CHRIS AND SHARON DAVIDSON PROVIDE $100,000 GIFT TO FLORA REVISION

We are very pleased to report that Dr. Christopher and Sharon Davidson have made a gift of $100,000 in support of the *Flora* revision project. Chris received his Ph.D. in plant systematics from the Rancho Santa Ana Botanic Garden, and he and Sharon have been strong supporters of flora projects worldwide. Their generous gift guarantees that we have funding for project staff through 2016. We extend our sincerest thanks and gratitude to Chris and Sharon for their involvement in the *Flora* project.

We are also pleased to announce that the Region 6 Office of the U.S. Forest Service and U.S. Bureau of Land Management have provided an additional $10,000 in funding for the project. These funds were added to a $15,000 award from the Region 1 Office of the U.S. Forest Service that we reported in our last newsletter. Special thanks to Mark Mousseaux of Region 6 for this most recent award and to Steve Shelly from the Region 1 office.

This past spring draft keys from the revised *Flora* were used by undergraduate students in plant taxonomy courses at the University of Washington, Western Washington University, and Boise State University. This summer the keys will be used by University of Idaho undergraduates participating in a 2-week field botany class. One of our main goals for the project is to provide undergraduates with updated keys for our region’s flora that reflect contemporary taxonomic concepts at the ranks of family, genus, and species.

Finally, we wanted to take this opportunity to acknowledge everyone that has contributed to the *Flora* project to date. The outstanding generosity and support that we have received from these individuals and organizations have enabled us to generate fully illustrated draft treatments for nearly 75 families representing nearly 300 pages of text. Thank you all!
I went camping in the Wenatchee National Forest north of Stevens Pass with my wife and grandson last weekend, June 26-28, and we collected huckleberries to have in our pancakes. Huckleberries … in June.

This is a remarkable year for the unusual flowering phenology in our flora. Most of the typical early summer flowering plants in the Cascades are already past. I noticed one of my favorite forest wildflowers, Pedicularis racemosa (sickletop lousewort), in flower alongside the fruiting huckleberries. I think of this species as an August wildflower – when I also expect to see ripe huckleberries.

I wondered how unusual this season really is, so I did quick some quick research on the Consortium of the Pacific Northwest Herbaria database. The earliest in the season P. racemosa has ever been collected in Washington was a specimen from Ferry Co. collected by I. C. Otis on June 18, 1911. This specimen is in the herbarium at Washington State; our earliest specimen was collected in Yakima Co. on June 20, 1962.

There are two other specimens collected in June (none since 1982), out of a total of 274 specimens in the database, and only another 17 specimens in the first two weeks of July. As I thought, the large majority of specimens were collected in August and many also in September. I suspect that anyone who has been out collecting plants in the mountains in June this year will have some of the earliest records for the species they collect.

We haven’t been collecting specifically to document our early flowering phenology this year, but neither was Otis, back in 1911. Nevertheless, collections made in years past and in years to come provide a record of short-term and long-term climate fluctuations. Herbarium records serve to document environmental changes over time, which is one of the reasons why we continue to collect specimens even for well-known species like Pedicularis racemosa.

CURATOR’S MESSAGE

Pedicularis racemosa var. alba.
Photo by Ben Legler.

GENEROUS SUPPORT FOR THE HERBARIUM FORAY FROM PEG PEARSON

Starting this July, long-time supporter Peg Pearson has generously offered to provide $2,500 of funding each year for the Herbarium Foray. We are thrilled and grateful for Peg’s outstanding support. The Foray program both distinguishes the Herbarium and is critical to the growth of the collections.

Peg’s funding will cover a range of costs that include vehicle rentals for transporting Foray participants, camping fees, maps for the areas that we target for collecting, the paper and glue needed to mount the 500-600 Foray specimens that we add to the collections, as well as the costs associated with sponsoring the Spaghetti Dinner on each Foray.

Many thanks to Peg for providing a steady funding source for a program that has and will continue to provide field and herbarium-based experiences for a range of amateur and professional botanists throughout the Pacific Northwest.

