

Naming Plants: From Polynomials to Binomials to PhyloCode

by Gail A. Baker and Rhoda M. Love, Emerald Chapter

nowing what a plant is called is important to us all. We need to know what to ask for at the market or the garden store. Usually we first learn common names such as lettuce, carrot, or Oregon grape; but we are also aware of official designations assigned by western science that consist of unique combinations of two words, the generic and specific epithets, or binomial. Cultivated lettuce is Lactuca sativa, carrot is Daucus carota, our state flower is Berberis aquifolium. Binomials go back to identifiers coined by Linnaeus, the Swedish "father of taxonomy," who lived 250 years ago. In his time, scientists identified plants using polynomials or multi-word descriptions. However, Linnaeus and his students devised the shortened two-word Latin name for each taxon, which quickly became popular and evolved into the system used worldwide today to assign names, and place species in genera, families, and higher ranks. (Raven, 1999).

Now, after two and a half centuries, a change is brewing. Articles entitled "Linnaeus' Last Stand?" (Pennisi, 2001); Is it "So Long, Linnaeus?" (Withgott, 2000); and "Biologists Urged to Retire Linnaeus" (Pennisi, 1996) alert us to the fact that Linnaeus' nomenclature is being called into question by a new breed of taxonomists. The debate centers on evolutionary associations revealed by modern molecular techniques, and how these revelations may affect scientific names and ranks. Of course, with the

publication of Darwin's Origin of Species in 1859, systematists began, insofar as possible, to use phylogenetic principles in taxonomy. Their goal was to place species in a given genus or family when they saw evidence of a shared common ancestor. (Linnaeus himself knew nothing of evolution, but he was a shrewd observer of morphological characters, and many of his groupings are upheld by molecular techniques.) Thus the goal of making taxonomy reflect phylogenetic relationships is nothing new. Nevertheless, the inclusion of modern DNA analyses have led some present workers to propose a new taxonomic system.

The new system, called "PhyloCode," may offer an alternative to the current taxonomic hierarchy. PhyloCode is based on the use of certain genetic markers coupled with the computerized production of cladograms which graphically show the "distance" between certain chosen taxa. The more markers two species share, the closer they will fall on the cladogram, and the "closer" they are presumed to be to a common ancestor. Biologists are presently making ever-increasing use of the new tool, called "cladistics," to reveal relationships. Often the analysis confirms the correctness of taxonomy based on morphology; however DNA techniques may reveal kinships (or lack of them) that have not been apparent using traditional methods.

For example, botanists have long been aware of a close phylogenetic

relationship between the families Papaveraceae (the poppy family) and Fumariaceae (the bleeding heart family). Although members of the two continued on page 18

In This Issue

It's Still Renewal Time12
Eastside Conservation Coordinator Needed12
Chapter Calendar13
Grant Proposals Requested.15
NPSO Items for Sale16
Other Events16
State Office Candidates17
Long-time NPSO Members to be Honored in June19
The Licorice Fern20
NPSO/IAE Conservation Biology Internships20
NPSO Contacts21
Bush Administration Plans To Dismantle National Forest

February 2003 11



Native Plant Society of Oregon

World Wide Web

http://www.NPSOregon.org

E-mail Discussion List

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

General Business Address

P.O. Box 902
Eugene, OR 97440
or correspond directly with Officers
and Committee Chairs listed on the
inside of the back page.

Membership Inquiries Only

Jan Dobak 2921 NE 25th Avenue Portland, OR 97212-3460

Bulletin of the Native Plant Society of Oregon

Editor: Tanya Harvey

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

The submission date is the 10th of each month for the following month's issue. 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.

It's Still Renewal Time!

The NPSO membership year is January to December.

NPSO brings you field trips, programs, classes, the monthly Bulletin, and Kalmiopsis. It's also a good time to consider a taxdeductible contribution to our special funds. The Leighton Ho Memorial Award is used for research projects in western Oregon. The Rare and Endangered Plant Fund supports work with our most threatened plants. The Jean Davis Memorial Scholarship is awarded annually to a botany student at an Oregon college or university. You can also include a contribution to the Oregon Flora Project along with your dues.

Your membership and donations make it possible to carry out more of the many projects that are needed to pursue the goals of NPSO.

THANK YOU!

A big thank you to Georgie Robinett for her generous donations to NPSO in 2002 in memory of Jim Robinett.

Eastside Conservation Coordinator Still Needed

The Eastside Conservation Coordinator/Chair position is still vacant, and NPSO needs someone to fill that role. Responsibilities include working with chapters to identify and participate in public input on federal, regional, state, and local conservationrelated issues that affect Oregon east of the Cascade crest. Letter writing, research, and occasionally meetings with officials or agency staff are typical duties of the position. A large time commitment is usually not required. If you are interested in serving NPSO in this position, please contact the president at president@NPSOregon.org.



TANYA HAR

Winter can be difficult for people enamored of wildflowers, but don't despair, Spring will be here before you know it! Here a striking mass of Fawn lilies (Erythronium oregonum) lights up the summit of Tire Mtn. in Lane County in early June. They will bloom even sooner in the Valley.

NPSO CALENDAR

State

April 5, Saturday, 9:00 am
State Board Meeting combined with
Strategic Planning Planning Session.
The next State Board Meeting will take
place 9:00 am-2:00 pm in Corvallis.
(Note early start.) Exact location to be
announced. A relatively short board
meeting will be followed by the strategic planning session with moderator
where we will discuss specific long
range plans and goals for The Native
Plant Society of Oregon. We hope as
many board members as possible will
make every effort to attend this important meeting. Watch for more informa-

June 20-22, 2003

tion in March.

