

Bulletin

of the

Native Plant Society of Oregon

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

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OCTOBER 2017

Are Herbaria Still Relevant in the 21st Century?

by Walter Fertig

The following was originally published as a longer article in Sego Lily 39:1 (Winter 2016), the newsletter of the Utah Native Plant Society. To read the full original article, visit unps.org/segolily/Sego2016JanMar.pdf. The adapted version here was published in Castilleja, the newsletter of the Wyoming Native Plant Society 35:3 (October 2016).

If herbaria are to survive, those of us who care about them need to do a better job of demonstrating their value to society. Herbaria are increasingly relevant in the fields of ecology, biogeography, and conservation biology, on top of important conventional taxonomic research. Specimens are also valuable for building public appreciation of plants and of botany in general. Rather than hiding our specimens behind cabinet doors, we need to make them more accessible, especially digitally.

In the past, users of specimen data had to either visit herbaria in person or arrange to borrow material. With the advent of digital databases, herbarium records are now readily available around the clock and from any home, office, or mobile device that has internet access (even in the field). Online databases include standard label information

(species name, collector, date, locality, habitat) and often have maps of collection sites and digital images of the actual specimen. These data can be queried in numerous ways to create local or rangewide distribution maps or customized species lists, e.g., at the Rocky Mountain Herbarium (RM) search page (<http://rmh.uwyo.edu/data/search.php>). Individual herbaria are increasingly pooling their digital data into regional and national networks, such as SEINet (Southwest Environmental Information Network), the Consortium of Inter-mountain Herbaria, or the Consortium of Pacific Northwest Herbaria, allowing users to access millions of records with ease. Other digital products, such as image libraries and links to original botanical literature, are greatly increasing the utility and scope of herbarium information.

Brick-and-mortar herbaria (and the professional staff needed to maintain them) are still vital for plant identification services. Potential clients range from farmers and ranchers, government biologists, and industry consultants to home gardeners, amateur naturalists, and school children: essentially anyone who might need assistance identifying mystery plants. Sometimes herbarium

staff are asked to provide expertise on plant fragments rather than whole specimens. Such "forensic botany" can help archeologists interpret prehistoric sites, paleoecologists infer past climates, and law enforcement officers solve crimes.

Herbaria can also be thought of as vast genetic libraries. Rather than having to travel around the world to gather samples, researchers have millions of collections at their disposal, already identified to species and with collection dates and localities provided. In the case of extinct or protected species, herbarium specimens may be the only material available for study. Older specimens can offer a window into changes in genetic structure in populations and evidence of ongoing evolution.

There have been challenges in utilizing herbarium collections in molecular research. Initially researchers had difficulty extracting sufficient quantities of DNA from old collections. DNA

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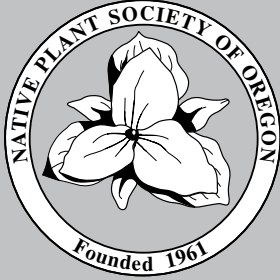
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Mark Your Calendars!

NPSO Annual Meeting 2018

**Please Note the New Date:
June 1–3, Friday–Sunday**

Co-hosted by the Portland and High Desert Chapters in Prineville.



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 and Membership Inquiries

P.O. Box 902
Eugene, OR 97440

Send Membership inquiries Attn: Margaret Conover, Membership Chair

To correspond directly with Officers and Committee Chairs, see the list on the inside of the back page.

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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 and the Dec/Jan issue which is November 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.

New Membership Chair

Please welcome Margaret Conover, our new membership chair. Here is an introduction in her own words:

I've relocated to Eugene from Stony Brook, New York where I was a founder and still serve as newsletter editor of the Long Island Botanical Society, libotanical.org.

I'm retired, having taught botany at the New York Botanical Garden while serving as a science museum director for most of my career. My degree from University of Massachusetts Amherst was on the developmental morphology of reticulate-veined Liliiflorae. I'm currently interested in the ethnobotany of chia seeds and in the role of "plant blindness" in the history of botany education. I'm trying to learn the Oregon flora but have been stumped by all the so-called "cedars." I blog at www.chiativity.org.

