Bulletin

of the

Native Plant Society of Oregon

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

VOLUME 42, No. 10

NOVEMBER 2009

Go Native For The Pollinators

This article was compiled by Celia Scott from several sources, which are cited at the end of the text.

Flowering plants depend almost entirely upon pollinators, such as bees, bats, wasps, birds, butterflies, moths, flies, and beetles, for their reproduction. A staggering amount of Earth's flowering plant species—up to 90%, some estimate—would soon disappear without these winged creatures. Thirty to forty-five percent of human food crops rely on pollinators; our diet would be unthinkably altered without them. Today, in spite of (or because of!) "modern" farming methods, whose advertising promises huge yields with

less labor, but also uses an arsenal of herbicides, pesticides, and geneticallymodified seed, we are uncomfortably close to the unthinkable: the disappearance of some of our most crucial pollinating agents.

Almost everyone has heard of the mysterious malady known as Colony Collapse Disorder, which since 2006 has caused worker bees to suddenly disappear from hives. Between 2006 and 2007, the number of honeybees declined by about a quarter—in one year alone! The Xerces Society has a

program dedicated to the preservation and study of native pollinators, and as part of this effort has compiled a "Red List" of endangered bees of North America. Fifty-seven different species of bees are on this list. Other "Red Lists" of butterflies and moths exist, and more species' lists are now being compiled. It is all too clear that native pollinators are in dangerous decline across

continued on page 106

EERLD D. CARE, OREGON FLORA INAGE PROJECT.

A pollinating insect visits an Achillea millefolium (Yarrow) plant, attracted by its aromatic scent. Yarrow was used by native peoples in a wide variety of medicinal preparations and is a good soil stabilizer

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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
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or correspond directly with Officers
and Committee Chairs listed 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.

EarthShare Oregon Seeks Contributions from the Workplace

EarthShare Oregon is a nonprofit organization that collaborates with businesses and public agencies to enable their employees to support 71 environmental groups through workplace giving campaigns. In 2008, more than 4,000 Oregonians supported EarthShare through giving campaigns in 100+ workplaces.

As summer comes to a close, we all think back on the beautiful places we had the chance to enjoy during the great outdoor season—the beaches, high desert, crystal-clear rivers and craggy mountains. And now as the sunny months leave us, we can do more than just enjoy the environment.

We can do something to protect the treasures of this state for future generations.

The Native Plant Society of Oregon is a proud member of EarthShare Oregon. What does this mean to you? You and fellow employees at your workplace can choose to have contributions sent automatically to your favorite conservation groups, including the

Native Plant Society. Since your contribution is spread out over the course of a year, the amount deducted from your paycheck is minimal, and all gifts are tax-deductible. Perhaps your employer matches employee donations—be sure to inquire.

If your workplace is not currently involved in an EarthShare giving campaign, establishing one is easy. Earth-Share will work with your employer to set up a program that meets your company's needs.

Oregon 's natural beauty and livability is legendary. With your contribution to EarthShare, you can share in the responsibility for protecting these gifts. For more information, please contact Meghan Humphreys at EarthShare: (503) 223-9015 or meghan@earthshare-oregon.org, or visit http://www.earthshare-oregon.org.





False Lily-of-the-Valley (Maianthemum dilatatum) is a native wildflower ranging from subarctic Alaska through British Columbia and south to Oregon. The berries are bright red when they ripen in late summer and early autumn.

JOCELYN

NPSO CALENDAR

Blue Mountain

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

Cheahmill

For more information visit the chapter website: http://www.oregon-nativeplants.com

November 17, Tuesday, 7 pm (A change from our regular meeting day)

Talk: Native Plants, Garden Gems. Freelance gardening writer Lisa Albert of Portland will talk about native plants in the home garden, focusing on plants that are relatively easy to acquire and grow. See her website, www.lisaalbertwriter.com. Lisa has co-authored and will bring some beautiful Berry Botanic flash cards on the subject of "Gardening with Native Plants." These will be for sale at \$15 for a set of 40, and include habitat, design ideas, tips for transplanting and propagation, and wildlife information For a look at the cards, go to www.berrybot.org/pubs/flashcard.html. The talk will be in the Carnegie Rm., McMinnville Public Library, 225 N.W. Adams St. (corner of Highway 99W and S.W. Second St. in McMinnville). Questions? 503-835-1042.

