

Summer Intern Report Developing Conservation Strategies for the Tygh Valley Milkvetch

by Laila Bryant

The following article is the second in a series where NPSO/Institute for Applied Ecology (IAE) interns discuss their activities during the 2007 field season. Interns participated in rare plant monitoring, restoration, floristic surveys, and other research projects conducted by IAE staff throughout Oregon during the past summer. In this article, Laila Bryant, a student at Reed College, describes our efforts in collaboration with the Prineville District of the Bureau of Land Management to study population growth and trends in Tygh Valley milkvetch. For more information on internship opportunities, please contact IAE at athorpe@peak.org, 541-753-3099 or visit www. appliedeco.org. Thanks again to NPSO for contributing to botanical education and work experience.

Andrea S. Thorpe Ph.D., Institute for Applied Ecology, Corvallis, Oregon

ne of the main focal areas of the conservation work done by the Institute for Applied Ecology (IAE) is collecting information that allows us to better understand the dynamics of endangered plant populations. IAE monitors known populations of endangered plants and determines the health of these populations. Included in this monitoring is an evaluation of different management strategies that are intended to either control invasive competitors (mowing, burning, herbicides), or enhance a plant population (planting or seeding in individuals, introducing genetic diversity with pollen from another site, etc.). Gaining an understanding of the effectiveness of the different management strategies available allows IAE to make informed management recommendations to the Bureau of Land Management or whichever agency contracts the research. It is gratifying to realize that the monitoring and research that I had the chance to participate in during this internship results in more effective management and preservation of rare and endangered plants.

Astragalus tyghensis (Tygh Valley milkvetch) is a perennial flowering plant that is small and low-growing,

with silvery green leaves and pale yellow flowers. It is endemic to the Tygh Valley in Wasco County, Oregon. Because of its position in the transition zone between the Cascades and the Columbia Plateau, the Tygh Valley provides very unusual habitat, and hosts many unique organisms. This mixing of ecoregions produces an ecosystem that has given rise to a great deal of diversity and cannot be replicated. Unfortunately, since much of the valley has been grazed and cultivated, habitat for many organisms, including A. typhensis, has greatly declined. Astragalus tyghensis is considered a Species of Concern by USFWS, threatened by the state of Oregon and Threatened or Endangered Throughout Range (List 1) by the Oregon Natural Heritage Program, and while in recent years a lot has been learned about its life history and distribution, it is very rare and its range is restricted to a small part of Wasco County.

Long-term monitoring of five A. tyghensis populations in the Tygh Valley was conducted annually by IAE from 1991–2000. Because grazing is likely one of the largest threats to this plant, plots were sampled both in areas that are accessible to cattle and in those that are not. Not only did the data collected provide invaluable information about the life-history of A. tyghensis and details of the specific sampling sites, but it was also used to develop demographic models of the populations. These models describe the population dynamics over the study period, and were used to make predictions about population viability and project population behavior through time. These sites were revisited in 2006 *continued on page 55*

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Native Plant Society of Oregon

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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.

NPSO Board Candidates for 2008

The Nominating Committee offers the following list of candidates for state offices. The candidates' brief résumés, along with the ballot, will be printed in the June issue of the *Bulletin*. Any group of five or more dues-paying members may also submit nominations (with nominee's consent). The deadline for the June issue of the *Bulletin* is May 10th.

President: David Lebo Vice President: Dan Luoma Secretary: Pam Palmer Treasurer: Cyndi Dion Directors-at-Large: Judi Sanders

The Nominations Committee is continuing its search for two more Directorsat-Large. If you are interested in serving our Society, please contact Dan Luoma, 541-752-8860.

Write to Governor About Threatened Plants

In the April *Bulletin*, an article by Al Johnson described the imminent danger of Liquefied Natural Gas pipeline construction to populations of the crinite mariposa lily (*Calochortus coxii*) and Kincaid's lupine (*Lupinus sulphureus* ssp. *kincaidii*). Please write to Governor Kulongoski to protest the proposed route of the Pacific Connector Gas Pipeline threatening these endangered species.

Governor Ted Kulongoski 160 Capitol, 900 Court Street Salem, Oregon 97301-4047



Columbia Gorge daisy (Erigeron oreganus) is a rare endemic found on cliffs in the west Gorge. Here it is blooming in late May of 2007 at McCord Creek Falls. Both Cheahmill and Portland chapters are leading trips to McCord Creek Falls and nearby Elowah Falls in John Yeon State Park.

State

July 11-13, Friday-Sunday

Annual Meeting: Information and registration materials were included in the April *Bulletin*. They can also be found along with additional information through the NPSO web site.

Blue Mountain

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

Cheahmill

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

May 3, Saturday, 11 am-3 pm*

Event: Wildflower Show and Education Day. All activities will be at the McMinnville Public Library, 225 N.W. Adams St., McMinnville. We will play a new game called "Stump the Plant Chumps." The public may bring in pictures or blooms and leaves of local plants for identification. It will be a kick to see how we do! In addition, we'll show a new Powerpoint presentation on Yamhill County roadside plants, give tours of the McMinnville Public Library native garden maintained by the chapter, listen to short talks about various aspects of native plants and related subjects, view exhibits, and have a native plant sale. Call chapter president Marna Porath at 503-835-1042 for details.

