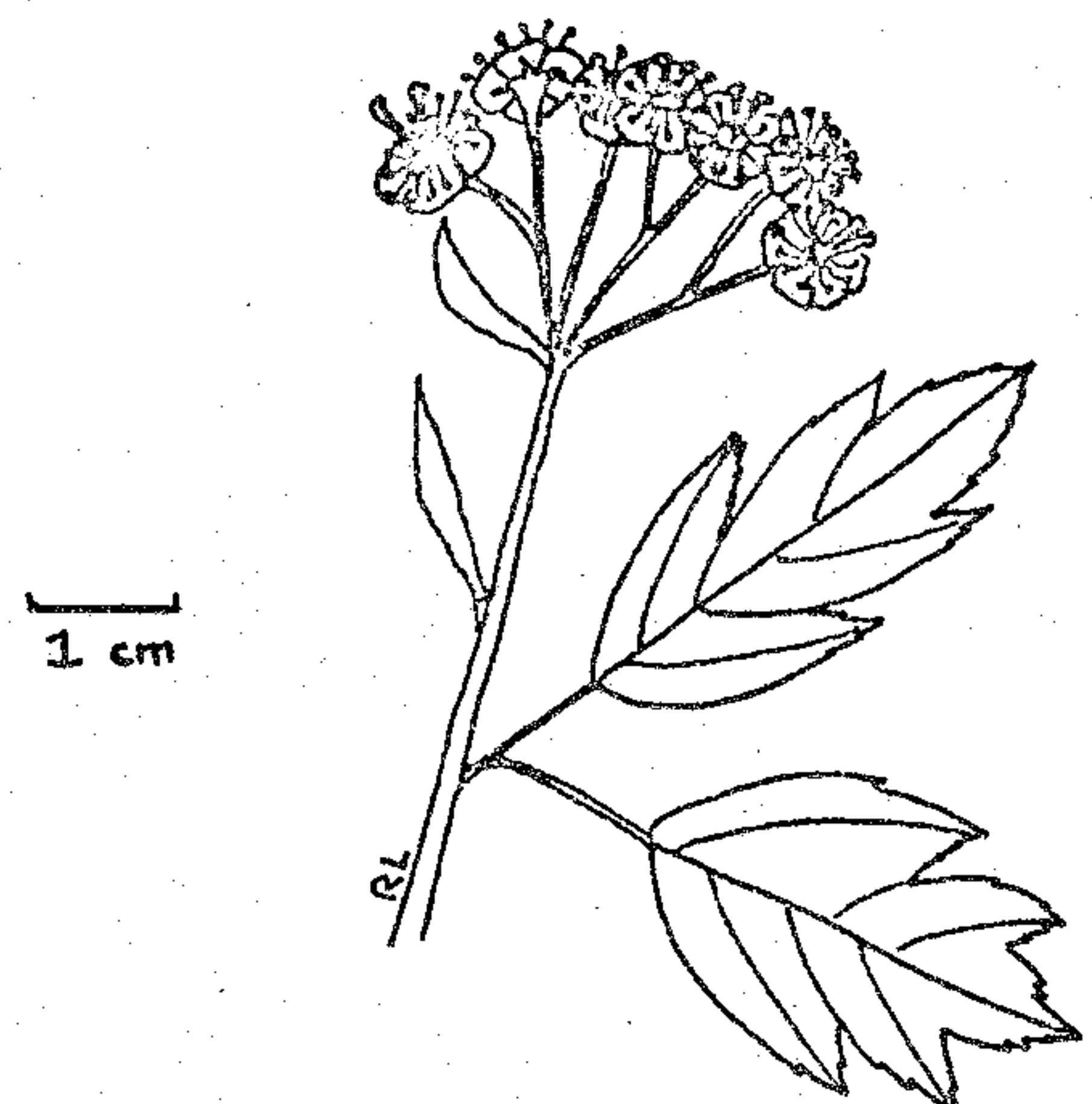
Seeing this formula helps us to feel the relationship between Inside-out Flower and Oregon Grape (whorls of 3 perianth parts and biseriate stamens) and the basic similarity in leaf textures and form helps us to feel some degree of closeness between Deer-foot and Inside-out Flower. But we may still feel uneasy (as indeed do some authorities) about the many differences between these three genera, our members of the Berberidaceae - the Barberry Family.

