

# Highlights of NPSO State Board Meeting, April 16 in Salem

by Leslie Rossmell, Secretary

Thanks to the Willamette Chapter for graciously hosting the NPSO Board meeting. We were warmly accommodated and were excited to meet several chapter members and Chapter President, John Savage. The April meeting brought news of many important changes and many people to thank.

#### What's new

**Bulletin** event submission tool. We would like to find a volunteer to develop an online tool for the NPSO website to submit *Bulletin* event information. Collecting and editing text for event notices requires a significant amount of Editor Tanya Harvey's time. Automating this key task will assist everyone.

Sidalcea hendersonii Ad-hoc Committee forms. Rhoda Love is continuing her efforts to list Sidalcea hendersonii (SIHENs) as endangered in Oregon. The Oregon Department of Agriculture (ODA) recently rejected NPSO's SIHENs petition. An Ad-hoc committee will work on this important project. Please contact Rhoda if interested in participating.

Volunteer positions filled. Jenifer Hutchison has volunteered to serve one year as our EarthShare of Oregon (ESOR) Representative. Norm Jensen is our new listserve coordinator (see the website to sign up for free). Many thanks for years of service from retiring Shane Latimer, ESOR Chair, and Mike McKeag, listserve coordinator.

**NPSO Grant Awards.** At the April meeting each year, the Board finalizes

the grant application decisions. Through membership funds, NPSO supports basic field research on Oregon native plants and promotes native plant conservation. This year NPSO awards will support five research projects from surveying Hawks Mountain area flora in Harney county to studying herbivory threats and pollination needs of *Astragalus peckii* (Fabaceae) (see p. 61).

Giving thanks. The Oregon Flora Project completed its 10th Anniversary Challenge Drive January 31. Contributions of \$39,597 and matching funds of \$26,000 raised \$65,597. Over \$7,000 was donated in memory of Scott Sundberg. Thank you members! NPSO Board thanks Matt Blakely-Smith for organizing the first Native Plant Awareness Week. Matt also crafted the NPSO proclamation that was signed by Governor Kulongoski. Over 20 events were planned across the state and posted on the website. Jerry Igo, long-time Education Chair, is stepping down. Jerry has provided stimulating talks on NPSO's behalf. His inspiration and captivating presentations will be greatly missed. Darlene Southworth, Westside Conservation Chair, continues her diligent work researching conservation concerns and writing letters on behalf of NPSO. Her critical thinking and thoughtful letters greatly advance NPSO's conservation mission. Jan Dobak produced our latest Membership Directory and mailed it out. Thank you! NPSO benefits from the considerable efforts of so many volunteers.

#### Other news

Clay Gautier, Membership Chair, reports membership is down slightly, apparently due to fewer new members. Increasing membership is critical for us. Chapters are encouraged to handout membership pamphlets at all events and cultivate new members at every opportunity. Membership is tax deductible and supports conservation, education and research projects. John Christy, author of the upcoming Occasional Paper #3, presented progress and plans for the paper. Focus has shifted to include both Martin Gorman and JC Nelson's work around the Portland area. A draft is anticipated in June. Les continued on page 63

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# 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 npso

## **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**

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## Bulletin of the Native Plant Society of Oregon

Editor: Tanya Harvey

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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.

## Seeking New NPSO Webmaster

The NPSO webmaster position **L** 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.

# Bulletin Mailing Coordinator Needed

ur 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-tolast 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@NPSOregon.org.



ANYA HARVEY

# State

### June 24-26, Friday-Sunday

**Annual Meeting:** The Umpqua Valley chapter will host the Annual Meeting at the Phoenix School on Diamond Lake Blvd. in Roseburg. More information and registration materials were included in March issue of the *Bulletin*.

# **Blue Mountain**

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

# Cheahmill

June 11, Saturday, 10 am – 12 pm Field Trip: Gahr Farm Reserve. Walk the wetlands at the Gahr Farm Reserve near McMinnville. The 350-acre Farm has been converted to a native plant and wildlife reserve. You'll see a recovery site for the endangered Nelson's Checkermallow along with a wide variety of wetland prairie and pond plants. A checkermallow propagation method will be demonstrated. Attendees are welcome to bring a lunch to eat after the field trip and then enjoy the native plants in the adjacent forest habitat. For directions and more information visit www.oregon-nativeplants.com. Follow links to Gahr Farm website.

# Corvallis

## June 5, Sunday 10:00 am

**Field Trip: Mary's Peak.** Join the tremendous trio of Esther McEvoy, Phil Hayes, and Bob Frankel who will lead us to plant enlightenment atop our favorite local peak. This will be a moderately difficult half-day hike. Bring good boots, lunch, and plenty of water. Meet at 10 am at the OSU parking lot SW of The Beanery, 26th and Monroe, Corvallis. For more information contact John Syring at 541-752-0414.

