



Bulletin

of the

Native Plant Society of Oregon

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

VOLUME 38, No. 7

JULY 2005

The Flora of Serpentine *Darlingtonia* Fens in the Klamath-Siskiyou Region after The Biscuit Fire: Species Composition, Diversity, and Rare Species Populations in Burned and Unburned Fens

by Jennie R. Cramer, Field Naturalist Program, University of Vermont

Q: What do you get when you combine a beautiful mountain range, bizarre geology, complex hydrology, crystal clear swimming holes, six sedges, five endemic species, four orchids, three carnivorous plants, two lilies, and one gigantic wildfire all in a highly politically charged environment?

A: One heck of a research project!

During the summer of 2002, flames licked the shoulders of the Klamath-Siskiyou. What came to be

known as the Biscuit Fire burned an area ~500,000 acres in the Klamath-Siskiyou Ecoregion of southwestern Oregon and northwestern California. A drive through the charred Biscuit landscape just after the fire may have left fen fanatics feeling a bit panic-stricken at the sight of the charred remains of crippled *Darlingtonia* leaves bathed in a sea of ash.

Background

The Biscuit Fire was unique because it burned across North America's largest exposure of serpentinized rock, which is characterized by high levels of heavy metals (e.g. nickel, chromium, cobalt) and low levels of available calcium, creating a nearly inhospitable environment for plant growth. The unique chemical properties of serpentine soils give rise to distinctive plant communities, gifting us with a high proportion of endemic species found nowhere else in the world. Serpentine fens, created as water seeps through "leaky" serpentine bedrock in the scars of natural landslides (Coleman and Kruckeberg 1999), are a natural community endemic to the Siskiyou. They are painted in a distinctive rainbow of native color from their particularly high rates of endemism including five taxa (ONHP List 1) proposed for listing as Threatened or Endangered. These are: Waldo gentian (*Gentiana setigera* Gray), Oregon willow-herb (*Epilobium*

oreganum Greene), large-flowered rush-lily (*Hastingsia bracteosa* S. Wats. var. *bracteosa*), purple-flowered rush-lily (*Hastingsia bracteosa* S. Wats. var. *atropurpurea* (Becking) Lang and Zika) and western bog violet (*Viola primulifolia* ssp. *occidentalis* (Gray) Russell. In addition, they are home to the rare and unique carnivorous California cobra lily (*Darlingtonia californica* Torr.) and an, as of yet, undescribed species of sedge (*Carex* sp. *nova*). It's hard enough to live on serpentine—its even harder to live in a serpentine wetland.

Although curious botanists since the days of Howell have flocked to the colorful beauty of the serpentine fens, little is known about this unique ecological assemblage. The U.S. Forest Service, Bureau of Land Management and U.S. Fish & Wildlife Service are in the process of developing a cooperative, interagency strategy that will establish a basic framework for conservation of the five named rare fen species and their habitat. Fundamental to the successful implementation of this strategy is a better understanding of the role of fire in these systems. The purpose of my research was to examine the differences in plant community composition in burned and unburned serpentine *Darlingtonia* fens and to track populations of rare fen taxa two years following the Biscuit Fire (and to spend an entire summer botanizing in the fens).

continued on page 74

In This Issue

Seeking New Webmaster ...68

Chapter Calendar69

Other Events72

Jean Davis Scholarship
Award Winner Announced ..76

Call For Papers76

NPSO Contacts77

Wahoo! *Euonymus* Rediscovered During NPAW78



Native Plant Society of Oregon

World Wide Web

<http://www.NPSOregon.org>

E-mail Discussion List

To join send a message to majordomo@tardigrade.net, with the following in the body of the message: subscribe npsos

General Business Address

P.O. Box 902

Eugene, OR 97440

or correspond directly with Officers and Committee Chairs listed on the inside of the back page.

Membership Inquiries Only

Clayton Gautier

3927 Shasta View St.

Eugene, OR 97405-4442

Bulletin of the Native Plant Society of Oregon

Editor: Tanya Harvey

ISSN 0884-599. Published 11 times per year. Subscription price \$18/year. Date and issue number on page 1.

The submission date is the 10th of each month for the following month's issue except for the Aug./Sept. issue which is July 24. Send submissions by e-mail to bulletin@NPSOregon.org.

Opinions expressed in this publication are those of the authors of the articles. They do not represent the opinions of the Native Plant Society of Oregon, unless so stated.

