

# OREGON FLORA Newsletter

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**OREGON STATE UNIVERSITY** 

FEBRUARY 2009

## Glide Wildflower Show Locates the Flowers

by Nacy Tague and Dianne Muscarello

"Where does this flower grow?" The botanists at the annual Glide Wildflower Show hear this question many times every year. Visitors fall in love with the striking beauty of the region's abundant wildflowers and dream of finding them on a local hike or in their own backyard. The Glide Wildflower Show has found a graphic way of answering this question, thanks to the Oregon Flora Project.

The seed for the idea was planted in 2006. That year a local presenter used Oregon Flora Project Plant Atlas maps to indicate wildflower locations. A couple of Glide Show volunteers attending the talk observed, "Wouldn't it be cool if maps like these could be displayed with the plants in our show?"

The show's Council liked the idea, and the two volunteers learned that a person should be careful what she suggests, for she may end up taking on the project! Previously, Glide Show plant labels showed only common and scientific names; new labels would now include Oregon Plant Atlas distribution maps.

Creating the new labels has been an ambitious project. In 2007, 400 new labels were created. In 2008, the labels were laminated for permanence. This year, labels for more plants are being added. Eventually, we'll have new labels for every species that might appear in the show, about a thousand species. Weather, habitat change, and collecting resources change the show's content each year, but typically the show includes over 600 plants.

See Glide Wildflower Show, page 2



Glide Wildflower Show 2008

# Recent generic changes in the Asteraceae: what's in store for the Oregon Flora Project?

by Kenton L. Chambers

# Part I: Tribes Astereae, Cichorieae, Heliantheae, Senecioneae

Editor's Note: In the large sunflower family, Asteraceae, the strongest evidence supporting the new taxonomy is often derived from cladistic analysis of data from DNA-based molecular research. We thank Dr. Chambers for synthesizing this latest information here for our Newsletter readers.

The role of the Oregon Flora Project Checklist is to present an accepted name and synonyms for each plant in the state, based on our current understanding of the relationships among taxa. This knowledge is derived from experimental science, as well as from the traditional use of field studies and herbarium collections. Few plant families necessitate as thorough an analysis and cross-referencing as does the Sunflower Family, Asteraceae. Much of the work that went into the Vascular Plant Checklist treatment of the Sunflower Family as presented here is based on early collaborations by Dr. Chambers and Dr. Scott Sundberg.

Recent taxonomic studies in family Asteraceae (Compositae) have revised our understanding of the relationships of a number of genera, leading to significant changes of names and placements for many familiar species. The "new systematics" of the Asteraceae is most completely expressed in three volumes of Flora of North America, Vols. 19, 20, and 21, which appeared in 2006. The second edition of the Jepson Manual: Higher Plants of California, to be published soon, will also follow most or all of these recommended changes, and for the Oregon Flora Project, we expect to incorporate them, after applying our best taxonomic judgment to those that are most controversial. That is, we reserve the right to follow an independent path in a few cases. In this article, we include only species that have been confirmed by herbarium specimens as occurring in Oregon.

The following tables for the above four tribes link the newer generic names, and sometimes specific epithets, with the older classification that was used in *Flora of the Pacific Northwest* (1973). For the Asteraceae, this earlier taxonomy was authored by the late Arthur Cronquist and represented his opinion as a recognized expert on the family. Cronquist

See Asteraceae changes, page 2

Gilde Wildflower Show continued from front page

Initially, much work went into learning the Atlas's features and developing a format and template for the labels. Decisions such as size, font, amount of map detail to be included, and color choices were a balancing act: keeping the labels small, providing enough information, and yet making them easily readable and aesthetically pleasing – all were taken into account.

Creating the new labels is a multi-step process, using several software applications and requiring photoediting expertise. Three major steps were followed:

- 1. Locate the species in the on-line Oregon Plant Atlas and retrieve the map. This is the easiest part: looking up the species on the Atlas, verifying scientific and common names on the show's list, and calling up the map.
- 2. Copy map to computer, rough-edit, and include text. The map is copied to software to be edited. The copied map originally includes everything seen on the computer

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Erythronium oregonum logo and masthead designed by Tanya Harvey.

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screen, so the image is cropped and partially erased so only necessary lines remain. The common and scientific names are also typed into the computer file.