## June 13, Monday, 7:30 pm

Meeting: Wolf's Evening-primrose. Rebecca Currin, a graduate student of Bob Meinke's, will be speaking about the conservation biology of *Oenothera wolfii* (Onagraceae). This will be our last meeting before summer recess. Avery House, Avery Park, Corvallis. For more information contact John Syring at 541-752-0414.

July 9, Saturday, 8 am Field Trip: Iron Mountain. Last year we recorded over 200 species of vascular plants along this botanically-rich

## 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. 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

### June 2, Thursday, 9 am

Field Trip: McGowan Meadow in the Coburg Hills is at 2000' elevation and is surrounded on 3 sides by old-growth Douglas-fir. In early June it has a colorful flower display including Oregon geranium and Wyethia. A BLM botanist will join us. Meet 9 am at Campbell Senior Center near the Ferry St. Bridge. Call Dave at 541-345-5531.

# June 11, Saturday, 8 am

Field Trip: Quaking Aspen Swamp. David McClurg will lead us to Quaking Aspen Swamp in the Three Sisters Wilderness. In addition to the aspen trees there are many unusual wetland species including 2 kinds of sundew. Wear boots and be prepared to walk up to 4 miles. This is a full day trip. Bring lunch and water. Limit of 12. RSVP. For more info call David at 541-746-9478.

### July 9, Saturday, 8 am 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. Return to Eugene by 4 pm. 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 feet to enjoy

the wildflowers. Round trip is 6 miles

with an elevation gain of 700 feet. Meet 8 am at South Eugene High School or 9 am at the Middle Fork Ranger Station. Attendance limited to 12. RSVP. 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 and a large rock outcrop. Bring lunch and water. Walk about 2 miles. Full day trip. For more info call David at 541-746-9478.

# **High Desert**

### June 4, Saturday, 8:30 am

Field Trip: The Island. The Island Research Natural Area is a remnant example of our native grasslands. Much of the local high desert probably looked like this before grazing, farming, and urbanization took over. Unfortunately, even in this barely-grazed area, exotic weeds are a problem. NPSO will assist the BLM in removing weedy medusahead grass from several small infested areas. This is a unique opportunity to visit the area since the Island RNA is closed to casual hiking. The trail up is steep and requires handholds to climb. Best for experienced hikers. We may see rattlesnakes so long pants and boots are encouraged. Meet at main parking lot on the east side of Pilot Butte State Park off of Hwy 20 (Greenwood St.) in Bend. For more information call Stu Garrett at 541-389-6981 eves.

## June 9, Thursday, 12:30 pm

Field Trip: Pine Ridge, Crooked River National Grasslands. Pine Ridge is a volcanic ridge near Grays Butte that is in unusually good ecological condition and supports a variety of spring wildflowers. We will visit an interesting livestock/elk exclosure at the base of the butte. It has spectacular views on a clear day. Moderate hiking of 4 miles total with under 1000 ft elevation gain, but the side of the butte is fairly steep. We'll depart from the north end of the main parking lot on the east side of Pilot Butte State Park off of Hwy 20 (Greenwood St.) in Bend at 12:30 pm. (Note new time!) Call trip leader Stu Garrett for details: 541-389-6981 eves.

### June 15, Wednesday, 6:30 pm

Work Party: The River Trail—Experience an Exotic Evening! The River Trail is a special natural feature in Bend. Unfortunately, in the last 10 years spotted knapweed, toadflax, cheatgrass, sweet clover, and mullein

# Friends of the Oregon Flora Project



www.oregonflora.org

Your support of the Friends of the Oregon Flora Project will ensure that progress continues towards a new flora, photo gallery, and atlas for the plants of Oregon.

Friends of the Oregon Flora Project P.O. Box 402 Corvallis, OR 97339-0402

Please make checks payable to NPSO, attn: Oregon Flora Project

have begun to replace native plants along the trail. In cooperation with the Bend Parks District, Brooks Resources, and The Athletic Club of Bend, the NPSO will be pulling these exotic weeds to stop this invasion in its early stages. Bring gloves, wear sturdy footwear, and meet at the Athletic Club of Bend parking lot at 6:30 pm for an hour of weed pulling! Call Stu Garrett, trip leader, for more information: 541-389-6981 eves.

## 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 signup: 541-317-0199 (days), 317-1901 (evenings).

August 20, Saturday, 8:30 am Field Trip: Broken Top Volcano. This is our annual trek to view the spectacular glaciated scenery and alpine wildflowers in the High Cascades west of Bend. This is a six-mile round-trip, moderate-to-strenuous hike with a 1,700 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 for sign-up: eves 541-389-6981 The sooner the better!!

# Klamath Basin

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

# **Mid-Columbia**

June 1, Wednesday, 7:30 pm Meeting: High Country Plant Identification with Collected Specimens. Learn to identify trees, shrubs and forbs which grow from 4000' to 6000' using simplified keys, Hitchcock key and electronic keys. *The Dalles Chronicle*, Meeting Room 317, E. 3rd Street, The Dalles.