Editor's Note

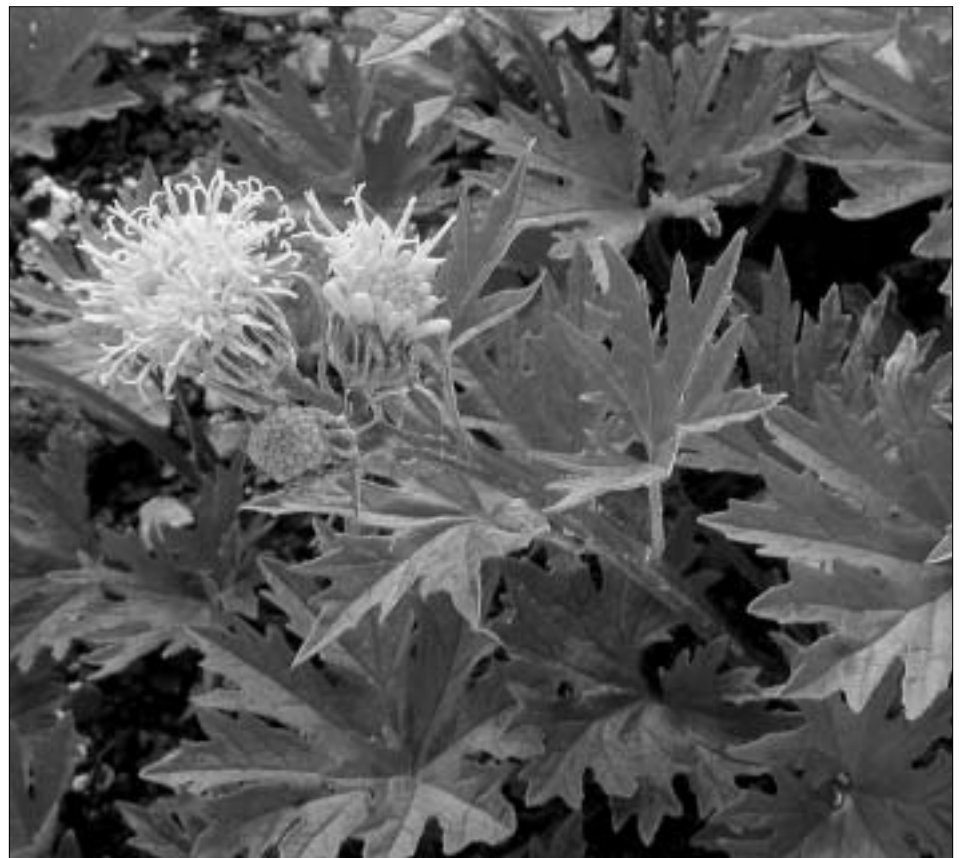
Submission Information for Next Issue

A reminder that next month's *Bulletin* will cover the last half of August and September. The submission date will be pushed back two weeks to **July 24**. You should receive this issue the second week of August. The following issue will return to the usual schedule with a submission date of September 10th and should arrive by October 1st.

Please send all submissions electronically and put in the same order as they are in the *Bulletin*. **Put NPSO and the Chapter or organization name in the subject.** This helps keep them from getting lost with the spam. **Please include the copy in the body of the e-mail** as attachments are sometimes difficult to read. Thanks and have a wonderful summer!

Seeking New NPSO Webmaster

The NPSO webmaster position involves maintaining the website for the state NPSO organization and posting monthly updates. There is also an opportunity to help create a new event form for people submitting hikes, presentations, etc., to the web calendar and NPSO's monthly newsletter, the *Bulletin*. The retiring webmaster, Michael Hartman, is willing to train a volunteer who already has some web design skills. To find out more about the position contact Michael at webmaster@NPSOregon.org or Kelli Van Norman at president@NPSOregon.org.



TANYA HARVEY

Cacaliopsis nardosmia, Silverback Luina, is striking with its large distinctive leaves and bright yellow flowers. While it is found most often in southwestern Oregon and up near Mt. Hood and into Washington, this plant is part of a population on Bachelor Mountain, just west of Mt. Jefferson, where it creeps around through rocks high on a ridge.

Blue Mountain

For information on the Blue Mountain Chapter call Jerry Baker at 541-566-2244.

Cheahmill

For information on the Cheahmill Chapter call Marilyn Karbonski at 503-852-7230.

Corvallis

July 9, Saturday, 8 am

Field Trip: Iron Mountain. Last year we recorded over 200 species of vascular plants along this botanically-rich trail west of Santiam Pass. 4-5 miles, moderately difficult all-day hike. Bring good boots, lunch, and plenty of water. Meet at 8 am at the OSU parking lot SW of The Beanery, 26th and Monroe, Corvallis. Call Dan Luoma, 541-752-8860, for more information.

Emerald

July 9, Saturday, 8 am – 4 pm

Field Trip: Upper Elk Meadows. Alan Curtis will take us to see *Frasera umpquaensis* and other special plants of the Calapooya Divide. There will be some off-trail walking. Bring lunch and water. Meet at South Eugene High School at 8 am. For more information call Alan at 541-345-2571.

July 16, Saturday, 8 am

Field Trip: Salmon Lakes Trail and Waldo Meadows in the Waldo Lake Wilderness. Barbro McCree will lead us up the Salmon Lakes Trail through Waldo Meadows at 5000' to enjoy the wildflowers. 6 miles round trip with an elevation gain of 700 feet. Meet 8 am at South Eugene High School or 9 am at Middle Fork Ranger Station. Attendance is limited to 12. To sign up contact Barbro at 541-782-3919 or k_mccree@efn.org. The meadow is

featured on the McCrees' Web page at www.efn.org/~k_mccree/SalmonLakesTrail.html.

July 24, Sunday, 8 am

Field Trip: Moon Point Trail south of Oakridge. There are old-growth forests, lush meadows, a large rock outcrop and a number of uncommon species on this lovely hike. Bring lunch and water. Walk about 2 miles with little elevation gain. Full day trip. For more info call David at 541-746-9478.

IMPORTANT NOTE TO FIELD TRIP PARTICIPANTS

Field trips take place rain or shine, so proper dress and footwear are essential. **Bring water and lunch.** Trips may be strenuous and/or hazardous. Participation is at your own risk. Be prepared to sign a release form indicating this. For a sample copy check out the NPSO website. Please contact the trip leader or chapter representative about difficulty, distance, and terrain to be expected on field trips. Dogs are not allowed. All NPSO field trips are open to the public at no charge (other than contribution to carpool driver) and newcomers and visitors are always welcome. National Forests require a Northwest Forest Pass for many field trip locations. Permits can be acquired at forest headquarters and ranger districts.

NOTICE TO FIELD TRIP CHAIRS AND LEADERS

The Forest Service and other agencies have set policies limiting group size in many wilderness areas to 12. The reason is to limit human impacts on these fragile areas. Groups using wilderness areas should be no larger than 12.

August 21, Sunday, 5 pm – 8 pm

Event: Hendricks Park Potluck/Picnic. We have rented the picnic shelter at Hendricks Park in Eugene. NPSO members and families are invited. Bring a table setting and a dish to share. There will be a board meeting at 6:30 pm at the shelter. For more information call Dave at 541-345-5531.

September 8, Thursday, 9 am

Work Party: Rowe-Love Herbarium. Assist with mounting and organizing specimens in the Rowe-Love Herbarium at Lane Community College. Meet in the Science Building Rm. 117 from 9 am to noon. Refreshments provided. No background necessary and all assistance is appreciated. Learn some valuable collection and preparation skills and contribute to adding to our collection of over 3000 specimens. Notable and historic herbarium specimens from the Herbarium will be on display. Contact Gail Baker, Science, Lane Community College, 541-463-5085 or bakerg@lanec.edu.

High Desert

July 9, Saturday, 8:30 am

Field Trip: Canyon Creek Meadows. Flowing off the north face of Three Fingered Jack, this montane/subalpine forest/meadow mosaic is a favorite wilderness destination for hikers and wildflower enthusiasts alike. Join us for this 7-mile round-trip, easy-to-moderate hike in the Mt. Jefferson Wilderness. Group size is limited to 12 people and priority will be given to NPSO members. Pre-registration is required! Call trip leader Reid Schuller for sign-up: 541-317-0199 (days), 317-1901 (evenings).