Annual Meeting: The Portland Chapter will host next year's meeting in John Day. More information will be published in future issues of the *Bulletin*.

Blue Mountain

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

Cheahmill

February 27, Thursday, 7:00 pm Meeting: Oregon's Last Great Places.

Lauretta DeForge, a volunteer with The Nature Conservancy of Oregon, will give a slide presentation featuring several of the 47 preserves in our state that are protected by the Conservancy. Lauretta will discuss TNC's work identifying, researching and protecting critical habitat. 7:00 pm in the Carnegie Room, McMinnville Library, 225 N. Adams St., McMinnville. For more information contact Susan Williams at 503-538-1865 or helgesusan@attbi.com.

March 20, Thursday, 7:00 pm

Please note: for this month meeting is on the 3rd thursday.

Meeting: History and Personalities. Bonnie Hall, a very talented botanical illustrator and Corvallis Chapter NPSO member, will give a slide presentation and discussion covering some of the interesting history and prominent personalities of the world of botanical art. Carnegie Room, McMinnville Library, 225 N. Adams St., McMinnville. For more info contact Susan Williams at 503-538-1865 or helgesusan@attbi.com.

IMPORTANT NOTE TO FIELD TRIP PARTICIPANTS

Field trips take place rain or shine, so proper dress and footwear are essential. 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. Bring water and lunch. All NPSO field trips are open to the public at no charge (other than contribution to carpool driver) and newcomers and visitors are always welcome. National Forests require a Northwest Forest Pass for many field trip locations. Permits can be acquired at forest headquarters and ranger districts.

NOTICE TO FIELD TRIP CHAIRS AND LEADERS

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

Corvallis

February 10, Monday, 7:30 pm Meeting: After the Ashes Cool—a Look at Post Fire Morels. A slide show and talk by Nancy Weber. Meet at the Avery House in Avery Park, Corvallis. Parking is in the park area to the south of the Avery House and winter lighting is very poor so be careful. For more information contact Esther McEvoy at 541-754-0893.

Emerald

February 24, Monday, 7:30 pm Meeting: Invasive Plants in Wildlands of the Southern Willamette Valley. If you thought that Reed Canarygrass was a problem, watch out for False-Brome and the Giant Knotweeds! This digital slide show will cover identification and growth habits of many of the most problematic invasive plant species which are degrading wildlands in our area. This show will focus on terrestrial invasives, some of which are sold in nurseries. Control for some species also may be discussed. Bruce Newhouse is the state NPSO President, and a local botanist and field ecologist. Room 115, Science, Lane Community College, 4000 E. 30th Ave.

March 29, Saturday, 8:30 am Field Trip: Lichen Identification Walk to Haceta Lighthouse. Rob Weiss lead a 3-mile walk from Washburne Park to the lighthouse and back. Rob will provide a list of more than 30 lichen species including the rare Niebla cephalota. Bring handlens, raingear, lunch, etc. Meet at the South Eugene High School at 8:30 am or at the roadside trailhead pullout one mile north of Heceta Lighthouse Park and one mile south of Washburne State Park Campground/day use entrance at 10:00 am. For more information call Rob Weiss at 541-563-3947 or Dave Predeek at 541-345-5531.

March 31, Monday, 7:30 pm Meeting: Plants and Primates— **Dynamic Mutualisms in African** Rainforests. Since 1991, Joanna E. Lambert, UO Assistant Professor of Biological Anthropology, has researched the ecology of primate-plant interactions and conservation biology in Kibale National Park, a mediumaltitude rainforest in Western Uganda. Joanna has learned that the resident primates consume a great diversity and density of fruit. She'll discuss with us her findings on the fruit feeding and seed dispersal of monkeys and apes and the impact of this frugivory on forest regeneration. Room 115, Science, Lane Community College, 4000 E. 30th Avenue.

High Desert

February 25, Tuesday, 7:30 pm Meeting: Fire Management and its Role in Conservation. Geoff Babb, Fire Management Officer for the The Nature Conservancy of Oregon, will discuss the role of fire management in natural area conservation. The issues of fuels and habitats as well as fire suppression and the re-introduction of fire will be emphasized. Geoff will share his experiences in the southeast US and also provide recent examples from Central Oregon. Central Oregon Environmental Center, 16 NW Kansas, Bend.

March 25, Tuesday, 7:30 pm **Meeting: Native Plant Protection** and Restoration on Deschutes Basin **Land Trust Properties.** Karen Allen. Land Steward for the Deschutes Basin Land Trust, will explore projects designed to protect and restore native plant communities on Land Trust properties. We'll discuss projects designed to restore fish and wildlife habitat and the natural hydrology of Squaw Creek; managing for sensitive as well as invasive species; and the processes and challenges involved in managing native plant communities on nature preserves and conservation easements. Central Oregon Environmental Center, 16 NW Kansas, Bend.

Klamath Basin

For information on the Klamath Basin Chapter, contact Sarah Malaby, 541-884-5703, smalaby@cs.com; or Mike Cutler, 541-850-9012, cutler@cvc.net.

Mid-Columbia

February 5, Wednesday, 7:30 pm Meeting: Tales of Adventure with a Botanist in the Field. Carolyn Wright will show slides and tell of surveying and monitoring plant populations in Oregon and Washington. Columbia Gorge Discovery Center. Exit 82 off I-84 in The Dalles and follow the signs.