July 6, Wednesday, 6 pm (early time) Meeting: Potluck Dinner at the home of Afton Foote, 616 E. Scenic Drive, The Dalles.

# **North Coast**

For information on the North Coast Chapter, contact Janet Stahl at 503-842-8708 or jjs@oregoncoast.com.

# Portland

June 5, Sunday, 8:30 am Field Trip: The Discovery Center, Tom McCall Preserve and more.

Meet at the Columbia Gorge Discovery Center at 10 am and see a native plant restoration project there, with Blanket flower, Cutleaf penstemon, Hairy goldaster, and many others. Then stop at the Tom McCall Preserve to look for Mountain hollyhock and check the pond, and the Memaloose Area to check a wetland and see what is blooming. After lunch at the Wildflower Cafe in Mosier, we'll head for Catherine Creek to find harvest brodiaea and meadow larkspur. Take I-84 to first exit for The Dalles, and follow signs to Columbia Gorge Discovery Center. Leave at 8:30 am from Gateway/NE 99th Ave., Park and Ride, SE corner of parking lot. For more info call Barbara Robinson, 541-296-5334.

## June 9, Thursday, 7 pm

**Meeting: Member Slide Show!** Do you have some good pictures of plants and botanical forays that you have taken over the past year (or so)? Come join us at our monthly meeting and share these pictures with other plant enthusiasts! A slide projector and computer projector will be available at the meeting, so that everyone can join in the fun! Bring your pictures as either slides or electronic files (CD or thumbdrive). Location: Fireside Room, First United Methodist Church, 1938 SW Jefferson St., Portland. Located just uphill from the Goose Hollow MAX stop.

### June 12, Sunday, 8 am

Field Trip: Grassy Knoll. Forest, rocky outcrops, the bald summit of Grassy Knoll, and scree slopes—plenty of botanical diversity and great views. Leave at 8 am, Gateway/NE 99th Ave Park and Ride,southeast corner of parking lot. 130 miles round-trip drive (20 miles on gravel); 6 to 7 miles of hiking with 1000 feet of elevation gain. USFS parking permit required. Call Jan and Dave Dobak at 503-248-9242 for more info.

### June 18, Saturday, 9 am

Field Trip: Santiam Wilderness Proposal, Hike &/or Campout (June 17-19): Iron Mountain & Echo Basin Wildflower Workshop. Learn from naturalist Wendell Wood how to identify more than 100 wildflowers in this botanically-rich area. Then explore rare groves of old-growth Alaska yellow cedar at Echo Basin. Plant list provided. Camping is recommended, participants should arrive on Friday, June 17 to camp before hike next morning. Slow 3 miles, moderate, 2000 ft elevation gain. Leave at 9 am Sevenmile Group campground off S. Santiam Hwy. 20. On Sunday 4.5 mile hike. Sponsored by ONRC. RSVP to Jeremy Hall 541-344-0675, jh@onrc.org. See other ONRC's Wilderness Week hikes (June 18-26) at www.onrc.org.

#### June 21, Tuesday, 8:30am Field Trip: Lewis & Clark Mt. Hood Wilderness Proposal, Bald

**Mountain**. Join ONRC naturalist Wendell Wood for an amazing hike to a wildflower-covered meadow, oldgrowth forests and subalpine rocky outcrops as you traverse the Pacific Crest Trail to a scenic overlook of Mount Hood. Plant list provided. 4-5 miles. Slow, moderate, 1900 ft elev. gain. Leave at 8:30 am Wild Oats parking lot, 2825 E Burnside, Portland. Sponsored by ONRC. RSVP to Nanci Champlin 503-283-6343x203, nc@onrc.org.

# Siskiyou

June 4, Saturday, 9 am Field Trip: Grizzly Peak (Dead Indian Memorial Rd, east of Ashland). Early spring flowers—Klamath fawn lily, Yellow bells, small Lewisias, Lomatiums. Easy-to-moderate 5-mile round-trip hike, 600-ft elevation gain (5300-5900 ft). Meet behind Pizza Hut on Ashland St, just west of the Ashland BiMart/Shop 'n Kart parking lot, about 1/4 mile west of I-5, exit 14. Leader: Jim Duncan, 541-482-7629

June 11, Saturday, 9 am Field Trip: Pilot Rock Trailhead to Porcupine Gap (Cascade-Siskiyou National Monument). We'll hike east along the Pacific Crest Trail through conifer forest and natural rock gardens. There should be lots of plants in bloom, including Phantom orchids. Moderate 4-mile hike. Meet behind Pizza Hut on Ashland St, just west of the Ashland BiMart/Shop 'n Kart parking lot, about 1/4 mile west of I-5, exit 14. Leader: Wayne Rolle, 541-858-2274.