August 20, Saturday, 8:30 am

Field Trip: Broken Top Volcano. Our annual trek to view the spectacular glaciated scenery and alpine wildflowers in the High Cascades west of Bend

is a 6-mile round-trip, moderate-to-strenuous hike with a 1700 foot elevation gain. We will do mostly off-trail hiking through the Three Sisters Wilderness, so hiker numbers are limited to 12. Meet at Pilot Butte Lot at 8:30 am. If we can't go to Broken Top we will hike Black Crater. Pre-registration is required! Call trip leader Stu Garrett to sign up: eves 541-389-6981.

Klamath Basin

For information on the Klamath Basin Chapter, contact Sarah Malaby, 541-884-5703, smalaby@cs.com.

Mid-Columbia

July 6, Wednesday, 6 pm

Event: Potluck Dinner at the home of Afton Foote, 616 E. Scenic Drive, The Dalles. Note early time.

August 3, Wednesday, 7:30 pm

Meeting: Plant Slides. As a change of pace tonight is movie night. We'll take time to view Keith Chamberlain's spectacular plant slides. If you have a few favorite slides or prints please bring them along. Expect a relaxing evening looking at pretty pictures without having to use your plant key. Jerry Igo presenter. The *Dalles Chronicle* Meeting Room, 317 E. 3rd Street, The Dalles.

North Coast

Wanted new memberships for our group, located in Tillamook County. Trips subject to suggestions. Please phone Janet Stahl 503-842-8708.

Portland

July 23, Saturday, 8:30 am

Field Trip: Wahtum Lake. The hike will be less than four miles with very little elevation gain. Wahtum Lake, southwest of Hood River, is at an elevation of 3723'. We should see a nice display of summer flowers along an old road and trail. Leave at 8:30 am,

Gateway/NE99th Ave Park and Ride, southeast corner of parking lot, second meeting place at McDonalds in Hood River at 9:30 am. The hike is limited to 12. For more details, call Linda Hardie in the evenings at 503-223-4668.

July 30, Saturday, 9 am – 12 pm

Work Party: The Berry Botanic Garden. Join us at the site of a local defender of native plants. Berry Botanic Garden is the home of the Seed Bank for Rare and Endangered Plants of the Pacific Northwest. It is also a 6-acre garden, facing the usual challenge of invasive plant encroachment. For directions and related questions call Kris or gardener Robbie at 503-636-4112.

September 8, Thursday, 7:00 pm

Meeting: From the Backyard to the Watershed—Planting Natives at Multiple Spatial Scales. Come welcome Steve Roelof, the new Portland Chapter president, in a presentation that discusses the challenges and opportunities of planting natives at a variety of spatial scales. Steve is a landscape designer specializing in native vegetation. He will talk about the role of native plantings in parks, schools, bioswales and natural areas. Steve will also offer design tips for backyard native plant enthusiasts and highlight some of his favorite underutilized plants! Fireside Room, First United Methodist Church, 1938 SW Jefferson St., Portland. Located just uphill from the Goose Hollow MAX stop.

Siskiyou

July 9, Saturday, 9 am

Field Trip: Mt Ashland Summit. We'll take a look at Mt. Ashland's high elevation conifers, especially whitebark pine, and search for more in the eastern Siskiyou. We'll also look at whatever other plants are in bloom. Moderate hike, back by 5 pm. Meet behind Pizza Hut on Ashland St, just west of the Ashland BiMart/Shop 'n Kart parking lot, about 1/4 mi west of I-5, exit 14. Leader: Frank Lang, 541-482-5235.

July 16, Saturday, 9:00 am

Field Trip: Big Red Mountain (west of Mt. Ashland). See the late spring-early summer alpine wildflowers on this mainly serpentine Siskiyou Crest mountain. We will follow the Pacific Crest Trail from Wrangle Gap to the end of the north spur of the mountain. Then we'll leave the trail and hike up the gentle slope to the top. From there we will eventually hike down the steeper southwest slope back to Wrangle Gap. Total elevation change about 500 feet (6,500-7,000'). Total distance roundtrip about 2 miles. Bring lunch and water and wear stout hiking shoes for off-trail walking on rocky soil. Meet 9 am in the Walmart parking lot off Valleyview Rd in Talent (just west of I-5 exit 21), next to the Valleyview Rd. side of the lot, or 10 am at Wrangle Gap on Rogue River NF Rd 20. Leader: Jim Duncan, 541-482-7629.

July 23, Saturday, 4 pm

Field Trip: Bigelow Lakes Botanical Area and Mount Elijah. This is the classic late afternoon-late night hike that Lee has been leading for many years. We will watch the sunset and may see everything from rare plants to resident long-eared owls. Bring water, dinner, warm clothes, flashlight, and good hiking shoes. Moderate 5-mile hike. Recommended reading: Don Begnoche, *Siskiyou Sundays*, pp. 101-106; Mary Paetzl, *Spirit of the Siskiyou*, pp. 118-155. Meet 4 pm at Illinois Valley Visitor Center, Cave Junction, half a block from Hwy 199 on Hwy 46; return by midnight. Leader: Lee Webb, 541-479-6859.

July 30, Saturday, 8:30 am

Field Trip: Deadfall Meadows - Deadfall Lakes (Mt. Eddy, Shasta County, CA). Enjoy spectacular flora and mountain scenery in this special place. We will traverse several plant habitats, including lush flower-filled meadows, forested slopes, sagebrush flats, and a *Darlingtonia* bog. Moderately strenuous 4-mile round-trip hike with 2000' elevation gain, on a good trail. Bring lunch, lots of water, sun block, and insect repellent. Be prepared

for wet walking in some places. For those wanting to stay over for tomorrow's trip, there is primitive camping in the area, motels nearby, or wilderness camping at Deadfall Lakes; otherwise you should get back by 5 pm. Meet 8:30 am behind the Oil Stop on Ashland St, just west of the Shop 'n Kart parking lot, about 1/4 mile west of I-5, exit 14. Leader: Norm Jensen, 541-951-4420 or normjensen@gmail.com.