Our native hawthorn, Crataegus douglasii var. suksdorfii, of the west side of the Cascades, hybridizes readily with the European species Crataegus monogyna. The European species is white-flowered and has deeply lobed leaves. The fruits are bright red. (This is not the red-flowered street tree so common in the cities.) This English hawthorn (or Mayflower, as it is called in Britain), was brought to the Pacific Northwest by the pioneers to be used for hedges. It has naturalized in many areas and is particularly abundant around Eugene, Halsey and Portland.

Where this naturalized English species has come into contact with our native hawthorn - called Douglas' hawthorn or Black hawthorn - natural hybrids can be found. The native hawthorn is also white-flowered, but the leaves are seldom lobed and the fruits are black (see illustration in Hitchcock).

Both the Douglas' hawthorn and the English hawthorn bloom simultaneously in Western Oregon and bees have been seen visiting both species in a single trip.

In certain areas where both the parent species are found, swarms of C. douglasii X C. monogyna hybrids can be found. Hybrids are common around Portland - especially in the Tryon Creek area. I have found them in various places in Eugene (Alton Baker Park, the Wayne Morse Ranch). One large and flourishing population of hybrids can be seen blooming this month at the Cogswell-Foster Reserve just south of Halsey in Linn County.



Hybrid Hawthorn - C. douglasii X
C. monogyna

The hybrids are nicely intermediate between the two parents in several important characteristics. The leaves of the hybrids are more deeply lobed than those of the native, but seldom as deeply lobed as those of the English hawthorn. And where the flowers of Douglas' hawthorn have 5 styles and the English hawthorns have one, the hybrids usually have 2 to 4.

Black fruit color appears to be dominant in hawthorns however, since all the hybrids I studied had large black pomes.

My research on hawthorn hybrids is summarized in Madroño, Vol. 25, Oct. 1978, pp 211-217.

HYBRIDS, continued

As far as I know, this is the only woody hybrid plant that is readily available for observation and use in botany teaching in our area, and as such it should be known to teachers and natural historians.

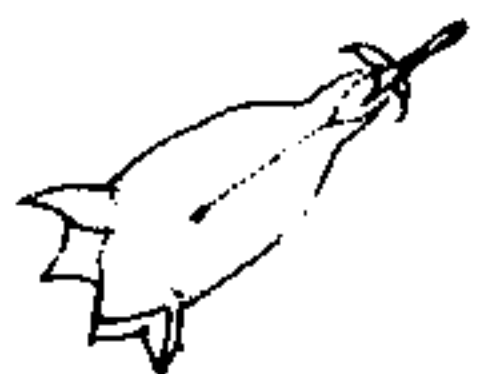
Although I have worked only in Oregon, I predict that hybrid hawthorns will be found near Seattle, Vancouver, B.C., and other western cities where the English hawthorn and our Douglas' hawthorn come in contact. Please write to me care of the NPSO Bulletin if you notice hybrid Crataegus in your area.

Rhoda Love
Emerald Chapter

EARLY EXPERIENCES OF A BOTANIST, by L.F. Henderson

continued from April 1982 Bulletin

- Section 8 -



The next day, as we neared the town of Houston on Lost River, the most amusing conversation, to us at least, occurred on the trip. As we neared the town, the white packs of our animals looming above them, we met a man driving a spanking team of horses. When they suddenly saw our packs and pack animals, they took fright at such peculiar objects, and bolted with man and cart into the sage-brush. After they had run a half-mile or more, the driver circled round to us, and enquired in a drunken way, where we were going. I told him, when he started reaching under his seat for something. "Kirtley," I remarked quickly, "I believe that drunken fellow is enraged with us for his run-away, and it reaching for a gun of some kind. Be ready to jump him, if he is, while I hold him in conversation on this side." The gun, however, proved to be a huge bottle of whiskey. After uncorking it and taking a tremendous swig, he held it out to me and said, "Take a drink." "I am sorry to say," said I, not wishing to anger him, "that I never learned how to drink." Holding it out to Kirtley, he said, "You have a drink." "Well, I declare," said Kirtley, "I never learned to drink either!" Stuffing the cork back in the bottle, he threw it under the seat, eyeing us malevolently. Then reaching to his vest pocket, he drew out two enormous stogies, and sticking them between separate fingers, he held them out to me, and said, "Have a smoke!" I was almost ashamed and afraid to tell him I didn't smoke, but when I had done so, he gazed at me in horror, and said to Kirtley, "You have a smoke!" To my surprise, Kirtley returned the same answer, when the man thrust them back into his pocket, and said to us, "Will you please tell me what in h _ _ _ you are good for?"