Foray participants enjoying the Saturday Spaghetti Dinner on the Annual Herbarium Foray.
50 participants, 7 field trip leaders, and 2 evening presenters converged on the Ingalls Creek Enrichment Center in Peshastin, WA for this year’s Botany Washington. George Wooten opened the gathering on Friday evening with a fascinating and sobering presentation on the Carleton Complex fire that ravaged the area between Pateros and Winthrop, WA last summer.

Saturday’s field trips ventured to Chumstick Mt. (Joe Arnett) and Camas Lands/Swauk Pass (Pam Camp). Clay Antieau led a day-long grass identification workshop, Ben Legler gave a day-long taxonomic session on Brassicaceae (mustards), and David Giblin led the Hitchcock and Cronquist keying session. Dr. Robin O’Quinn, Associate Professor of Biology at Eastern Washington University, gave a wonderful presentation Saturday evening on her research into the systematics and biogeography of the perennial members of the genus *Claytonia* (Montiaceae).

On Sunday Ben Legler led a taxonomic session on Caryophyllaceae and Montiaceae, Laura Potash taught the keying session, and Paul Slichter (Camas Lands/Blewett Pass) and David Giblin (Chumstick Mt.) led the field trips.

We had a great mix of amateur and professional botanists, a rich local flora at peak bloom, and outstanding accommodations. Special thanks go to Elizabeth Fairchild and Barbara Harrell for their planning and event administration, and to Virginia Hassinger for greeting and orienting attendees at their arrival. We’re already thinking about next year’s event!

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### NATSURO PORCINO - FLORA PROJECT ILLUSTRATION INTERN

This past Winter Quarter UW undergraduate Natsuko Porcino did an illustration internship in the Herbarium through the Biology Department. A senior with dual majors in Biology and Art, Natsuko spent 6 hours a week from January through March producing new illustrations for the revised *Flora of the Pacific Northwest*.

A quick learner with strong skills in both illustration and plant identification, Natsuko generated excellent drawings of a native hybrid sundew (*Drosera x obovata*), two introduced species of daffodils (*Narcissus pseudonarcissus* and *N. poeticus*), and knobcone pine (*Pinus attenuata*), a native conifer that barely reaches the *Flora* region in Lane County, Oregon.

We are particularly pleased that undergraduate students like Natsuko are able to make important and enduring contributions to the *Flora* project. Natsuko graduated in June after serving as a Peer Teaching Assistant for this Spring’s Plant Classification and Identification class, and we wish her all the best in her future endeavors.

Illustration of *Pinus attenuata* by Natsuko Porcino.
NEW CASTILLEJA SPECIES RECENTLY DESCRIBED; NEW LOMATIUM SPECIES RECENTLY DISCOVERED

In late May WTU Research Associate Mark Egger and U.S. Forest Service Botanist Sara Maltby published a new species of Indian paintbrush (*Castilleja collegiorum*) known from seasonally wet meadows of the Cascade Mountains in southern Oregon (Klamath County).

According to the authors, the species name *collegiorum* was chosen “in celebration of the modern collaboration of botanists of many standings in the advancement of the science to which we all are dedicated, incorporating the knowledge and contributions of amateurs, field botanists, agency personnel, collections managers, and professional botanists alike.” You can find a link to the paper here: http://www.phytoneuron.net/2015Phytoneuron/33PhytoN-Castilleja-collegiorum.pdf.

Like many newly described plant species, *C. collegiorum* was first seen in the early 1990s but was misidentified. Fortunately collections were made of the plants in 2012 and ultimately made their way to Mark, who is an internationally recognized expert on the genus. After examining the specimens Mark was able to determine that the plants represented an undescribed species. Congratulations to Mark and Sara on their new discovery!

Recently we received specimens and images of *Lomatium* (desert-parsley) plants that Gary Brill encountered during a hike in the Cascades east of Mt. Rainier. A former mountain climber and now an amateur botanist, Gary has contributed nearly 500 photos to our Plants of Washington Image Gallery, many of them of alpine species.