Please note the Post Office Box for membership communications and payments is changing. All membership inquiries and payments should be sent to the general business address:

**Native Plant Society of Oregon
Attn: Margaret Conover, Membership Chair
P.O. Box 902
Eugene, OR 97440**

The email for the membership chair will remain the same: membership@npsoregon.org.

Many thanks to Matt Morales, who has served as membership chair for the past several years.

Take Your Best Shot: 2018 Native Plant Appreciation Week Poster Contest

Summer's over. . .but remember all those great photos you took of native plants in Oregon this spring and summer? Now that you're probably spending more time indoors, you could take this opportunity to select the best of your photos and submit them for the Native Plant Appreciation Week Poster Contest. Entries must be submitted online on the NPSO Photo Gallery (<http://npsoregon.org/photos/main.php>) in the album titled "2018 NPAW Photo Contest." Each person may enter two photos of Oregon native plants (photographed in Oregon with photographer name, species or other description, family, common name, location, and date). All entries must be received by December 15, 2017. Photos will be rated on subject matter, composition, and technical excellence. Complete details can be found at: <http://npsoregon.org/photocontest.html>. If you have any questions, please email Judi Sanders, judi.sanders@gmail.com.

Coast Fork Willamette Knotweed Treatment

Help protect the Coast Fork Willamette Watershed from a noxious weed. Japanese knotweed is an invasive plant species that is widespread throughout the Willamette Valley. It grows vigorously and creates dense colonies that exclude and reduce native vegetation. The Coast Fork Willamette Watershed Council (CFWWC) is working towards surveying and treating knotweed. Do not attempt to dig, cut, pull, or mow this plant because these practices will encourage denser new growth. If you are in the Eugene/Cottage Grove area and would like information on treatment or want to report where a patch is located, contact Reilly Newman at the CFWWC, 541-767-9717 or reilly@coastfork.org.

Sightings outside of the CFWWC area can be reported to the Oregon

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NPSO CALENDAR

State Notes

NPSO State Board Meeting

October 14, Saturday, 10 am-2 pm

The next State Board meeting will be hosted by the Mid-Columbia Chapter at the Hood River Library.

NPSO Annual Meeting 2018

June 1-3, Friday-Sunday

The next Annual Meeting will be co-hosted by the Portland and High Desert Chapters June 1-3, Friday-Sunday, in Prineville.

Blue Mountain

For information on Blue Mountain Chapter call Jerry Baker, 541-566-2244. To get on our email list, contact flora.id@wtechlink.us.

Cheahmill

For questions, or to be added to the Cheahmill Chapter's email list for reminders of upcoming programs and events, please contact the Cheahmill Chapter President at ch_president@NPSOoregon.org.

Meeting and work party location:

Carnegie Room, McMinnville Public Library, 225 NW Adams St. (corner of Highway 99W and SW Second St.), McMinnville. Parking lot entrances on Adams and Second Streets.

October 26, Thursday, 7 pm

Program: Wicked Plants of Oregon.

John Savage of the Straub Environmental Center and Willamette Valley NPSO will present some of the most dangerous and deadly native plants in Oregon, including noxious, poisonous, and carnivorous plants. The slideshow will highlight the various ways plants defend themselves. John was inspired by Amy Stewart's book, *Wicked Plants*. Location: McMinnville Public Library, see above for details.

October 28, Saturday, 9-11 am

Work Party: Native Plant Garden.

Notice the new earlier time, which is proving to be popular. New volunteers

are welcome. This demonstration garden needs only a couple hours work around the Carnegie Building by a congenial crew each month. Bring gloves, bucket, and gardening tools if you have them. Location: McMinnville Public Library, see above for details. For information, contact Catie Anderson, catie.fishback@gmail.com or 503-435-2401.