Corvallis

To join the Corvallis e-mail list to receive notification of upcoming events, please e-mail matt@appliedeco.org

November 9, Monday, 7:30 pm Talk: Wildflowers of the Wasatch Mountains of Utah. These mountains provide amazingly accessible views of alpine and subalpine flowers. Tanya Harvey has captured wonderful images of these plants, which range from familiar natives to local endemics, in a slide presentation. She'll also offer her cards and ornaments for sale. Avery House Nature Center, Avery Park, Corvallis. For questions, contact Laurel Moulton, lamoulto@yahoo.com.

Emerald

November 9, Monday, 7:30 pm Meeting: BLM Special Area Designations in the Eugene District. Nancy Sawtelle, plant ecologist with the BLM, will discuss the various types of Special Area Designations, as well as how they are chosen and managed. She'll also discuss special BLM projects and how the public can help with area programs. EWEB Training Rm., 500 E. 4th Ave., Eugene. For more information, call 541-746-9478.

December 14, Monday, 7:30 pm Holiday Social and Slide Show. Bring

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 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.

10-12 slides (traditional or digital) and a snack to share if you wish. Meet others interested in native flora. EWEB Training Rm., 500 E. 4th Ave., Eugene. Questions? 541-746-9478.

High Desert

To be added to the e-mail list for upcoming events, please contact Maria Britton at mebritton@bendbroadband. com. For questions or more information, please contact Eileen Obermiller at hd_president@NPSOregon.org.

November 18, Wednesday, 7 pm-9 pm Discussion: Old Growth Juniper and Natural Vegetation of the "Juniper Ridge" Development Site. A 1500acre parcel reserved by the City of Bend for development, this site has an abundance of old growth juniper and areas of historic-like understory vegetation. Rangeland ecologist Gene Hickman will explain old growth juniper characteristics and how ecological inventories can provide valuable landscape assessments for pre-development planning. Please RSVP to Gene at 541-410-0067 or Eileen@dappledearth.com. This talk may be followed up with a field trip in spring 2010. For information on this and other events, contact Maria Britton at mebritton@bendbroadband.com or Eileen Obermiller at hd_president@ NPSOregon.org.

Klamath Basin

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

Mid-Columbia

For more information, visit the chapter website: http://www.oregon-nativeplants.com.

November 12, Thursday, 7 pm Talk: Gardening for Wildlife. Anna Nolen from Wamic will talk about combining native and other appropriate plants to create a habitat that encourages beneficial insects and animals.

Board Rm., Bldg. l, Columbia Gorge Community College, The Dalles.

North Coast

For information on the North Coast Chapter call Vivian Starbuck at 503-377-4141.

Portland

If you would like to receive the chapter's semi-official e-mail newsletter, The Calochortus, e-mail Don Jacobson at donjphoto@gmail.com.

November 12, Thursday, 7 pm
Talk: Drift Creek Nature Center
Fungi and Floral Survey. Jake Hurlbert will talk about the large variety of fungi, plant and animal life which reveals the secrets of an old growth sprucedominated forest. The program is part of a cooperative effort by naturalists from around Oregon, and was completed during a BioBlitz that began in 2008. Mt. Tabor Presbyterian Church, SE Belmont at 54th. Parking in the Church lot allowed. Contact Billy Don Robinson at 503-515-1708 for more information.

December 10, Thursday, 7 pm

Annual Members' Program. NPSO Portland members will share images collected throughout the past year! Come see where we've been and what we've observed. Contact Billy Don at OR_Larkspur@comcast.net if you would like to show your pictures, or call him at 503-515-1708 for further information. Mt. Tabor Presbyterian Church, SE Belmont at 54th St. Church lot parking is allowed.

Siskiyou

November 19, Thursday, 7:30 pm Brief Meeting and Talk: Historic Vegetation of the Rogue Valley. What was the historic vegetation like in the Rogue Valley during early European settlement? Using General Land Survey data (1854-1919), Gene Hickman, range ecologist, has developed vegetation maps for southwest Oregon. He'll discuss the nature of the survey work and describe the native vegetation present at an earlier time. For more information contact Kristi Mergenthaler, 541-941-3744.

Umpqua Valley

Visit http://www.umpquavalley. npsoregon.org for more information on chapter activities.

November 12, Thursday, 7 pm Meeting: Program to be Arranged.

Learn more about our chapter at our meetings or at the chapter website. All are welcome. We meet every second Thursday at 7 pm in Rm. 1, Mercy Community Education Bldg., 2459 NW Stewart Pkwy, Roseburg. Contact Donna Rawson at 541-459-2821 for more information.

