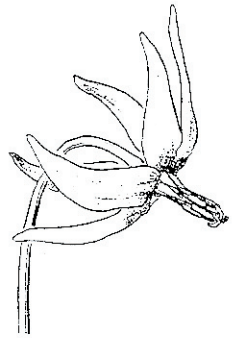

OREGON FLORA NEWSLETTER

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The Oregon Flora Project

Scott Sundberg

This is the first issue of the Oregon Flora Newsletter, the newsletter of the Oregon Flora Project (formerly the Oregon Vascular Plant Checklist Project). This quarterly newsletter will be a vehicle for disseminating news and information about the Flora Project. Articles will cover topics of general interest, such as the naming of plants, why names change over the years, native versus exotic status, new records for the flora of Oregon, and how to deal with hybrids. The Oregon Flora Newsletter will also describe activities of the people who are involved in the project and will keep you abreast of our progress.

The ultimate goal of the Oregon Flora Project is to produce an illustrated Flora of Oregon in text and electronic forms. We are currently working on three components of this project: the Oregon Vascular Plant Checklist; a pilot project to gather plant distribution data; and development of infrastructure for writing the Flora.

The Checklist will be a comprehensive list of the native and naturalized vascular plants that occur in Oregon. Its main function will be to provide a taxonomic framework for Oregon plants. Decisions regarding the delimitation of species, subspecies, and varieties will be reflected in the list. For example, discrepancies between treatments in the *Flora of the Pacific Northwest* and *The Jepson Manual* (the new reference for the California flora) will be evaluated along with other sources of information, and decisions will be made on which names to accept. Many new sources of information derived from biosystematic, floristic, and evolutionary studies will be considered in formulating the list of accepted names.

Synonyms (mostly names accepted in earlier floras but no longer applied) will be listed after currently accepted names. Synonyms from six floras covering parts or all of Oregon or adjacent

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What's the latest name for that plant?

Kenton L. Chambers

In the process of assembling a new checklist of the vascular plants of Oregon, we will be evaluating many proposed changes affecting the naming and classification of the state's flora. Although relative stability of scientific names is an important goal of taxonomy, one should not expect the classification system to be set in concrete. Changes in plant names often reflect an improved knowledge of relationships, for example by the use of sophisticated new research techniques. The International Code of Botanical Nomenclature, containing rules about spelling variations, priority of publication, and legitimacy of names, also may alter the names of plants.

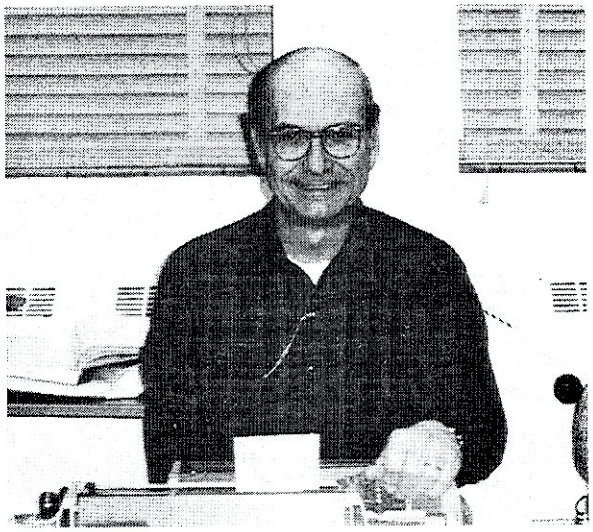

Photo: R. Love

Kenton L. Chambers

For this article I have selected three examples of recent proposals to change some Oregon plant names. One of these affects the familiar genus *Disporum* (fairy-bells) of family Liliaceae. In a recent publication (Z. K. Shinwari, et al., Taxon 43:353-366, 1994), convincing new evidence is presented that favors separating all the American

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states (our standard set of references) will be included.

The most widely used common names will be given in the Checklist and, where possible, native or non-native status will be indicated. For plants not listed in our set of standard references, literature citations will be provided to guide users to additional sources of information.

The Checklist is maintained in a Paradox 5.0 database in the OSU herbarium. It currently has 4,410 accepted names and 819 synonyms, but the total changes almost daily. We expect that the finished Checklist will contain more accepted names and that the list of synonyms will double.