July 31, Sunday, 9 am

Field Trip: Mt. Eddy Summit (Shasta County, CA). We will check out the plants along the Pacific Crest Trail (PCT) from the Park Creek trailhead (TH) to Lower Deadfall Lake. Then we will continue to the ridge above Upper Deadfall Lake, where we will look at the Foxtail Pines that grow there. At this point (RT distance from TH 6 mi, elev gain 1700 ft) you can either turn around, or you can climb another 1000 ft to the top of Mt. Eddy, admiring and identifying the stunning collection of flowers on the serpentine barrens on the way up. This is a difficult but rewarding hike (RT distance from TH 9 mi, elev gain 2700 ft). Meet 9 am at the Parks Creek Summit PCT trailhead on Road 17 off Stewart Springs Road; alternative meeting place: Lower Deadfall Lake camping area, around 11 am. Leaders: Norm Jensen, 541-951-4420, and Alex Maksymowicz, 541-482-1964. For specific driving directions, e-mail Norm Jensen at normjensen@gmail.com.

August 6, Saturday, 8:30 am

Field Trip: Squaw Meadow (Mt. Shasta). We will look at subalpine flowers, including Pasque Flower, Partridge Foot, Cobwebby Paintbrush, and Mountain Jewelflower, and savor the heady fragrance of *Eriogonum pyrolifolium*. Moderate 3-mile round-trip hike, elev gain 600 ft; return to Ashland by 5 pm. Meet 8:30 am behind the Oil Stop on Ashland St, just west of the Shop 'n Kart parking lot, about 1/4 mi west of I-5, exit 14. Leader: Alex Maksymowicz, 541-482-1964.

Umpqua Valley

July 2, Saturday, 8:30 am

Field Trip: Twin Lakes to see the lilies and other flowers that bloom around these serene pair of lakes. Meet at the Douglas County Courthouse parking lot, 1036 SE Douglas Ave., Roseburg. For more information call Ron Hatt at 541-863-7024.

July 9, Saturday, 12:00 pm

Potluck Picnic: Catherine Hausotter's house, 4925 N. Myrtle Rd., Myrtle Creek. Even though Jack is no longer with us, we can view his favorite lily blooming in the yard. This is a chance for everyone to enjoy an old-fashioned get-together in a country setting, socialize and share a bit to eat. For information call Ron Hatt at 541-863-7024.

July 14, Thursday, 7 pm

Business Meeting: This meeting is to review the NPSO Annual 2005 Meeting to finalize financial proceeds and expenses. There will be no program. Mercy Education Bldg., 2459 Stewart Parkway, Roseburg. For more information call Ron Hatt at 541-863-7024.

July 16, Saturday, 8:30 am

Field Trip: Old Man Camp and Silent Creek at the west foot of Mt. Bailey. We will see sundew (*Drosera anglica*), fringed grass-of-Parnassus (*Paranassia fimbriata*) and lady tresses orchids (*Spiranthes* sp.). This is a bog area so participants should wear waterproof boots for 6-8 inches of wading. Meet at the Douglas County Courthouse parking lot, 1036 SE Douglas Ave., Roseburg.

July 23, Saturday, 8:30 am

Field Trip: Oregon Dunes. Richard Sommer will lead us on a trip to the Oregon Dunes. Assemble at the Douglas County Courthouse parking lot, 1036 SE Douglas Ave., Roseburg or meet at the Oregon Dunes Visitor's Center at the junction of the Highway 101 and 38 in Reedsport at 10 am. For information call Ron Hatt at 541-863-7024.

July 30, Saturday, 8:30 am

Field Trip: Twin Lakes Overlook. On July 2 we hiked into Twin Lakes but this time we will follow a trail that will lead to a large rock overlook and from above you can see the side-by-side lakes below in all their beauty. Along the trail we will see *Campanula scouleri*, saprophytes and Washington lilies. Meet at the Douglas County Courthouse parking lot, 1036 SE Douglas Ave., Roseburg. For more information call Ron Hatt at 541-863-7024.

August 6, Saturday, 8:30 am

Field Trip: Mt. Ashland. Sam Friedman will lead a trip to Mt. Ashland to see alpine wildflowers in bloom. Meet at the Douglas County Courthouse parking lot, 1036 SE Douglas Ave, Roseburg. For those living south of Roseburg, meet at the Tri City McDonalds, exit 103 at 9 am. For information call Ron Hatt at 541-863-7024.

Willamette Valley

July 21, Thursday, 7 pm

Meeting: Restoring Native Plants. Jonathan Soll of The Nature Conservancy will give a talk on the Conservancy's efforts to restore native plants in its Willamette Valley preserves. Soll oversees the restoration efforts at the 129-acre Kingston Prairie Preserve southeast of Stayton and several other sites in the valley. The program is free and open to the public. 7 pm–8:30 pm at the Straub Environmental Learning Center, 1320 A Street NE, Salem (right next to Olinger Pool near North Salem High School). For more information, please call 503-399-8615.

William Cusick

For information on the William Cusick Chapter call Frazier Nichol at 541-963-7870.

OTHER EVENTS

North Mountain Park Nature Center Events

620 N Mountain Ave, Ashland, 541-488-6606, www.ashland.or.us/nmpnews.

Wilderness Safety - Outdoor Essentials

July 9, Saturday, 3:30 – 7:30 pm

Learn about the essentials you will need to take with you into the wilderness as well as the basic 'Leave No Trace' principles to respect the natural areas that you visit. This program will include hands-on practice of various wilderness skills. Bring sturdy shoes, a pack for a day hike, layered clothing and your questions and ideas to share! Ages 12 and up. \$5/person.

Gathering Native Seeds

July 16, Saturday, 9 am – 2 pm

Learn about collecting, storing and planting seeds from native wildflowers in the Rogue Valley with botanist and field ecologist, Ed Hoover. A slide presentation from 9 – 10 am will feature local wildflowers and seeds after which the group will carpool to a local natural area to collect seed and then return to the Nature Center to process the seed. Participants will learn how to identify common plants when not in bloom, techniques for collecting seed, and wildflower habitat characteristics. Bring a lunch. Adults/\$3; Children/\$2.

Leach Botanical Garden Events

All classes are held at Leach Botanical Garden, 6704 SE 122nd Ave. Portland, OR. For more information or to register call Nancy at 503-823-1671.