Willamette Valley

Contact John Savage at wv_president@ NPSOregon.org for information on upcoming events.

William Cusick

Visit our website at http://williamcusick. npsoregon.org for updates and general information.

Meetings will resume in February 2010. Visit our website for further updates and general information, or call the chapter secretary at 541-805-0499.

OTHER EVENTS

Mt. Pisgah Arboretum

34901 Frank Parrish Rd., Eugene OR 9740. 541-747-1504.

"Play in the Rain" Family Day November 7, Saturday, 10 am-3 pm

Sponsored by the Youth in Nature Partnership, this second annual event will include nature crafts, hikes, hay rides, native plants, campfire foods, and more. Rain or shine (dress for the weather); free for all ages. For more information call Liz Karas, 541-349-5055, ext. 201; Peg Douthit-Jackson, 541-747-1504; or Chris Orsinger, 541-344-8350.

Nearby Nature

Alton Baker Park, 622 Day Island Rd.,

Eugene. Map at http://www.nearbynature.org. 541-687-9699.

Rhythms of the Forest November 11, 8:30 am-3 pm

Learn about forest cycles, make music from recyclables, and visit the University of Oregon Natural and Cultural History Museum. Meet in Alton Baker Park, at the yurt. (Through main Park entrance, then east through parking lots, down the dead end road and past Cuthbert Amphitheater; the yurt is on the right. For map, see website. \$35.

Join a restoration and site work team or lead a nature walk: 541-687-9699.

North Mountain Park Nature Center

Register for those courses that require it at

http://ashlandparks.recware.com

Restoration Work Party November 7, Saturday, 1-3 pm

Join staff and volunteers of the Park for a riparian restoration project weeding and mulching native plants. Tools and snacks provided. Groups of five or over required to register. Free. Ashland Pond, in Ashland. Park at end of Glendower St.; walk through gate and down road.

Nature Sketch Journaling November 7-8, Saturday and Sunday, 9 am-2:30 pm

Design/create sketchbook and journal pages with drawings and writings. Learn how to make quick sketches, and add pressed leaves, photos, illuminated capitals, and more. Bring unlined journal with heavy paper.

OTHER EVENTS

All other supplies provided. \$80. The Grove, Otte/Peterson Room. Register online.

Rain Barrel Workshop

November 12, Wednesday, 7-8:30 pm

Make a rain barrel out of a plastic 55-gallon food-grade barrel; learn how to catch rain from your rooftops. Bring own barrel, and then you can buy a plumbing kit (\$12.50) to make your rain catchment system and learn other ways to capture water. \$5. Register online.

Siskiyou Field Inst.

Presentation and Field Trip: Edible Mushrooms of Southern Oregon November 6, Friday, 7pm (Presentation); November 7, Saturday (Trip)

Local expert Eric McEwen will teach us how to search the woods and learn methods to safely collect and consume wild mushrooms. \$50.

Weekend Trip: Biology, Ecology, Field ID of Mushrooms

November 13-15, Friday-Sunday

Investigate both edible and poisonous mushroom species in southern Oregon, from Selma to the coast. Lodging Saturday night at the Redwood Hostel, Crescent City CA is included. \$140.

Siskiyou Project

To learn more about the Siskiyou Project, the Siskiyou Wild Rivers Area, and help it be designated permanent wilderness, see http://www.siskiyou.org.

Annual Dinner, Hike, and Celebration

November 8, Sunday, Time TBA

Afternoon and early evening event which will include a hike to the little falls on the Illinois River, dinner, silent auction, and presentations on the Project's Community Forestry and Restoration program. Contact Shane Jimerfield, 541-476-6648 (office) or 541-499-2064 (cell/text).

Welcome to These New Members!

Twenty-two new members have joined the Native Plant Society of Oregon between July 10, 2009 and September 22, 2009:

Cheahmill

Margie Crawford

Corvallis

Noel Bacheller

Emerald

Towering Pines NW Native Nursery Chandra LeGue

High Desert

James R. Clark

Members-at-Large

Raelene Gold Cecie Starr-Carey

Mid-Columbia

Marion T. Fox

Portland

Nancy R. Alfaro Fran Gardner Linda Goertz Jane Hartline Noah Herlocker Ken Logan Curt Zonick

Siskiyou

Myda Andlovec Dominic DiPaolo Barbara McMillin Evelyn K. Roether

Umpqua Valley

Jeff Bush Mike Hubbard

Willamette Valley

David Lichter



Native Plant Appreciation Week

Join the Native Plant Appreciation Committee:

The Committee is looking for new members to help promote Native Plant Appreciation Week! The purpose of the Committee is to promote activities for Appreciation Week. To join, please e-mail Judi Sanders, judi.sanders@gmail.com.

