Bulletin of the
NATIVE PLANT SOCIETY OF OREGON

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

VOLUME 24 NUMBER 8 AUGUST 1991

ISSN 0884-599

OUR 30TH ANNIVERSARY YEAR

IMPORTANT NOTE TO FIELD TRIP PARTICIPANTS

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

Notice to field trip chairs and leaders: The Forest Service and other Federal agencies have 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

3 Aug., Sat. — **FIELD TRIP**. Learn about sedges, aspen forest and other moist site plants at Cougar Meadows Research Natural Area, Baker District, Wallowa-Whitman national Forest. For more information contact Paula Brooks at 523-7564.

10 Aug., Sat. — **FIELD TRIP**. Help design a nature trail at Anthony Lakes, baker Ranger District, Wallowa-Whitman national Forest. We will be brainstorming ideas for an interpretive trail in the popular Anthony Lakes Basin. For more information contact Paula Brooks at 523-7564.

17 Aug., Sat. — **FIELD TRIP**. Hike the Hurricane Creek Trail, Eagle Cap Ranger District, Wallowa-Whitman National Forest with Marty Stein and Verna Slane. Call 426-4978 (day) or 426-3443 (eves) for details.

Corvallis

---------- — For information, call Esther McEvoy (754-0893).

Emerald

---------- — For information, call Jennie Dimling (343-3242).

High Desert

17 Aug., Sat. — **FIELD TRIP**: Our annual hike to view the spectacular display of alpine wildflowers and glacial geology on Broken Top. A 5 mile round-trip moderate to strenuous hike with a 1500 ft. elevation gain, mostly off-trail through the Three Sisters Wilderness. Number of hikers limited due to USFS restrictions in the Wilderness. Call leader to pre-register. For information, call trip leader Stu Garrett (389-6981).

Mid-Columbia

7 Aug., Wed. — **MEETING.** 7:30pm at Jerry Igo's estate. This will feature mid-summer flowering plants. Come early, 6:30pm, and join in a potluck dinner. Drive 5 miles up Dry Creek Road from Mosier, then look for signs. Call 478-3576 if you'd like to meet at Mosier and be escorted from there.

4 Sept., Wed. — **MEETING.** 7:30pm at the Mosier School. Dr. Stuart Garrett of the High Desert chapter in Bend will be our guest speaker. The topic will be Cyanide Heap Leach Mining.

North Coast

14 Aug., Thurs. — **MEETING.** 6pm at Cape Lookout Park Day Use Area for a potluck dinner. Each member should bring what he or she wants. For more information call Jim Winslow (842-4131).

FIELD TRIP --to be announced. For more information call Jim Winslow (842-4131).

Portland

--- — **MEETING.** No meeting this August.

10 Aug., Sat. — **FIELD TRIP:** Learn about ferns with Roger Yerke. He will show and describe ferns on the Horse-tail-Oneonta loop trail (about 2.5 miles roundtrip). Leave 8:30am from the southwest corner of the 122nd and Sandy K-Mart lot. For more information call Roger Yerke (645-2505).

24 Aug., Sat. — **FIELD TRIP :** Lois Kemp will lead a trip to Heather Canyon. The elevation gain will be from 5100 to 5800 ft. The hike will start at Mount Hood Meadows. The length will be 2.5-3 miles. Leave from the K-Mart parking lot on 82nd & Milwaukee Expressway at 8am. A second meeting place will be the Mount Hood Meadows parking lot (Umbrella Falls end of the lot) at 9:15am. This will be a slow and easy hike to study plants of this area. For more information call Lois Kemp (760-4998).

Siskiyou

8 Aug., Thurs. — **MEETING.** 7:30pm in Room 171 of the Science Building at Southern Oregon State College.

17 Aug., Sat. — **FIELD TRIP:** Wayne Rolle, Rogue River National Forest Botanist, will lead a *Lupinus aridus* spp. *ashlandensis* count on Mt. Ashland. barbara Williams, Klamath National Forest botanist, and some California Native Plant Society folks may join us up there. Leave from Ashaldn Bi-mart at 8am. Contact Wayne Rolle (776-4316) for more information.

17 Aug., Sat. — **FIELD TRIP:** Barbara Mumblo, Sensitive Plant Coordinator for the Applegate Ranger District, will lead a field trip to the Grayback Botanical Area. We'll start compiling a species list for the botanical area. This is a fairly strenuous hike on developed trails, elevations from 5,000 to 6,700 feet. Leave from Star Ranger Station (7 miles south of Ruch on Upper Applegate Road) at 8am. For more information call Barbara Mumblo (899-1812).

