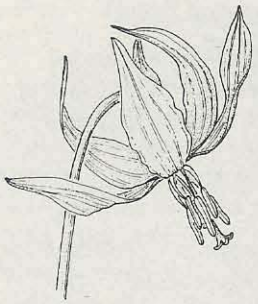

OREGON FLORA NEWSLETTER

Volume 7 Number 2 • Oregon State University • June 2001

Bruce Newhouse, President of the Native Plant Society of Oregon

by Rhoda Love

"I love native plants," confessed Bruce Newhouse in a recent interview, "and am very, very lucky that my vocation and avocation are one and the same."

Bruce Newhouse, President of the Native Plant Society of Oregon and co-founder of the environmental consulting partnership, Salix Associates, was born in Oregon City and grew up in Lake Oswego. He credits his mother's wildflower garden as well as fly-fishing trips with his father to the Clackamas River with originally awakening his interest in native plants. Later, as a teen, he hiked in the Mount Hood National Forest, developing a deep attraction for nature. "I learned all the Cascade trees and wildflowers on my own," he says.

Bruce is a graduate of Oregon State University where he studied forestry and landscape architecture, taking his BS degree in 1977 in environmental science. After college he first worked with the Multnomah County Outdoor School and later as a land use planner in Grants Pass, Josephine County. Bruce then moved on to city planning in Springfield, leaving that post to become part of a team which surveyed vegetation on all 1500 miles of Lane County roadsides in 1989. In the early 90s Bruce co-founded a consulting firm, Salix Associates, with partners Dick Brainerd and Peter Zika. The group undertakes various projects such as vegetation mapping and wildlife

See Newhouse, page 8

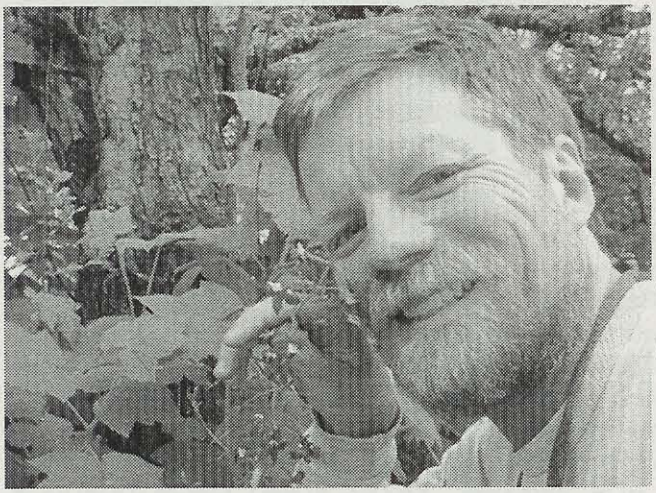

Photo: Bruce Newhouse

Bruce Newhouse up close and personal with a delphinium.

Don't give up groundsmoking

by Kenton L. Chambers

When a plant has such an unusual common name as "groundsmoke," it is hard to resist a punning title for an article dealing with the genus *Gayophytum* of family Onagraceae. Although this genus has only six species in Oregon, its morphological complexity and the difficulty of drawing clear lines between its species might indeed cause a person to "give up" trying to identify them. My reply to such a complaint would be that yes, it's a complex little genus, but the fun of studying it is in learning the biological basis of its taxonomic difficulties. Fortunately, the biology of groundsmoke is well explained in an excellent taxonomic revision written by Harlan Lewis and Jerzy Szweykowski way back in 1964 [The genus *Gayophytum* (Onagraceae). *Brittonia* 16: 343-391]. I had the pleasure of accompanying Dr. Lewis on a collecting trip in central Oregon in 1962, so I learned the secrets of *Gayophytum* at the master's knee, as it were. Recently I prepared a treatment for the Oregon Vascular Plant Checklist, reacquainting myself with groundsmoke by studying and annotating the several hundred *Gayophytum* specimens in the herbarium at Oregon State University.