## June 18, Saturday, 9 am

Field Trip: Agness to Bear Camp Area. We'll walk about .5 mile down to Bear Camp Pasture, a wet meadow, to see Bensoniella, several species of Ribes, Penstemon and Sedum. Meet 9 am at US Forest Service Ranger Station, 29279 Ellensburg Ave, Gold Beach; alternative: drive up from Galice side and meet Gold Beach contingent at junction of Burnt Ridge Road 2308 and Bear Camp Road 23 between 11 and 11:30 am (regular route is closed due to a slide-you'll need to use detour). From the Rogue Valley on Hwy 199, there is camping along the Rogue River at Huntley Park, about 8 miles up the Rogue River from Gold Beach (541-247-9377), at Quosatana Campground about 14 miles up the Rogue, and at Oak Flat on the Illinois River 3 miles off Agness Road. Leaders: Veva Stansell, 541-247-7153, and Jennifer Hutchinson, 541-247-3654.

### June 25, Saturday, 9 am Field Trip: Fiddler Mountain (Illi-

nois Valley). Expect to see rare, common, and just plain beautiful blooms on this trip, including Scarlet monkeyflower, Bronze bells, Bolander's lily, Siskiyou lewisia, Piggy-back plant, and a mysterious masked Lomatium! Mostly driving, with short walks. (If logging is occurring around Fiddler Mountain, we will go to another site in the Illinois Valley area.) Bring lunch, water, sun block, and insect repellent. Meet right (south) side of Selma Market parking lot in Selma, 20 miles south of Grants Pass on Hwy 199. Leader: Norm Jensen, 541-951-4420 or normjensen@gmail.com.

### 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 Siskiyous. 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.

# **Umpqua Valley**

## June 4, Saturday, 8:30 am

Field Trip: Lake of the Woods to see orchid species as well as a number of non-chlorophyll plants. Meet at the Douglas County Courthouse parking lot, 1036 SE Douglas Ave., Roseburg. For more information call Ron Hatt at 541-863-7024.

## June 9, Thursday, 7:00 pm

Meeting: Forest Ecology. Ken Carloni is a biology professor at Umpqua Community College who teaches botany and is a forest ecologist. He will give a presentation on the history of fire in the Umpqua Valley and shed light on the natural succession in wilderness



Quaking Aspen Swamp is hidden in the mountains east of Cougar Reservoir in Lane County. Elephant's head (Pedicularis groenlandica) and Marsh marigold (Caltha leptosepala) color the wet meadow in mid-June. For a field trip to this very special area, see Emerald Chapter items.

areas and the dynamics of wildland fires. Mercy Education Bldg., 2459 Stewart Parkway, Roseburg. For more info call Ron Hatt at 541-863-7024.

## June 11, Saturday, 8:30 am

Field Trip: Cedar Springs Mountain. Our last field trip was cancelled because of snow so we rescheduled the trip to find a northernmost range of the elusive *Lewisia leana* (quill-leaved lewisia). Meet at the Douglas County Courthouse parking lot, 1036 SE Douglas Ave., Roseburg at 8:30 am. For those living south of Roseburg, meet at the TriCity McDonalds at 9 am, Exit 103. For more information call Ron Hatt at 541-863-7024.

#### June 18, Saturday, 8:30 am Field Trip: Donegan Prairie to see the California globe mallow (*Illiamna lactibractata*), Umpqua swertia (*Frasera umpquaensis*), and tall bugbane (*Cimicifuga elata*) in grass-dominated meadows. Meet at the Douglas County Courthouse parking lot, 1036 SE Douglas Ave., Roseburg at 8:30 am or at the TriCity McDonalds, Exit 103 at 9 am. For more information call Ron Hatt at 541-863-7024.

## 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.

# Willamette Valley

June 4, Saturday, 7:30 am – 6 pm Field Trip: Dog Mountain Participants in this all-day hike, led by John Savage, will have fun identifying and viewing wildflowers on Dog Mountain located in the Columbia Gorge on the Washington side. This is a difficult hike, but the pace will be slow. Bring lunch and water. For more information or to register, please call 503-399-8615. Free and open to the public.

### June 12, Sunday, 8:30 am – 5 pm

Field Trip: Valley of the Giants. Located in the Coast Range mountains, the Valley of the Giants is an outstanding natural area comprised of 51 acres of ancient forest—a rare and special treat. Larry Scofield, retired Bureau of Land Management botanist, will lead the trip. Because the botanical features in this valley depict true old-growth forest flora and fauna, participants will get an idea of what Oregon looked like at the time of Lewis and Clark. The group will meet at the Safeway store (left main entrance) in Dallas and depart promptly at 9 am. For more information or to register, please call John Savage at 503-399-8615. Free and open to the public.

