In Brief

This issue highlights the Flora of Oregon project. We also review the Annual Meeting of the Society. The Annetta Carter Grant for working in Baja California was recently announced. We also introduce more of the new botanists in the west. Because we’re botanists, a few photos from the desert spring are included. To participate in this new forum, you can email the newsletter editor, Tom Parker, at parker@sfsu.edu.

Announcements:

Student research grants: The California Botanical Society has voted to start providing research grants to students. A full announcement is found later in this issue. Please inform students of this opportunity.

The next Graduate Student Meeting sponsored by the California Botanical Society will be held in April 2017. As you know, it is never too early to begin preparing. The Santa Barbara Botanical Garden has tentatively agreed to host the meeting. Keep watching the webpage until we’ve firmed this up. We’re all looking forward!

Desert Mentzelia above. We spotlight a few photos from this spring’s desert glory. To the left, an overview of the Kern River Canyon near Bakersfield, site of this year’s banquet.
Council transitions

Staci Markos (UC & Jepson Herbaria) is stepping down from the Council of the California Botanical Society as a Member at Large. Staci was a bridge with the herbarium and other organizations; a guardian of the CBS corpus; a knower of the history and practices of the Society, and therefore someone we would look to for guidance on various issues; lastly, someone who would go the extra mile to make events happen, like making sure everything was in place and running well for the recent mixer at the Northern California Botanists’ meeting. Staci has been one of the hard workers on the Council for a number of years, and we will miss her.

Joshua Der will take her place on the Council. Joshua Der is an Assistant Professor in the Department of Biological Science at Cal State Fullerton. He is a broadly trained plant scientist who uses high-throughput DNA sequencing and bioinformatics to investigate the evolution of plant biodiversity and adaptation. His current research focuses on genome evolution in ferns, adaptation and diversification in mistletoes, and conservation genetics of CA native plants.

A native Californian, he received a BS in Botany and Biology (environmental emphasis) from Humboldt State University in 2003. After a brief stint working for the Inyo National Forest, Josh earned an MS in Plant Biology from Southern Illinois University, Carbondale, where he worked on the phylogeny and systematics of the sandalwood family and relatives (Santalaceae s.l.). He earned his PhD from Utah State University in 2010, where he worked on bracken fern. As part of his dissertation, he published the first transcriptome study in ferns using next generation sequencing data. From 2010 to 2014, Josh was a research associate at Penn State University where he was the project manager of the Amborella Genome Sequencing Project, investigating the earliest evolutionary changes in the history of flowering plants.

Joshua Der with Amborella in New Caledonia.
The Annetta Carter Memorial Fund for study of the Baja California Flora.

Andy Siekkinen was awarded the Annetta Carter award this year for his proposal: “Searching for Hechtia gayorum, the Baja Endemic Bromeliad.” Andy is a member of Michael Simpson’s lab at San Diego State University. The primary goal for this project is to locate the type location and search for other populations in similar habitats along the coast. *Hechtia gayorum* L W Lenz, the only species of bromeliad endemic to the Baja Peninsula, is a very poorly known taxon. It is a member of the genus *Hechtia* Klotzsch, a group of terrestrial bromeliads with typically well-armed, succulent leaves arranged in a rosette. Andy’s publication list indicates a love of all things bromeliad. The photos on this page show Andy with a *Tillandsia* and with potentially new species of *Hechtia*.

Next deadline is December 31, 2017
Spotlight – Death Valley Spring 2016

Photo: Rick Halsey, The California Chaparral Institute
Garea canescens

Photo: Rick Halsey, The California Chaparral Institute
Eremache rotundifolia

Photo: Rick Halsey, The California Chaparral Institute
Phacelia calthifolia

Photo: Rick Halsey, The California Chaparral Institute
Desert enthusiasm!

Photo: Rick Halsey, The California Chaparral Institute
Phil Rundel gave a great talk at the banquet connecting patterns of diversity among the 5 Mediterranean regimes.

We had a good crowd at the meeting, with lots of new folks as well as a number of regulars.

The Padre Hotel was a wonderful venue, spacious and modern. Lots of socializing in the bar both before and after.

The food was the best ever at a Cal Bot Soc banquet!
California Botanical Society’s Annual Banquet: 9 April 2016

Believe it or not! Yes, the field trip was cancelled due to too much rain. The Tejon Ranch area received too much rain by Thursday evening so that the roads were not passable. Even Bakersfield received over an inch of rain during the evening of the banquet.

Nonetheless, things went smoothly. The venue arranged by Anna Jacobsen and Brandon Pratt was wonderful. (Thank you!!!). We had a good time seeing old friends and meeting new ones. Students were quite a large proportion this year and that was fun. Also, the food was probably the best I’ve ever had at a banquet of any sort. Quite amazing.