March 5, Wednesday, 7:30 pm Meeting: Australian Outback. Reid Schuller, president of the High Desert Chapter NPSO will be our speaker. Columbia Gorge Discovery Center. Exit 82 off I-84 in The Dalles and follow the signs.

North Coast

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

Portland

February 8, Saturday, 1:00 pm Workshop: Winter Twig Identification. 1:00 pm - 3:00 pm at Hoyt Arboretum. Who needs flowers and leaves to identify plants? Greg Stone will be leading a workshop on identifying plants in the winter. Bring a hand lens if you have one, otherwise one will be provided. Also bring a snack. A one-hour nature walk is included. Portland Parks is sponsoring this class as part of their "Native Plants of Portland Series". Fee \$8. To pre-register (not required) call Portland Parks at 503-823-5132. Ask for course #114868.

February 11, Tuesday, 7:00 pm Meeting: Native Pollinators in Oregon. Dr. Andy Moldenke, professor of entomology at Oregon State, will do a presentation on native pollinators in Oregon. Plants are linked into native ecosystems in a number of ways—most plants can't exist without pollinating insects. Native pollinators, especially native bee species, are of particular concern within the oak savanna community of western Oregon. Hear more than you ever wanted to know about native pollinating insects, their behavior, their biology and their relations with the native flora. Fireside Room (#355) of the First United Methodist Church located at 1838 SW Jefferson St. in Portland. For more information contact Dee White, 503-775-2909.



Red-flowering Currant (Ribes sanguineum) can start blooming in February at lower elevations.

Siskiyou

February 20, Thursday, 7:30pm Meeting: Scientific Discoveries of the Lewis and Clark Expedition. Jerry Igo, President of the Mid-Columbia NPSO Chapter, Chair of the NPSO Education Committee and 2002 Recipient of the NPSO Fellows Award will show and discuss his recent video project. The project is four years in the making, and includes flora and fauna collected and described in Lewis and Clark's journals and scenes of flowers and habitats similar to those encountered in the very early 1800s along the Lewis & Clark trail. Room 171 of the SOU Science Building, Ashland. For more information call Shannon Clery at 541-201-0909.

Umpqua Valley

February 13, Thursday, 7:00pm Meeting: Lichens. Bring unknowns to compare with museum specimens. 7:00pm at the Mercy Medical Center Community Education Building 2459 Stewart Parkway (bright blue sign between Stewart Park Pharmacy and OfficeMax). For information call Richard Sommer 541-673-3709.

February 15, Saturday, 9:00 am Field Trip: Lichens in the Umpqua Valley, various locations. Assemble for caravan or carpooling at BLM parking lot, 777 Garden Valley Blvd, Roseburg, prior to 9:00 am departure. For more information please call 541-673-3709.

Willamette Valley

For information on the Willamette Valley chapter, please call Bob and Judy Oliver at 503-371-8709, or Wilbur Bluhm at 503-393-2934.

William Cusick

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

Grant Proposals Requested

The Native Plant Society of Oregon will continue to sponsor small field research grants. The objectives of the program are: 1) to stimulate basic field research into the biology and distribution of Oregon's native and naturalized flora and vegetation, particularly in the more remote areas of the state, and 2) to promote native plant conservation through better understanding of Oregon's flora and vegetation and the factors affecting their survival.

Persons interested in applying for funding can obtain a copy of the program policy and guidelines from Dan Luoma, Field Research Grants Committee Chair, 3740 NW Harrison Ave., Corvallis, OR 97330. The material may also be obtained at NPSO's World Wide Web site, http://www.npsoregon.org/comm/FRGC.htm Research proposals are due by March 1, 2003.

NPSO Items for Sale

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

NPSO Membership Directory lists names, addresses, phone numbers, and email address of NPSO members (April 2001). Available from Jan Dobak, 2921 NE 25th Avenue, Portland, OR 97212-3460. **\$3 postpaid.**

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

The "Atlas of Oregon Carex" was NPSO's first Occasional Paper. The Atlas has 128 location maps, one for each Carex taxon in the state of Oregon. Also included are a synonymy, fun facts about sedges, a history of the project, and Oregon geography maps. **Price: \$5.**

"Louis F. Henderson (1853-1942): The Grand Old Man of Northwest Botany" by Rhoda M. Love. NPSO's second Occasional Paper is the only existing publication with detailed coverage of the long and fascinating life of this John Muir-like western character. Included: 56 pictures, 133 notes, chronology, list of plants named for Henderson. Third printing nearly sold out. Order your copy today! Price: \$10.

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

OTHER EVENTS

Lilla Leach Lecture

The Plant Explorers March 15, Saturday, 10 am - 2:30 pm

Leach Botanical Gardens will present the first annual lecture series to commemorate the birth of its founder Lilla Leach, an early plant explorer of the Kalmiopsis Wilderness. Diana Reeck, of Collectors Nursery will discuss her experiences collecting plants in China. Dr. Daniel Harder, Director of the University of California-Santa Cruz Arboretum will speak regarding his exploration and discoveries in Vietnam. Cost \$35.00 (includes lunch). To register please call Alice at 503-236-0240 or Nancy at 503-823-1671.

Mount Pisgah Arboretum Events

Seavey Loop Rd., Eugene, call 541-747-1504 for information or to register.