The Checklist Project is sponsored by the Oregon State University Herbarium in Corvallis and has received grant support from the Native Plant Society of Oregon. With the exception of two paid student assistants, the project is entirely a volunteer effort. Participants in the project include a coordinator, a group of ten project leaders, an Advisory Board composed of professional and amateur botanists from throughout the state, invited contributors, student assistants, and volunteers. The project leaders are responsible for producing and editing the checklist. The main role of the Advisory Board, which is now being formed, is to support the project in any of a variety of ways. Most critical of these is to review portions of the Checklist as advanced drafts are completed. Outside contributors are being invited to edit lists for certain families. Student assistants help with text entry, mailouts, filing literature references, searching for additions to the Checklist in the herbarium, and several other support activities. Volunteers have so far helped with a variety of tasks, including literature reviews, herbarium specimen analysis, and comparison of the Checklist and treatments in floras.

In summary, the Checklist will be much more than just a list of names. It will be a tool that will help people make better use of existing floras and guide them to additional information in the literature, and it will be a step toward the eventual publication of a new Flora of Oregon.

How You Can Help

The checklist will eventually involve input from dozens of botanists throughout Oregon. Inclusion of new plant names in the checklist will require that we see plant specimens collected in Oregon before adding the names to the list. We therefore especially want to encourage anyone who knows of new plant records to contact us and to send specimens documenting their finds. Field work done by volunteers can also "target" particular plants, for example *Clarkia heterandra*, which hasn't been found in Oregon since 1888. In addition, if you live in the Corvallis area or can drive here, we could use help with a variety of other tasks. We need help proof-reading the list and checking it against a national species checklist. We could also use help doing library research and xeroxing. Finally, there are several tasks in the herbarium related to the checklist project that could be done by qualified volunteers. If you would like to volunteer, please contact Scott Sundberg (see page 2 for address and phone number).

Oregon Flora Newsletter is published quarterly by the Oregon State University Herbarium and the Oregon Flora Project. The Editor is Rhoda Love.

Address correspondence to:
Scott Sundberg
Coordinator, Oregon Flora Project
Department of Botany & Plant Pathology
Oregon State University
Cordley Hall 2082
Corvallis OR 97331-2902
(503) 737-4106; e-mail: sundbers@bcc.orst.edu

Cover illustration of *Erythronium oreganum* by Jeanne Janish, taken from Hitchcock et al. 1969, *Vascular Plants of the Pacific Northwest*, courtesy of University of Washington Press.

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species of *Disporum* from those found in eastern Asia. If this is done, the New World species take the genus name *Prosartes*; in Oregon we have *Prosartes hookeri* Torr., *P. smithii* (Hook.) Utech, Shinwari & Kawano, and *P. trachycarpa* S. Watson. There are differences between *Disporum* and *Prosartes* in leaf venation patterns, hairiness, stigmatic lobing, and fruit color. The generic separation is supported by molecular studies comparing the sequence of nucleotide bases of a gene in the chloroplast chromosome. This sophisticated genetic analysis confirms that *Disporum*'s closest relative is *Uvularia*, an eastern North American genus, whereas *Prosartes* is closely allied to *Streptopus*, not to *Disporum*. The revised classification is thus well justified, although it means we must learn new names for Oregon's three *"Disporum"* species.

The opposite of generic splitting, as in the above case, occurs when taxonomists combine two or more previously separate genera into one. Several examples of this type of change can be found by comparing Peck's *Manual of the Higher Plants of Oregon* (2nd edition, 1961) with *The Jepson Manual--Higher Plants of California* (1993). In the family Onagraceae, for instance, *Boisduvalia* and *Zauschneria* have now been merged with *Epilobium*. Another change, affecting one of Oregon's rarest species *Heterogaura heterandra* (Torr.) Coville, results from combining this genus with *Clarkia*, the well known "farewell-to-spring." According to Harlan Lewis and Peter Raven (Madroño 39:163-169, 1992), *Heterogaura* shares numerous traits with two species-groups in *Clarkia*, and its chloroplast DNA is remarkably similar to that of *Clarkia dudleyana*. They rename the species *Clarkia heterandra* and place it in a unique section of that genus, based on its unusual nut-like fruits. The species has been collected only once in Oregon, in 1888, near the town of Woodville (now Rogue River), Jackson County. In Peck's *Manual* it was misnamed as *"Gaura heterantha."* Although the species is widespread in California, its present status in Oregon is unknown.