Phil Rundel’s talk was excellent; Phil has tremendous insight into all the Mediterranean-climate regions. We were lucky to get to listen to him.
Even with the threat of rain, there were impromptu field trips. Brandon Pratt and Anna Jacobsen took me for a tour of the Kern River Canyon east of Bakersfield. We hiked along the Mill Creek Trail and enjoyed lots of flowers.
At the moment, there’s actually water in Mill Creek and the Kern River (at least at this elevation). Even though the area is beginning to dry, plenty of flowers are still just beginning.
Photos: Cirsium and Castilleja; Brandon Pratt. Pholistoma and Amsinckia, Tom Parker.
The first volume of the *Flora of Oregon* is now at the printer, and the Oregon Flora Project (OFP) staff is welcoming the feeling of having accomplished a decades-long objective. In reflecting on the process of creating this book, I am reminded of the many exceptional people that contributed to the effort in countless ways. I hope you share in our excitement of reaching this milestone!

*Volume 1* presents taxonomic treatments of the 1,054 taxa of pteridophytes (ferns and fern allies, including clubmosses and horsetails), gymnosperms, and monocots (lilies, grasses, sedges, and others). “Treatments” are comprised of identification keys, detailed descriptions of each taxon, and illustrations. The first volume additionally contains introductory chapters, appendices, a glossary, references, and a taxonomic index.

*Volume 1 front material*

Being the first of a three-volume flora, we wanted *Volume 1* to include information that provides a context for the encyclopedic work of the floristic treatments. The details of how we prepare and present information are given in the Design and Content chapter, and on a larger scale, in the section outlining the history of the Oregon Flora Project. A collection of biographical sketches of notable Oregon botanists from 1842 to the present recount the oft-time heroic efforts individuals have made in pursuit of their botanical passions.
The Flora of Oregon Project

cont.

Dennis Albert authored the Ecology chapter; it describes the eleven ecoregions of Oregon and the predominant plant habitats they support. This is followed by “Exploring Oregon’s Botanical Diversity,” a chapter by Ed Alverson. It presents descriptions of places to visit that are outstanding examples of Oregon’s plant communities. Organized by ecoregion, we feel it helps a wider audience appreciate and explore our flora. These two chapters include 69 color photographs to further entice readers into the field.

Following the taxonomic treatments are appendices that emphasize Oregon’s rare and unique taxa. Appendix 1, which lists the plants not treated in the Flora, demonstrates the extent to which we document and track the botanical knowledge of our state. A glossary, concise list of references, and index of common and scientific names complete the book.

Preparing the taxonomic treatments

Many large floras are collaborative works; the Flora of Oregon is no exception, with 20 authors writing treatments for this volume. Part of the challenge that Stephen Meyers faced as OFP’s taxonomic director and chief scientific editor was insuring consistency in the writing and tone of the contributions. Visual consistency came when Tanya Harvey joined our team in 2012, providing editing, design and layout of the manuscript.
The Flora of Oregon Project

The general process of handling a manuscript was as follows: upon receiving the manuscript from an author, Stephen would review the document for scientific content. The keys were tested with herbarium specimens and live material when possible, followed by additional review of the manuscript. OFP staff entered revisions, and Katie Mitchell and Thea Cook assembled and inserted content from our database (ecoregions, elevation range, distribution maps) into the text. More rounds of proofreading, and the Word documents were converted by Tanya into desktop publishing software InDesign files. With many people working on each file and the sheer volume of the project, we did encounter a few panic-inducing moments: losing all existing formatting on the 233-page Poaceae document, and realizing that the active version of a document didn’t include another worker’s previous edits. Fortunately, we kept backups and were able to troubleshoot the issues and devise a file organization schema that kept us on track through the remaining process.

Once the content was in InDesign files, the design component of the project intensified. In order to work with more manageable chunks, the 445 pages of taxonomic treatments were divided into five files. OFP staff artist John Myers composed plates from the 521 plant illustrations. Tanya arranged and rearranged illustrations, maps, descriptions, and keys to make the text flow smoothly. OFP staff and volunteers continued to edit and proofread as we incorporated suggestions from our editor. In an all-day blitz, our staff cross-checked every index entry against its appearance in a print-out of the manuscript.
To the editor

On March 20, after seemingly endless revisions and corrections, Tanya uploaded the completed digital files of the manuscript to our editor. It was a marked accomplishment and a welcome break while we waited for the BRIT (Botanical Research Institute of Texas) Press editors to send us their edits. The feedback we received from Barney Lipscomb and Brooke Best—both Ph.D. botanists—reflected their editorial skill: they caught errors covering the spectrum from em-dashes and semi-colons to botanical authorities and plant characters. Several iterations later, we were ready for Tanya to generate a final version of files that could be sent to the printer.

It was an exciting and emotional moment to receive the paper proofs—608 unbound pages that were undeniably almost our book. Another round of proofreading and still more corrections to make (“How could we possibly have missed that?!” we said), and finally the copy was mailed to our editors. The very last changes were inserted, new versions of the files made, and both the paper and digital versions of Volume 1 were sent to the printer in Korea. Our next correspondence will be BRIT Press acknowledging receipt of 3,000 copies of the hardbound Flora of Oregon, Volume 1!

Encore

The completion of Volume 1 is an enormous achievement for the OFP. We have learned a great deal about producing a book that will help us complete the remaining Flora more efficiently. The 3,700 taxa of dicots will be arranged alphabetically and divided into approximately equal sized books: Adoxaceae—Fagaceae (Vol. 2) and Garryaceae—Zygophyllaceae (Vol. 3). We anticipate having Volume 2 ready for BRIT Press by the Autumn of 2017.