Splashes of Watercolor on a Gray Day February 1 & 8, Saturdays, 1-3 pm

Beat those winter blues with this fun indoor painting workshop! Merit Ferrell uses bright colors to create her beautiful landscapes, and will teach specific landscape techniques so you can do the same. Using colorful photographs of the Arboretum from more cheerful seasons as inspiration, prepare yourself to get outside and paint this spring. Pre-registration required. Fee: \$35 (\$30 MPA members).

Creative Pine Cone Mobiles February 16, Sunday, 2-3:30 pm

Spend some cozy family time at the Arboretum making a natural mobile out of sticks, cones, and other natural objects. In the simple beauty of a cone lies the secret to a tree's future. Peer within its scales and discover the mystery of a tiny seed's journey to becoming a huge tree. Led by Fran Rosenthal, the Arboretum's Education Manager. Meet in the Visitor Center. Suggested donation \$3 per person, \$6 per family.

Native Plant Restoration Conference

Native Plant Restoration and Management on Public Lands in the Pacific Northwest: Rare Plants, Invasive Species, and Ecosystem Management February 11–13, Banquet February 11, 2003

LaSells Stewart Center, Oregon State University, Corvallis, Oregon

Please join us at this 3-day symposium on native plant management in the Pacific Northwest to share information and discuss experiences in native plant restoration and management. Topics will cover species and habitat restoration, development of native plant materials, rare and endangered plant conservation, invasive plants, and ecosystems. The meeting will feature over 30 talks and as many posters by experts and practitioners in these fields and will include ample opportunities for informal conversations and networking. The target audience includes biologists, land managers, non-profit organizations, and the public—this is an opportunity to get together and talk about restoration and habitat conservation. Sponsors include the Institute for Applied Ecology, Bureau of Land Management, US Forest Service, and NPSO.

The keynote speaker will be Michael Way, who is a member of the International Team for the Millennium Seed Bank Project from the Royal Botanical Gardens, Kew. Michael is the International Coordinator for the Americas and is responsible for the development of seed conservation projects with partners in Mexico, Chile, and the USA. He has experience in habitat conservation, management and restoration. Michael will speak on "Population, species, or community: Where should land managers target plant conservation efforts?"

For conference details, agenda, and registration, visit www.appliedeco.org and click on the updated conference link or call Tom Kaye at 541-753-3099.

Please register now! Mark your calendars for February 11-13, 2003!!!

ONRC Meeting

The Economic Benefits of Forest Protection February 11, Tuesday, 7:00 pm

Presented by Kristen Lee from the consulting firm EcoNorthwest. The meeting will be held upstairs at the Growers' Market, 454 Willamette St., Eugene.

Gardening with Nature: Native Plant Gardening Workshop Series

Don't miss the second annual native plant gardening workshop series! These popular classes offer a complete tutorial in how to identify native plants perfect for your garden, propagate them for many years of natural beauty, use natives to attract and maintain wildlife in your garden, and design a natural garden that fits into your personal landscape. Taught by Evelyn Hess of Lorane Hills Farm and Nursery. Sign up early and prepare for your garden for some ecologically beneficial changes! Class fees: \$20 (\$15 MPA members) or \$85 (\$60 MPA members) for the entire series.

Gardening with Nature March 8, Saturday, 9:30am-Noon

Knowing and Growing Native Plants March 15, Saturday, 1-4pm

Gardening for Wildlife Habitat March 29, Saturday, 1-4pm

Native Plant Propagation April 5, Saturday, 1-4pm

Designing Your Natural Garden: April 19, Saturday, 1-4 pm

State Office Candidates

The NPSO Nominating Committee offers the following list of candidates for the State offices. Election Ballots will be included in the next *Bulletin*.

President

Bruce Newhouse, incumbent, was born in Oregon and fell in love with our native flora and fauna while growing up in the Portland suburbs and northern Oregon Cascades. He is a botanist, wetland scientist and naturalist as a partner in Salix Associates. Since the early '90s he has been active in NPSO, serving stints as Emerald Chapter President, Vice-President, and co-chair of NPSO's Rare and Endangered Plants Committee. Bruce is on the Oregon Flora Project Atlas Committee, is a member of the Carex Working Group, and is a member of several local citizens committees, and also is a founding member of the Cascade Mycological Society and North American Butterfly Association's Eugene-Springfield Chapter. Bruce has worked to stimulate interest and activism in NPSO, particularly in building educational resources and providing input to public decision-making. He believes that as concerned local residents we are the only stewards of our local ecosystems, and that we need to be more vocal and visible in that role.

Vice-President

Rhoda Love became a member as soon as she learned of the organization's existence in the early '70s. She was tapped for State President in 1980 when she completed her PhD in ecology at the University of Oregon, and served for several terms. She has also served as State Secretary and as Board Member at large. Rhoda has been an active member of Emerald Chapter for over thirty years. She is a retired teacher of Botany and Ecology who has no plans to give up her life-long active involvement in conservation issues. Rhoda was honored by NPSO in 2001 as a Fellow of the Society.

Secretary

Kelli Van Norman, incumbent, grew up in the mountains of southwestern Oregon hiking and learning the native flora through 4-H Forestry. She enjoys botanizing throughout Oregon and is learning to landscape with native plants. Since last spring, Kelli has been working in Portland for the Bureau of Land Management on the Northwest Forest Plan's Survey and Manage Program. Prior to that, she worked for the U.S. Forest Service PNW Research Station on long-term ecosystem productivity. Kelli earned a B.S. in Geography from the University of Oregon and an M.S. in Forest Science from Oregon State University. She has acquired a new dissecting microscope and hopes to use it this year to become more proficient in the identification of grasses and lichens.

