Introduction to Bryophytes

February 23 & 24, 2019

Saturday & Sunday at The Chico State Herbarium

With around 800 species in California, the bryophytes (mosses, liverworts, and hornworts) are a fascinating, diverse, and ecologically important part of our native flora. Working with bryophytes requires microscopy and so can feel intimidating, but getting to know these plants will add a new depth and appreciation to what you know about California's amazing plant life. The aim of this two-day workshop is to give participants the basic tools they will need to continue learning and enjoying the local bryophytes on their own.



Scleropodium julaceum

The workshop will include lectures, a field trip, and plenty of hands-on microscope work to help you learn features important for bryophyte identification. The workshop will begin with an introductory lecture on bryophyte basics and on the important morphological and life-history differences among the three groups of bryophytes: mosses, liverworts, and hornworts. The afternoon will be spent on a fieldtrip to Bidwell Park learning techniques for identifying bryophytes in the field and developing an understanding for where to look to find ecologically different species. The second day will be spent in lab working with bryophytes under the microscope. The first half of the day will be spent learning the bryophyte specific terminology necessary for identifying specimens to genus and species. The afternoon will focus on using the Norris & Shevock keys to the mosses of California and the Doyle & Stotler keys to the liverworts and hornworts of California.

Ben Carter is Assistant Professor and Herbarium Director as San Jose State University. He studies biogeography, systematics and ecology of California bryophytes and teaches classes in botany, sys-



This workshop will meet 9:00am- 4:30pm, Saturday Feb 23 & Sunday Feb 24 at the Chico State Herbarium, with the field portion of the course at nearby Bidwell Park. For the field portion of the workshop, everyone will be responsible for their own transportation, however carpooling will be encouraged.

Registration is \$190.00 personal, \$230.00 business, \$170.00 for members of the Friends of the Herbarium, and \$110.00 student (only 2 seats available at this price). Please register in advance; class size is limited to 16 participants and will be cancelled without a minimum of 8 by February 16. For more information about registration or directions or to register with a credit card, contact the Biology office at (530) 898-5356 or sscholten@csuchico.edu.



Homalothecium nuttallii

www.friendsofthechicostateherbarium.com/eventsviewcalendar/

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REGISTRATION FORM

Please make your check payable to *Research Foundation* • please include "Bryophytes workshop" on the memo line • and mail to:

Friends of the Chico State Herbarium California State University, Chico Chico, CA 95929-0515

To pay by credit card call the Biology office at (530) 898-5356.

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NAME
ADDRESS
CITY/STATE/ZIP
PHONE
E-MAIL
AMOUNT ENCLOSED
Cancellation policy: No refund for cancellation within 7 days of the workshop date.
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IMPORTANT INFORMATION

Participants should bring a hand lens, fine-point forceps, dissection needles, microscope slides and cover slips, single-edged razor blades, and a copy of the Norris and Shevock (2004) and the Doyle and Stotler (2006) keys.

Other helpful but optional books are "California Mosses" by Malcolm, Malcolm, Shevock & Norris (2009), "Mosses and Other Bryophytes, an Illustrated Glossary" by Malcolm & Malcolm (2006), and "Moss Flora of the Pacific Northwest" by Elva Lawton (1971). The Norris & Shevock keys and volumes of the Flora of North America Project are available (free) online, so a laptop with wireless access would be useful as well.

This workshop has been approved for 7 Professional Development Credits by the California Consulting Botanist Board of Certification.