With five years of targeted effort and direct expenses (artwork, contracts, printing) approximating $260,000, Volume 1 of the Flora of Oregon represents a significant accomplishment that is derived from twenty years of research, collaborations, and data gathering. The OFP is proud to release this publication, and honored to bring to completion this much-needed reference about the plants of Oregon.
The Flora of Oregon Project

Flora of Oregon
Volume 1: Pteridophytes, Gymnosperms, and Monocots

Stephen C. Meyers,
Thea Jaster,
Katie E. Mitchell,
& Linda K. Hardison, eds.

The Oregon Flora Project (http://oregonflora.org) is pleased to announce that the illustrated Volume 1 of the Flora of Oregon is now available! Volume 1 of the 3-volume set covers the ferns and fern allies, gymnosperms, and monocots—ca. 23% of all native and naturalized vascular plants of Oregon. Dichotomous keys allow identification to species, subspecies, or variety, and each taxon description is accompanied by a distribution dot map. There are pen and ink illustrations of 521 taxa, including 86 new works by artist John Myers.

The "Ecology of Oregon" chapter describes the state's 11 ecoregions and predominant habitats. A complementary chapter describes 50 sites—organized by ecoregion—to explore; these are accompanied by 73 beautiful color photographs. Additional chapters address Oregon's botanical history, and appendices emphasize plant taxa of interest to conservationists.

This work represents the first floristic treatment of the state since Morton Peck's 1961 Manual, and the first ever illustrated flora.

Volumes 2 and 3, covering the ~3,700 taxa of dicots, will be published in Autumn 2017 and late 2019, respectively.

Specifications: 7.5” x 10.5” hardback, 608 pp.,
520+ b/w illustrations,
1000+ distribution maps,
73 natural landscape color photos.

New botanists in the west

While we’ve been highlighting some experienced botanists from the west in this and the last issue, we’d also like to call attention to new hires across the west. We have some names and have contacted a number of them, but if you know someone who’s been hired in the last year or so, let us know. The more we know about colleagues, where they’re located, and what their interests are, the more we can find collaborators or research of interest.

Carl Rothfels is an Assistant Professor in the Department of Integrative Biology and the Curator of Pteridophytes at the University Herbarium (University of California, Berkeley). A recent transplant to California, he was born and raised in southern Ontario (Canada), and received his Ph.D. from Duke University. His research focuses on the evolution of ferns and lycophytes, with particular interests in the fern family Cystopteridaceae, desert ferns in the genus Notholaena, and the processes of polyploidy and reticulation (hybridization).
New botanists in the west

Jason Sexton is an Assistant Professor in the School of Natural Sciences at the University of California, Merced. "Jay" is a California native and was raised in the Mojave Desert next door to Joshua Tree National Park. He received his B.S. from Humboldt State University, his M.S. from University of Montana, and his Ph.D. from UC Davis. He studies plant adaptation and speciation (often in monkeyflowers) from deserts to vernal pools to the Sierra Nevada.
New botanists in the west

Jenn Yost is a new faculty member at Cal Poly, San Luis Obispo in the Biology department, although she is not new to California. Jenn was an undergraduate at Cal Poly where she worked on the phylogenetics of Dudleya. Jenn earned a Master’s degree studying biological oceanography but soon returned to the macro-plant world. She studied under Dr. Kathleen Kay at UCSC as an evolutionary biologist. Jenn used cryptic species of goldfields (Lasthenia) to better understand the speciation process. At her current position at Cal Poly, she has taken over the directorship of the Hoover Herbarium from Dr. David Keil, who retired last year. Jenn is currently supervising research on gene flow in cryptic Lasthenia, distributions of Layia jonesii and Layia platyglossa, southern hemisphere conifers, Eucalyptus allelopathy, and the decline of eelgrass in Morro Bay. Jenn teaches general botany courses, Plant Taxonomy and Field Botany courses. Field Botany travels around California on a tour bus learning about 1/6 of the state’s flora. So if you see a bus of students out in the Sierra’s, deserts, or redwoods, it might be Jenn and the Field Botany class. Stop and say hello.
Announcements:

The Paul Silva Student Research Grants

The Paul Silva Student Research Grant is named after Paul Silva (1922-2014), a phycologist and Curator of Algae at the University Herbarium, UC Berkeley, whose bequest to the Society has made this award possible. Awards will be made to qualified students working on projects that will help achieve the Society’s goal of advancing Western American botany. Students (including undergraduates) from any college or university doing botanical research within western North America are eligible for this award. Collaborative applications are welcome.

http://calbotsoc.org/grants/

Please announce this to your students and note this will be an ongoing opportunity.

The deadline for receipt of applications for a Paul Silva Student Research Grant is May 6, 2016. Proposals will be reviewed by a panel of experts.

California Botanical Society Officers 2015-2016

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We are seeking short articles, letters to the editor or items of interest to the members of the California Botanical Society concerning the Western North America region. Please contact Tom Parker, parker@sfsu.edu.