Gary has an excellent eye for plants, and these individuals stood out as being clearly different to him. Additional examination of the specimens by WTU Research Associate and U.S. Forest Service Botanist Mark Darrach confirmed Gary’s suspicions. Ben Legler recently visited the location where Gary found the plants and made collections of plants with mature fruits. Fruit morphology of *Lomatium* is typically the most reliable character for distinguishing among species.

We hope to have the species described and published this winter so that it can be included in the *Lomatium* treatment in the revised *Flora*, for which Mark is the author. Congratulations to Gary for this exciting find!
Thanks to the ongoing generosity of plant photographers across the Pacific Northwest, the Plants of Washington Image Gallery will soon cross the 48,000 images mark. Truly remarkable! We encourage everyone to keep sending us their photos.

Special thanks are due to Gerry and Robert Carr who recently sent us a DVD with over 3,000 of their images taken over the last three years. A small percentage of the images in this gift are for species that occur in Oregon, so once we have a chance to cull those from the list we will upload these images, which will easily push the total image count on the site to over 50,000.

We have also received steady contributions from Craig Althen in Montana, and Brian Luther and Ron Bockelman here in Washington. Thanks to everyone for sharing in the creation and expansion of this outstanding resource.

EXPANSION OF THE PLANTS OF WASHINGTON IMAGE GALLERY

INCREASE IN SPECIES COVERED IN WASHINGTON WILDFLOWERS APP

We recently added nearly 160 more species to the Washington Wildflowers app, bringing total coverage to 1,026 species. As far as we know, we now have the largest non-technical wildflower identification app in North America. Additionally, the percentage of species covered in the app is higher than any other similarly styled state-based app on the market.

The addition of the new species follows our improvements to the identification interface that now allows users to select the number of petals present on a flower along with the flower type (radial or bilateral symmetry, or composite flower head). If you have the app be sure to check your update messages and get the free upgrade to a more comprehensive version.

Many thanks to Katie Gibson and Whitney Tilt, our wonderful partners at High Country Apps, for their time and effort to expand and improve the app.

GRASS WORKSHOP, JUNE 17-19, SEATTLE, WA

20 amateur and professional botanists came to Hitchcock Hall June 17-19 to take WTU Research Associate Clay Antieau’s Know Your Grasses workshop co-sponsored by the Herbarium and the Washington Native Plant Society. Participants came from federal agencies (National Park Service, BLM), Native American tribes (Colville, Yakama), environmental consulting firms, and several chapters of the Washington Native Plant Society. One and a half days of work in the lab keying out plants was supplemented by an all-day field trip to Seattle’s Discovery Park to practice field identification skills.

We especially thank Clay Antieau for teaching the class, which for him always includes staying until 10:00 one evening to help those wanting additional practice with keying. There were 10 people on the waiting list for the class, so we hope that Clay will say yes to our invitation to offer the course again next year.

Adenocaulon bicolor (pathfinder). Photo by Gerry Carr.

Elymus elymoides. Photo by Craig Althen.

Adenocaulon bicolor (pathfinder). Photo by Gerry Carr.
RECENT FIELD WORK

In May David Giblin spent two days collecting in Mason County, which surprisingly is quite undercollected despite its proximity to Seattle. Ben Legler spent two days in May collecting in Lewis County, which similarly has received relatively little collecting despite rather high species richness due to diverse habitats.

In June David and Ben spent a day in the Wenatchee Mts. collecting plants of another Lomatium that appears to be an undescribed species. In late June Ben and Mark Darrach the Little Rockies in Lewis County to collect, and Ben did additional collecting in Yakima County.

RECENT ADDITIONS TO HERBARIUM LIBRARY

We recently added the following books to the Herbarium library through generous donations to the Ken Davis Memorial Library Fund. Herbarium visitors rely on the library’s holdings when conducting research in the collections. Acquisition of these titles would not be possible without the Davis Fund support.


ERRATA

There were a few errors in our last newsletter. Our apologies to Julia Bent for the typo (“Julia Ben”) in the list of Annual Appeal donors. The illustration of *Juncus vaseyi* on the first page was mistakenly credited to Crystal Shin. The drawing was done by the late Jeanne Janish.