May 10, Saturday, 8:30 am

Field Trip: Elowah Falls. The trail starts in John Yeon State Park about seven miles east of Multnomah Falls in the Columbia Gorge. A past chapter president and wetland biologist will lead us. The 1½-mile trail has a rise of 700 feet. Other side trips are possible. Seeps in the rock cliffs along the trail provide habitat for numerous species of wildflowers, and we're likely to see

*Special Native Plant Appreciation Week Event

Corydalis scouleri, several Saxifrage spp., *Castilleja rupicola, Delphinium* glareosum, Romanzoffia, Mimulus, liverworts and ferns. Poison oak sometimes requires careful stepping. We'll have sweeping views of the gorge and into the falls basins. We'll gather to carpool in McMinnville at the Linfield College parking lot at Linfield Ave. and Blaine St. at 8:15 am, depart at 8:30 am, and return in late afternoon. RSVP to Craig Markham, 503-537-0587 or markhamcp@verizon.net.

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.

May 11, Sunday, 8:30am

Carpool: to Eugene for Wildflower Festival and Plant Sale. Meet in McMinnville at the Linfield College parking lot at Linfield Ave and Blaine St. at 8:15 am and depart at 8:30 am. Suggested admission is \$5. For carpool, RSVP to Marna Porath at 503-835-1042.

May 17, Saturday, Noon-4pm

Meeting: Miller Woods. We'll start out with a potluck meal and a general meeting to discuss options for the coming year. This is a good time to share your ideas for field trips, projects, educational programs, etc. Then we'll have a tour of Miller Woods and receive an update on what has been happening there since our September 2006 meeting. Please bring a potluck dish to share and your own plate and silverware. RSVP with number attending to 503-472-1745. For more information on the site visit www.yamhillswcd.org/proj_events/mil– lerwoods/miller_woods.html.

May 31, Saturday, 9 am-1 pm

Field Trip: Baskett Slough. Learn to identify some native grasses (and other plants) in this National Wildlife Refuge south of Amity. By the end of May, most of six to eight common prairie/ savanna grass species should have inflorescences sufficiently developed to allow identification. Karl Anderson, a Willamette Chapter member, will lead us and bring some handouts on basic grass morphology. Meet either at the refuge parking lot at the foot of Baskett Butte at 9 am or in McMinnville at 8:15 am to depart at 8:30 am at the Blaine and Linfield street parking lot by Linfield College. For carpool, RSVP to Marna Porath at 503-835-1042.

June 7, Saturday, 8:30 am–1 pm Field Trip: Kingston Prairie. John Savage, Willamette Chapter president and Nature Conservancy volunteer, will lead this joint Willamette and Cheahmill chapter walk through the best example of tall-grass prairie remaining in the central Willamette Valley. Meadow and wetland species in bloom may include *Dodecatheon hendersonii*, *Camas* sp., Bradshaw's lomatium, Willamette daisy, Oregon larkspur and white-topped aster. The prairie is a Nature Conservancy site and accessible only by permission. Meet at 8:15 am to carpool from the Blaine and Linfield street parking lot by Linfield College, or be at Kingston at 10 am. For carpool, RSVP to Susan Williams at 503-538-1865 or Jennie Sue Dunn-Dixon at 503-472-1745.

June 15, Sunday, 8 am-1 pm

Field Trip: Drift Creek Falls. A moderate 3.5-mile round trip trail, appropriate for all family members, crosses a long suspension bridge to get to the beautiful waterfall. Along the way, hikers will identify plants and mushrooms. Since the turnoff to the falls is only 10 miles from the coast on Highway 18, people who want to could visit the beach after the field trip. Meet at 7:45 am for an 8 am carpool departure from the Blaine and Linfield street parking lot by Linfield College, or meet at the Drift Creek Falls trailhead at 9 am. For carpool or information, RSVP to Jake Hurlbert at 503-474-0775.

Corvallis

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

May 3, Saturday, 9 am* Field Trip: Botany for Beginners at Beazell County Park. To celebrate Native Plant Appreciation Week, we planned a half-day trip to Benton County's newly added 585-acre memorial forest. We'll look for flowering forest species as well as upland prairie rarities. This trip is designed with beginners in mind. We'll teach some of the basics so you will more fully enjoy Oregon's native plants. Meet at the Wilkinson Hall parking lot SW of The Beanery, 26th and Monroe, Corvallis. For more information contact Matt at 541-231-9861.

May 4, Sunday, 11am-5pm*

Event: Plant Sale. Corvallis Spring Garden Festival. Central Park, Corvallis. Stop by and get some native plants for your garden

May 20, Tuesday, 6 pm

Dinner with Speakers at Nearly Normals. Join us for dinner at Nearly Normals, 109 NW 15th Street, Corvallis. All Welcome. RSVP Matt at mattbs@ peak.org so we can save table space.