In Oregon, *Gayophytum* occurs almost entirely from the crest of the Cascades eastward; its species are common in dry shrublands, rangelands, and open forests of juniper, ponderosa-pine and grand-fir. It reaches high elevations on certain Cascade peaks, on Steens Mountain, and in the Wallowa Mountains, however. Closely allied genera of Onagraceae include *Camissonia* and *Oenothera*, and this relationship helps to explain one of the peculiarities of *Gayophytum*'s biology — a chromosomal feature called 'structural heterozygosity," which occurs also in these related genera. Two other processes, polyploidy and hybridization, complicate the biological relationships within *Gayophytum*, as they do in many other genera of flowering plants. To assist this discussion, I have reproduced here a modified version of Lewis and Szweykowski's chart of species relationships, (fig. 3, p. 11) on which a horizontal line separates six ancestral diploid species, below, from two derived tetraploid species. The diploids occurring in Oregon are *G. humile*, *G. decipiens*, *G. ramosissimum*, and *G. heterozygum.* Our tetraploid taxa are *G. racemosum* and *G. diffusum*, the latter having two subspecies that completely overlap geographically and differ mainly in

See Gayophytum, *page 10*

The Oregon Book

by Rhoda Love

The Oregon Book: Information from A to Z, will make a wonderful addition to your shelf of reference works about our state. I plan to put my copy right beside McArthur's *Oregon Place Names*, the latest edition of the *Oregon Blue Book,* and the *Oregon Atlas & Gazetteer*. Author Connie Hopkins Battaile, a reference librarian, has done a splendid job of filling the volume's 677 pages with juicy tidbits about our state. As she writes in her introduction, "*The Oregon Book* is designed to be used for the quick look-up of some bit of information, to answer questions such as, When was the Roseburg explosion?, or What is Measure 5?" I tested it by looking up some of my favorite topics and found short but accurate entries on such subjects as the Applegate Trail, boysenberries, camas, Fort Clatsop, Nez Perce Indians, Rogue River, whales, and Zumwalt Prairie. The volume includes an impressive 32-page bibliography. The Oregon Flora Project is grateful to Connie Bataille for making her work available to our contributors. For information on how to obtain a copy, contact Linda Hardison at (541)745-5770 or hardisol@bcc.orst .edu.

The Oregon Flora Newsletter is published three times a year by the Oregon Flora Project and the Oregon State University Herbarium. The Editor is Rhoda Love and the Production Assistant is Miko Nadel.

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Newhouse, continued from front page

habitat assessments. Bruce says, "During the years we worked together, Peter Zika was a tremendous influence in sparking my interest in botany. Peter recently moved to Seattle, so now Salix Associates is just Dick and I. Dick is the best business associate and friend anyone could possibly hope for."

Bruce lives in Eugene with his partner Peg and their cat, Squeak. He is extremely active in environmental organizations in Lane County. He has been on the Emerald Chapter NPSO board for nine years and has spearheaded that chapter's Native Gardening Policy. He is a member of the Native Gardening Awareness Committee, and has coordinated the chapter's Invasive Ornamentals List. He is also a member of Emerald Chapter's Lane County Vascular Plant Checklist Project, and the chapter's Rare and Endangered Plants Committee.

Outside NPSO, Bruce was one of the founders of the Cascade Mycological Society, and a founding member of Friends of Eugene Springfield Habitats (FRESH). He is Board President of Willamette Resources and Educational Network (WREN), and a member of Friends of Buford Park and Mt. Pisgah Stewardship Advisory Committee. He is also a founder of the Eugene-Springfield Chapter of the North American Butterfly Association. Earlier this year Bruce received a well-deserved Lane Council of Governments Regional Award of Merit for Environmental Protection.

As President of the Native Plant Society of Oregon, Bruce takes every possible opportunity to support the Oregon Flora Project. He also works directly with the Flora Project as an Atlas Project Leader and contributor of numerous high quality plant lists. He was also a founding member of the Carex Working Group which produced the *Atlas of Oregon Carex.* Of the importance of the Oregon Flora Project Bruce states, "A new *Flora of Oregon* will be a monumental achievement — an immensely valuable tool for botanists. Beyond that, the new *Flora* will also spark the interest of gardeners, flower lovers and the general public in Oregon's plant communities, spurring them to join in protection efforts to save the last remnants of our native ecosystems."

Lincoln Constance (1909-2001)

by Rhoda Love

From Berkeley comes the sad news that Lincoln Constance died June 11 of pneumonia at the age of 92. Dr. Constance has been described as "the patriarch of botany at Berkeley," and is recognized as the foremost expert on the systematics of the Apiaceae. Constance began his career in botany in Oregon, growing up in Eugene and attending the University of Oregon in the late 20s and early 30s where he studied under Louis F. Henderson. Constance has called Henderson "my mentor and role model." (*Aliso* 12(1), 1988.) Ken Chambers remembers Dr. Constance as a helpful colleague who "for many years was our main source of expertise on questions of identification and taxonomy for the carrot family (Apiaceae)." Ken recalls how Constance "generously shared his knowledge of the family and helped numerous students to describe and publish newly discovered species from Oregon and other western states."