### June 16, Thursday, 7 pm

Meeting: Oregon Native Plants In the Heath family. Wilbur Bluhm, Professor Emeritus of the Oregon State University Extension Service and horticulture expert on Oregon native plant species, will show slides and discuss plants in the Ericaceae or heath family. Ericaceae is one of nature's most widespread and interesting plant families and includes manzanita, salal, rhododendron, laurel and huckleberry. Straub Environmental Learning Center, 1320 A Street NE in Salem (right next to Olinger Pool, near North Salem High School). The program is free and open to the public. For more information, contact Wilbur at 503-399-8615.

## June 18, Saturday, 9 am – 2:30 pm

Field Trip: Kingston Prairie Preserve. View wildflowers and collect seed. This 128-acre preserve, southeast of Stayton, is the best example of native plants remaining in the central Willamette Valley, with both wet and dry prairie habitats harboring native grasses and rare wildflowers. Bring water and lunch. For directions and more information, call John Savage at 503-399-8615.

# William Cusick

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

# NPSO Funds Research

#### by Dan Luoma, Budgets and Grants Committee Chair

The Field Research Grants Committee awarded a total of \$3543 in funds to five projects that promote better understanding and conservation of Oregon's flora. The research projects that will benefit from the support of the NPSO membership are summarized below.

#### 1) Flora of the Hawks Mountain area, Harney Co., Oregon. Holly Nielsen.

Under this proposal, Holly will conduct a vascular plant survey of a unique geographical/botanical area within the Hawks Mountain BLM Wilderness Study Area. Preliminary surveys found plant communities in excellent condition and at least 6 rare species inhabiting unusual eroded tuff/sand "hoodoos". This proposal is an exemplary fit to the intent of our Field Research Grants program.

# 2) Pollination, reproduction, and herbivory threats to *Astragalus peckii* (Fabaceae). Elizabeth Martin, Oregon State University.

Astragalus peckii is endemic to Oregon with about 30 populations known. The Oregon Department of Agriculture lists *A. peckii* as Threatened and the US Fish and Wildlife Service lists it as a Species of Concern. Elizabeth's research has three objectives: 1) describe the pollination biology of *A. peckii*, 2) conduct a preliminary assessment of the impact of a web-forming Lepidopteran species, and 3) expand on previous reproductive ecology work.

#### 3) Augmentation and reintroduction of populations of Henderson's Checkermallow (*Sidalcea hendersonii*) on administratively secure public lands. Melanie Gisler, Institute for Applied Ecology.

Melanie and others from the Institute of Applied Ecology will select plant communities on administratively secure lands that are suitable for reintroductions and will document out-plantings of *Sidalcea hendersonii* on the northern Oregon Coast. This proposal was chosen for the Leighton Ho Memorial Field Botany Award for a second year running. This brings a new aspect to the Leighton Ho Award, where the results of last year's research set the stage for the implementation of conservation action via the award this year.

#### 4) A Retrospective Study of Greene's Mariposa Lily (*Calochortus greenei*) and Livestock Grazing in the Cascade-Siskiyou National Monument – Phase III – Completion of Strategic Field Surveys. Evan Frost, Wildwood Consulting.

This work is the final phase of a study that NPSO has helped fund for two years in a cost-share with the World Wildlife Fund. Evan will provide results to the BLM for use in guiding protection efforts for *Calochortus greenei*.

# 5) The distribution of *Pinus albicaulis* in the Klamath-Siskiyou Region of Oregon. Michael Murray, Crater Lake National Park.

Michael will search for and document new locations of Whitebark pine in the Klamath-Siskiyou Region. Whitebark pine is in serious decline in much of its range due to blister-rust disease. Information generated during this survey will contribute to the development of conservation plans for this species.

# North Mountain Park Nature Center Events

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

#### Demonstration Garden Tours June 3, Friday; July 21, Thursday; Aug. 25, 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 or Native Plant Gardens. Step into the past in the Heirloom Garden and enjoy the fragrance of the Herb Gardens. Free.

#### A Wildlife Watcher's Landscape June 23, Thursday, 7 pm

Wildlife biologist and author Russell Link will be coming to Ashland to kickoff N MT Park's 2nd Annual Garden Tour, Saturday, June 25. Link is the author of two popular books: Landscaping for Wildlife in the Pacific Northwest and Living with Wildlife in the Pacific Northwest. He is an urban wildlife biologist with the Washington Department of Fish and Wildlife and he manages the state's Backyard Wildlife Sanctuary Program. For more information on Link's books visit http://www.washington.edu/uwpress/se arch/index.html. He will be available to sign purchased copies of his books; proceeds will benefit the N MT Park Nature Center. A slide show offering a preview of some of the gardens on tour this year will be shown. Ashland Community Center, 59 Winburn Way. Free.