May 20, Tuesday, 7:30 pm

Meeting: Native Insects of the Pacific Northwest. Pete and Judy Haggard's presentation wil feature some of the native insects that are in their field guide Insects of the Pacific Northwest. The discussion will include the role native plants play in gardens to provide the stable environment needed to maintain healthy populations of insects, which in turn help maintain the health of the plants, which in turn attract other wildlife such as birds and frogs. If possible, they'll provide a display of live insect specimens but also encourage people to bring insects for identification. Avery House, Avery Park, Corvallis. For more information call Matt Blakeley-Smith at 541-231-9861 Please note this is not our usual meeting time.

Emerald

May 3, Saturday, 9 am-1:30 pm*

Field Trip: Blanton Heights Oak Savannah. The City of Eugene hopes to acquire a 200-acre parcel of land with a grant from the Forest Legacy Program. We will study native flora during a 3-mile walk through this property in observation of Native Plant Appreciation Week. Wear hiking shoes. Bring water and snacks. Meet at 9 am at South Eugene High School. Call 541-345-5531.

May 16, Friday, 10–11 am

Field Trip: Observance of Endangered Species Day in Eugene. Rhoda Love will lead a one-hour walk at Amazon Park. We will see the Federallylisted wildflower, Bradshaw's desert parsley, and the Amazon Prairie Restoration site. Meet at the Amazon Visitor Center on Hilyard Street south of the pool at 10 am. Call 541-345-6241.

May 17, Saturday, 9 am

Mt. Pisgah Arboretum Wildflower Festival Collection and Setup. If you wish to help collect flowers for the show, please contact David McClurg at dpm@efn.org or call 541-746-9478. To help set up displays come to the Arboretum at 9 am Saturday.

May 18, Sunday, 10am-4pm

Event: Mt. Pisgah Arboretum Wildflower Festival. There will be hundreds of native wildflowers on display and a plant sale. Come for the food, live music and information booths representing many local organizations. Sponsored by the Mt. Pisgah Arboretum; the Botany Dept. of Lane Community College and Emerald Chapter, NPSO. For more information call 541-747-3817.

May 19, Monday, 7:30 pm

Meeting: Insects of the Pacific Northwest. Pete and Judy Haggard will present a slide show featuring some of the native insects in their field guide, *Insects of the Pacific Northwest*. EWEB Training Room at 500 East 4th Avenue, Eugene. Call 541-746-9478.

June 7, Saturday, 9 am

Field Trip: Mt. Pisgah Oak Habitat Management Tour. Oak Savannah is one of the most imperiled ecosystems in the Willamette Valley. Friends of Buford Park will give a tour of a pilot project to manage oak woodland habitat near the summit of Mt. Pisgah. Bring water. Wear good hiking shoes. Meet at 9 am at South Eugene High School or 9:15 am at the Mt. Pisgah Arboretum. Call 541-345-5531.

High Desert

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

June 28, Saturday

Field Trip: Lookout Mountain, led by member M.A. Willson. Trip details will be provided later.

August 16, Saturday

Field Trip: Broken Top, led by member Stu Garrett. Details to follow.

Klamath Basin

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

Mid-Columbia

May 8, Thursday, 7 pm

Meeting: Orchids of Oregon. Emerald chapter's Charlene Simpson will talk about the economic importance of orchids and discuss their diverse morphology, habitat preferences, and reproductive strategies, emphasizing the high cost of pollinator specialization and specific mycorrhizal obligations. Board Room, Building 1, 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 semiofficial, Chapter e-mail newsletter, The Calochortus, e-mail Don Jacobson at donjphoto@gmail.com

May 4, Sunday, 8:30 am

Field Trip: Hamilton Mountain. This hike in the West Gorge features a wide variety of flowers of the Douglasfir forest, meadows, and cliffs. The rare *Lewisia columbiana* should be in bloom. 7.6 miles, 2000 feet elevation gain. Meet at 8:30 am at Gateway Park and Ride. Please contact me for exact meeting location and so I know how many people will be attending. Beth Magnus, cell 503-706-5108, landline 503-226-7919, magnus@pcez.com.

May 10, Saturday, 8:30 am

Field Trip: McCord Creek. We'll be looking for *Dodecatheon dentatum*, *Castilleja rupicola, Erigeron howellii, Erigeron oreganus*, and many others in flower. There may be some lateflowering *Douglasia laevigata*, and *Stenanthium occidentale* should be coming into flower. Driving: about 60 miles round trip; hiking: about 3 miles with 500 feet elevation gain. Contact Jan and Dave Dobak, 503-248-9242.

May 8, Thursday, 7 pm

Meeting: Native Insects. Judy and Pete Haggard will present a program featuring some of the native insects that are in their field guide *Insects of the Pacific Northwest.* The emphasis of their talks is not only insects but plants, especially native species, and gardening with native plants to attract wildlife. They should have copies of their book available for purchase and autographing. Mt. Tabor Presbyterian Church on SE Belmont Street at SE 54th Avenue. Enter the church parking lot from SE 54th Avenue.