Treasurer

Candice Guth, incumbent, has been a birdwatcher and hobby botanist in Oregon since 1976. She has been a conservation activist for many years and served on the steering committee for the 1988 Oregon Rivers Initiative, and on staff of the Oregon Natural Resources Council and Audubon Society of Portland as their Finance Directors from 1990-2001. Candice has been a CPA in Oregon since 1982 and is currently on staff of the Oregon Lions Foundation for Sight & Hearing.

Directors-at-Large

Dan Luoma is an Assistant Professor in the Department of Forest Science at Oregon State University where he specializes in the ecology and taxonomy of ectomycorrhizal fungi. Dan was a founding member of the Corvallis Chapter and has served the Society in many capacities since that time. He is currently Chair of the Budget Committee and Field Research Grants Committee. At the State level he has

previously been Vice-President, President, Immediate Past-President, and Director-at-Large. He is currently Treasurer of the Corvallis Chapter and has served as chapter President and Vice-President.

Charlene Simpson, whose specialty is Lane County's native plant flora, is a charter member of Emerald Chapter. She has served the Chapter in many capacities, but counts her work with rare and endangered flora and coordination of the Lane County Checklist Project among the most rewarding. Her involvement with NPSO grew out of a photography hobby. Charlene draws from her extensive archive of slides to illustrate educational programs. Her photographs are displayed at the Mt. Pisgah Arboretum Wildflower Festival and have been reproduced in several rare plant guides. She regularly volunteers with the Oregon Flora Project as an Oregon Atlas Project Leader and Regional Coordinator and is a frequent contributor to the Oregon Flora Newsletter. She was honored by NPSO in 2001 as a Fellow of the Society.

Michael McKeag is a member of the Portland Chapter. Michael has served faithfully as Vice President for several years. His involvement with NPSO grew out of his interest in gardening with native plants. After a few field trips and a season as field trip coordinator for the Portland Chapter he was hooked. Now his garden languishes while Michael is off in the wilds studying plants in their native habitats. He hopes to participate in an NPSO galvanized with a sense of purpose that inspires others to join in. He would like to see NPSO become irresistible.

Naming Plants

continued from page 11

families appear distinct, there are similarities in the leaves, and many members of both families have 2 sepals which fall as the flower opens. However, because of the distinct zygomorphic flower of *Dicentra* and its relatives, the families have usually been kept separate. During the preparation of the Jepson Manual, genetic analysis revealed that "the Fumariaceae is more closely related to the genus Papaver than Papaver is to other genera traditionally placed in the Poppy Family such as Eschscholzia." Thus, if the authors retained a separate family Fumariaceae, they would be forced to add a new family Eschscholziaceae (California Poppy Family). Instead, they chose what they call "the conservative course" and submerged the Fumariaceae in the Papaveraceae, although, as they state, "an attractive and popular family was lost" (Hickman, 1993). For some other surprising recent genetic findings, in the family Portulacaceae, see Chambers, 2002.

We all agree that any classification system should reflect phylogeny. However, because classical taxonomy was not originally based on genetics, some argue that the old system cannot incor-

porate new information from genetic analyses. (deQueiroz & Gauthier, 1994; Brummitt, 1997; Cantino, 2000). In addition, proponents of the new taxonomy claim a certain amount of trouble fitting their new groups of closely-related organisms, or "clades," as they are called, into the traditional framework. In other words, the major controversy between the traditionalists and the geneticists seems at present to boil down to a problem with names. Perhaps it is the ancient question, "What is a species?" with a new twist. Most PhyloCode advocates claim they can adjust their clades to the standard categories of Division, Class, Order, and Family, but they admit to a tendency to wish to discard or alter the current genus and species designations. This suggestion produces anguish on the part of traditional taxonomists, who are of course dealing with 250 years of literature in which each species is identified by its unique binomial. For an overview of the differences between the historic system of classification and PhyloCode, see the 2001 article by Elizabeth Pennisi.

A considerable body of recent literature—much of it heated—has been generated about the relationship of nomenclature to phylogeny. (Nixon & Carpenter, 2000.) As in any debate

there is polarization, with one end of the spectrum represented by those wishing to retain the current system exclusively and the other by those urging complete replacement with PhyloCode. Cooler heads urge adoption of a dual system wherein the two would function in tandem, at least for the near future, with regular evaluation of the utility of each system (Brummitt, 1997, Cantino, 2000). Two famous biologists, Paul Ehrlich of Stanford

and E. O. Wilson of Harvard, have indicated that taxonomists should not be engaging in this debate at this time, but rather should focus on describing the Earth's diversity. Cladistics advocate, Brent Mishler of Berkeley, counters by suggesting that PhyloCode might improve the categorization and conservation of biodiversity. What the debate suggests is that we, as plant enthusiasts, should make ourselves familiar with both traditional taxonomy and the new system in order to follow the on-going dialogue. Perhaps you hope, as we do, that the outcome will be a compromise acceptable to both groups.