3. Edit map for desired label format. The map is superimposed on a label template and resized to match. Additional photo editing changes colors, cleans up extraneous pixels, then copies and positions the identifying text

Generating the labels has taken hundreds of hours, a labor that varies from tedious repetition to delightful discovery. The two volunteers making the labels are not botanists, just wildflower lovers, so when they see an Atlas map showing one of their favorite flowers widespread through the Cascades or unique to their county, they are the first to experience the delight of learning more about their natural world.

Visitors to the Glide Wildflower Show have echoed that reaction. "It's so cool to see where these flowers grow!"

They are excited to be able to view the flowers with label information that places the species in geographical context. At a glance, visitors learn if the plant is widespread or limited to one area, loves the coast or the lofty peaks of the high Cascades, prefers the damp western valleys or the dry eastern expanses. Visitors leave the show with much more understanding of the plants they have just seen. In addition, they are introduced to the Oregon Flora Project and an important sample of its wealth of information.

With our new labels, thanks to the Oregon Flora Project and its online Atlas, the Glide Wildflower Show is better able to fulfill its mission: "By knowing our wildflowers we can better preserve them for ourselves and for the future." Come to the show and check out the flowers and our labels!

**This year's show is on Saturday and Sunday, April 25-26.** The location, as always, is Glide, Oregon on North Umpqua Highway 138, about 25 miles northeast of Roseburg.

For more information about the Glide Wildflower Show, visit our website at: www.glidewildflowershow.org.

Asteraceae changes continued from front page

also authored the Asteraceae for The *Intermountain Flora*, Vol. 5, published posthumously in 1994, and I include species from that work that occur in southeastern Oregon.

For tribe Astereae in the table below, species are treated alphabetically by their newest generic name (in boldface). Below each are Oregon taxa in that genus with the older (perhaps more familiar) name on the left and the currently accepted name on the right. For the other tribes, older names are listed alphabetically by genus. Some varietal names are omitted to save space. The soon-to-be-released Oregon Flora Project Vascular Plant Checklist will include more cross-referencing of names than is possible here.

Tribe tables, next two pages

#### Tribe Astereae

#### Canadanthus

Aster modestus Lindl. = Canadanthus modestus (Lindl.) G. L. Nesom

#### Columbiadoria

Haplopappus hallii A. Gray = Columbiadoria hallii (A. Gray) G. L. Nesom

#### Dieteria

*Machaeranthera canescens* (Pursh) A. Gray = *Dieteria canescens* (Pursh) Nutt.

Machaeranthera shastensis A. Gray = Dieteria canescens var. shastensis (A. Gray) D. R. Morgan & R. L. Hartman

#### Ericameria

Chrysothamnus nauseosus (Pursh) Britton = Ericameria nauseosa (Pursh) G. L. Nesom

Chrysothamnus parryi (A. Gray) Greene = Ericameria parryi (A. Gray) G. L. Nesom & G. I. Baird

Haplopappus arborescens (A. Gray) H. M. Hall = Ericameria arborescens (A. Gray) Greene

Haplopappus bloomeri A. Gray = Ericameria bloomeri (A. Gray) J. F. Macbr.

Haplopappus greenei A. Gray = Ericameria greenei (A. Gray) G. L. Nesom

Haplopappus macronema A. Gray = Ericameria discoidea (Nutt.) G. L. Nesom

Haplopappus nanus (Nutt.) D. C. Eaton = Ericameria nana Nutt.

Haplopappus resinosus (Nutt.) A. Gray = Ericameria resinosa Nutt.

Haplopappus suffruticosus (Nutt.) A. Gray = Ericameria suffruticosa (Nutt.) G. L. Nesom

#### **Eucephalus**

Aster breweri (A. Gray) Semple = Eucephalus breweri (A. Gray) G. L. Nesom

Aster brickellioides Greene = Eucephalus tomentellus (Greene) Greene

Aster gormanii (Piper) S. F. Blake = Eucephalus gormanii Piper

Aster ledophyllus (A. Gray) A. Gray = Eucephalus ledophyllus (A. Gray) Greene

Aster perelegans A. Nelson & J. F. Macbr. = Eucephalus elegans Nutt.