Siskiyou

SOU Herbarium Public Hours

The SOU Herbarium will be open from 7–7:30 pm immediately preceding the NPSO meetings on the third Thursday of each month. The Herbarium is located in the SOU Science Building, Room 206. Call Connie at 541-488-0368 for information or to schedule another time.

May 3, Saturday, 12–3 pm*

Event: Native Plant Awareness Week Spring Wildflower Show. Northwest Nature Shop, 154 Oak St. Ashland. View local blooming wildflowers and ask the experts all your wildflower questions. Come and get free wildflower seeds! Call NW Nature Shop 541-482-3241.

May 10, Saturday

Field Trip: Baker Cypress ACEC and Flounce Rock. Join Marcia Wineteer, BLM Botanist, for a short, very easy

hike (around ½ mile RT) to the Baker Cypress ACEC above Lost Creek Lake. We'll spend about an hour monitoring survival of Baker cypress seedlings that were planted in 2006 and 2007, then look for wildflowers in the vernally wet meadows. Species of interest, in addition to the Baker cypress, include *Lewisia triphylla* and *Paeonia brownii*. We'll then drive a short distance to Flounce Rock for panoramic views of the Lost Creek Lake area and a few more wildflower species. Call Armand Rebischke at 541-482-2141 for meeting time and place.

May 15, Thursday, 7:30 pm

Meeting: The genus Erythronium in western North America. Oregon and northern California are the global center of *Erythronium* diversity, with 20 of the approximately 32 species found worldwide. When not exploring the far corners of the Willamette Valley, Ed Alverson has been roaming the west in search of fawn lilies, avalanche lilies, and their kin. He will tell us some of what he has learned in the course of his explorations. Ed is the Willamette Valley Stewardship Ecologist for The Nature Conservancy. He has been working as a field botanist in the Pacific Northwest for over 25 years and has authored over 40 technical and popular articles about the flora and vegetation of this region, and his photographs have appeared in a variety of publications. Room 171 of the SOU Science Building, Ashland. For more information, contact Alex Maksymowicz, 541-482-1964.

May 24, Saturday, 9 am

Field Trip: Low Divide Road to N. Fork Smith River (Coast). We will look at the serpentine plant associations along Low Divide Road, just south of the Oregon-California border. Mostly a driving trip. Meet at 9 am in the town of Smith River on the east side of Hwy 101 at the beginning of Low Divide (Rowdy Creek) Rd. Leader: Norm Jensen, 541-951-4420, webmaster@ npsoregon.org

Umpqua Valley

May 3, Saturday, 9 am-4 pm*

Event: Annual Native Plant Sale. Celebrate Native Plant Appreciation Week with us as we hold our second annual native plant sale. Since last year's sale was such a huge success, we are back again and even better this time around! See the large variety of easy-to-grow native plants we have on hand. Our event is the same day as the Master Gardener plant sale at the fairgrounds, so be sure to stop by to see us and talk natives. Free landscaping advice and informational handouts will be available. To get there, take I-5 Exit 123 and follow the signs past the fairgrounds, where you'll find us out front at the Douglas County Museum of Natural History. Time to stock up on those native plants you wish you had growing in your garden. For more information call Donna Rawson 541-459-2821.

May 8, Thursday, 7 pm

Meeting: Costa Rica. Come explore the beauty of Costa Rica with presenters Barbara and Jim Long. They will share photographs and experiences of their recent trip through the Panama Canal and along the south coast of Costa Rica. Both were a part of an interpretative tour conducted by National Geographic with exceptional naturalists. Meet upstairs in the Mercy Education Bldg., 2459 Stewart Parkway, Roseburg. For more information call Sam Friedman at 541-673-0589.

Willamette Valley

May 10 & 11, Saturday & Sunday, 10am

Program: Silver Falls State Park Mother's Day Birding and Wildflower Weekend. Wildflower walks, beginning at 10 am and led by NPSO members, will be offered throughout the two days. Starting point for the walks is the Historic South Falls Lodge. Bird walks, presentations, and photo hikes will be available. For a full schedule of activities, registration forms, and overnight options at the Silver Falls Conference Center, contact Dorothy Brown-Kwaiser at 503-874-0201. Free and open to the public.

May 14, Wednesday, 6:15 pm Field Trip: Bush Park Wildflower

Walk. Members of the Willamette Valley Chapter will lead a walk to identify wildflowers in Bush Park and the Deepwood Estate. Participants should meet at the Mission Street Parking lot near the soapbox derby track at Bush Park. Free and open to the public. For more information, call 503-399-8615 after 7 pm.

May 24–26, Sat.–Monday, 8 am

Field Trips: Siskiyous/Cave Junction. Plant expert Wilbur Bluhm may lead his annual Memorial Day weekend field trip at sites near the Siskiyous. Each trip is independent of those of the other days, enabling a person to participate in field trips for one, two, or all three days. For information, call Wilbur Bluhm at 503-393-2934. Please note: This trip is tentative. The decision to undertake the trip will not be made until mid-May.