### 2nd Annual "Naturescaping" Garden Tour

June 25, Saturday, 9 am – 1 pm Learn how to create wildlife-friendly habitat in your own back yard! Tour 6 fabulous gardens in the Ashland and Talent areas. Garden docents and light refreshments will be available at each garden. Tickets for the tour will go on sale on June 6 at the Nature Center, the Northwest Nature Shop in Ashland and Wild Birds Unlimited in Medford. \$10/ticket.

# NABA Eugene-Springfield Butterfly Counts

#### Eugene-Springfield June 26, Sunday, 9 am

The first of two annual butterfly counts sponsored by the Eugene-Springfield chapter of the North American Butterfly Association (NABA) will again be led by veteran count organizer Sharon Blick. Last year, three teams tallied a near-record 24 species of butterflies. The count takes in Mt. Pisgah, the West Eugene Wetlands, Spencer Butte and more. Meet at the Campbell Senior Center parking lot (155 High Street, Eugene) at 9 am. Pre-registration is required and there is a \$3 fee for participants. To pre-register, contact Sharon Blick at 541-683-4635 or blick@toast.net.

#### Bohemia Mountain & Fairview Peak July 9, Saturday, 9 am

We're excited to be offering our first field trip to the Bohemia Mountain area, one of Lane County's premier butterfly sites. 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. Meet at the Campbell Senior Center parking lot (155 High Street, Eugene) at 9 am. Space is limited to 15 people. Pre-registration is required. To pre-register, contact Neil at 541-344-2053 or neilb@efn.org.

## Berry Botanic Garden Events

Portland's Berry Botanic Garden has a number of native plant-oriented events. To register or to get more information on these and other events at the garden call Kris at 503-636-4112x22 or visit their website at http://www.berrybot.org.

#### Ramona Falls Hike June 9, Thursday, 9 am – 4 pm

"Like white lace," Ramona Falls "drapes across a stair-stepped cliff of columnar basalt," writes William Sullivan in his hiking guide. Geologist Dick Thoms will accompany us on this popular hike to give us insight into said columnar basalt and other features of Mt Hood. We'll enjoy a spectacular spot for our lunch, which will be preceded by a gentle climb through a lush forest and wildflower shows. The hike is a gentle climb, about 1000 feet, and will be done as a loop just over 7 miles in distance. Donations welcome!

#### Botanical Illustration: Watercolor and Pen and Ink June 25–26, Saturday–Sunday, 8:30 am–4:30 pm

Learn the basics of drawing plants from seasoned botanist, illustrator and teacher, Dr. Linda Ann Vorobik, who through demonstrations and lectures will introduce participants to drawing skills, parts of the plant, and what botanical illustration really is. The first morning begins with a lecture and demonstration followed by supervised sketching; the afternoon consists of lecture/demonstrations, sketching time and intro to watercolor. The second day will focus on the use of pen and ink and watercolor for finishing illustrations beyond the pencil sketch. The workshop will close with a friendly critique of drawings produced. All skill levels are welcome: accomplished artists can learn added botany skills and skilled botanists will learn to draw. \$125 (\$100 BBG Members).

# 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.

#### Weed Identification June 7, Tuesday, 7–8pm

Is that a weed? Or maybe an exotic flower? In a multi-media presentation, Stefan Bump teaches you to identify garden weeds and ways to control them. \$15.00/\$12.00 members.

# Mount Pisgah Arboretum Events

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

#### Singles Hike June 18, Saturday, 12:00–2:30 pm

Discover the less traveled areas of Mount Pisgah with Tom LoCascio, Arboretum site manager of 23 years, on on this hike to the southeast plateau and then on to the southwest part of the park. Bring water and a snack, and wear sturdy shoes for this vigorous hike. Suggested donation \$4.

## Highlights of State Board Meeting

continued from page 55

Helgeson, Legislative Chair, is working with several conservation groups to restore full funding to the Oregon Watershed Enhancement Board, which has had nearly \$25 million in M66 funds diverted from their budget. Measure 66 funds are earmarked specifically for Pacific Coast Salmon Recovery and have been diverted to other purposes due to state revenue shortages. Shortfalls severely limit OWEB's ability to fulfill important conservation efforts (which benefit Oregon's native plants). A legislative solution is being sought; however, in the event this effort fails, NPSO has agreed to participate in legal action to restore funding.

Next NPSO Board meeting: Sunday morning June 26 at the Roseburg Annual meeting. Please join us!

## Pressed Flowers

June 11, Saturday, 10:00 am – noon Would you like to preserve the flowers of spring to enjoy year around? Barbara Hamilton will teach you to gather, store, press and use your favorite blossoms and to build your own portable mini-flower press. \$20.00/\$17.00 members (includes materials).

## ONRC Wilderness Week

### June 18-26

Oregon Natural Resources Council (ONRC) Wilderness Week is an opportunity for people of all ages to explore Oregon's spectacular wildlands. There will be free guided hikes through unprotected wilderness areas around the state. This is a chance to enjoy these amazing places and learn something too. For complete event details and to RSVP visit www.oregonwild.org.