Aster siskiyouensis A. Nelson & J. F. Macbr. = Eucephalus glabratus (Greene) Greene

Aster vialis (Bradshaw) S. F. Blake = Eucephalus vialis Bradshaw

#### Eurybia

Aster conspicuus Lindl. = Eurybia conspicua (Lindl.) G. L. Nesom

Aster integrifolius Nutt. = Eurybia integrifolia (Nutt.) G. L. Nesom

Aster radulinus A. Gray = Eurybia radulina (A. Gray) G. L. Nesom

Aster sibiricus L. var. meritus (A. Nelson) Raup = Eurybia merita (A. Nelson) G. L. Nesom

#### Hazardia

Haplopappus whitneyi A. Gray = Hazardia whitneyi (A. Gray) Greene

#### Ionactis

Aster scopulorum A. Gray = Ionactis alpina (Nutt.) Greene

#### Nestotus

Haplopappus stenophyllus A. Gray = Nestotus stenophyllus (A. Gray) Urbatsch

#### Oreostemma

Aster alpigenus (Torr. & A. Gray) A. Gray var. alpigenus = **Oreostemma alpigenum** (Torr. & A. Gray) Greene var. **alpigenum** Aster alpigenus var. **andersonii** (A. Gray) M. Peck = **Oreostemma alpigenum** var. **andersonii** (A. Gray) G. L. Nesom

#### **Pyrrocoma**

*Haplopappus carthamoides* (Hook.) A. Gray = *Pyrrocoma carthamoides* Hook.

Haplopappus hirtus A. Gray = **Pyrrocoma hirta** (A. Gray) Greene

Haplopappus lanceolatus (Hook.) Torr. & A. Gray = Pyrrocoma lanceolata (Hook.) Greene

Haplopappus racemosus (Nutt.) Torr. = Pyrrocoma racemosa (Nutt.) Torr. & A. Gray

Haplopappus radiatus (Nutt.) Cronquist = Pyrrocoma radiata Nutt.

Haplopappus uniflorus (Hook.) Torr. & A. Gray = Pyrrocoma uniflora (Hook.) Greene

Haplopappus uniflorus ssp. linearis D. D. Keck = Pyrrocoma linearis (D. D. Keck) Kartesz & Gandhi

#### Sericocarpus

*Aster curtus* Cronquist = *Sericocarpus rigidus* Lindl.

Aster oregonensis (Nutt.) Cronquist = Sericocarpus oregonensis Nutt.

#### Stenotus

Haplopappus acaulis (Nutt.) A. Gray = **Stenotus acaulis** (Nutt.) Nutt. Haplopappus lanuginosus A. Gray = **Stenotus lanuginosus** (A. Gray) Greene

#### Symphyotrichum

Aster brachyactis S. F. Blake = Symphyotrichum ciliatum (Ledeb.) G. L. Nesom

Aster campestris Nutt. = Symphyotrichum campestre (Nutt.) G. L. Nesom

Aster chilensis Nees ssp. chilensis = **Symphyotrichum chilense** (Nees) G. L. Nesom

Aster chilensis ssp. hallii (A. Gray) Cronquist = Symphyotrichum hallii (A. Gray) G. L. Nesom

Aster chilensis ssp. ascendens (Lindl.) Cronquist = Symphyotrichum ascendens (Lindl.) G. L. Nesom

Aster eatonii (A. Gray) Howell = Symphyotrichum eatonii (A. Gray) G. L. Nesom

Aster foliaceus Lindl. var. cusickii (A. Gray) Cronquist = Symphyotrichum cusickii (A. Gray) G. L. Nesom

Aster foliaceus var. lyallii (A. Gray) Cronquist = Symphyotrichum hendersonii (Fernald) G. L. Nesom

Aster foliaceus var. parryi (D. C. Eaton) A. Gray = Symphyotrichum foliaceum var. parryi (D. C. Eaton) G. L. Nesom

Aster frondosus (Nutt.) Torr. & A. Gray = Symphyotrichum frondosum (Nutt.) G. L.Nesom

Aster hesperius A. Gray = Symphyotrichum lanceolatum (Willd.) G. L. Nesom var. hesperium (A. Gray) G. L. Nesom

Aster laevis L. = Symphyotrichum laeve (L.) G. L. Nesom

Aster novae-angliae L. = Symphyotrichum novae-angliae (L.) G. L. Nesom

Aster occidentalis (Nutt.) Torr. & A. Gray = **Symphyotrichum spathulatum** (Lindl.) G. L. Nesom [varieties yet to be settled on for Oregon Flora Project]