June 1, Sunday, 7 am

Field Trip: Dog Mountain. Participants in this all-day hike will view wild-flowers on Dog Mountain located in

the Columbia Gorge on the Washington side. John Savage of the Willamette Valley Chapter will lead the hike. This is a difficult hike but the pace will be slow. Bring lunch and water. To register, call 503-399-8615 after 7 pm. Free and open to the public.

William Cusick

All announcements about chapter meetings and field trips are also posted at www.williamcusick.npsoregon.org.

May 18, Sunday, 12 pm-5 pm

Field Trip: Owlsley Hogback (tentative, depending on plant phenology and smowmelt). This is a gentle hike along a dry, rocky ridge with the potential to also explore Fox Prairie. Lots of lomatiums and penstemons among the many plants to see. Led by Susan Geer. Contact her at susanmgeer@yahoo.com for additional information.

May 31, Saturday

Field Trip: Strickler RNA. The RNA is located just north of Starkey Experimental Forest near LaGrande It is an old growth ponderosa pine-larch habitat, with some trespass grazing issues. Led by Jenifer Ferriel. Please check the chapter website for more details.

Get Involved in Endangered Species Day & Plant Conservation Day: May 16, 2008!

S hare your love for our flora and wildlife May 16 is the 3rd annual Endangered Species Day and Plant Conservation Day. The Day celebrates our natural heritage, endangered plants and wildlife through numerous events organized by schools, botanic gardens, wildflower groups, libraries, community organizations, conservation groups, zoos, aquariums, and others.

Thousands of people have enjoyed these programs over the last 2 years, and have shared information and learned about the value, beauty and imperilment of endangered species. The events also offer opportunities to get involved directly in conservation.

To find an event near you or find out how you can plan your own Endangered Species Day event, visit www.stopextinction.org/EndangeredSpeciesDay

Portland Audubon Native Plant Sale

May 17–18, Saturday–Sunday 10 am–4 pm 5151 NW Cornell Road, Portland

Bring your spring gardening fever to Portland Audubon for our fabulous native plant sale. Over 100 species of Oregon wildflowers, shrubs, and trees will be available to enhance your yard. New this year! Look for the "Collectors' Corner" for hard-to-find plants, view our first native plant photo contest, shop Sunday after 2 pm at the bargain corner for discounted plants as well as used gardening tools and equipment. Proceeds benefit Audubon programs such as nature education, wildlife sanctuaries, and wildlife rehabilitation. See the website for more information: www.audubonportland.org/events/ plant_sale

ODA Plant Division, Noxious Weed Control Event

Crook County Weed Awareness Week

For more information contact Berta Youtie, Coordinator at 541-447-6228.

June 3, Tuesday, 11am-4:30pm

Crook County Extension Office on Lynn Blvd Adjacent to Fairgrounds, Prineville. Includes field tour with lunch, weed awareness trailer, weed ID, best management practices, and weed presentations.

June 7, Saturday, 8:30am-12 pm

Crook County Extension Office on Lynn Blvd Adjacent to Fairgrounds, Prineville. Includes field tour, weed ID, control techniques, and sprayer calibration.

Siskiyou Field Institute Classes

For more information or to register for courses call 541-597-8530 or visit www.thesfi.org

Flora of the Bald Hills May 3, Saturday

Stassia Samuels, at Redwood National and State Parks South Operations Center, Orick, CA

Lichen Dyeing May 3 & 4, Saturday & Sunday Rachel Winters

Mary Paetze: Her Special Places in the Siskiyou Mountains—an Appreciation and Remembrance Tour May 10, Saturday

Lee Webb, MS, at Horse Creek

Botany for Beginners: Enter the Botanical Universe! May 17, Saturday

Kristi Mergenthaler

Everything You Need to Know About the Klamath Province May 17 & 18, Saturday & Sunday Thomas Atzet, PhD & John Roth, MS

Ferns in the Field: Plant ID May 17, Saturday Linda Ann Vorobik, PhD

Siskiyou Botanizing: Days Gulch

and Beyond May 18, Sunday Linda A. Vorobik, PhD

Wildland Grasses: Identification of Native and Naturalized Grasses May 19 & 20, Monday & Tuesday Cindy Roché, PhD

Mount Pisgah Arboretum

34901 Frank Parrish Rd. (I-5, exit 189 to Seavey Loop Rd.), SE of Eugene. For more information or to register, call 541-747-1504 or visit www.efn. org/~mtpisgah.

Ecological Arboriculture May 3, Saturday, 9 am-3 pm

Join local arborists Scott Altenhoff and Jason Morrow as they discuss and demonstrate techniques for maximizing the habitat potential of trees and attracting wildlife, with a major emphasis on aesthetics, safety, and cost-effectiveness. Participants will assist in the creation of a natural-looking birdhouse to take home. Call to sign up. Fee: \$20.