Giant hogweed found in Oregon!

By Charlene Simpson

A few months ago Oregon Department of Agriculture Noxious Weed Control staff members Glenn Miller and Tom Forney identified a 20 by 30 foot patch of the noxious weed, giant hogweed (*Heracleum mantegazzianum* Somm. & Lev.) growing behind a grocery store in Oakridge. The ODA subsequently publicized the find and asked people to report populations. They received over 140 responses and in all learned of about 45 infestations in Clackamas, Columbia, Lane, Marion, Multnomah, and Washington counties of western Oregon. The majority of sightings were from the Portland metropolitan area.

Giant hogweed resembles its congener, *Heracleum lanatum,* cow parsnip, but is easily differentiated by its herculean proportions. Hollow stout stems, 2 to 4 inches in diameter, displaying dark reddish-purple spots and pustulate bristles support a compound umbel up to 2.5 feet in diameter bearing numerous white flowers. Giant hogweed blooms from mid-June to mid-July on a stem reaching a height of 10 to 15 feet. Purplish leaf stocks support deeply incised compound leaves 3 to 5 feet wide.

This monster member of the carrot family (Apiaceae) is a particularly nasty pest. Like other members of its genus, its sap contains a glucoside that causes phyto-photo-dermatitis. Skin contact with the sap, followed by exposure to the sun, produces painful, blisters in susceptible people. The plant is classified as a class A noxious weed in Oregon and Washington. In our state this indicates that infestations are at present small enough to make eradication possible and intensive control is recommended.

If you see giant hogweed anywhere in Oregon contact the Oregon Noxious Weed Control Program at 1-503-986-4621 or call the invader hotline number 1-866-INVADER to report the site. Also send a note to Scott Sundberg (address on p. 8), for Oregon Flora Project records.

Reference: Cindy Roché. *Weeds*, Pacific Northwest Extension Publication, PNW429: December 1992.

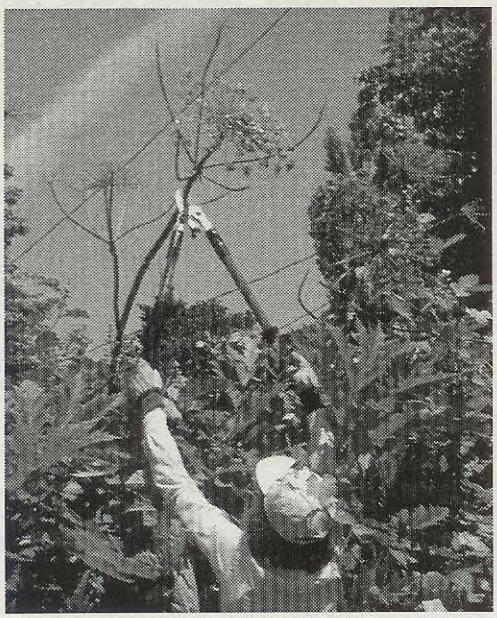

Photo: Charlene Simpson

Botanist collecting an umbel of giant hogweed in Eugene.

Photo: Keith and Barbro McCree

Giant hogweed can grow to fifteen feet tall.

The new Gilkey and Dennis is out!

by Rhoda Love

The eagerly-awaited and completely updated *Handbook of Northwestern Plants* by Helen M. Gilkey (1886-1972) and La Rea J. Dennis was released by OSU Press in May. I am very impressed with the handsome new edition, which has been fully revised by La Rea Dennis Johnston, who has added twenty-one new families, updated nomenclature, and revised keys and descriptions.

The book's organization retains the original order of the major plant groups, beginning with vascular cryptogams followed by gymnosperms, then monocots, and finally dicots. The key to dicot families, with its 142 pairs of leads, could benefit from having subtitles for major divisions. However, a welcome change is that genera and species are now treated alphabetically within families. Happily, the comprehensive index includes all families, genera, species, common names, and synonyms. A separate index to families is included on page six, although some users may have preferred to find this inside the front cover.

The new *Handbook*, which comes in paperback only, has been enlarged to a 9 X 6 inch format with a lovely cover photo of Washington lily. This fine new version of a well-loved book will be a splendid addition to our collections of Northwest floras.