In March 2001 members of the systematics community came together in Washington DC to examine the relevance of Linnaean binomials and hierarchical ranks in the light of the recent advances. The presentations from the first "Smithsonian Botanical Symposium: Linnaean Taxonomy in the 21st Century" can be found on persoon.si.edu/sbs/ and in the February 2002 issue of *Taxon*. A follow-up workshop was held in June 2002 to develop specific recommendations for the integration of traditional Linnaean nomenclature and modern cladistics. The recommendations will be published in a forthcoming issue of *Taxon*.

This is an exciting time in the biological sciences. It is thrilling that the tools of modern genetics are providing us with powerful new evolutionary insights. Our wish is that classical taxonomists and PhyloCode advocates continue to join forces as part of a single group of systematists whose ultimate goal is the development of the most phylogenetically-powerful naming system we can devise.

Acknowledgments

The Smithsonian Botanical Symposium: Linnaean Taxonomy in the 21st Century. 30-31 March 2001 was organized and sponsored by various individuals and organizations only a few of which are noted here. Among them were organizers Paula DePriest & Sue Lutz, and sponsors the Hunt Institute for Botanical Documentation, the United States Botanic Garden, and the

continued on page 19



Bleeding Heart—is this a poppy?

Naming Plants

continued from page 18

International Association for Plant Taxonomy. For a complete list see the Smithsonian Department of Botany publication *The Plant Press* 2001, 4(2).

The opportunity to attend the Symposium was made possible for GAB by support from the Smithsonian and Lane Community College Special Projects Fund through M. Spilde. This article is partially excerpted from a research article developed during sabbatical leave by GAB, and a handout developed by RML for her Field Botany Workshop at the Mount Pisgah Arboretum.

Works Cited (Full references will appear on the NPSO web site.)

Brummit, R. K. 1997. Taxonomy versus cladonomy, a fundamental controversy in biological systematics. *Taxon* 46:723-734.

Cantino, P. 2000. Phylogenetic nomenclature: addressing some concerns. *Taxon* 49:85-93.

Chambers, K. L. 2002. Portulacaceae
— reconciling DNA with taxonomy, or vice versa. *Oregon Flora*Newsletter 8(2): 9-11.

De Queiroz, K. & J. Gauthier. 1994. Toward a phylogenetic system of biological nomenclature. *Trends Ecol. Evol.* 9:27-31.

Hickman, J. C. (ed.) 1993. *The Jepson Manual*. U. of Cal. Press, Berkeley.

Nixon and Carpenter. 2000. On the other "phylogenetic systematics." *Cladistics* 16: 298-318.

Pennisi, E. 1996. Biologists urged to retire Linnaeus. *Science* 291:181.

Pennisi, E. 2001. Linnaeus' last stand? *Science* 291:2304-2307.

Raven, Peter, et al. 1999. *Biology of Plants*. Worth, New York.

Withgott, J. 2000. Is it "So long Linnaeus"? *BioScience*, 50(8): 646-651.

Friends of the Oregon Flora Project



www.oregonflora.org

From mid-October through January, the Friends has coordinated a challenge drive to raise money for the Oregon Flora Project. The support we received has been tremendous! We have exceeded our goal of \$22,500 and extend a heartfelt thanks to our anonymous donor and the NPSO. We will publish the final dollar amounts in the March *Bulletin*.

Joining the legion of organizations that mail fundraising requests is not a goal of the Oregon Flora Project. But our tireless goal—to produce a

new Flora of Oregon—will be accomplished sooner because of the support this Challenge has generated. This campaign, instigated by one generous individual committed to the Flora Project goals, has inspired the generosity of hundreds. We sincerely thank each of you for your help!

Make checks out to NPSO or OSU Foundation (attn: Oregon Flora Project) and mail to:

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

Long-time NPSO Members to be Honored in June

by Rhoda Love, Fellows Committee

harlene Holzwarth and Russ Jolley will become Fellows of the Native Plant Society of Oregon at a ceremony at the Annual Meeting in John Day June 21. We hope as many members as possible will attend the meeting to help us celebrate as these two worthy members receive their awards.

Russ Jolley was nominated by Mike and Nancy Fahey, Elizabeth and John King, and Nancy Russell. The nominators documented Russ' untiring work to protect and enhance the flora of the Columbia Gorge. They also gave high praise to his very important regional flora, *Wildflowers of the Columbia Gorge*, a beloved reference we all use when visiting this botanical paradise.

Charlene Holzwarth was nominated by Bette Howard and Joyce Peters of the Leach Botanical Garden and the Portland Chapter of NPSO. Charlene joined NPSO in the 1960s and was an

early Treasurer of the Society. She was instrumental in saving the Leach property in Portland as a public park. Charlene is co-author of the charming book *The Botanist and Her Mule Skinner*, which relates the southwest Oregon adventures of Lilla and John Leach.

New Membership Directory in 2003

The 2003 edition of the NPSO Membership Directory will be published in April. If you wish to receive a copy, add Two Dollars to your renewal payment. If you wish to have your address or telephone number or both withheld from publication in the Directory, please make a prominent note on your renewal form.

The Licorice Fern

by Sue Mandeville

he Licorice fern (*Polypodium gly*cyrrhiza) is named for its licoriceflavored rhizomes. Native Americans used the rhizomes medicinally and for flavoring foods. Although the fern's roots taste like licorice, it is not the commercial source of licorice, which comes from a European plant called Glycyrrhiza glabra. The Licorice fern is native to Asia and the western coast of North America. It grows on wet mossy logs and rocks, sometimes forming large sheets over rock slabs, but is most notably known for growing on hardwood tree trunks and branches, often on the Big Leaf Maple. The fronds dry up in the summer and fall off, but with the autumn rains, new fronds appear and by December spores are being produced and shed. Key identification points for this fern are that the spores are yellow and lack an indusium (thin tissue that cover the clusters of spore cases which are called sori).