Floodplain Wetlands at Mount Pisgah: Form, Function, and Future, May 10, Saturday, 2–4 pm

Expand your awareness of the soggy parts of Pisgah with this enlightening workshop taught by the Arboretum's own wetlands expert, Cameron Bergen. Call to sign up. Fee: \$10.

Birds & Blooms Walk May 11, Sunday, 8–10am

Avid birder and Arboretum nature guide Rick Ahrens will talk about the adaptations that allow some birds and flowers to become active earlier than others. Fee: \$5. Call to sign up.

Wildflower Festival and Plant Sale May 18, Sunday, 10am–4pm

This year we will honor our native plants and their beautiful pollinators, the butterflies. Enjoy our display of hundreds of wildflowers, a huge plant sale, live music, children's activities, guided nature walks, and great food and handcrafted goods! Suggested donation: \$5 per person or \$10 per family. Members free! Free parking; please leave dogs at home. Co-sponsored by NPSO and Lane Community College. Call 541-747-3817 for more information.

Berry Botanic Garden

11505 SW Summerville Ave., Portland. To register or to get more information, visit www.berrybot.org or call 503-636-4112x102.

Geology and Botany of Camassia May 5, Monday, 1:30-4:30 pm

The Camassia Natural Area, only 26 acres, supports an extraordinary diversity of habitats: oak-madrone woodlands, ponds, and stunning wet meadows. On this easy hike, with geologist Dick Thoms, learn where the dark gray basalt bedrock came from and how it became exposed. Be prepared for muddy trails. \$10 Space is limited. Registration required. Registrants will receive further details.

Pine Needle Basketry May 17, Saturday, 9am-4pm

A teacher of basketry for over 15 years, Kim Black will guide us through a modern exploration of a traditional Native American craft. Take home your own handmade pine needle bowl. Extra supplies and instruction materials available for purchase. \$40 Space is limited. Registration required.

Ethnobotanical Foray May 18, Sunday, 2–4 pm

Naturalist Deb Scrivens will share her knowledge of plants traditionally used for food, medicine, baskets and many other uses. She will provide a list of resources for further investigation and discuss the ethics and safety protocols involved in the harvest of wild plants. \$15; \$10 Children 12 and under. Space is limited; registration required.

PSU Herbarium Open House

May 23rd, Friday, 1–4pm Room 421, Science Building 1, 1025 SW Mill St., Portland

Come celebrate Linnaeus' birthday with us at the third annual Portland State University Herbarium's Open House. Refreshments provided.

WREN West EugeneWetlands

751 S. Danebo Ave., Eugene. For more information or to register call 541-683-6494 or visit www.wewetlands.org

Wednesday Wetland Wanders! May 14, 9–10 am

See-sil Savanna

May 28, 9–10am

Tsanchiifin Walk

Casual walks in the West Eugene Wetlands. Binoculars provided. Wear shoes that can get wet and muddy.

Benefit at WineStyles and BodyJaz May 6, Tuesday, 5–8:30 pm

WineStyles and BodyJaz Massage and Gifts will donate 50% of wine tasting and fragrance bar purchases. Local classical guitarist John Jarvie will play at WineStyles between 6:30-8 pm! Tasting cost is \$9.99. Mention WREN and both businesses will also donate 10% of purchases bought anytime on Benefit Tuesday. The stores are located behind Washington Mutual Bank in the Woodfield Station shopping center at 29th and Willamette.

Amazon Creek Work Party May 17, Saturday, 9am–1pm

Join volunteers for removal of invasive plants and trash along Amazon Creek. Tools, snacks, drinks, and direction will be provided. Meet at the West Eugene Wetland Project Office. Sponsored by SOLV, the City of Eugene, REI, and WREN.

Wonderous Wetland Plants May 28, Wednesday, 7–9 pm

Join BLM botanist, Cheshire Mayrsohn, as she guides us through the amazing world of wetland plants. Be prepared for an evening walk over a gravel trail. Meet at the West Eugene Wetlands Office, 751 S. Danebo Ave. This program is intended for adults. Space is limited to 25 people. Preregistration is required.

2nd Annual Walkin' & Rollin' through the Wetlands May 31, Saturday, 11 am-2 pm

Explore the West Eugene Wetlands by bike or foot on the Fern Ridge Path between Beltline and Greenhill Road. Along the way, local experts will have educational displays to help you discover the many wonders of the wetlands. Learn about wetland plants, animals, restoration projects, and the education center. At each booth along the path, get your passport stamped for a chance to win raffle prizes!

Spring Butterflies June 1, Sunday, 1–3:30 pm

Meet at the West Eugene Wetlands Project office at 751 S. Danebo. Space is limited to 18 people and pre-registration is required. Sponsored by the local chapter of the North American Butterfly Association.

North Mountain Park Nature Center

620 N. Mountain Ave, Ashland, www.northmountainpark.org. To register visit http:// ashlandparks.recware.com or call the Nature Center at 541-488-6606.