Handbook of Northwest Plants by Gilkey and Dennis, OSU Press, June 2001. Line drawings, glossary, index. ISBN 0-87071-490-2. Paperback, $29.95.

Gayophytum, continued from front page

flower size. Two additional diploids, *G. oligospermum* and *G. eriospermum*, are found in the Sierra Nevadas.

All gayophytums are annual plants whose inconspicuous white or pink flowers are usually less than 8 mm across. The name 'groundsmoke' comes from their highly branched growth form, best expressed in *G. ramosissimum* with branching repeated at almost every node throughout the plant. Subtle differences in branching pattern among the other species turn out to be important in their classification, however. For example, in *G. humile* the branches arise mostly at the lower nodes of the main stem, not higher up as in *G. ramosissimum*; and in *G. decipiens*, basal branching is combined with rather scattered branching at the upper nodes. That is, many intermediate nodes produce a leaf, flower, and fruit, but not a branch. Fruit structure is also critical in differentiating among species of *Gayophytum*; therefore, botanical collectors should avoid sampling young plants (those with flowers but no fruits) or weakling individuals that don't have a well-developed branching pattern. A key to the Oregon species, on the facing page, is drawn mainly from the work of Lewis and Szweykowski.

As mentioned above, I believe that the real interest of *Gayophytum* lies in its biological complexity. Consider, first, *G. heterozygum*, which is common on the east flank of the Cascade Range in Oregon, extending north to Washington and south through the Sierra Nevada to the mountains of southern California. This species is self-pollinating and of hybrid origin, the parents being two distinctive diploid species of the Sierra Nevada in California. Its 14 chromosomes do not form the normal 7 pairs in the meiotic cell divisions leading to pollen and eggs; instead they attach end-to-end in a continuous chain or ring. Alternating members of this 14-chromosome ring disjoin and move into the two meiotic "daughter cells," in both the anthers and the ovules. However, in the anthers, one of the two sets-of-7-chromosomes carries genes that are lethal to developing pollen cells. Therefore, half of the pollen cells die, while the other half carries the set-of-7-chromosomes that lacks the pollen-killing genes. A stained preparation of pollen, examined under a microscope, clearly shows that half of the pollen grains have viable cytoplasm, and half are nothing but an empty cell-wall. Amazingly, in the ovules of all these same plants, the set-of-7-chromosomes that killed pollen is viable, while the set-of-7 that was viable in the pollen has genes lethal to the ovule! Half of the ovules in each ovary shrivel and die. The two kinds of lethal genes balance each other, in other words. After the plant self-pollinates, every offspring seed inherits one set-of-7-chromosomes from the pollen side and inherits the other set-of-7 from the parental egg cell. This restores the base number of 14 and also restores the chromosomal "structural heterozygosity" causing a ring-of-14 to form during meiosis. Evidently, all the members of this species are genetically almost identical; except for minor mutations, the plants are essentially a genetic clone throughout the species' wide geographical range!

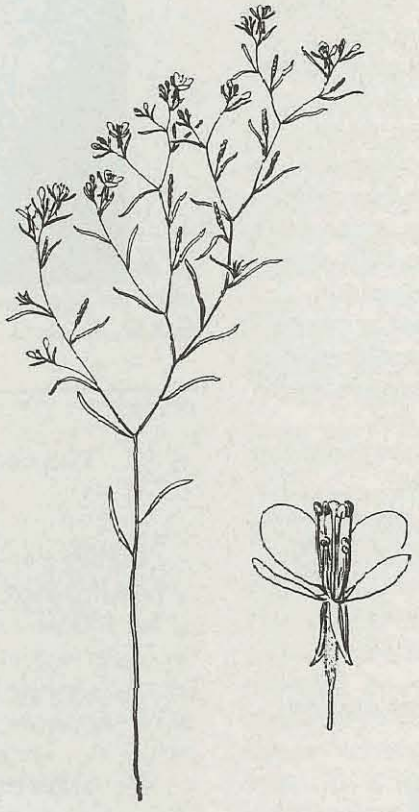

Figure 1: Gayophytum diffusum, *showing branching habit and enlarged view of a flower. Placement of the stigma close to the stamens ensures self-pollination. Illustration by Jeanne R. Janish from Hitchcock et al. 1969,* Vascular Plants of the Pacific Northwest, part 3, *courtesy of University of Washington Press.*