Plant Identification and History August 2, Tuesday, 7 – 8 pm

Do you have 'fear of flower names'? This Power Point presentation by Stefan Bump will introduce you to the history of the naming of plants, patent versus trademark names and the common Latin names of ordinary plants. \$15/\$12 members.

Demonstration Garden Tours

**July 21 & August 21, Thursday,
9:30 – 10:30 am**

Soak up the sights and smells of early summer while learning about the gardens at N MT Park with volunteer docent, Susan Lander. Discover how to attract wildlife in the Butterfly, Amphibian-Reptile Gardens or Native Plants Gardens. Step into the past in the Heirloom Garden and enjoy the fragrance of the Herb Gardens. Free.

Fire Ecology

July 23, Saturday, 10 am – noon

Join instructor Chris Chambers to learn the basics of how fire and forests have interacted over time around the Ashland area. Look at plant and tree species in our local forest and discuss how they have adapted to life with fire. Finally, a discussion in the woods will center on how our forests have changed in the past 100 years as we tour examples of different forest types around Ashland. The program will begin at N MT Park and carpool from there to various Ashland locations. Free.

Mount Pisgah Arboretum Events

34901 Frank Parrish Rd, (off of Seavey Loop Rd.), Eugene. For more information or to register call 541-747-1504.

Plants of Mount Pisgah

July 10, Sunday, 1 – 4 pm

See what's happening in the plant world of the Arboretum with botanist David Wagner. Hike the trails through a variety of habitats and discover which plants are blooming during these hot summer months. Meet at the Arboretum Visitor Center, rain or shine. Donation: \$3

Flower & Garden Photography

July 30, Saturday, 10 am – Noon

August 3, Wednesday, 6:30 – 8:30 pm

Learn to capture the beauty in your garden in this 2-session workshop with professional photographer David Stone. Photograph flowers close-up, in groups, and in the context of your entire garden. Visit and practice in a local garden. Film and digital cameras welcome. Registration required. Fee: \$20

Berry Botanic Garden Position Available

Native Plant Areas Coordinator

Part-time non-stipended AmeriCorps member position open until filled. Call Scott Vergara at 503-636-4112 ext 26 for details.

The coordinator will:

- 1) work closely with the Horticulture staff to continue to evaluate and inventory the native plant areas of the garden.
- 2) be responsible for the maintenance and incremental development of these areas with the help of staff and volunteers.
- 3) research potential native plants to be added as well as work with staff to produce educational materials.
- 4) work to recruit and engage local volunteers (groups and individuals) in restoration activities.

NABA Eugene-Springfield Butterfly Trips

All trips meet to carpool at the Campbell Senior Center parking lot, 155 High St., Eugene.



TANYA HARVEY

The beautiful Clodius Parnassian, seen here nectaring on Valeriana sitchensis, is just one of the many butterflies found on Browder Ridge. The wildflowers in the area are spectacular as well.

Bohemia Mtn. & Fairview Peak July 9, Saturday, 9 am

High butterfly diversity, stunning wildflower displays, fascinating history, and outstanding scenic views will combine to make this a special trip, led by Chapter President Neil Björklund. Space is limited to 15 people. Pre-registration is required. To pre-register, contact Neil at 541-344-2053 or neilb@efn.org.

4th of July Butterfly Count: Browder Ridge, Central Cascades July 16, Saturday, 8 am

Our 4th annual count in the meadows of the central Cascades will again be organized by Eric Wold. Last year, two teams visited five sites and set a new record of 39 species, with hundreds of individual butterflies. A NW Forest Pass is required to park at trailheads. Trails range from easy to moderately difficult,

depending on which team you're on. We plan on returning by 6 pm for a gathering at Track Towne Pizza on Franklin Blvd. in Eugene to have some pizza (on us) and share stories and results from the day. Pre-registration required, and there is a \$3 fee to participate. To pre-register contact Eric at 541-431-7388 or class2rapids@comcast.net.

Scott Lake/Frog Camp August 6, Saturday, 9 am

The high elevation meadows around Scott Lake and Frog Camp, on scenic Highway 242, have turned up many interesting species not found elsewhere in Lane County. Veteran naturalist Bruce Newhouse will lead the way and share his great knowledge of plants and butterflies. Space is limited to 15 people. Pre-registration is required—call Ellie Ryan at 541-684-8973.

NPSO Items for Sale

Vascular Plants of Lane County, Oregon: An Annotated Checklist Emerald Chapter, NPSO. More than 1,740 species and varieties representing 39% of the 4,460 plants currently recognized by the Oregon Flora Project are listed with information on habitat, ecoregion, occurrence frequency, and native or non-native origin for every species. To order, send **\$15** payable to Emerald Chapter, NPSO to Lane County Checklist, Emerald Chapter, NPSO, PO Box 902, Eugene, OR 97440-0902.

Oregon's Rare Wildflower Poster depicts Punchbowl Falls and three of the Columbia River Gorge's endemic wildflowers. Stu Garrett, 21663 Paloma Drive, Bend, OR 97701, 541-389-6981. **\$12 each**, plus \$3 per order for shipping. Posters are mailed in tubes.

Camas Tee Shirt. Beautiful moss green or tan tee shirts with botanical drawing in color of *Camassia quamash* by Carlton, OR artist and Cheahmill chapter member Marilyn Karbonski. Short sleeve, high quality, **\$15 plus shipping**. Call 503-852-7230, or send order to PO Box 291, Carlton, OR 97111.

NPSO Membership Directory lists names, addresses, phone numbers, and e-mail address of NPSO members (April 2005). Available from Jan Dobak, 2921 NE 25th Avenue, Portland, OR 97212-3460. **\$3 postpaid**.