Nature Sketching & Journaling

May 24, 25 & 31; Saturday, Sunday and the next Saturday; 9 am-2:30 pm

Author and illustrator Irene Brady, a life-long journal-keeper and right-brain drawing workshop presenter, will guide you through the mysteries of recording the wonders of nature, your garden or your nature-oriented vacation with observations, reflections and sketches. Tap into your artistic potential with stimulating sessions on right-brain drawing, watercolor pencil painting, guided exercises in creative writing, haiku and poetry and other techniques to brighten and intensify your journal pages. Ages 12 & up. \$95/student. This class will take place at The Grove, 1195 E Main St, Ashland.

Tygh Valley Milkvetch

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and 2007 to determine the current status of the populations and evaluate the accuracy and predictive power of the models. This is significant because with strong models, we can predict whether a population is in danger of extinction and in need of management or whether it is likely to persist with little help.

These A. tyghensis populations were modeled using a transition matrix approach. This type of model uses information about the reproduction and likelihood of survival of individuals to model the entire population. Plants are grouped into "stages" based on size, and the model uses probabilities that individuals will transition between these stages to generate the model. Obviously there is a lot of uncertainty that we must take into account. Population size varies dramatically based on the number of seedlings, so a simple number of individuals is not necessarily the best reflection of population health because seedlings tend to be much less likely to persist than older, larger plants. This is considered in the transition matrix. There is also uncertainty introduced by the random nature of environmental effects, so the models must also consider changes caused by unpredictable environmental changes



The Tygh Valley is rich with unique habitat that supports many rare and endangered plants.

like drought.

Based on previous IAE research, we know that attempts at reintroducing *A. tyghensis* into sites where it has been extirpated were met with very little success, and as a result management must be focused on maintaining and preserving existing populations. The data collected in the past two years have shown that the models generated in 2000 were fairly accurate in predicting long-term population trends for all but one site. Two of the five populations



Astragalus tyghensis forms low clumps of silver-green leaves and yellow inflorescences.

appear to be in decline, and according to the model, which can predict the probability of catastrophic decline in population size, one is in serious danger of extinction. The populations at the other three sites are relatively stable. The study also showed that plants that were grazed were, on average, smaller and had a lower reproductive output and population growth rate than ungrazed plants, supporting the assertion that grazing (primarily by cattle) has a damaging affect.

Monitoring will continue at these sites next year, and with these three years of data, the models can be effectively evaluated and we will have information about the populations that can guide management decisions. The study on A. tyghensis is an important example of how long-term population monitoring can provide valuable information about the health and viability of rare plant populations and give us the information necessary to move toward management action. This internship program—partially funded by the Native Plant Society of Oregon-has given me valuable insight into the applications of a career in botany and ecology, as well as an appreciation for the amount of work and time that goes into the management of our resources and endangered species.

Highlights of the April 5th Quarterly NPSO State Board Meeting

by Harold Zald, NPSO Secretary

The Umpgua Valley Chapter hosted L the April Board meeting at the Douglas County Museum. The board heard reports on activities from chapters and committees, and also focused on: the proposed liquefied nature gas (LNG) connector pipeline in Southern Oregon, a proposed pumped hydroelectric project at Summer Lake in Eastern Oregon, the Oregon Flora Project, publication updates, current membership numbers, the NPSO draft budget, Field Research Grants, and preparations for the NPSO annual meeting in Eugene. Upcoming activities around the state include the Glide Wildflower Show (April 26 and 27), Native Plant Appreciation Week (April 27 to May 3), The Umpqua Valley Native Plant Sale (May 3), and the Wildflower Festival at Mount Pisgah (Sunday after Mother's Day).

Linda Hardison gave an update on recent work, as well as the time and financial constraints faced by the Oregon Flora Project (OFP). The OFP continues to be very dependent on the contributions of NPSO and other donors, and does not receive any financial support from the State of Oregon. Continued support by contributors (both time and financial resources) is essential to maintain the OFP. The Board approved Linda's suggested changes regarding how donations are directed to the OFP (see future issues of the Bulletin or the Oregon Flora *Newsletter* for more information). NPSO also plans to send letters to the Oregon Department of Agriculture and Oregon State University in the near future requesting financial support for the OFP. The OFP continues to search for additional funding sources to bolster its important work.

Ron Hatt gave an excellent presentation on the current status of the LNG pacific gas pipeline connector proposed for southern Oregon. Ron summarized the regulatory status of the proposed project, and discussed impacts the project will have on native plant populations. Specifically, the pipeline route

would go directly through populations of Calochortus coxii (crinite mariposa lily, a State Endangered and Federal Species of Concern), and could also impact Lupinus sulphureus ssp. kincaidii (Kincaid's lupine, a State Endangered and Federally Threatened species) In the case of the crinite mariposa lily, a Conservation Agreement was signed by the Bureau of Land Management and the U.S. Fish and Wildlife Service to provide protection and enhancement of that species in the area of concern for a 10-year period beginning in 2004. The NPSO board approved a motion giving Les Gottlieb (Chair of the NPSO Rare and Endangered Plants Committee) authority look into petitioning the U.S. Fish and Wildlife Service to increase the level of protection for *Calochortus* coxii under provisions of the U.S. Endangered Species Act. Al Johnson also presented information regarding a proposed pumped hydroelectric project to be located at Summer Lake (about 50 miles southeast of La Pine), and the upcoming Oregon Public Television program "The Silent Invasion". The running of this documentary will be complemented by invasive organism control activities throughout the state by a variety of organizations.