The genetic peculiarities described above would be considered remarkable, were they not already well known in the related genus *Oenothera*. The example of *Gayophytum heterozygum* has an exact parallel in the chromosomal behavior of a group of *Oenothera* species centered on *Oe. biennis*, which has been an object of study by plant geneticists for nearly a century. One might ask how any plant species could propagate successfully if half of its pollen grains are inviable due to so-called lethal genes. In both *Gayophytum* and *Oenothera*, however, the self-pollinating floral morphology guarantees that enough pollen reaches the stigma to fertilize all the available ovules. *Oenothera* also has an abundance of ovules in each ovary, so the death of a certain percentage of them is not very significant. *Gayophytum heterozygum* capsules have only 20 or fewer ovules, however, and the loss of up to half of them causes irregular gaps in the otherwise uniform linear row of seeds in each fruit. The accompanying illustrations (fig. 2) show how its fruits differ from those of the parental taxa *G. eriospermum* and *G. oligospermum*. In Oregon, the irregularly beaded appearance of the fruits of *G. heterozygum* is the main distinction between it and the very common tetraploid species *G. diffusum*, because floral and branching characteristics are otherwise similar in the two taxa. Vigorous plants of *G. heterozygum* form large numbers of fruits and seeds, leading to successful reproduction despite the death of a goodly fraction of their ovules.

The chart of species relationships in *Gayophytum* (fig. 3) suggests a complex origin for the tetraploid species *G. diffusum*, derived from multiple crosses (interspecific hybridizations)

between four diploid taxa. The initial tetraploid hybrids must have blended their genes by further crossing, to give present-day *G. diffusum*, which is the most variable and widespread species of the genus. In Oregon this species is sometimes as highly branched as *G. ramosissimum* (one of the postulated diploid parents), but it has longer fruits borne on relatively shorter pedicels than in that taxon. Plants of *G. diffusum* (fig. 1) are usually branched at every node or every other node in the middle and upper parts of the main stem. In this respect they differ from the other tetraploid species *G. racemosum*, which branches mainly from the lower nodes (as does its diploid parent, *G. humile*). Some races of *G. diffusum* have inherited genes for larger flower size (petals 3-7 mm long) from the diploid parental taxon *G. eriospermum.* These forms of *G. diffusum* are given the name ssp. *diffusum*, whereas the races with petals shorter than 3 mm are named ssp. *parviflorum*. The fruits of *G. diffusum* always have a full complement of seeds (arranged in two parallel rows or alternating, right and left, in one row), which differentiates this species from *G. heterozygum,* with its irregularly beaded fruits. Where *G. diffusum* occurs at high elevations, as on Steens Mountain, it is often dwarfed and not much branched, making identification difficult. *Gayophytum humile* is often found at higher elevations, as well, but its fruits are quite different from *G. diffusum*, as explained in the key to species, below.

I hope that this article will encourage readers not to "give up" on groundsmoke species, but to collect specimens in proper condition for identification, as well as to appreciate the genetic complexity of this small but interesting genus.

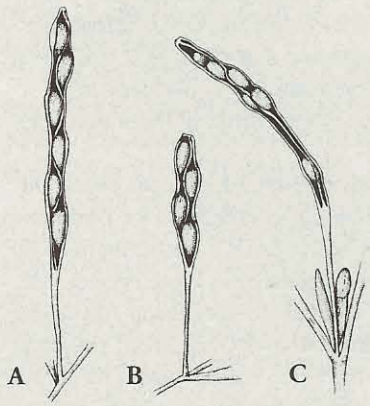

Figure 2: Cut-away drawings of fruits of (A) Gayophytum eriospermum, *(B)* G. oligospermum, *and the hybrid-derived species (C)* G. heterozygum. *Illustrations from* Brittonia, *vol. 16, courtesy of New York Botanical Garden.*