Umpqua Valley

8 Aug., Thurs. — **MEETING.** 7pm in Room 310, Douglas County Courthouse Auditorium, Roseburg. New Zealand Flora by Jim Carlson. For more information call Richard Sommer (673-3709).

--- — **INFORMAL FIELD TRIP** every Tuesday with the Douglas County Museum Herbarium staff. Contact Mildred Thiele (673-5397) for more information.

Willamette Valley

--- — For information, call Mary Anne Westfall (266-7967).

William Cusick

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

BLACK HAWTHORN -- TWO VARIETIES OR TWO SPECIES?

With respect to our western Douglas' hawthorn or black hawthorn, *Crataegus douglasii*, Hitchcock and others have treated the 20-stamen and 10-stamen forms as varieties rather than species. Steven J. Brunsfeld and Frederick D. Johnson of the Department of Forest Resources, College of Forestry, Wildlife and Range Sciences, University of Idaho recently published an article in Madroño, in which they proposed that these two varieties of black-fruited *Crataegus* be raised to species level: *Crataegus douglasii* with 10 stamens and *C. suksdorfii* with 20. (Their 1990 paper appeared in Madroño 37: 274-282.) Brunsfeld and Johnson studied Idaho populations of both variants and concluded that differences in chromosome number, thorn length, flower size, leaf shape, flowering time and habitat preference were distinct enough to uphold raising the taxa to species level.

In the Idaho material examined by Brunsfeld and Johnson, 20 stamen *C. suksdorfii* regularly was diploid with 2N = 34, while 10 stamen *Crataegus douglasii* was polyploid with 2n = 68. This pattern of variation with 20-stamen diploids and 10-stamen polyploids, is found in other sections of the genus *Crataegus* as well.

For example, in the hawthorn Series *Macracanthae*, *Crataegus calpodendron* is a 20-stamen diploid, while *C. macracantha* is a 10-stamen tetraploid. However, exceptions to this pattern occur. In the same series, *Crataegus succulenta* is polyploid but has flowers with 20 stamens and tiny anthers containing no pollen. In the hawthorn Series *Crus-galli*, only polyploids are known; these include 10-stamen *C. crus-galli* and 20-stamen *C. tenax*. Of these, *Crataegus crus-galli* appears more frequently to be a pollen-fertile tetraploid, whereas *C. tenax* is more often triploid and less pollen-fertile. Within the closely related Series *Punctatae*, however, *Crataegus punctata* is a 20-stamen diploid. Thus, if one examines various groups, one finds that while 20-stamen hawthorns are often pollen-fertile diploids, this is not uniformly the case.

Chromosome and embryological studies carried out by us, in collaboration with S. Belaoussoff and M. Muniyamma, suggest that the black-fruited hawthorns of the west and Great Lakes basin, may be just as complicated as the primarily eastern hawthorns referred to above. Also, recent field work by us in Klickitat County, Washington, suggests a good deal of overlap in flowering time, thorn length, and habitat. Our results suggest that it could be premature at present to recognize the stamen morphs of *Crataegus douglasii* as separate species since the cytological and ecological differences between them may not be as clearcut as Brunsfeld and Johnson's results led them to believe. In the end, however, the level at which these forms are recognized (variety or species) may be largely a matter of personal preference, since in some areas, such as Idaho, differences in morphology and phenology appear to be pronounced.

--Rhoda M. Love, Eugene, Oregon
Timothy A. Dickinson, Royal Ontario Museum,
Toronto, Canada

Cratagus douglasii
Black hawthorn
From Northwest Trees
Drawn by Ramona P. Hammerly

How Do You Spell *Lysichiton*?

If the above spelling for a well-known Oregon plant genus looks unfamiliar, it is because it is correct, and the spelling used in our best current reference book--Hitchcock & Cronquist's "*Flora of the Pacific Northwest*"--is wrong. I noticed this minor but annoying problem only recently, when Rhoda Love asked "Which is correct, *Lysichitum* or *Lysichiton*?" A little research in the OSU Herbarium Library showed me that indeed, both spellings have been used for our common yellow skunk-cabbage, and "*Flora of the Pacific Northwest*" uses *Lysichitum*. The name is a compound of two Greek words, meaning "loose" and "cloak," in reference to the yellow spathe loosely surrounding the spike of flowers. The ending "-on" is the Greek form, whereas "-um" is the Latin version of the word. Many scientific plant names have a Greek form, however (e.g. *Rhododendron*), so this is not a reason for choosing *Lysichitum* over *Lysichiton*. From the following history of this name, you will understand why taxonomists have been so confused about its spelling.

