

Vernal Pool Plant Taxonomy

Central Valley Vernal Pools

Dates: April 16-18, 2018 (Monday - Wednesday)

Location: UC Davis Center for Plant Diversity; Vernal Pools in Solano, Sacramento, & Yolo Counties

Instructors: Carol Witham, Biological Consultant/Leading Vernal Pool Expert & Jennifer Buck-Diaz, Vegetation Ecologist, California Native Plant Society

Registration: \$455 CNPS Members / \$475 Non-Members

Target Audience: Professional botanists, ecologists, wetland scientists, land managers, resource specialists, and conservationists. Participants should have an initial understanding of plant terminology and basic plant identification skills.

Description: This is a three-day workshop combining laboratory and field studies of the taxonomy of vernal pool plants with a focus on difficult genera. This course focuses on **plant taxonomy** of vernal pool species.

California vernal pools have been called a spatially-stable, pedo-climax community dominated by dwarfish annual plant species. There are about 200 plants known to occur in vernal pools of which half are endemic to this ecosystem. Most of the plants are small. There is a dizzying array of somewhat cryptic species in several of the endemic genera such as *Lasthenia*, *Eryngium*, and *Plagiobothrys*. These genera also contain rare, threatened and endangered species.

We will visit claypan vernal pools of the basin and basin-rim formations in Yolo and Solano Counties and hardpans of both low and high alluvial terraces in Sacramento County. Sites have been chosen to maximize exposure to a wide range of plant species including several rare taxa. If all goes well, we will visit pools at Wilcox Ranch, Tule Ranch, Sacramento Prairie Vernal Pool Preserve, Rancho Seco, and possibly Howard Ranch (the order in which we visit them vary with the weather).

To earn a certificate of completion, participants will need to pass a brief exam at the end of the workshop.



Participants will learn:

- The higher level knowledge required to confidently identify vernal pool plants both in the laboratory and in the field.
- Characters used to distinguish species beyond those used in the typical dichotomous plant key.
- Field identification skills to increase efficiency and effectiveness at vernal pool vegetation assessments, floristic surveys, and rare plant surveys.

Schedule (subject to change):

Day 1 - Monday, April 16

Meet at the UC Davis Center for Plant Diversity. Indoor lab setting. (Note: visitor permit parking nearby is \$9 for the day.)

8:00 am	Meet and greet; welcome and introductions
9:00 am	Utilize the extensive UC Davis herbarium collection to cover the various characteristics that can be used to identify species in some of the more complex genera
Noon	Lunch break (please bring your own lunch and water)
1:00 pm	Continued work in the classroom, optional herbarium tour
5:00 pm	Wrap up discussion
5:30 pm	Break for the day



Day 2 - Tuesday, April 17

We will meet at the Mace park and ride in Davis at 8:00 am and carpool to field sites. The full day will be spent in the field honing sight recognition of common vernal pool species including techniques for field identification of species within some of the more complex groups. Lunch will take place in the field, please bring your own lunch and water. We will return to the cars and break for the day at 5:00 pm.

Day 3 - Wednesday, April 18

We will meet at the Mace park and ride in Davis at 8:00 am and carpool to field sites, continuing exercises from day 2. Lunch will take place in the field, please bring your own lunch and water. We will save some time for a brief exam (for certificates of completion) and workshop evaluations before returning to the cars and concluding the workshop at 5:00 pm.

Venue: On day 1, this workshop will be held at the UC Davis Center for Plant Diversity, 3075 Sciences Laboratory Building on the UC Davis Campus (note that nearby visitor permit parking is \$9 for the day). On days 2 and 3, we will meet at the park and ride off of the I-80 Mace Blvd. exit in east Davis, and carpool to vernal pools at the following locations in Solano, Sacramento, and Yolo Counties: Wilcox Ranch, Tule Ranch, Sacramento Prairie Vernal Pool Preserve, Rancho Seco, and possibly Howard Ranch. Maps and directions will be provided to registered participants about a week before the workshop.

Materials Required: Please bring...

- Hand lens
- Transparent tape (regular and double-sided)
- Spiral bound 3x5" cards
- Clipboard
- Field notebook and pencil
- Sturdy shoes or boots, hat & field clothing appropriate for the weather and conditions (e.g. protection from poison oak, rain, sun, heat/cold, insects, etc.)
- Packable lunches, plenty of water, and snacks for all 3 days

Materials Provided: CNPS will provide handouts and numerous illustrated keys, and *Plants of Mather Field* by Carol W. Witham, a CDROM that contains images of many vernal pool plants at various stages of their development.



Physical Requirements: Participants should be physically able to walk up to 3 miles at a time along uneven paths and trails, and remain outside for up to 9 hours at a time. This workshop will be held rain or shine. We will spend approximately 66% of the time in the field.

About the Instructors:

Carol Witham has been studying vernal pool ecosystems for 30 years. She is a recognized expert in the rare plants and animals of vernal pools. She regularly presents lectures about vernal pool ecology. Carol was the editor of *Ecology, Conservation, and Management of Vernal Pool Ecosystems* (1998), *Jepson Prairie Preserve Handbook, 3rd Edition* (2012), and author of *A Field Guide to Vernal Pools, Sacramento County* (2006). She also owns and maintains the website www.vernalpools.org.

Jennifer Buck-Diaz is a vegetation ecologist and botanist with the CNPS Vegetation Program. She brings to CNPS extensive work experience with different plant communities across the western United States, with a focus on grasslands and vernal pools. Prior to joining CNPS, Jennifer worked as an ecologist with The Nature Conservancy at the Cosumnes River Preserve. She has both a B.S. and a M.S. degree in Plant Biology from the University of California, Davis.

Registration Information: Visit www.cnps.org/workshops to sign up for this class. Registration fees are discounted for CNPS members; please visit www.cnps.org/join if you would like to become a member. Class size is limited to 20 participants. The last day to sign up for this workshop is **Sunday, April 8, 2018**.

Cancellation Policy: See full CNPS workshop cancellation policy at www.cnps.org/workshops. The last day to cancel your registration and receive any refund for this workshop is **Monday, April 2, 2018**. Refunds may be subject to processing fees. Please send cancellation requests by e-mail to Becky Reilly, breilly@cnps.org.