The "Atlas of Oregon Carex" was NPSO's first Occasional Paper. The Atlas has 128 location maps, one for each Carex taxon in the state of Oregon. Also included are a synonymy,

fun facts about sedges, a history of the project, and Oregon geography maps. **Price: \$5.**

"Louis F. Henderson (1853-1942): The Grand Old Man of Northwest Botany" by Rhoda M. Love. NPSO's second Occasional Paper is the only existing publication with detailed coverage of the long and fascinating life of this John Muir-like western character. Included: 56 pictures, 133 notes, chronology, list of plants named for Henderson. Fourth printing, February, 2004. **Price \$10.00.**

To order either or both Occasional Papers, send check for the appropriate amount (made payable to NPSO) to: **Occasional Papers, Native Plant Society of Oregon, PO Box 902, Eugene, OR 97440-0902.**

Succession in Serpentine Fens

For much of the Northwest, wild-fire is the driving force behind succession. Serpentine fens, however, are wet and most are nestled within the Jeffrey Pine and Port Orford cedar forests which accumulate fuel slowly and burn infrequently (Atzet and Wheeler 1982). In addition, there have been concerns that a near-century of fire suppression may have caused the Biscuit Fire to be outside of the natural range of variation for the region. This contentious issue is not yet resolved (Odion et al. 2004). This unique situation has raised a number of fascinating questions for this budding ecologist: Does fire change species composition in serpentine fens? Are there species that occur in unburned serpentine fens that cannot persist in burned fens or vice versa? Is there fire-driven succession in serpentine fens? Are the rare endemics in serpentine fens able to tolerate fire?

To answer these questions, two years after the Biscuit fire, I compared the plant composition of 25 fens, 14 burned by the Biscuit Fire and 11 that remained untouched. I also compared populations counts for the rare endemics to those recorded in 2001.



JEN CRAMER

Cyripedium californicum blooming well at the base of a burned tree.

The Fens after the Biscuit Fire

Fear not, fen lovers! The fens are recovering quite swiftly. Take the California cobra lily, for example. *Darlingtonia* is a biennial, whose leaves can survive 18-22 months. As a result, I was able to compare cover of the older leaves born in 2003, whose red fading to brown heads, were quite distinguishable from the luminescent green of leaves born in 2004. While burned fens had significantly lower percent cover of second year leaves than unburned fens, first year leaves were equally abundant.

The relative abundance of the most eight common fens species varied greatly within and among fens making statistical comparisons difficult but kept field work exciting as each new fen yielded new species to add to the list and new discoveries for a curious naturalist. Complex heterogeneity of important factors such as soil type, variation in the size of substrate (i.e. rock, gravel, sand and clay), slope, hydrology, and aspect influence the distribution of fen species. This, coupled with the patchiness of the Biscuit Fire, yielded equally patchy results. Nonetheless, months of data crunching confirmed many of my suspicions after three months in the field.

Removal of litter and aging *Darlingtonia* leaves by fire created available habitat that was quickly filled by other species. Life histories of different species determined their ability to respond quickly to the increase in available habitat. I did not find a single annual or invasive species in either burned or unburned fens. Perhaps the perennial lifestyle is preferable when it is hard for seeds to disperse from one fen to the next, which could be as far as two miles away and luckily, while alien species cannot tolerate the challenging living conditions of a serpentine fen.

Is there fire-driven succession in serpentine fens? There is a clear, albeit minor shift in dominance between burned and unburned fens. While unburned fens are dominated by *Darlingtonia californica*, burned fens are blanketed in *Eriophorum crinigerum* (Criniger's cottongrass). Nonetheless, each species is the second most

dominant where it is not the first. Mini-succession, perhaps?

Although Criniger's cottongrass, a sedge, favors burned fens, not all sedges are created equal. Another fen dominant, star sedge (*Carex echinata*), is cespitose and cannot spread rhizomatically, and is more abundant in unburned fens. In addition, I found three species, California oatgrass (*Danthonia californica*), huckleberry oak (*Quercus vaccinifolia*), and Western bog violet (*Viola primulifolia* ssp. *occidentalis*) that frequented unburned fens more so than burned fens while I found false Solomon's seal (*Maianthemum racemosum*), American vetch (*Vicia americana* ssp. *americana*), Baltic rush (*Juncus balticus*) and beargrass (*Xerophyllum tenax*) more frequently in burned fens. Many other species followed similar trends although the results were not statistically significant. Most species had equivalently small gains or losses in abundance after fire that were fairly variable from fen to fen.

Although high variability is a statistical impediment to hypothesis testing, it is an ecological reality in serpentine fens. With only 8 (of 108) herbaceous species shared by 70% of fens, the majority of fen species in the fen are rare. These patterns of rarity may be due to geographic range narrower than the sampling area or due to highly restricted habitat provided only be a small subset of fens. Because fen habitat is patchy, as was the Biscuit Fire, it is logical that the responses of plants would themselves be patchy as well. Although these patterns make for difficult statistical analysis, they also facilitate the survival of the maximum number of species. Pyrodiversity begets biodiversity (Martin and Sapsis 1991).

The Post-Fire Fate of Rare Endemics

Of the rare endemics named above, only one species showed cause for concern after the Biscuit Fire. At first glance, all species seemed to be abundant in both burned and unburned fens. Western bog violet (*Viola primulifolia* ssp. *occidentalis*), however, had reduced percent cover from 2001 in burned fens as compared to the unburned fens I sampled. However, this

may not be cause for concern after all. Although the percent of burned fens covered by Western bog violet was lower, populations counts before and after fire were consistently high. Because percent cover is a measure of relative abundance, the abundance of each species is rated relative to the abundance of other species. Thus, if other species respond favorably, increasing in cover following fire, it can appear numerically that another is in decline when perhaps it is simply stable. Perhaps Western bog violet is neutral to fire. It is not killed, but it also does not spread. In addition, Western bog violet is one of the more widespread endemics and can be found thriving in many fens throughout the region (Frost et al. 2004).

The Future of Serpentine Fens: Permanent Plot Monitoring

My results suggest the species that inhabit serpentine fens successfully survived the abiotic changes that accompanied the Biscuit fire. However, time will tell if each will continue to be successful as litter re-accumulates and competition becomes fierce in the fens. To facilitate continued discovery in the little known ecological dynamics of

these amazing places, I established permanent ecological monitoring plots in 21 fens on the Siskiyou and Six Rivers National Forests. There is much research to be done in the fens. Little is known about mycorrhizal relations, herbivory, hydrology and the natural range of variation in rare species populations. Meta-population dynamics, or the genetic and ecological interaction of populations from different fens is a field that is, as of yet, untouched, and begging to be explored. If populations in one fen are reduced by fire or any other disturbance, will they be restored over time from the remaining fens? I hope that continued monitoring of these plots by the US Forest Service and other researchers will provide insights into these unique ecosystems found no where else in the world. If nothing else, they should provide for some great field work for the next lucky botanist!