The genus *Lysichiton* was authored by the Austrian botanist Heinrich W. Schott in 1857, in a journal named "Austrian Botanical Weekly." Writing in German about the Asiatic relative (*L. camtschatcense*) of our yellow skunk-cabbage, Schott says (in translation): "...I have believed that [this species] should be regarded as the type of a distinct genus, which I have attempted to make known through the name *Lysichiton*." In the very next paragraph, in italics, he gives a Latin description of the genus, beginning with the words "*Lysichitum Spatha membranacea in laminam ovatam cucullatam extensa....*". At first sight it seems that Schott is offering two alternative spellings ("-on" ending versus "-um" ending), and later several influential botanical references--such as "Index Kewensis" (1895) and Adolph Engler's "Das Pflanzenreich" (1908)--used the "-um" spelling. Other botanists, including Alphonse deCandolle (1879), Willis Jepson (1923), and LeRoy Abrams (1923) chose the alternative "-on". In our West Coast floras today, we find "-um" used by Hitchcock & Cronquist, by Morton Peck (Manual of the Higher Plants of Oregon), and by Herbert Mason (Flora of the Marshes of California); however, the "-on" ending is used by Eric Hulten (*Flora of Alaska*), Munz & Keck (A California Flora), and Taylor & MacBryde (Vascular Plants of British Columbia). Confusion reigns, it would seem.

The definitive answer to the problem was provided by Donald Huttleston in 1955 (*Bull. Torrey Bot. Club* 82:134). Analyzing the three subsequent publications by Schott in which this genus is mentioned, he found that the spelling *Lysichiton* was consistently used---evidence that Schott himself considered the "-on" ending to be correct. In 1956, the taxonomists Harold St. John and Eric Hulten, who had earlier championed the "-um" spelling and had used it in naming our American species (*L. americanum*), reversed themselves and agreed with Huttleston that the "-on" version was the one that Schott had intended. Thus I feel that the matter was settled 35 years ago, and that we should no longer be stuck with the incorrect spelling "*Lysichitum*." After reading Schott's original paper, my own interpretation of what happened is that he wrote the intended spelling, *Lysichiton*, in his German-language prefixal remarks, but switched to the Latin "-um" form in the descriptive paragraph because it was to be written entirely in the Latin language. In modern practice, taxonomists would not make such a spelling change merely for the sake of consistency with a Latin description; we consider names even of Greek form to be Latin, because all scientific names are treated as Latin regardless of their derivation.

The accompanying illustration was published in 1908 by Kurt Krause in "Das Pflanzenreich". Krause mixed together the Asiatic (white-flowered) and North American (yellow-flowered) species, so the drawing could represent either one. Not until 1931 was the American species given the separate name, *Lysichiton americanum*.

--Ken Chambers,
Corvallis Chapter

BLM's Salem District Tracks New Shooting Star

Salem District Bureau of Land Management botanists Larry Scofield, Clair Button and Patti Matusik are monitoring a possible new shooting star species growing along the Trask River east of Tillamook.

Dodecatheon austrofrigidum grows in bare rock fissures between the high and low water marks of the Trask. Its location is precarious; the river creates its habitat by depositing sediments in some places, but also destroys it by covering the banks with debris during high water and scouring the thin soil from rock fissures during high water.

The seeds appear to need several months of cold to germinate. The yearly January through March floods may provide the cold needed for this germination. *Dodecatheon austrofrigidum* generally flowers from about April 15th to May 15th.

Through BLM's new Botany 2000 program, funding has been set aside to monitor the Trask River plants. Biometrics specialist Jim Alegria from BLM's Oregon State Office advised BLM field botanists to use randomly selected study plots within an enclosed linear grid system for monitoring. Botany 2000 is a new BLM program which has promising criteria for the development of botanical studies, monitoring, and inventories. "Biodiversity" is an important feature of BLM planning for plant habitats under this program. The botanists hope to determine how river dynamics operate in connection with the life of the plant. Monitoring will involve geologic analysis including soils and river fluctuation, seed dispersal mechanisms, pollinators, and plant growth patterns.

Lysichiton camtschatcense
Asiatic skunk cabbage
From Das Pflanzenreich

The plant was first collected by George E. Lewis Jr. on the Trask River in 1979. Besides the four populations found along the Trask, an additional population is known to exist on Saddle Mountain in Clatsop County. A Saddle Mountain sample was collected by Dr. Helen Gilkey in 1942 and is stored at the Oregon State University Herbarium in Corvallis.