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. A sample waiver form is available at http://npsoregon.org/documents/NPSO_waiver.pdf. 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. You must pre-register for all events. National Forests require a Northwest Forest Pass for some 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. A trip leader checklist and sample waiver form are available at: <http://npsoregon.org/calendar.html>

Save the Date!

November 16, Thursday, 7 pm

Program: Inventory of Roadside Vegetation in Yamhill County

Corvallis

For questions, information on upcoming events, or to be on the Corvallis chapter e-mail list, contact co_president@NPSOoregon.org.

October 9, Monday, 7:30 pm

Program: Flora of the Guianas. Christian Feuillet, retired researcher with the Smithsonian, will talk about the flora of the Guianas. He will introduce the area and share his research on the borage, African violet and passion flower families in that region. Location: Room 2087, Cordley Hall, OSU. For information, contact Judi, judi.sanders@gmail.com.

November 4, Saturday, 8 am-4 pm

Field Trip: Fungi Collection. Wear weather appropriate clothing and bring a lunch and water. You will also need waxed paper or paper sandwich bags to hold the fungi, maybe a basket. Location: meet at the OSU Wilkinson Hall parking lot on the SW corner of 26th and Monroe, across from the Monroe Beanery. For information, contact Dan Luoma at luomad@fsl.orst.edu or 541-752-8860.

Emerald

Visit the Emerald Chapter Web site at <http://emerald.npsoregon.org> to learn more about the latest chapter events, plant lists & botanical information about Lane County plants & the people who love them.

October 21, Saturday, 6:30 pm

Program: Little Shops of Horror—Oregon's Carnivorous Plants. Speaker Charlene Simpson is a long time NPSO member. Her program stars cobra lily and a supporting cast of sundews, bladderworts, and butterworts. She will feature the lures and traps of flesh-eating plants found in the killing fields of Oregon's bogs and fens. She cautions

that her program is rated PG (Parental Guidance) because of sinister content. Location: the MLI room of the Amazon Community Center at 27th and Hilyard in Eugene. For more information call 541-465-1059.

Filipendula

This is a newly formed chapter for the northern Oregon coast area. For more information, visit our Facebook page: NPSO-Filipendula Chapter, or contact Field Trip Chair Carla Cole, colecarla@yahoo.com.

November 4, Saturday, noon-3 pm

Field Trip: Fungi of the Forest. Carla Cole will lead a fall hike through second growth woods of the Lewis & Clark National Historic Park to see fungi. Raingear highly recommended. Location: meet at the entrance to the Fort Clatsop visitor center by the main parking lot. Contact Carla Cole, colecarla@yahoo.com, for more information.

Save the Dates!

December 5, Tuesday, 5 pm

Potluck: Slide Show and Snacks.

February 24, 2018, Saturday, 7 pm

Lichen Night Hike, Lewis & Clark National Historic Park.

High Desert

For information, visit the High Desert Chapter website: www.highdesertnpsoregon.org and Facebook page: Native Plant Society of Oregon: High Desert Chapter, or email highdesertnps@gmail.com.

Klamath Basin

For information on the Klamath Basin Chapter, visit <http://klamathbasinnps.com> or contact the chapter president, kb_president@NPSOregon.org.

Mid-Columbia

For information on the Mid-Columbia Chapter, contact Sara Wu at mc_president@NPSOregon.org.

Portland

If you would like to receive the chapter's

semi-official email newsletter, The Calochortus, email Don Jacobson at donjphoto@gmail.com.

Facebook: Take a look at our Facebook page. Native Plant Society of Oregon-Portland-Chapter. It will have the most up-to-date information on hike and other events as well as great plant pictures.

The Portland Chapter meets the second Thursday of most months. Meetings and programs begin at 7:00 pm. **MEETING PLACE: TaborSpace at Mt. Tabor Presbyterian Church, 5441 SE Belmont St., Portland.** We will meet in **Copeland Commons**; enter the church through the main door off Belmont and turn right to enter the room. Parking is available in the church lot on the NW corner of SE 54th and Belmont.