Acknowledgements

I am forever grateful to Keith Bruno, Hans Hallman, and Shannon Clery who slogged through the fens with me on 100° days in exchange for occasional ice cream and trips to the best swimming holes in Oregon. I am

indebted to Evan Frost for sharing his passion for fens with me and Richard Brock and Siskiyou Bio-Survey for financial and logistical support. For their dedication and excitement regarding this project and their commitment to using science-based stewardship, I thank Cecile Shohet, formerly of the Siskiyou National Forest, and Sydney Caruthers and Lisa Hoover of the Six Rivers National Forest. Many thanks to my teammates at the Field Naturalist Program at the University of Vermont, and to my advisor, Dr. Alison Brody. Special thanks to the Siskiyou Chapter of NPSO for their generous support of my research through an NPSO Field Research Grant.

References

- Atzet, T. and D.L. Wheeler. 1982. Historical and ecological perspectives on fire activity in the Klamath Geological Province of the Rogue River and Siskiyou National Forests. USDA Forest Service, Pacific Northwest Region, *Publication R6-Range-102*. Portland, OR.
- Coleman, R.G. and A.R. Kruckeberg. 1999. Geology and plant life of the Klamath-Siskiyou mountain range. *Natural Areas Journal*. (19)4: 320-340.
- Frost, E.J., R.J. Sweeney, W.L. Bigg. 2004. Distribution and environmental/ habitat relations of five endemic plants associated with serpentine fens in southwestern Oregon and northwestern California. *Report to the Six Rivers and Siskiyou National Forests*.
- Martin R.E. and D.B. Sapsis. 1991. Fires as Agent of Biodiversity: Pyrodiversity promotes biodiversity. *Proceedings of the Symposium on Biodiversity in Northwestern California*, October 28-30, 1991, Santa Rosa, California.
- Odion, D.C., E.F. Frost, J.R. Strittholt, H. Jiang, D.A. DellaSala, and M.A. Moritz. 2004. Patterns of fire severity and forest conditions in the western Klamath Mountains, California, U.S.A. *Conservation Biology* 18(4): 927-936.



JEN CRAMER

Darlingtonia californica, Pitcher Plant, blooming in Days Gulch 2, a burned fen. Note the backdrop of the burned uplands.

Jean Davis Scholarship Award Winner Announced

Congratulations to Roxanne Nanninga! I am pleased to announce that she has been chosen to receive the Jean Davis Memorial Scholarship Award for 2005. At the beginning of the Fall Term, a check for \$1,000 will be sent to the college of her choice, to be applied toward her tuition expenses.

Roxanne was chosen on the basis of her heartfelt essay, her eagerness to learn, and her interest in plant research. She received high praise from her references ("wonderful artist, enthusiastic, mature"), and we agree that she is highly deserving of this recognition and support.

We hope this award helps Roxanne to achieve her goal of a career in botany. We encourage her to continue this pursuit and wish her every success along the way.

Jean Davis Memorial Scholarship Fund Committee:

Thomas Jenkins, Willamette Valley Chapter
Kelli Van Norman, NPSO President
John Savage, Willamette Valley Chapter
Karl Anderson, Willamette Valley Chapter

Bulletin Mailing Coordinator Needed

Our present mailing coordinator, Mike Hartman, has served well in this position ever since the *Bulletin* printing moved to Eugene in 2000. Mike wears many other volunteer hats for NPSO including webmaster so we need to find a volunteer to take over this position. We are looking for someone who lives in the Eugene-Springfield area and is willing to put in one day a month (during the next-to-last week of each month) organizing the mailing of the *Bulletin*. To find out more information about the position contact Mike Hartman at 541-485-5202 or webmaster@NPSOOregon.org.

NEW MEMBERS

10/16/2004 – 1/9/2005

Cheahmill

Jeanine Ishii
George Ogilvie
Tara Stark

Corvallis

Rudolf Becking
Jessi Brunson
Melanie Gisler
Elizabeth Martin
Karin Rohland
Janet Throop

Emerald

Harmony Heartsun
McKenzie High Native Plant Project
Jim Reed
Eleanor Ryan
Lowell A. Thomas

High Desert

John & Maria Britton
Christian Haaning
Delores Rash

Members At Large

Les Helgeson

Mid-Columbia

Nancy Allen
David Tobias

North Coast

Belinda Kruger

Portland

Claire Carder
Janet Dorow
Pamela Glanz
Kimberly Kadas
John D. Long
Lynn McBurney
Therese Mitchell
Otha Terry

Siskiyou

Carol Ferguson
William & Nancy Hunt
Aaron Jensen
Mary Beth Lee
Matthew Lee

Umpqua Valley

Martha Beard

Willamette

Mark & Jolly Krautmann

Wm. Cusick

Ed Bayly
Kata Bulinski
Clair Button
Julie Gibson

Call For Papers

by Cindy Roché, *Kalmiopsis* editor

The new issue of *Kalmiopsis* has been published, which means that the editor is looking for articles for next year. All materials submitted should pertain to Oregon's native vegetation and flora. *Kalmiopsis* publishes two series articles: Plant of the Year, and Oregon Plants, Oregon Places, as well as articles about historical botanists and other features related to native plants or plant communities in Oregon. Please refer to previous issues of *Kalmiopsis* for length and content of articles; maximum length is 5,000 words. I would like to extend a particular invitation to authors writing about parts of Oregon not recently covered in *Kalmiopsis*.

Also, if you would like to be placed on a call list for writing book reviews or suggest titles for review, please contact the editor. Articles, artwork, and photographs submitted by October 1, 2005 receive priority for publication in *Kalmiopsis* in 2006. Contact the editor for a copy of "Instructions to Authors":

Cindy Roché
109 Meadow View Drive
Phoenix, OR 97535
crupinaqueen@charter.net

NATIVE PLANT SOCIETY OF OREGON MEMBERSHIP FORM

Name _____
 Address _____
 City _____ State _____ Zip+4 _____
 Phone _____ E-Mail _____
 Chapter (if known) _____

Is this a change of address? If so, please write your old address here:

Address _____
 City _____ State _____ Zip+4 _____

Please make checks for dues and contributions payable to:
 NATIVE PLANT SOCIETY OF OREGON

Send completed form and full remittance to:
 Clayton Gautier, NPSO Membership Chair
 3927 Shasta View St.
 Eugene, OR 97405-4442

DUES include monthly *Bulletin* and yearly *Kalmiopsis*.