The only known site for this species outside of Northwestern Oregon is on Mount Colonel Bob in the southern Olympic Mountains where it was discovered by Ed Alverson in 1983.
In 1978, BLM botanist Cathy Cooney sparked interest in exploring for this plant on BLM land by finding information about it while working in the Herbarium at Oregon State University. In 1981, BLM botanists Karla Buker and Larry Scofield found a population on BLM land near Peninsula County Park on the Trask River. Buker took a specimen to Dr. Chambers at the Herbarium in Corvallis. At that time the plant was thought to have a different taxonomic name and was just being considered as a new species. In 1989, Ed Guerrant of Berry Botanic Garden, Portland, collected seeds for the seed bank in Portland. While there, he found another population on BLM land.

Dr. Kenton L. Chambers, Professor Emeritus at Oregon State University, is investigating this species which he refers to as *Dodecatheon austrofrigidum* (Chambers ined.). Dr. Chambers will be publishing information about this species soon.

This spring, BLM also began doing a new study on *Erythronium elegans* in cooperation with the US Forest Service and Berry Botanic Garden in the Coast Range of the Salem BLM District and in the Siuslaw National Forest.

--Tricia Hogervorst-Rukke
BLM Salem District Public Affairs

MAPS OF BOTANICAL AREAS--SECOND PRINTING!

In the May NPSO *Bulletin*, a 512 page book of Oregon botanical area maps was offered at cost to NPSO members. Despite my forgetting to include an address for orders, the book soon sold out its first printing!

Meanwhile, Sunset Magazine and a large Willamette Valley weekly got wind of the book. However, botanical areas are inappropriate for recreation and I do not distribute the book to the general public.

The second printing is now back from the print shop with lots of new and improved maps, including an exciting new ACEC at Hecata Beach (thanks to Nancy Wogen of Eugene BLM) and the hotly contested Auger Creek RNA (Fremont National Forest). The price is still $14.03 + $2.47 shipping for NPSO members.

Oh...I almost forget. Send your order to PO Box 3429, Eugene, Or 97403.

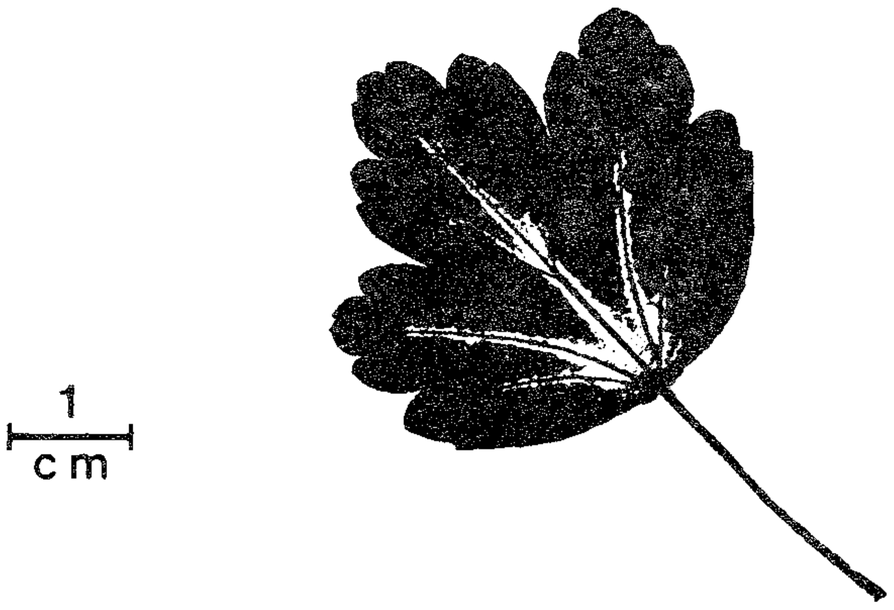
--Tom Pringle
Emerald Chapter

PLANT PUZZLE

Sponsored by the Siskiyou Chapter

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

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



Barbara Rupers of Salem solved last month's puzzle: *Ribes hudsonianum,* stinking currant or northern black currant.

COLUMBIA RIVER GORGE MANAGEMENT PLAN UPDATE

The Permanent Management Plan for the Columbia River Gorge National Scenic Area is now available in its final draft form. There is a 75 day review period during which comments will be accepted. Final adoption is set for Oct. 15th, 1991.