October 12, Thursday, 7 pm

Program: The Hoyt Arboretum Herbarium Collection. The vast collection of tree specimens in the herbarium at Portland's Hoyt Arboretum is managed by Taxonomist and Curator Mandy Tu. She will describe how she went from plant geek to vouchering and verifying the arboretum's tree collection. She was President of the Portland Chapter of NPSO 2003–2005. Meeting location: TaborSpace at Mt. Tabor Presbyterian Church, see above for details.

November 9, Thursday, 7 pm

Program: Seed Collection of Pollinator Plants in Mt. Hood National Forest. Michael Krochta of Bark, a grassroots organization committed to the restoration and preservation of Mt. Hood National Forest, will give us the background of the group. He will also explain how they are working with USFS botanists to collect seeds of native pollinator plants to replant and restore pollinator habitat on Mt. Hood. Meeting location: TaborSpace at Mt. Tabor Presbyterian Church, see above for details.

Siskiyou

To join the Siskiyou Chapter email list: Send an email, from the address at which you want to receive announcements, to announce-join@siskiyou.npsoregon.org.

No subject or message is required. You will get a confirmation email. If you would like to volunteer to lead a hike in 2017, make a suggestion, or provide feedback regarding the field trip program, please contact Julie Spelletich at: jspelletich@gmail.com. Join us on Facebook at: [facebook.com/SiskiyouChapterNativePlantSocietyOfOregon](https://www.facebook.com/SiskiyouChapterNativePlantSocietyOfOregon).

October 26, Thursday, 7 pm

Meeting/Talk: To Be Determined. We will be having our regular meeting with a guest speaker. Details about the meeting and speaker will be released on our Facebook page and though Enews—please stay tuned! Refreshments at 6:45 pm, meeting and program at 7:00. Location: Southern Oregon University Science Building, Room 161. Free and open to the public. For information contact Alexis, alexis.brickner@gmail.com or 860-878-2049.

Umpqua Valley

Visit umpquavallemnativeplants.com for more information on chapter activities or to be added to our email list. Check out our Facebook page, www.facebook.com/UmpquaValleyNPSO. Not online - call Donna Rawson 541-459-2821.

Willamette Valley

For program information, contact John Savage at 503-399-8615.

William Cusick

Visit our Web site at <http://williamcusick.npsoregon.org> or contact Susan Geer at 541-963-0477 or Emelie Montgomery-Jones at 541-963-3339 for updates and general information. Chapter notices and communications are done primarily through a Google group. Members are reminded to contact Susan or Emelie if they want to be added to the Google group, or if they do not have internet access and want to be contacted by phone for events.



OTHER EVENTS

Willamette Valley Hardy Plant Group

October 10, Tuesday, 7 pm

Program: Plants for Western Gardens—Natives and Others. Paul Bonine, owner of Xera Plants Nursery in Portland, will be our speaker. Doors open at 6:30 for refreshments, book sales, and viewing botanical samples. Admission is \$5 for non-members and free for members. For more information, visit thehardyplantgroup.org. Location: Campbell Community Center, 155 High St., Eugene. Park in the lot at the corner of 2nd Ave and High Street.

Scappoose Bay Watershed Council

October 14, Saturday, 9 am-3 pm

Nursery Sale: Native Plants. All plants propagated at the SBWC nursery are indigenous to Oregon and most are indigenous to the watershed. Seeds and cuttings are collected from all over the watershed to provide a diverse genetic stock. Location: SBWC nursery, behind Scappoose High School, 33700 SE

High School Way. Go east on SE High School Way and look for signs. For more information and a list of plants available for the fall sale, visit scappoosebay-wc.org/native-plant-nursery.

California Native Plant Society

March 24-27, 2018, Saturday-Tuesday

Field Trip: SO BE FREE Bryological Foray (No. 23). Foray No. 23 will focus on the northern extension of the California Floristic Province. We will also be looking at some of the rare bryophytes occurring in southern Oregon. This is a great venue for both beginners and professionals to learn and mingle. During the evenings we have microscope keying sessions and graduate student presentations. Sponsored by the Bryophyte Chapter of the California Native Plant Society. Cost: \$165–\$205. Please register by December 15. Location: Siskiyou Field Institute, Selma, Oregon. For more information and a registration form, visit <https://support.cnps.org/ce/2018/march/so-be-free>.