Aster pansus (S. F. Blake) Cronquist = Symphyotrichum ericoides (L.) G. L. Nesom var. pansum (S. F. Blake) G. L. Nesom Aster subspicatus Nees = Symphyotrichum subspicatum (Nees) G. L. Nesom

#### **Tonestus**

Haplopappus lyallii A. Gray = **Tonestus lyallii** (A. Gray) A. Nelson

#### Tribe Cichorieae

Apargidium boreale (Bong.) Torr. & A. Gray = Microseris borealis (Bong.) Sch. Bip.

Lapsana apogonoides Maxim. = Lapsanastrum apogonoides (Maxim.) J. H. Pak & K.Bremer

Lactuca muralis (L.) Fresn. = Mycelis muralis (L.) Dumort.

Lactuca pulchella (Pursh) DC. = Mulgedium pulchellum (Pursh) G. Don

Lygodesmia exigua (A. Gray) A. Gray = **Prenanthella exigua** (A. Gray) Rydb.

*Lygodesmia spinosa* Nutt. = *Pleiacanthus spinosus* (Nutt.) Rydb.

Microseris lindleyi (DC.) A. Gray = Uropappus lindleyi (DC.) Nutt.

Microseris alpestris (A. Gray) Cronq. = Nothocalais alpestris (A. Gray) K. L. Chambers

*Microseris troximoides* A. Gray = *Nothocalais troximoides* (A. Gray) Greene

### Tribe Heliantheae

Helenium hoopesii A. Gray = Hymenoxys hoopesii (A. Gray) Bierner

Hemizonia pungens (Hook. & Arn.) Torr. & A. Gray = Centromadia pungens (Hook. & Arn.) Greene

Hemizonia fitchii A. Gray = Centromadia fitchii (A. Gray) Greene

*Iva xanthiifolia* Nutt. = *Cyclachaena xanthiifolia* (Nutt.) Fresen.

Madia bolanderi (A. Gray) A. Gray = Kyhosia bolanderi (A. Gray) B. G. Baldwin

Madia madioides (Nutt.) Greene = Anisocarpus madioides Nutt.

Madia minima (A. Gray) D. D. Keck = Hemizonella minima (A. Gray) A. Gray

#### **Tribe Senecioneae**

Luina nardosmia (A. Gray) Cronquist = Cacaliopsis nardosmia (A. Gray) A. Gray

Luina stricta (Greene) B. L. Rob. = Rainiera stricta (Greene) Greene

Senecio bolanderi A. Gray = **Packera bolanderi** (A. Gray) W. A. Weber & A. Löve

Senecio canus Hook. = Packera cana (Hook.) W. A. Weber & A. Löve

Senecio cymbalarioides Buek = Packera subnuda (DC.) D. Trock & T. M. Barkley

Senecio eurycephalus Torr. & A. Gray = Packera eurycephala (Torr. & A. Gray) W. A Weber & A. Löve

Senecio flettii Wiegand = Packera flettii (Wiegand) W. A. Weber & A. Löve

Senecio hesperius Greene = **Packera hesperia** (Greene) W. A. Weber & A. Löve

Senecio macounii Greene = Packera macounii (Greene) W. A. Weber & A. Löve

Senecio mikanioides Walp. = **Delairea odorata** Lem.

Senecio pseudaureus Rydb. = Packera pseudaurea (Rydb.) W. A. Weber & A. Löve

Senecio streptanthifolius Greene = Packera streptanthifolia (Greene) W. A. Weber & A. Löve

# **Project News**

by Linda Hardison

Things are hopping at the Oregon Flora Project! Thanks to funding from the John and Betty Soreng Environmental Fund of the Oregon Community Foundation, our staff members were rehired in September 2008. With renewed energy, we have been making progress on several facets that will put significant new material in the hands of the public this spring.

Look for an April launch of the Photo Gallery on our website, www.oregonflora.org/gallery.php This is a searchable collection of ~14,000 images of more than 2,000 species of Oregon plants. Users will be able to search for photos by scientific name or common name. Other options include selection by county, photographer, and rock garden designation. There are images of field photos and herbarium specimens, as well as links to the Atlas. The Photo Gallery has been developed through the contributions of many volunteers and photographers; it represents a partnership between citizens and scientists that has created a resource that everyone can use and enjoy.