Native Plant Appreciation Week Poster Contest:

Remember all those great photos you've taken of Oregon's native plants? Now that you're probably spending more time indoors, it's the opportune time 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 "2010 NPAW Photo Contest." Two entries per person are allowed. Entry deadline is January 10, 2010. Photos will be rated on artistic presentation, appropriateness to the theme, and technical excellence. Complete details can be found in the NPSO Photo Gallery. Questions? Please e-mail Judi Sanders, judi. sanders@gmail.com.

the United States, especially in heavily managed landscapes.

The good news is that many excellent scientists are joining forces to stop this decline. The University of California at Davis has launched a website, http://www.beebiology.ucdavis.edu, that's all about bees, sharing the latest in bee breeding techniques, annotating the devastation from colony collapse disorder, and providing information on pollination with links to various other sites. Then there is The Xerces Society, which received \$458,000 in July 2009 from the Natural Resource Conservation Service to develop and test pollinator habitat and to promote agricultural sustainability through conserving beneficial insects. The U.S. Department of Agriculture, on a small rectangular patch of farmland between Corvallis and Albany in Oregon's Willamette Valley, has row upon row of experimental plots containing about one hundred different plant species that honeybees like to visit, hoping to capture and study them to come up with ways to encourage more bees (and other pollinators) to thrive. Among the plants are yellow Oregon sunshine (Eriophyllum lanatum), Chilean tarweed (Madia sativa), vinegar weed, asters, and gumweeds (similar to the entire-leaved gumweed or Grindelia integrifolia).

The word is also getting out not only to farmers, but to home gardeners as well about ways to enhance pollinator habitat. There are several steps to take in making a landscape attractive to pollinators, including the well-known ones of matching soil type and climactic conditions to the plants used. Then, research the characteristics animal pollinators and plants possess which make their relationship work for each. Pay attention to which pollinators like which plants, and using native plants as a first alternative, you can help bring pollinator numbers back from the brink.

Why native plants? Because they are adapted not only to their local pollinators but to the local climate and soil, and generally do not need



A bee enjoying the nectar of white clover (Trifolium repens). If contained in a large pot in native home landscapes, it is quite a valuable plant, even though an introduced species. The name "clover" is from the Latin word clava meaning 'club,' as in playing cards, describing the shape of the leaves.

fertilizers or as much water to grow as non-natives. Hopefully they will need few to no pesticides for maintenance. They're less likely to become invasive, and they provide permanent shelter and food for wildlife while promoting local native biological diversity. For guidance in choosing native seed and plants from appropriate "seed transfer zones" (where known), see http://www.oregon.gov/ODF/FIELD/Nursery/ZoneMaps.shtml.

Look for plants of local origin; if not available, strive to get plants originating and produced from the same ecological region (or Major Land Resource Area), or at least from a similar elevation (within 1500 feet elevation) and longitude (no more than 300 miles north or south). Don't move plants from one side of the Cascades to the other.

Include plants that flower early in the season. Many native bees produce multiple generations each year, so more forage early in the season will lead to greater reproduction and more bees in the middle and end of the year. Early forage, such as various willow species (*Salix*) or Oregon grape (*Mahonia nervosa*) may also encourage bumble bee

queens that are emerging from hibernation to start nests nearby, or simply increase the success rate of nearby nests.

It's also very important to include plants that flower late in the season to ensure that queen bumble bees are strong and numerous going into winter hibernation.

Include a diversity of plants with different flower color, size, and shape as well as varying plant heights and growth habits, to provide a wide range of flowers through the entire growing season. Such a strategy will attract a diversity of pollinators, from bee species (which are generalists, feeding on a range of plants through their life cycle) to many others, including some important crop pollinators which forage only on a single family or even genus of plant. Consider providing plants that supply food for larval growth stages of butterflies, in addition to nectar- and pollen-rich plants.

Herbaceous plantings should include at least one native bunch grass adapted to the site as well as non-native forbs (which should be mowed during the native plant's bloom time and then allowed to bloom afterward) to enhance pollinator and beneficial insect

populations. Rhizomatous grasses, however, should be discouraged for they tend to dominate a site and might exclude the desired forbs.