Knotweed, *cont'd*

Department of Agriculture (ODA) at <https://data.oda.state.or.us/fmi/webd#WebSubmissions>. For information on identifying Japanese knotweed, visit the ODA Oregon Noxious Weed Profiles webpage: oregon.gov/ODA/programs/Weeds/OregonNoxiousWeeds/Pages/AboutOregonWeeds.aspx#_.

Herbariums, *cont'd*

can also be altered if specimens were pickled or dried improperly. Recent advances in molecular techniques are resolving many of these problems. A recent study (Choi et al. 2015) found no relationship between the age of a specimen and the purity of DNA that could be extracted and later amplified. Ames and Spooner (2008) used DNA from 200-year old herbarium specimens of Irish potato in Europe to match unique genetic markers with their source populations in the Andes and lowlands of Chile and help determine the multiple points of origin of this important crop plant.

Herbarium specimens can also be time capsules of past environmental conditions. Atmospheric carbon dioxide levels have been recorded in herbarium specimens collected in the late 1700s and compared with recently collected plants to document changes in the concentration of greenhouse gases

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Native Thistles Guide Available from Xerces

Thistles often bring to mind the invasive Canada thistle that is all too common in Oregon. We do have native thistles. But they can be hard to identify so may be mistakenly targeted for eradication along with the invasives. Xerces Society is here to help. Their new guide, “Native Thistles: A Conservation Practitioner’s Guide,” is free to download in PDF from their website. Get your copy now at <https://xerces.org/native-thistle-guide>.

This 92-page guide begins with an introduction to some common native thistles, their life cycles and habitats. As

it covers all of North America, images are not included for all species, but appendices list habitat and range distribution for all 62 native species, with references to further resources. The importance of native thistles to pollinators is discussed, with a four-page appendix listing animals that use thistles as a food source. The second half of the guide focuses on propagating native thistles for habitat restoration and conservation. Also included, now that you can identify the native species, are tips for eradicating the aforementioned invasive Canada thistle.



Cirsium scariosum photographed at Rough and Ready Creek by Norm Jensen.

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Herbariums, *cont'd*

since the industrial revolution (Bonal et al. 2011).

For taxonomists, the most important specimens are the type collections, which provide the basis for species names and taxonomic concepts. When a new species is discovered, a holotype is designated and deposited in an herbarium to serve as the standard (or archetype) for which all other individuals of the species are compared. A recent study found that nearly one-quarter of all newly documented species were already found within existing herbarium collections but had been initially misidentified or unidentified (Bebber et al. 2010). The authors even suggested that as many as 70,000 undescribed plant species might still be lurking within the world's herbaria.

Herbarium specimens can also be a source for new records of pathogens and parasites. In the 1990s, the late John Baxter, a retired mycologist, discovered over 30 state records of rust and smut fungi growing on plant specimens in the Rocky Mountain Herbarium at the University of Wyoming. One of these was *Puccinia yosemitana*, a rust from California and Colorado that was new to Wyoming. Baxter found it growing on a specimen of Opal phlox (*Phlox opalensis*) that I had collected in SW Wyoming a few years earlier.

Specimen vouchers (deposited in herbaria) are important for documenting new occurrences of rare and

unusual plants. Compared to observation records or photographs, physical specimens are easier to corroborate if there is any debate about a report's authenticity. This can be especially important in ecological studies or when developing checklists for protected areas, such as national parks or wildlife refuges.

Locality data from herbarium specimens is also useful in studying the spread of invasive weeds on one hand, and to identify gaps in the network of protected areas, on the other. In Wyoming, 10.6% of the state is "protected" (in national parks, wilderness areas, special botanical areas, and Nature Conservancy preserves), but these areas tend to be concentrated nonrandomly in the northwest corner of the state and at high elevations. Based on herbarium records, I found that 18% of the state's plant species were completely absent from these protected areas (Fertig 2011).