At Houston people had advised us to cut off, rather than follow the 50 mile loop of the Big Lost River, but after proceeding about 5 miles, to take a trail which would take us over to Little Lost River. This we did, at least attempted, much to our sorrow. All went well the first ten miles or so, when we reached the water-hole where we had expected to camp. Just before reaching it, we saw our first and only large band of antelope go scurrying over the plains away from that hole, while as we drew nearer we saw that the hoofs of these little animals, added to quantities of other prints from stock, had rendered the ground in and around the spring a perfect quagmire. Neither of us cared to risk the little foul water to be found there, so we decided to go on, thinking it a certainty that we should find better water along the trail.

On we pushed, 'till dusk and 9:00 p.m., added to a huge black bear in the trail which brought about a stampede of our horses, caused us to go into a dry camp. As we had only cookable material, we went

supperless to bed, while our horses luxuriated in bunch grass up to their bellies. That night we determined to leave this nearly blind trail and bear off to the right for our abandoned road. We rose with the first light at 2:00 a.m., travelled 'till 5:00 p.m. that day without finding water, and at that time put up with the dirtiest household it has ever been my misfortune to stay with. Disgusted and foot-sore, we began our tramp again Sunday morning, when we had hoped to rest, walked through blistering heat and blistering sand up to our ankles, stopped to botanize the sink of Lost River, where animals and men were nearly driven wild by hordes of huge and venomous mosquitoes, continued our march 'till 6:00 p.m. and reached Birch Creek with drink for our exhausted animals, and water for our blistered and swollen feet. As I finally donned stockings and shoes and stood up, Kirtley asked, "Aren't we going to camp here?" "That isn't like you, Charles. We could do well enough, and Heaven knows I want to stop, but how about our horses without a bite to eat on this dry and cropped ground?"

So we went on, and as if heaven meant to repay us, we had not gone a mile up Birch Creek, when out of dry bunch grass and sage-brush rose the prettiest and best-kept small ranch it has been my fortune to see, with abundant shade and pretty, newly painted house and outhouses. "Here's where we rest two days, Kirtley, if they will keep us!" At our knock at the front door, a pleasant couple came forward to greet us, and we had exchanged but a few questions and answers, when I said, "You're from New England, aren't you?" "From Massachusetts," they replied. "So am I, and I know you will let us board with you a couple of days, for both we and our animals are dead-tired!"

At this delightful place we stayed over a day, enjoying as good, nutritious food as I ever ate in my life, 'till well along in the evening of the next night a duplicate Paul Revere rode up to the front door on galloping hoofs, hallooing to the inmates. As we all rushed to the door, the messenger of ill tidings yelled, "The Lemhi Indians are on the warpath, going to help the Indians of Jackson's Hole, and they will probably pass your place early tomorrow, when they will burn and kill!" And he dashed on. Down dropped the lady into a chair, sobbing as if her heart would break, and moaning occasionally, "And this is what I left dear old Massachusetts for! To be murdered by Indians!" We all tried to comfort her, but there was little sleep for anyone that night. The husband stepped into our room at break of day and said, "Men, you will have to get up and be off. Can't get you breakfast this morning, as we are going back into the hills with what stock we can take." "Why man alive," I cried, seconded by Kirtley, "do you suppose we are not going to help you out of this fix? Load your wagon with food for many days. We will eat what scraps are cooked, collect all the stock while you pile chickens into pens for the wagon, and we'll be driving it out of here in an hour."

I doubt whether a stranger cavalcade was seen than that since the days of Abraham! While he drove the wagon, urging much stock before him, I, on foot, drove refractory hogs and our pack animals, while Kirtley, on one of the man's fine cow-ponies, rushed about with a black-snake in his hand, whaling all animals which were determined to return to their farm-yard.

After an hour or so they were all contentedly following the wagon, or when one thought he would try to bolt again, being driven by Kirtley back into line with his merciless black-snake whip. After we had gone back about 10 miles into the mountains, (and the very mountains we had expected quietly to botanize!) we left our friends encamped by some large springs, and at their repeated requests, went our way.



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menziesii

little prince's pine