

PhD Student Opportunity

Come investigate the link(s) between climate and flowering phenology

@ University of California, Santa Barbara



Capturing California's Flowers: using digital images to investigate phenological change in a biodiversity hotspot

The Mazer lab in the Department of Ecology, Evolution and Marine Biology is recruiting highly motivated PhD students (for entry into our graduate program in Fall 2019) to investigate and to predict the effects of historical and recent climatic conditions on the flowering phenology of California angiosperm species, clades, and communities.

Successful candidates will participate in a recently funded NSF grant with Dr. Susan Mazer and Dr. Katja Seltmann (UCSB) and Dr. Jenn Yost (Cal Poly San Luis Obispo). Collaborators include Dr. Brent Mischler (UC Berkeley), iDigBio, and faculty and staff at 20 herbaria throughout California. Graduate students will also have many opportunities to work with citizen scientists and volunteers who will assist with data collection.

This project begins with the digitization (high-resolution scanning) of ~1,000,000 herbarium specimens representing California species in the most common angiosperm families, the images and label information of which will be archived in the updated Consortium of California Herbaria (CCH) portal. Specimens will be scored for their phenological status (with the help of citizen scientists), including both qualitative and quantitative estimates of their flowering progression. Research questions to be addressed with these data include (but aren't limited to) the following:

- Which climatic parameters most strongly affect the flowering dates of individual species?
- How do climatic parameters interact to influence flowering dates?
- What are the predicted effects of projected climate change on the flowering dates of individual species and of communities of sympatric species?
- Can we distinguish between the effects of phenotypic plasticity vs. adaptation on flowering time?
- Do clades or functional groups differ in their phenological response to climate change?
- Your ideas here!

Prospective students interested in exploring this opportunity may write directly to Professor Susan Mazer (sjmazer@ucsb.edu website: <https://labs.eemb.ucsb.edu/mazer/susan/>)

Graduate students should apply electronically to UCSB's Graduate Division via the following URL: <https://www.graddiv.ucsb.edu/eapp/Login.aspx>

For more information about the Department of Ecology, Evolution and Marine Biology at UCSB, please explore: <https://www.eemb.ucsb.edu/>