Key To Oregon Species of Gayophytum

created by Kenton L. Chambers

1. Petals 3-7 mm long..... *G. diffusum* ssp. *diffusum*
1. Petals 0.5-3 mm long.
   2. Plants branched mostly near the base of the main stem, the branches forming elongated flowering racemes; fruits very short-pedicelled, 15-50-seeded.
      3. Lateral 2 valves of capsule remaining attached; seeds spreading at a 45 degree angle from the placenta..... *G. humile*
      3. All four valves of capsule separating from the tip; seeds less angled, nearly parallel to the placenta..... *G. racemosum*
   2. Plants branched throughout or mainly at nodes well above the base of the main stem; fruiting pedicels often over 3 mm long, or if shorter, then fruits less than 25-seeded.
      4. Seeds ca. 50% aborted; capsules irregularly bumpy (beaded)..... *G. heterozygum*
      4. Seeds all maturing; capsules smooth or evenly bumpy.
         5. Seeds in the two chambers of the capsule crowded and overlapping.
            6. Pedicel longer than capsule..... *G. ramosissimum*
            6. Pedicel shorter than capsule..... *G. diffusum* ssp. *parviflorum*
         5. Seeds in the two chambers of the capsule not crowded, forming two parallel rows or alternating.
            7. Plants branched throughout, usually with 2-8 nodes between branches; seeds >9 per capsule, forming two parallel rows..... *G. decipiens*
            7. Plants branched at the base or not, abundantly branched above at many main-stem nodes or with 1-2 nodes between branches; seeds often but not always <9 per capsule, in two parallel rows or alternating right and left..... *G. diffusum* ssp. *parviflorum*

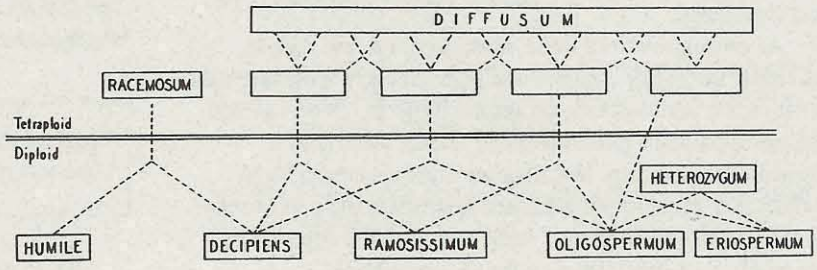

Figure 3: Chart of species relationships of North American Gayophytum *taxa.* G. diffusum *is hypothesized to have arisen from multiple crosses among four diploid species. Blank boxes represent probable hybrid ancestors of* G. diffusum. *From* Brittonia, *vol. 16, courtesy of New York Botanical Garden.*

Volunteer work parties in the OSU Herbarium

by Barbara and Glenn Halliday

In the fall of 1999 a few members of the Willamette Valley Chapter of the Native Plant Society of Oregon (NPSO) sat down to plan out the next year's field trip schedule. We could see there was a big blank on the calendar until the blooming season in western Oregon got under way in mid-April. An earlier chapter program by Scott Sundberg had generated great interest among our members in the Oregon Flora Project and OSU Herbarium activities. Judy Oliver suggested that perhaps a "field trip" to the Herbarium in January would be a good way to be involved with native plants when enjoying them outdoors was not an option.

This turned out to be one of Judy's best ideas ever! On Saturday, April 8, 2000, ten people assembled in the Herbarium, where Scott provided a tour of the facility, and brought us up to date on the current status of the Oregon Flora Project. He then put us in the hands of student workers Jason Alexander and Amanda Griffith to learn how to do "hands on" projects. One contingent headed for the "Prep room," where they took dried and pressed specimens through the necessary steps to prepare them for storage in the Herbarium's specimen cabinets. Forming a production line, they cleaned the plant material, carefully saving loose fragments, then arranged the specimen on a heavy paper mounting sheet (considering both artistic and scientific requirements) and—trickiest part of all—learned how to apply glue to the plant and deftly mount it to the sheet.

In a large lab classroom, another contingent was learning how to file mounted specimens. Not unlike a library, specimens have to be "shelved" after being mounted or being removed from the storage cabinets for research by students and Herbarium staff. The first step requires organizing the mounted specimens by family, genus and species. These volunteers not only got a crash course in plant taxonomy, but plenty of exercise as they marched around the lab tables—moving specimens from the "unsorted" stack to their proper botanical niche. A third group of volunteers manned the Herbarium computers, doing basic database entry of information that will be used by the Flora project. Scott made sure there was juice, coffee and cookies in a meeting room to fuel the volunteers throughout the day.

This first "work party" was so successful that all agreed it should be continued. In 2001, the Willamette Chapter sponsored not one, but two work parties, in January and early April. All have been well attended, and when the events were advertised on the NPSO discussion list, volunteers from distant parts of Oregon made the trek to Corvallis to take part. Participants have come from as far away as Portland, Sisters and Roseburg.