In other genera that have indusia, its shape is a determining factor in identification and classification. Besides the shape of the indusium, ferns are distinguished by characteristics of the fronds, and the distribution of the sori.

Licorice ferns can be slow to develop from spores, but are relatively easy to grow in a moist, very well draining potting soil or in uncut moss used to line hanging baskets.

References

Vascular Plants of Lane County, Emerald Chapter, Native Plant Society of Oregon, 2002.

Coombes, A. J. 1991. *Dictionary of Plant Names*, Timber Press, Portland, Oregon.

Hoshizaki, Barbara Joe, R. C. Moran, 2001. *Fern Grower's Manual*, Timber Press, Revised Ed.

Jones, David L. 1987. *Encyclopaedia of Ferns*, Timber Press, Portland, OR.

Mickel, John T., 1994. Ferns for American Gardens, Macmillan Publishing Co.

NPSO/IAE Conservation Biology Internships

uring the 2003 field season, the Institute for Applied Ecology (IAE) and Native Plant Society of Oregon (NPSO) will co-sponsor internships in plant conservation biology. This program is intended to provide an initial research experience to individuals considering conservation biology as a career choice. It is especially appropriate for students who have recently completed or will soon finish their undergraduate degree and desire field experience before attending graduate school. Open to anyone, priority will be given to life science (especially botany or biology) undergraduates, recent graduates, or individuals seriously thinking of a change in career-orientation towards conservation. Applicants



Licorice fern (Polypodium glycyrrhiza)

http://www.ups.edu/faculty/kirkpatrick/fieldbotany/family_pages/P olypodiaceae/

http://pubs.acs.org/cen/whatstuff/stuff/ 8032licorice.html must be available in early May (preference will be given to applicants who can start by May 12, 2003 or earlier).

We are currently recruiting for fulltime summer interns to assist with our Institute's ongoing field projects, including the Native Comeback Initiative (a new program focusing on restoration of endangered plant species). Interns contribute field and/or laboratory assistance to IAE scientists working on several subjects during the summer. The internships typically run 14 weeks from early May through mid-August, and will be involved with a diversity of projects dealing with plant demography, population monitoring, habitat management, species re-introduction, and plant taxonomic studies.

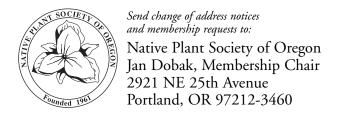
Înterns receive a net hourly wage of \$7.00/hr in addition to reimbursement of travel expenses associated with field work (food and lodging). Extensive field work (often including overnight car-camping or motels) will be required, so applicants should be in good physical condition. All activities will be coordinated out of Corvallis, Oregon, requiring interns to live in the mid-Willamette Valley area. Lodging is not provided.

The deadline for internship applications is March 21, 2003. To apply, send a letter of interest, resume, relevant college transcripts or course list, and two letters of recommendation to the address below. Be sure to state when you would be available to start work (this is a MUST). Finalists may be interviewed in Corvallis, Oregon or by phone. For more information, visit us at www.appliedeco.org on the internet. If you have any questions, please contact:

Tom Kaye Institute for Applied Ecology 227 SW 6th Corvallis, Oregon 97370 phone: (541) 753-3099 fax: (541) 753-3098 email: kayet@peak.org web: www.appliedeco.org