More information on seeding, planting configurations, maintenance, weed control and other considerations are beyond the scope of this article, but can be found at many websites (see, for example, http://www.plant-materials. nrcs.usda.gov/technical/pollinators. html). See also magazine articles such as that by Sharon Cohoon in the March 2003 issue of Sunset titled "Pollinator Pots." There are many other sources of information. Not only will habitat enhancement benefit each of us humans, but by helping our animal pollinators, we can hopefully help to ensure the health of the intricate web supporting all life on Earth.

The following information goes into more detail about the specific traits of many pollinators and the plants from which they derive their food:

Bees, who don't see the color red, but do see yellow, blue, and ultraviolet, pollinate mostly yellow flowers (some blue) which typically have a delicate, sweet scent detectable by the insect. Usually the nectar is at the end of some

type of small, narrow floral tube which is the right length to fit the tongue of the particular bee species which pollinates that plant. There is usually a specifically-designed landing platform for the bees, as in the case of the snapdragon, where only a bee of just the right size and weight is able to trigger the flower to open. All bees which are too small or too heavy are excluded. Pollen typically sticks to the "fur" of a bee, or is gathered in specially-modified leg areas.

Birds such as hummingbird species are able to see the color red, but have a very poor sense of smell. Hummingbirds as well as some others are known to be attracted to red, so bird-pollinated flowers tend to be brightly colored but lack an odor. Petals of these flowers are recurved to be out of the way; hummingbirds' backs and necks are dusted by pollen as they probe the flower for nectar. Favorite plants for hummingbirds include Columbine (such as our native red Columbine, Aquilegia formosa), red Salvia, and Fuchsia.

Bats, on the other hand, have a very good smell sense, and some species serving as pollinators have good vision (not all depend on echo-location to navigate). Bats are nocturnal, and so

the flowers they pollinate are white or of a light color so that they'll be visible in moonlight, and are large and sturdy to withstand insertion of the bat's head as it licks nectar and pollen.

Moths, like bats, are nocturnal; and like hummingbirds, they are hover-feeders. They possess a very good sense of smell and locate their favorite flowers (which may be open only at night) by their odor; often the flowers' strong sweet perfume is exuded only at night. This is thought to be an evolutionarily-derived way to conserve energy—why waste your attractant in the daylight, when there are no pollinating moths around to appreciate it?

Butterflies are diurnal (active in the daytime); they have good vision but a weak smell sense and are able to see colors, including red. Butterfly-pollinated flowers are very brightly-colored, but odorless, often in clusters (as, many species of *Compositae*) where many small flowers are arranged into a flat-topped head. Individual flowers are typically tubular and of a suitable length, so that the tongues of the butterflies can fit neatly inside.



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Schuler Appointed To New U.S.F.W.S. Climate Change Position

The U.S. Fish and Wildlife Service $oldsymbol{1}$ Northwest has created a new position, that of assistant regional director for climate change and science application, to which Carol Schuler has been appointed. She has most recently been the director of the U.S. Geological Survey's Forest and Rangeland Ecosystem Science Center in Corvallis, and previously worked more than 18 years for the U.S.F.W.S. in Ecological Services. She received undergraduate and graduate degrees from Eastern Kentucky University and Oregon State University in wildlife science, with minors in plant ecology and toxicology.

Schuler will provide leadership in implementation of the agency's goal around climate change, which is to oversee the development of a collaborative, large-level approach to building a coordinated strategy to respond to the impacts of climate change on the nation's natural resources.

A proposed strategic plan was released by U.S.F.W.S. in late September which is designed to guide agency efforts to respond to the unprecedented threat posed by global climate change. The plan can be found at www.fws.gov/home/climatechange. Public input is sought until November 23, 2009.

NPSO Items for Sale

Native Notecards. Beautiful, high-quality notecards with art by Terry Peasley, Cheahmill chapter member, are available. Eight cards are offered through NPSO's Cheahmill chapter: trillium horizontal, trillium vertical, fawn lily, red columbine with hummingbirds, varied thrush on oak, kingfisher on red osier dogwood, Bewick's wren on Douglas spirea, and western tanagers on oak. See the cards at http://www.terrypeasleyart.com/pages/cards. The cost is \$3 each including envelopes, or 4 for \$10. Contact Marna Porath at P.O. Box 726, Amity, OR 97101, marna@onlinemac.com or 503-835-1042.