As an outgrowth of these work parties a few people, including the authors, have been intermittently spending a day at the Herbarium, working on similar projects. Everyone who has participated in these volunteer efforts has found it immensely rewarding. We all agree that the Oregon Flora Project is of great importance and appreciate the opportunity to share in its development. Judy's winter field trip idea has become a "win-win" situation for all concerned!

Photo: Judy Oliver

Volunteer work parties organized by the Willamette Chapter of the NPSO and others have helped the Oregon Flora Project and the OSU Herbarium enormously. Thanks to the 29 people who have participated in the three parties held so far! In this photograph Rory and Julie Nichols are shown mounting specimens on herbarium sheets during the first volunteer work party. —Scott Sundberg

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"Leapfrogging Lane County" revisited

By Charlene Simpson

In OFN for June 2000, I wrote about so-called "leapfrogging" species that have been collected both north and south of Lane County, but which seem to skip our area. Here I report that one of Lane County's leapfroggers has been found and a second has been discredited.

Ranunculus lobbii has been found in Lane County. Richard Halse, OSU Herbarium Curator, has confirmed a collection of *R. lobbii* from standing water at the base of a dike on Oregon Department of Fish and Wildlife land near Fern Ridge Reservoir approximately seven miles west of Eugene.

Carex vulpinoidea does not leap over Lane County. Dr. Barbara Wilson, Carex Working Group, has disputed the occurrence of *C. vulpinoidea* from southwest Oregon. The species is established at sites near Portland where it comes down the Columbia River; however she has found that specimens, previously identified as *C. vulpinoidea* from southwest Oregon, are more likely *C. dudleyi* or *C. densa*. Therefore, *Carex vulpinoidea* does not skip Lane County.

There have been other recent additions to the Lane County list. Sharp-eyed botanists have found the following species during the past year: *Anchusa azurea*, *Carex multicaulis*, *Ceanothus thyrsiflorus*, *Cyperus acuminatus*, *Delphinium oregonum*, *Heracleum mantegazzianum*, *Pellaea brachyptera*, and *Plantago coronopus*.

Illustrations of *Erythronium oregonum* on the front and back covers by Linda Ann Vorobik.

Visit our web site at http://www.oregonflora.org

Project news

By Scott Sundberg and Linda Hardison

Work on the Oregon Flora Photo Gallery is about to begin! The North American Rock Garden Society (NARGS) has awarded the Flora project a $3000 grant to develop a prototype for a Photo Gallery of Oregon plants. The Gallery will be maintained on the Flora project website, (www.oregonflora.org) and will feature photos of each plant in the state—from habitat shots to close-ups of flower parts. Funds from NARGS will help us develop a Plan of Work, and the first entries to the Photo Gallery will be of native rock garden species. As we progress on this project, we will keep readers informed of the ways you may participate in this exciting aspect of the Flora project. Thank you, North American Rock Garden Society!

Dick Straw has stepped down as Region 11 Regional Coordinator for the Oregon Plant Atlas Project. Dick, who was featured in OFN 5(3), has been an active participant and will be missed. As an RC he gathered thousands of species lists and coordinated efforts by a number of people in Jackson and Josephine counties. Happily, Dick continues as an Atlas Project Leader and has been volunteering his time for other aspects of the project. Thanks, Dick!

Welcome to Belinda Vos, the new Region 11 RC. She brings unbounded energy and enthusiasm and is a welcome addition to the Atlas project team. One of the first things she did was to request that the region be expanded! Region 11 now encompasses Jackson and Josephine counties and nine additional blocks, including most of Klamath Co. Belinda and others have planned volunteer activities for the fall and winter.

The Friends of the Oregon Flora Project, a committee of the Native Plant Society of Oregon, has recently displayed a poster and distributed Flora project brochures at a number of wildflower and garden shows throughout Oregon. They are happy to provide this display or give a slide presentation to interested organizations. Contact Linda Hardison at (541) 745-5770 or hardisol@bcc.orst.edu for details.

Thanks

Thanks to the American Rock Garden Society Endowment Fund and the Portland Garden Club, which have made significant contributions to the Oregon Flora Project.

We are extremely grateful for the support of the state NPSO. Their efforts to broadcast the Flora Project mission, and their continuing contributions help bring us ever closer to the date of publication of a new *Flora of Oregon*.

Special thanks to Connie Hopkins Battaile for donating copies of *The Oregon Book* for use as donation incentives. See review, page 8.