Membership is for the calendar year. New memberships enrolled after July 1 include the following year.

- ☐ New ☐ Renewal
☐ Student – \$12 ☐ Regular – \$18 ☐ Family – \$24
☐ Sustaining – \$50 ☐ Patron – \$100 ☐ Life Membership – \$500
☐ Subscription Only (*Bulletin* and *Kalmiopsis*) – \$18 *Only for those who wish to subscribe, but do not want to have full membership status.*

CONTRIBUTIONS to NPSO are tax deductible.

Jean Davis Memorial Scholarship Fund \$ _____
 Leighton Ho Memorial Field Botany Award Fund \$ _____
 Rare and Endangered Plant Fund \$ _____
 Friends of the Oregon Flora Project \$ _____

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

Membership applications, renewals and change of address (include old address) should be sent to the Membership Chair.

OFFICERS & COMMITTEE CHAIRS

STATE OFFICERS

DIRECTORS (to 6/2005) Dan Luoma, Michael McKeag, Charlene Simpson (to 6/2006) Jennifer Hutchinson, Larry Scofield, Laura White
 PRESIDENT Kelli Van Norman president@NPSOoregon.org, 503-236-8787
 IMMEDIATE PAST PRESIDENT Bruce Newhouse 2525 Potter, Eugene, OR 97405; 541-343-23640
 VICE PRESIDENT Rhoda Love 393 Fulvue Drive, Eugene, OR 97405-2706; 541-345-6241
 SECRETARY Leslie Rossmell secretary@NPSOoregon.org, 503-288-8674
 TREASURER Candice Guth 1816 SE 34th Ave., Portland, OR 97214-5033; 503-235-0617

CHAPTER PRESIDENTS

BLUE MOUNTAIN (Pendleton) Jerry Baker P.O. Box 662, Athena, OR 97813; 541-566-2244
 CHEAHMILL Marilyn Karbonski P.O. Box 291, Carlton, OR 97111-0291; 503-852-7230
 CORVALLIS John Syring 2630 NE Seavy Circle, Corvallis, OR 97330-4236; 541-752-0414
 EMERALD (Eugene) Dave Predeek 3127 Kinsrow Ave. Apt. 71, Eugene, OR 97401-8071; 541-345-5531
 HIGH DESERT (Bend) Berta Youtie PO Box 606, Prineville, OR 97754; byoutie@crestviewcable.com; 541-447-8166
 KLAMATH BASIN Sarah Malaby smalaby@cs.com; 541-884-5703
 MID-COLUMBIA Jerry Igo P.O. Box 603, Mosier, OR 97040
 NORTH COAST Janet Stahl 9780 Whiskey Creek Rd., Tillamook, OR 97141; 503-842-8708
 PORTLAND Steve Roelof 1304 SE 36th Ave., Apt. 4, Portland, OR 97214-4281; po_president@NPSOoregon.org
 SISKIYOU Armand Rebischke funkied1@charter.net; 541-482-2141
 UMPQUA VALLEY (Roseburg) Ron Hatt 878 Bear Pen Lane, Myrtle Creek, OR 97457-9584; 541-863-7024
 WILLAMETTE VALLEY (Salem) John Savage 1645 Church St SE, Salem, OR 97302-2908; shirack@open.org; 503-399-8615
 WM CUSICK (La Grande) Frazier Nichol c/o Dick Kenton, 1805 U Ave., La Grande, OR 97850; 541-963-7870

STATE COMMITTEE CHAIRS

EDUCATION Position vacant
 CONSERVATION, EAST SIDE Position vacant
 CONSERVATION, WEST SIDE Darlene Southworth 866 Blaine St., Ashland, OR 97520; southworth@sou.edu; 541-261-3775
 LEGISLATIVE Les Helgeson greenhills@oregoncoast.com; 503-398-5965
 MEMBERSHIP Clayton Gautier 3927 Shasta View St, Eugene OR 97405-4442; membership@NPSOoregon.org
 BUDGETS AND GRANTS Dan Luoma 3740 NW Harrison, Corvallis, OR 97330; 541-752-8860

PUBLICATIONS

BULLETIN EDITOR Tanya Harvey bulletin@NPSOoregon.org; 541-937-1401
 KALMIOPSIS EDITOR Cindy Roché 109 Meadow View Dr., Phoenix, OR 97535, crupinaqueen@charter.net
 WEBMASTER Michael Hartman webmaster@NPSOoregon.org



Send change of address notices
and membership requests to:

Native Plant Society of Oregon
Clayton Gautier, Membership Chair
3927 Shasta View St.
Eugene, OR 97405-4442

NONPROFIT ORG
US POSTAGE
PAID
EUGENE OR
PERMIT NO. 204



a member of **Earth Share**
OF OREGON

TIME DATED MAIL

Wahoo! *Euonymus* Rediscovered During Native Plant Appreciation Week

by Dave Predeek and Rhoda Love, Emerald Chapter

Seven was our lucky number in May when, on the seventh of that month, seven of us set off down Kentucky Creek in the Coast Range to attempt to relocate *Euonymus occidentalis*, Western wahoo, an elusive shrub in the family Celastraceae.

Our trail led downstream through old growth hemlock passing some of the area's prettiest waterfalls. We knew the opposite-leaved wahoo had been spotted near the lower falls many years ago, but had not seen it since. The day was cloudy but the rain held off. Within sight and sound of the magnificent lower falls, one of us noticed some like-ly leaves beside the trail. Some said no, it should be a tall shrub. Others insist-

ed the leaves and buds matched the description. In the end, the doubters were convinced and a small snippet was taken for the herbarium.

Euonymus is known from only a single site in Lane County. The Kentucky Falls population was discovered many years ago by Emerald Chapter folks, however these plants grow over the divide in the Smith River drainage of Douglas County. Now that Emerald Chappers know what to look for, maybe we will find it in forests a few miles further north—perhaps along the Siuslaw. At any rate let's give a big "wahoo" to Native Plant Appreciation Week and the intrepid seven!



DORANAY KEASBEY

Euonymus occidentalis (Western wahoo) as
relocated at Kentucky Falls May 7, 2005,
on an Emerald Chapter field trip.