A change of name at the species level that I discussed previously (Douglasia 18:11-13, 1994) concerns the common bunchberry *Cornus canadensis* L. That name is used in *The Jepson Manual*, although research by Canadian botanists in 1965 had suggested that Oregon and California plants belong to a separate species *Cornus unalaschkensis* Ledeb. Recently Z. E. Murrell (Systematic Botany 19:539-556, 1994) published a detailed morphological, multivariate study of bunchberries throughout North America. *Cornus unalaschkensis* stands out as a tetraploid species of hybrid origin, distinct from both its parental taxa *C. canadensis* and *C. suecica* L. All but one of the Oregon populations he sampled belong to *C. unalaschkensis* (one site in the Siskiyous contained backcrosses to *C. canadensis)*. Bunchberries are taxonomically "difficult" due to a long history of natural hybridization, but Murrell's work supports changing the name of Oregon's plants to *C. unalaschkensis*. I will reserve additional examples of new Oregon plant names for discussion in future issues of the newsletter.

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Would you like to make a donation?

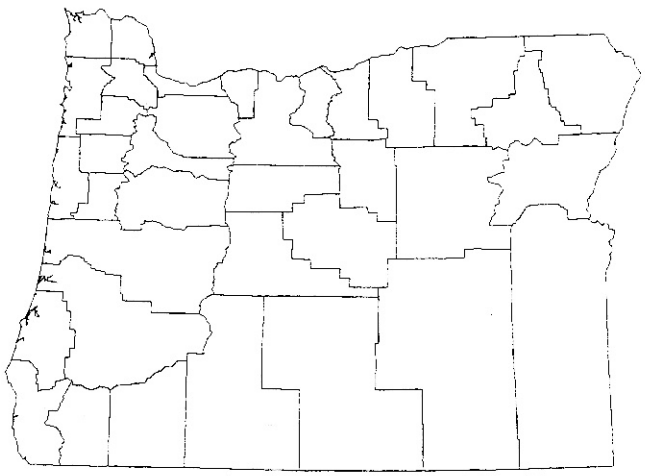
Tax-deductable donations can be made to the Oregon Flora project by sending a check made out to the Oregon State University Foundation to Scott Sundberg at the address on page 2. Please note on the check that it is for the Oregon Flora Project. Your donations pay student wages, newsletter mailing costs, and for supplies and software. They go a long way.

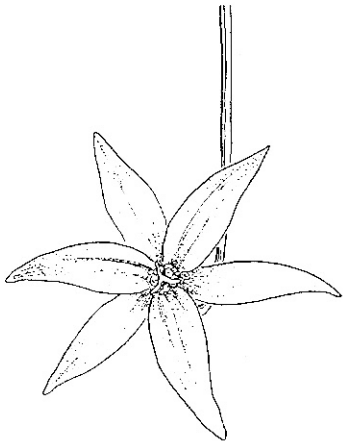
Did you know?

- "Play it again, Sam" -- botanical version: In the scientific name for kinnikinnick, *Arctostaphylos uva-ursi*, "*Arctostaphylos*" means "bear-grape" in Greek, while "*uva-ursi*" means "bear's-grape" in Latin.

- *Aster chilensis*, native to coastal Oregon and California, was mistakenly named for Chile although it does not grow there. The original collection by Haenke, in 1792, was labelled (in Latin) "in regio montanis," meaning "in Monterey" (Spanish for "royal mountain"). The botanist who named the species translated this phrase as "in mountainous regions," meaning the Andes mountains of Chile, which Haenke had explored earlier during his voyage with the Spanish sea-captain Malaspina.

- When going through *The Jepson Manual - Higher Plants of California*, we found over 750 changes from the original Oregon checklist compiled from available sources in 1989. Most of these changes were nomenclatural, but there was also a substantial number of new reports for Oregon.





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