New and renewal memberships are still slightly lower than in prior years. This is probably an aftereffect of the combined Dec/Jan issue of the Bulletin. For all of you that have not renewed your NPSO memberships, please use the renewal form in this issue of the Bulletin! The Emerald Chapter is making good progress as hosts for this year's annual NPSO meeting. The heavy snowpack in the Cascades could delay the flowering of many plants, but this may work to the advantage of the July 11–13 meeting date. The board heard the recommendations for the funding of two Field Research Grant proposals, look for information on these funded proposals in future issues of the Bulletin or on the NPSO website. The board heard from the Budget Committee about the draft budget for 2008.

Pam Palmer of the Siskiyou Chapter will be seeking the office of Secretary, to replace Harold Zald in the upcoming NPSO elections. Two Director-at-Large positions will be open for election in June. The next Board meeting will be held on July 13th in Eugene, concurrent with the NPSO annual meeting.

NPSO Items for Sale

NPSO Membership Directory lists names, addresses, phone numbers, and e-mail address of NPSO members (April 2007). Available from Jan Dobak, 2921 NE 25th Ave., Portland OR 97212. **\$4 postpaid.**

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

"Land of Umpqua" T-Shirt featured at the 2005 Annual Meeting is still available. It depicts the delightful *Calochortus umpquaensis* illustrated by Dorothy Schattenkerk and in cream, purple, yellow, and green. The shirts are **\$16 plus \$5 shipping** and come in light gray, beige, pink or light blue in sizes M, L, and XL. To order call Ron Hatt at 541-863-7024.

NATIVE PLANT SOCIETY OF OREGON MEMBERSHIP FORM

Name	DUES include monthly <i>Bulletin</i> and <i>Kalmiopsis</i> when published. Membership is for the calendar year. New memberships enrolled after			
Address	_ July 1 include the following year.	s entoned after		
City State Zip+4	New Renewal			
Phone E-Mail	- □ Student - \$12 □ Regular - \$18 □ Family - \$ □ Sustaining - \$50 □ Patron - \$100 □ Life Mem			
Chapter (if known) Is this a change of address? If so, please write your old address here:	 Gustaining \$\$00 in Factor \$\$100 in Energy Subscription Only (Bulletin and Kalmiopsis) - \$18 O wish to subscribe, but do not want to have full members. 	nly for those who		
Address	- Jean Davis Memorial Scholarship Fund	\$		
City State Zip+4	Leighton Ho Memorial Field Botany Award Fund	\$		
Please make checks for dues and contributions payable to: NATIVE PLANT SOCIETY OF OREGON	Rare and Endangered Plant Fund Friends of the Oregon Flora Project	\$ \$		
Send completed form and full remittance to: Clayton Gautier, NPSO Membership Chair 3927 Shasta View St. Eugene, OR 97405-4442	<i>Membership in the Native Plant Society of Oregon is open to all.</i> 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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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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Help Needed: Where are Our Serviceberries?

by Rhoda Love, Emerald Chapter, rglove@uoregon.edu

This May and June, when your local Oregon, Washington, and California serviceberries (*Amelanchier* species) are in bloom, there is somebody who will very much want to know.

Dr. Christopher S. Campbell of the University of Maine at Orono, has a grant from the National Science Foundation to study the DNA of our western *Amelanchier* species, and he wants to visit the our western states to collect herbarium specimens and tissue samples when and where blooming populations can be found. (He has already done this work for Eastern US taxa.) In order to do this he needs our help!

Chris is an amicable and energetic young man who has already published around a dozen papers on the serviceberries and has written the treatment of the genus for *Flora of North America*. But he does not yet know where in the west to find populations of our species. Those would be *Amelanchier alnifolia* (with 3 varieties), *A. cusickii*, and *A. utahensis*. We locals can help him by letting him know where and when he should visit these local populations.

I can serve as the gatherer of this information, or you can e-mail Chris directly at: Christopher_Campbell@ umit.maine.edu He will want to know the precise locations of serviceberry populations in our western states, as well as your estimate as to when they will be in full bloom in your area. If you would be free to guide him to the plants, that would be super as well! Just to get you started, I can tell you that across northern Oregon from the

Don't Miss the 2008 NPSO Annual Meeting July 11–13

in Eugene

Registration and Information in April *Bulletin* and at www.NPSOregon.org

Willamette Valley to the Wallowas, various varieties of *A. alnifolia* were in full bloom the first week in May, 2007.

Please help. You can e-mail me at the address above for more information.