If the Oregon Flora Project was constructing a building rather than a body of information, we would announce that the foundation is done, and the plumbing, wiring, and framework for the walls are receiving the final touches and are ready for inspection. This is the case with the Checklist. One of the final steps that staff member Thea Cook is completing for each taxon in the Checklist is the identification of a herbarium specimen to serve as a voucher. Her search for a number of these vouchers has taken us beyond the resources of the OSU Herbarium to collections across the region. Some of these specimens may represent state records; we will be asking to borrow them to verify their status.

A new version of the Atlas dataset will be available after the Checklist is submitted for review. It will reflect proposed name changes and incorporate new observations, along with specimen records from OSU. The update will raise the number of mappable records in the Atlas to over 530,000!

We are excited to announce that the Oregon Flora Project is hiring Dr. Barbara Wilson and Carex Working Group members Dick Brainerd and Nick Otting to begin writing our *Flora of Oregon*. Dr. Wilson will begin writing treatments for the grasses, which will complement the work we have done in this group for the morphology database and its multiple-entry keys. Welcome, Barbara and the Carex Working Group!

Volunteers are a vital part of our Project, and we are grateful to have received help recently from Jeff Cook, Gene Newcomb, Sara Norman, and Matthew Sundberg. Long-time team members continue to help in a volunteer capacity, including Ken Chambers, Rhoda Love, Stephen Meyers, Sherry Pittam, and Rena Schlachter. Please get in touch with us at: hardisol@science.oregonstate.edu if you would like to join this esteemed group of contributors!

#### **Thanks**

To protect the privacy of our donors, we do not show the names on the online version of the newsletter.



Gifts were given in memory of the following individuals: Marior Cox by the NPSO Umpqua Valley Chapter; Bonnie Hall by ; Brian MacMillan by the NPSO High Desert Chapter; and Scot Sundberg by

#### How can I contribute?

Donations to the Oregon Flora Project are a critical part of our operating budget. Funds are routed to the OFP through the Agricultural Research Foundation (ARF). The ARF is a non-profit organization that raises funds to support scientific research and programs at OSU. All contributions are tax-deductible.

Your checks to the Oregon Flora Project can be made payable to the Agricultural Research Foundation. Please include "Oregon Flora Project—4482" on the memo line.

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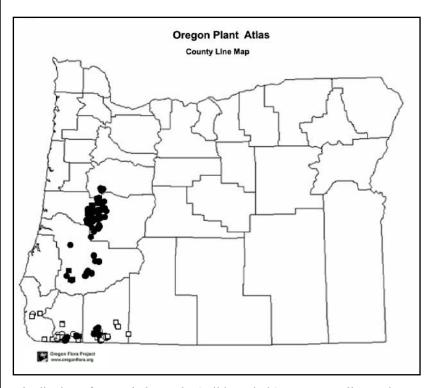


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# TIME DATED MAIL

# Did you know?

- Eucephalus vialis, formerly Aster vialis and commonly called wayside aster, was collected in the 1930s by botanical luminaries such as Peck and Henderson. It was thought to be extinct until Georgia Mason collected it near Eugene in 1980. ORNHIC includes E. vialis as a "List 1" species, meaning it is considered endangered or threatened throughout its range. It has been the subject of numerous studies, and there are now dozens of records of its occurrence.
- Eucephalus vialis has several close relatives in Southwest Oregon which the Oregon Plant Atlas (with nomenclature last updated in April 2007) considered as synonyms of Eucephalus brickellioides. These include Aster siskiyouensis, Eucephalus glabratus, and E. tomentellus. As Dr. Chambers' article (pp. 1-4) states, the former concept of brickellioides will be split into E. tomentellus and E. glabratus, based on the hairiness of their leaves.
- The similarities between *E. vialis* and *E. glabratus*, along with their overlapping distribution in Oregon's southern counties, suggest the possibility of intergradation. They differ mainly in leaf size and the frequent presence of 1-2 ray florets in *E. glabratus* versus none in *E. vialis*.



Distribution of *Eucephalus vialis* (solid symbols), *E. tomentellus*, and *E. glabratus* (open symbols). The Oregon Plant Atlas will be updated in the coming months to reflect changes in nomenclature and the addition of new records.