# **NPSO Items for Sale**

**Vascular Plants of Lane County, Oregon: An Annotated Checklist** by C. Simpson, J. Koenig, J. Lippert, R. Love, B. Newhouse, N. Otting, S. Sundberg, D. Wagner, and P. Warner. Emerald Chapter, NPSO. This new county checklist includes more than 1,740 species and varieties representing 39 percent of the 4,460 plants currently recognized by the Oregon Flora Project at Oregon State University. It also includes a color map of Lane County's five major ecoregions; and information about rare and endangered species, noxious weeds, and escaped cultivated plants. Information is included for every species on habitat, ecoregion, occurrence frequency, and native or non-native origin. To order, send **\$15** payable to Emerald Chapter, NPSO to Lane County Checklist, Emerald Chapter, NPSO, PO Box 902, Eugene, OR 97440-0902.

**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.** 

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

**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.

## The Da Vinci Code in the Garden

#### by Steven Bartlett

This article previously appeared in the Salem Hardy Plant Society newsletter, June 2004.

The best-selling novel *The Da Vinci Code* by Dan Brown has given new popular life to interest in the Fibonacci sequence. The novel's main character, Harvard professor Robert Langdon, found some of the numbers in the sequence scrawled mysteriously in a scrambled order on the floor of the Louvre. It turns out that there is something here to appeal even to non-gardeners like myself—if (can we never avoid it?) you do a little digging!

The Fibonacci sequence is named after Leonardo Pisano, who, being a member of the Bonacci family eight centuries ago, became known in the history of mathematics as the "son of Bonacci," i.e., "*filius Bonacci*," shortened to "Fibonacci". The Fibonacci sequence is given by the numbers 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, etc., where each number after the second 1 is the sum of the two previous numbers.

Botanists estimate that 90% of all plants exhibit patterns of petals, leaves, and seed heads that involve Fibonacci numbers. In fact, Fibonacci sequences occur throughout nature, from sea shells to the path a falcon takes when it spirals down on its prey. All of this is too much for coincidence, but it's been only in the last ten years that we've come to understand the rationale for nature's reliance on Fibonacci patterns.

Just consider: The number of petals on many plants is a Fibonacci number: irises and lilies (often with two sets) have 3 petals; buttercups, wild roses, larkspur, columbine have 5; some delphiniums 8; corn marigolds and ragwort 13; black-eyed Susan, chicory, and some asters 21; plantain and pyrethrum 34; while many daisies have 13, 21, 34, and in Michaelmas daisies, 55 and 89 petals. Some species are very exacting about the number of petals they produce; in others, the number of petals commonly varies around an average which is a Fibonacci number. The same pattern can be found in the arrangement of seeds on flower heads. *Echinacea purpurea* typically has 55 spirals that rotate outwards and clockwise; closer to the center, you can count 34 spirals. In sunflowers, you can see a beautiful pattern of double spirals: in many, you'll find 21 or 34 clockwise spirals and 34 or 55 counterclockwise. Pine cones often have 5 clockwise and 8 counterclockwise spirals. All these are exact Fibonacci numbers.

The same fruitful layout is found, to name just a few, in pineapples (8 clockwise spirals and 13 counterclockwise), bananas (count how many flats are on the outside, and look at the pattern when you cut a banana in crosssection), and apples cut through their equators.

Vegetables follow the same pattern, as in cauliflower, broccoli, Chinese leaves, and lettuce.

The same is true of the spirals of cacti spines, growth patterns of bromeliads, the California pine, and the Aroids (Araceae) family of plants that include the dieffenbachias, monsteras and philodendrons. If as many as 90% of plants exhibit Fibonacci numbers, the sampling listed here is just tiny, and so it is.

And then there is the pattern of leaves, which phyllotaxus studies. A huge number of plants express Fibonacci numbers in the arrangement of leaves around their stems. Looking down on a plant, the leaves are frequently arranged so that the upper leaves don't shade those below and so that they catch rain optimally. The Fibonacci numbers come to light when we count the number of times you must circle a stem before you find an upper leaf that directly overhangs a lower one, and in the process how many leaves you encounter as you revolve along the stem.

If t is the number of turns and l the number of leaves, here are ratios for some common trees and other plants (and bear in mind that all of these numbers are special Fibonacci numbers): 1:2 for elms, lindens, limes, and grasses; 1:3 for beech, hazel, blackberry, sedges, and hazel; 2:5 for oaks, cherries, apples, hollies, and plums; 3:8 for poplars, pears, plantains, and willow; 5:13 for pussy willow, leeks, and almonds; and here again this list could go on and on. Phyllotaxus based on Fibonacci numbers is not universal among plants, but it is extremely widespread.