Thanks also to the Powne family, which donated books owned by the late Robert Powne to the Portland Chapter of the NPSO. Proceeds from the sale of these books will be donated to the Oregon Flora Project.

We extend our condolences to the friends and family of Irving Lord, a longtime NPSO member and plant enthusiast from Ashland, who passed away March 17, 2001. Several contributions have been made to the Friends in his honor. We thank the family for suggesting a memorial that celebrates his interests and will benefit fellow plant enthusiasts for decades to come.

The following donors have recently contributed via the OSU Foundation or the NPSO Friends:

Would you like to make a donation?

Tax-deductible donations can be made to the Oregon Flora Project by sending a check made out to the Oregon State University Foundation to Scott Sundberg at the address on this page. Please note on the check that it is for the Oregon Flora Project. Many thanks.

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Scott Sundberg
Oregon Flora Project
Dept. of Botany & Plant Pathology
Oregon State University
2082 Cordley Hall
Corvallis, OR 97331-2902

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Corvallis, OR
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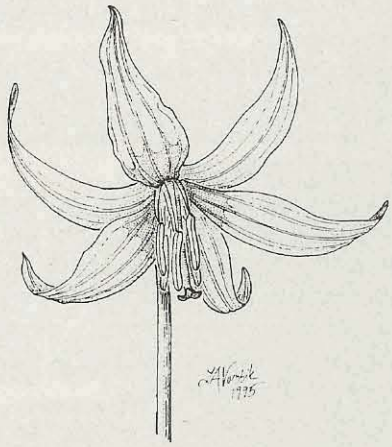
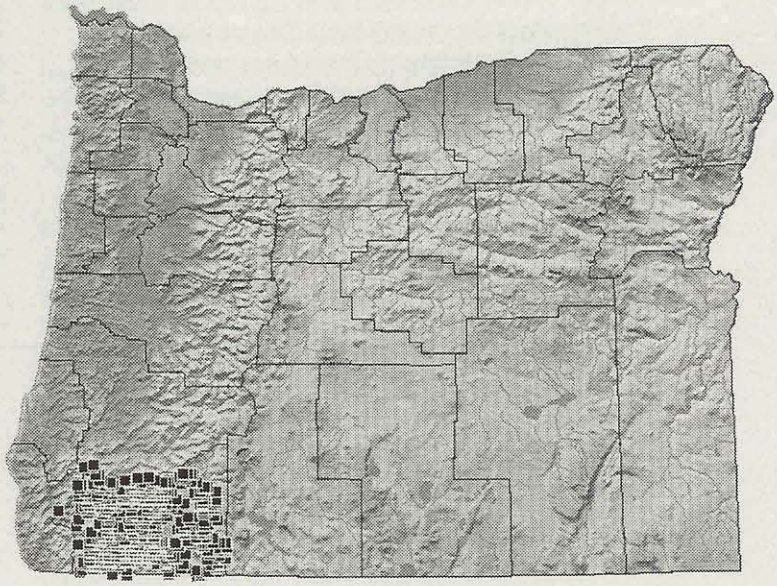


Did you know?

• *Lewisia rediviva* (bitterroot) was named by Frederick Pursh in honor of Capt. Meriwether Lewis. Pursh named *Clarkia pulchella* (elkhorns clarkia), as well, honoring William Clark, co-leader of the famous1804-1806 exploring expedition. In the 1950s, the genus *Clarkia* became the object of intensive genetic and systematic studies at the University of California, Los Angeles. Leaders of this research were Drs. Harlan and Margaret Lewis, who published a taxonomic monograph of the genus in 1955. Regrettably, no botanists named Clark have thus far shown an interest in monographing the genus *Lewisia*.

• *Cornus nuttallii* Audubon ex Torr. & A. Gray is the only plant species named by John James Audubon. *Index Kewensis* cites *Birds of America* as the source, but apparently that is not considered a valid publication. Audubon included two other new plant names in his *Birds of America*, *Platanus racemosa* Nutt. ex Audubon and *Nymphaea flava* Leitner ex Audubon, but for these he credited the name to another author. These are also considered invalidly published because: "No description or diagnosis is supplied." [From www.ipni.org]



Josephine and Jackson County species lists in the Atlas database.

Thanks to Dick Straw, Bureau of Land Management and U.S. Forest Service botanists,and Atlas project participants, the Oregon Plant Atlas database has species lists from hundreds of localities in these botanically diverse counties.