Digital locality data from herbarium specimens can be used in modeling the potential distribution of weeds, rare plants, and other species of high management interest. At the University of Wyoming, I used more than 325,000 digital records in the Rocky Mountain herbarium database to identify patterns in the presence and inferred absence of 200 randomly selected plant species with a mix of environmental variables (average monthly temperature and precipitation, bedrock geology, soil type, vegetation, etc.).

Each herbarium sheet has three main pieces of information:

The most obvious is the physical specimen itself: stems, leaves, roots, flowers, and fruits. From these, researchers can determine the identity of the species and recognize the diversity among individual plants within and between populations. Measurements and observations of specimens is the basis for species descriptions and identification keys.

Additional information can be gleaned from the internal chemistry of the specimens, especially genetic data from nuclear and organelle DNA. Such data can be used to reconstruct

phylogenetic relationships among species, genera, and families.

Perhaps the most useful information, however, comes from the specimen label which records the name of the species (and any subsequent changes or corrections), the collector, the date of the collection, locality, and other data on habitat, elevation, associated species, or abundance. These three datasets are the foundation of taxonomic research and can be especially useful in studies of ecology and conservation biology.

References

- Ames, M. and D.M. Spooner. 2008. DNA from herbarium specimens settles a controversy about origins of the European potato. *American Journal of Botany* 95(2):252–257.
- Bebber, D.P. et al. 2010. Herbaria are a major frontier for species discovery. *PNAS* 107(51):22169–22171.
- Bonal, D. et al. 2011. Leaf functional response to increasing atmospheric CO₂ concentrations over the last century in two northern Amazonian tree species: a historical δ¹³C and δ¹⁸O approach using herbarium samples. *Plant, Cell & Environment* 34(8):1332–1344.
- Choi, J., et al. 2015. All that is gold does not glitter? Age, taxonomy, and ancient plant DNA quality. *PeerJ* 3 e1087.
- Deng, Boer. 2015. Plant collections get pruned back. *Nature* 523:16.
- Fertig, W.F. 2011. Strategies for plant conservation in Wyoming: Distributional modeling, gap analysis, and identifying species at risk. Ph.D., Dept. of Botany, University of Wyoming.



Cirsium scariosum specimen collected in Harney County near Diamond Craters.

OSU HERBARIUM COURTESY OF OREGON FLORA PROJECT

NATIVE PLANT SOCIETY OF OREGON MEMBERSHIP FORM

Name _____
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 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 _____

Check to receive electronic *Bulletin*, sent by email in lieu of paper.

Please make checks for dues and contributions payable to:

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Send completed form and full remittance to:

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Margaret Conover, Membership Chair
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Eugene, OR 97440

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

- New Renewal
 Student – \$12 Regular – \$25 Family – \$35
 Sustaining – \$60 Patron – \$125 Life Membership – \$500
 Subscription Only (*Bulletin* and *Kalmiopsis*) – \$25 *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	\$ _____
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Augusta Rockafellar Memorial Scholarship	\$ _____
Rare and Endangered Plant Conservation Fund	\$ _____
Friends of the Oregon Flora Project	\$ _____

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

Membership applications, renewals and changes of address (include old address) should be sent to the Membership Chair. Changes of address may also be e-mailed to Membership@NPSOregon.org.

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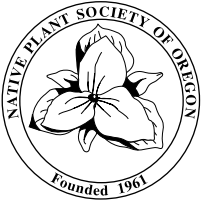
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A benefit concert in support of the Oregon Flora Project!

The Meadowlark Baroque Trio

and

Rita Brown, folk singer

Sunday October 29, 3-5pm

2945 NW Circle Blvd, Corvallis, OR 97330

Silent auction ❖ No host wine selection ❖ Complimentary hors d'oeuvres

Tickets available at the door

Please join us in this special opportunity to raise funds

for the completion of *Flora of Oregon Volume 2*

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