Copies of the plan are available from the Columbia River Gorge Commission (509-493-3323) and from the US Forest Service (503--386-2333). There will be three Open Houses given for reviewing maps and asking questions: six county Round Table Discussions with local government officials and Commission staff which interested citizens are encouraged to attend; and three Public Hearings for you to express comments and concerns about this final document.

This, the last draft resulting from a long development process, contains no restrictions on agricultural practices such as grazing in wetlands, riparian areas or sensitive natural areas. In comparison to earlier drafts, it reduces the acreage in Open Space designation, and lessens restrictions in regard to scenic resources, especially in respect to quarries.

Testimony at the open hearings, and letters to Columbia River Gorge Commission (509-493-3323), can still help shape the final form of this soon to be powerful document. The Friends of the Columbia Gorge is analyzing this final draft and will be soon issuing position papers on it. They may be reached at 319 SW Washington St., Suite 301, Portland, OR 97204 (503-241-3762).

Open Houses about the plan:
--July 30th, 4-9pm at Corbett Middle School, Crown Point Highway, Corbett.
--August 1st, 4-9pm at Wind River Middle School, Hot Springs Ave., Carson.
--August 8th, 4-9pm at Mid-Columbia Medical Center, 1700 E. 19th St., The Dalles.

Also:
--Skamania County Round Table, 9am August 1st at Wacoma Center, 902 Wasco Ave., Hood River.

Public Hearings will begin in September. Other meetings are being planned but times are not available at press time.

In Memoriam

On July 1, 1991, Sallie Jacobsen passed away after a three-and-a-half week battle with an ailment that baffled a team of Portland doctors, despite hundreds of tests. Members of her family were by her side the whole time.

About 200 friends & colleagues attended a memorial service at Cape Meares State Park. The old growth forests with nesting bald eagles and seabird colonies in this park made it one of Sallie's favorites.

After receiving a degree from Humboldt State University, Sallie worked for Redwood National Park and Washington Park Zoo. For 8 years Sallie worked for Oregon State Parks at Tryon Creek, Champoeg, and as North Coast Regional Coordinator in Tillamook. She was a very active and effective member of the Native Plant Society of Oregon. She initiated and chaired the subcommittee on native plant issues. Sallie was a charter member of the North Coast Chapter and was Chapter President. Sallie served on the boards of Portland Audubon Society and the Environmental Educators Association of Oregon, assisted the Tillamook Highway Maintenance District in protecting the hairy-stemmed checker mallow, a sensitive species; volunteered on State Fish & Wildlife projects to monitor marbled murrelets and snowy plovers; and promoted the use of American dunegrass and eradication of European beachgrass.

Oregon's native plants, animals and ecosystems have lost a energetic champion. Sallie was a soul sister. I will miss here very much. A lot of people will miss Sallie Jacobson.

In remembrance of Sallie the Native Plant Issues Subcommittee is looking into creating a fund for receiving donations to encourage research on the establishment of native dune plant communities, specifically on eradication of European beach grass, restoration of native dune plant communities, or landscaping with native dune plants. This fund will soon be ready to accept donations in the memory of Sallie Jacobson.

--Margie Willis
North Coast Chapter

The members of the North Coast Chapter wishes to express their sorrow at the untimely passing of Sallie Lynn Jacobsen. Sallie passed away July 1st at Saint Vincent's Hospital in Portland following a sudden illness. She was 35.

Sallie was one of our most active and valuable members: serving as president and as a tireless advocate for our beautiful beaches, capes and flora. She was instrumental in conservation work concerning *Sidalcea hirtipes* (bluff mallow) and in halting roadside herbicide spraying. We are pleased to report that it seems to be thriving here. We often mused about renaming it *Sallie Sidalcea*. And now, when it blooms high in June and July, we will always think of her and her efforts to save it. She was also active in the eradication of European beachgrass and in the protection of our native beach flora. She was also an avid bird watcher.

Sallie was a regional planner for the Oregon State Parks and Recreation Division. She began her career for Oregon State Parks in 1983. Some of her most important work was educational. She taught at Tillamook County's Outdoor School, and tirelessly spoke to local groups about protecting our native flora.

For those of us who loved the things that she loved, such as Cape Meares, our seabirds, and our wild flowers, she was a kindred spirit. We hope that her untimely passing will inspire others to follow in her lead in environmental work. We will miss her very much.

Her family has requested that contributions be sent in her name to the Audubon Society or to the Environmental Education Association of Oregon. The North Coast Chapter is also actively pursuing setting up a memorial fund dedicated to her name and her interests.

--Submitted by the North Coast Chapter
of the Native Plant Society of Oregon.