So, why do petals, seed heads, fruit, vegetables, the spines of cacti, trees, and other leafed plants so often share Fibonacci patterns? The answer to this question has been asked for many centuries, but has been answered only recently. It has to do with the mathematics of maximally efficient growth. For plants to grow most efficiently, flower and seed heads and plant leaves grow in Fibonacci patterns. Seed heads, for example, grow their seeds in a way that packs the seeds with maximum efficiency, so that no matter how large a seed head becomes, the seeds are uniformly packed throughout the growth process, keeping all the seeds uniform in size, without crowding at the center and without sparsely spacing the seeds moving outward. The last step in understanding how Fibonacci ratios optimally solve the mathematician's growth equations came only recently, in 1993, thanks to the research of two French scientists, Stéphane Douady and Yves Couder. The Fibonacci sequence is, in other words, one of nature's discoveries of maximum efficiency.

Fortunately, we don't need to understand them technically to appreciate them: but Fibonacci sequences continue to be at the basis of patterns we have become so used to that a little math helps to spark a fresh sense of wonder. For some of us who like to dig in theory but not in dirt, this view of things can add to an appreciation of a garden's beauty.

For more about the mathematics of plants, see www.mcs.surrey.ac.uk/Personal/R.Knott/Fibonacci/fibnat.html#p lants; www.math.smith.edu/~phyllo/; and the June 2004 issue of *Discover*.

# NATIVE PLANT SOCIETY OF OREGON MEMBERSHIP FORM

Name	DUES include monthly <i>Bulletin</i> and yearly <i>Kalmiopsis</i> .
Address	Membership is for the calendar year. New memberships enrolled after July 1 include the following year.
City State Zip+4	New Renewal
Phone E-Mail	Student – \$12 Regular – \$18 Family – \$24
Chapter (if known)	□ Sustaining – \$50 □ Patron – \$100 □ Life Membership – \$500 □ Subscription Only ( <i>Bulletin</i> and <i>Kalmiopsis</i> ) – \$18 Only for those who
Is this a change of address? If so, please write your old address here:	wish to subscribe, but do not want to have full membership status.
Address	<b>CONTRIBUTIONS</b> to NPSO are tax deductible.
City State Zip+4	Jean Davis Memorial Scholarship Fund \$
	Leighton Ho Memorial Field Botany Award Fund \$\$
Please make checks for dues and contributions payable to:	Rare and Endangered Plant Fund \$\$
NATIVE PLANT SOCIETY OF OREGON	Friends of the Oregon Flora Project \$\$
Send completed form and full remittance to:	
Clayton Gautier, NPSO Membership Chair	Membership in the Native Plant Society of Oregon is open to all.
3927 Shasta View St.	Membership applications, renewals and change of address (include old
Eugene, OR 97405-4442	address) should be sent to the Membership Chair.

# **OFFICERS & COMMITTEE CHAIRS**

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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

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## TIME DATED MAIL

## Annual Meeting Coming Right Up June 24-26 in Roseburg!

This year's NPSO annual meeting will take place in Roseburg and will be hosted by the Umpqua Valley Chapter. Information on lodging, hikes and registration were included in the March *Bulletin*. If you haven't registered yet, do it now! This is the first time the Umpqua Valley Chapter has hosted the state annual meeting and they are eager to show other NPSO members the special and varied floral communities in Douglas County.

On Friday, June 24 at 2 pm, those interested may assemble at the North Bank Habitat Management Area on the North Umpqua River for a guided tour. This area was set aside as habitat for the Columbia white-tailed deer, a threatened species. The flora and fauna of this oak savannah will be discussed as well as what BLM is doing with the area. This is an easy walk. To see a panorama view of the North Umpqua River and its horseshoe bend, some medium to difficult climbing is involved. From I-5 take exit 135 and proceed south of Highway 99 to Wilbur. Turn east on the North Bank Road #200 and proceed about 9 miles to the North Bank Management area parking lot identified by a portapotty.

Registration on Friday and all programs and field trips as well as the banquet on Saturday, will be held at the Phoenix School. The school is located at 3131 NE Diamond Lake Blvd. (Hwy. 138) in Roseburg. Take exit 124 from I-5. Go east on Harvard Ave. across the Oak Avenue bridge, turn left on Stephens St. and right on Diamond Lake Blvd., go 1-3/4 miles to Phoenix School on the right. The school will be available at 4 pm for those who are setting up displays or items for sale. Registration begins at 5 pm with appetizers and program at 6 pm. Sam Friedman will show slides and preview plant communities of Saturday's field trips and Richard Sommer will show slides and preview plant communities of the coast, from Cape Blanco to the redwoods.

Saturday field trips will begin at 8:30 am. Coffee and doughnuts will be available at the school and box lunches can be picked up around 8 am. Saturday's banquet will begin at 7 pm. Business meeting and program follow dinner. Sunday morning there will be a state board meeting and optional field trips.