Booklets on Gardening with Native Plants. Emerald Chapter's three booklets about native plants of the southern Willamette Valley are "Native Herbaceous Plants in Our Gardens," "Native Shrubs in Our Gardens," and "Native Trees in Our Gardens." \$8.00/set of three, mail order. Individual booklets sold from the NGAP booth at Down-To-Earth, or by check made out to "Emerald Chapter NPSO" with "NGAP Gardening Guides" in the memo line to P.O. Box 902, Eugene OR 97440-0902. Also see online in PDF format at http://www.emeraldnpso.org Click on "Gardening with Native Plants."

Field Guide to Shrubs of Southwest Oregon. An 80-page, pocket-sized field guide identifies 56 of the most frequently-encountered shrubs in SW Oregon, and describes each species in detail with words and photos, including habitat, leaves, twigs, fruit, and flowers. Dichotomous keys, illustrations of common plant parts and glossary included. Janet Walker, NPSO Siskiyou chapter member, and Max Bennet, Forestry Agent with Jackson/Josephine Counties. \$7/copy; checks payable to "OSU Extension Service." Mail to Shrub Guide, Jackson County Extension, 569 Hanley Rd., Central Point, OR 97502.

Poseidon's Necklace. Don Begnoche, Siskiyou chapter, has issued an Oregon field guide covering the coastal section, mile by mile, from Astoria to Brookings. Genesis of the coastal landscape and flora found on dunes, headlands and montane slopes; over 500 landscape and floral photographs as well as geologic maps and illustrations. PDF format on a CD. \$19.95 + \$2.50 s/h. Mail checks to Don Begnoche, 439 Herbert St., Ashland, OR 97520

Clovers: For Pollinators and Gardeners Alike

The many species of clover are a favorite of humans and winged creatures alike, for their nectar is abundant, their smell usually wonderfully sweet, and, like most members of the *Fabaceae* (Pea) family, their roots are a home for nitrogen-fixing bacteria, which pull nitrogen (a nutrient of limited supply in our region) out of the air and put it into the soil in a form plants can use.

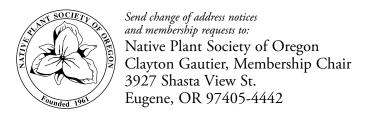
Some Natives: If a choice between native and non-native clovers is possible, it's always best to go with the natives, plants born and bred to flourish in Pacific Northwest conditions. Native clovers are usually found in moist to wet open places, from low to middle elevations: springbank clover (Trifolium wormskjoldii), thimble clover, and small-headed clover. Springbank clover, a perennial, has creeping rhizomes to about 30 cm long; its dense heads of 2-60 flowers are red to purple and often tipped with white. Thimble clover (Trifolium microdon) has white to pinky-rose flowers in heads to 8 mm in diameter. Its range is broader than springbank clover and it can be found in dry to moist, open, usually grassy spots at low elevations. Small-headed clover (*T. microcephalum*) with its lilac to pinkish flowers in heads to 1 cm is found in similar habitat.

Some Non-Natives: White sweet-clover (*Melilotus alba*), a tall sweet-smelling annual found in waste places, roadsides, and cultivated fields, and its sister, yellow sweet-clover (*Melilotus officinalis*), have a sweet fragrance which comes from coumarin, a compound which also gives new-mown hay its fresh grassy smell. Non-natives are often found more easily than native species, and the homeowner may want to use them in a pollinator-friendly garden. Beware of their creeping habit, however; plant in large pots or otherwise contain them, or they'll take over!

Reference: Plants of the Pacific Northwest Coast, compiled and edited by Jim Pojar and Andy MacKinnon, p. 197.

Native Plant Society of Oregon Membership Form

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Look for a new and improved Atlas in November! We are rewriting the mapping program to include new features, new software, and more data. This is through the volunteer efforts of Jeff Cook, and the help of recent graduates Kit Hoffman and Matt Ullmer.

Our team has also been busy preparing sections of the new Flora of Oregon. Complete treatments for the gymnosperms and the heath family (*Ericaceae*), and a dichotomous key to the genera of the grasses will be available before the end of the year.

We are extremely grateful for a second year of support from the John and Betty Soreng Environmental Fund of the Oregon Community Foundation. Since 100% of OFP salaries and expenses are funded through donations and grants, we still need the continued financial support of individuals and organizations like the NPSO. As you browse the Photo Gallery or explore the new Atlas, please remember to donate and keep your Oregon Flora Project growing!

[Checks can be made payable to Agricultural Research Foundation, with "OFP—4482" on the memo line, and mailed to the Oregon Flora Project, Department of Botany & Plant Pathology, Oregon State University, Corvallis, OR 97331-2902.]