NATIVE PLANT SOCIETY OF OREGON MEMBERSHIP FORM

Membership is for the calendar year. New memberships enrolled September 1 include the following year.	Name		DUES include monthly <i>Bulletin</i> and yearly <i>Kalmiopsis</i> .		
New Renewal New Renewal New Renewal Student = \$12 Regular = \$18 Family = \$24 Student = \$12 Regular = \$18 Family = \$24 Student = \$12 Regular = \$18 Family = \$24 Student = \$12 Regular = \$18 Family = \$24 Student = \$12 Student = \$12			Membership is for the calendar year. New memberships enrolled	after	
Student = \$12 Regular = \$18 Family = \$24					
Sustaining = \$50	•	1			
Subscription Only (Bulletin and Kalmiopsis) – \$18 Only for this with to subscribe, but do not usant to have full membership itatus. Address	Phone — E	-Mail —————			
State State Zip+4 Society of the Constitution of the Native Plant Society of Oregon is open to all defress his of the Oregon Flora Project State Zip+4 Society of the Native Plant Society of Oregon is open to all defress his plant of the Native Plant Society of Oregon is open to all defress his plant of the Native Plant Society of Oregon is open to all defress his plant of the Native Plant Society of Oregon is open to all defress should be sent to the Membership in the Native Plant Society of Oregon is open to all defress should be sent to the Membership Chair Native Plant Society of Oregon is open to all defress should be sent to the Membership Chair Directory State	Chapter (if bnown)			Sustaining – \$50 Patron – \$100 Life Membership – \$500	
Is this a change of address? If so, please write your old address here: Address				rse who	
Jean Davis Memorial Scholarship Fund \$ _	Is this a change of address? If so, please write your old address here:				
Jean Davis Memorial Scholarship Fund S	Address		 CONTRIBUTIONS to NPSO are tax deductible. 		
Please make checks for dues and contributions payable to: NATIVE PLANT SOCIETY OF OREGON Send completed form and full remittance to: Jan Dobak, NPSO Membership Chair 2921 NE 25th Avenue Portland, OR 97212-3460 OFFICERS & COMMITTEE CHAIRS STATE OFFICERS DIRECTORS (to 6/2003) Jim Duncan, Rhoda Love, Kareen Sturgeon (to 6/2004)	City	State 7it /			
Please make checks for dues and contributions payable to: NATIVE PLANT SOCIETY OF OREGON Send completed form and full remittance to: Jan Dobak, NPSO Membership Chair 2921 NE 25th Avenue Portland, OR 97212-3460 OFFICERS & COMMITTEE CHAIRS STATE OFFICERS DIRECTORS (to 6/2003) DIRECTORS (to 6/2004) DIRECTORS (to 6/2004) DIRECTORS (to 6/2003) DIRECTORS (to 6/2004) DIRECTOR	City—	- State Zip+4			
Send completed form and full remittance to: Jan Dobak, NPSO Membership Chair 2921 NE 25th Avenue Portland, OR 97212-3460 OFFICERS & COMMITTEE CHAIRS STATE OFFICERS DIRECTORS (to 6/2003)	Please make checks for dues and con	tributions payable to:	,		
Send completed form and full remittance to: Jan Dobak, NPSO Membership Chair 2921 NE 25th Avenue Portland, OR 97212-3460 OFFICERS & COMMITTEE CHAIRS STATE OFFICERS DIRECTORS (to 6/2003)	NATIVE PLANT SOCIETY OF OREGO	N	S		
Jan Dobak, NPSO Membership Chair 2921 NE 25th Avenue Portland, OR 97212-3460 OFFICERS & COMMITTEE CHAIRS STATE OFFICERS DIRECTORS (to 6/2003)	Send completed form and full remitt	ance to:	Friends of the Oregon Flora Project \$ _		
DIRECTORS (to 6/2003)	Jan Dobak, NPSO Membership Ch 2921 NE 25th Avenue		Membership applications, renewals and change of address (include	le old	
DIRECTORS (to 6/2003)		Officers & C	COMMITTEE CHAIRS		
STATE COMMITTEE CHAIRS EDUCATION	DIRECTORS (to 6/2003) PRESIDENT IMMEDIATE PAST PRESIDENT VICE PRESIDENT SECRETARY TREASURER CHAPTER PRESIDENTS BLUE MOUNTAIN (Pendleton) CHEAHMILL CORVALLIS EMERALD (Eugene) HIGH DESERT (Bend) KLAMATH BASIN MID-COLUMBIA NORTH COAST PORTLAND SISKIYOU UMPQUA VALLEY (Roseburg) WILLAMETTE VALLEY (Salem)	Bruce Newhouse Michael Igo Michael Igo Michael McKeag Kelli Van Norman Candice Guth Jerry Baker Craig Markham Esther McEvoy Position vacant Reid Schuller Jerry Igo Vivian Starbuck Skip Haak Chris Van Schaack Jack Hausotter		3-2364 3-2364 3-23965 6-8787 5-0617 6-2244 7-0587 4-0893 3-0707 7-1901 60-9012 2 97040 7-4141 60-3198 88-9174 3-5347 5-7329	
EDUCATION					
CONSERVATION, WEST SIDE	Education		P.O. Box 603, Mosier, OR	. 97040	
LEGISLATIVE	Conservation, East Side	Position vacant			
МЕМВЕRSHIP		- •		2-6804	
			2021 NE 25th Avenue Portland OD 07212 2460, 502 24	8 02/1	
Budgets and Grants					
		Zur Zuomu		_ 5500	
PUBLICATIONS RILLETIN EDITOR Tanya Harvay bulletin@NDSOrgan arg 5/1 93		Tanya Harvay	Lullarin@NDCOmagon 5/1 02	7 1401	
BULLETIN EDITORbulletin@NPSOregon.org; 541-93 KALMIOPSIS EDITORbulletin@NPSOregon.org; 541-93 KALMIOPSIS EDITORbulletin@NPSOregon.org; 541-93					
WEBMASTER					



NONPROFIT ORG
US POSTAGE
PAID
EUGENE OR
PERMIT NO. 204



TIME DATED MAIL

Bush Administration Plans To Dismantle National Forest Management Act

The latest of the Bush administration's environmental rollbacks is a proposal to weaken the National Forest Management Act (NFMA). Passed in 1976, NFMA guides planning on the nation's 155 national forests. NFMA is the primary statute governing the administration of national forests and mandates the use of the Northwest Forest Plan. Changes will affect the process of developing new Forest Plans for each forest, a process many of our forests are hoping to do soon. The proposed changes are now open for a 90-day public comment period which ends March 6th.

Help stop these rollbacks by writing a letter to the Forest Service asking that they DO NOT:

- Eliminate the requirement for forest plans to go through an environmental review;
- Remove species surveys and scientific review from the process of maintaining species viability;
- Eliminate the requirement that forest planners consult with a panel of scientists when drafting forest management plans;
- Eliminate consideration of public comment by postcard and require the public to cite specific laws, regulations or policies when commenting on a proposal;
- 5) Eliminate the public's right to appeal forest plans.

For more detailed information contact Jody Sutton, Content Analysis Team Program Coordinator at 801-517-1023.

Send written comments to:

USDA FS Planning Rule Content Analysis Team PO Box 8359 Missoula, MT 59807