

Research Experience for Undergraduates (REU): Insect Biodiversity in the California Floristic Province Biodiversity Hotspot

WHAT: Summer stipend for one undergraduate student from UC Riverside for research on insect biodiversity in the California Floristic Province (CA-FP) Biodiversity Hotspot during the summer 2024.

The REU has three components:

- 1. Independent research credits (Weirauch lab: <a href="https://heteroptera.ucr.edu/">https://heteroptera.ucr.edu/</a>) during winter and spring quarters 2024;
- 2. 10-week summer research internship at the California Department of Food and Agriculture (<a href="https://www.cdfa.ca.gov/plant/ppd/staff/mforthman.html">https://www.cdfa.ca.gov/plant/ppd/staff/mforthman.html</a> ) in Sacramento during summer 2024, starting July 1, 2024 (\$6,000 stipend);
- 3. Independent research credits (Weirauch lab) during fall 2024 to finalize products.

WHY: The **goal** is to train undergraduate students in insect systematics and biodiversity in the CA-FP and provide experience conducting research at a state governmental agency.

**HOW:** Independent research projects will focus on different insect groups and students will be involved in designing their own projects, but all will advance understanding of the biodiversity of a group of insects that is diverse in the CA-FP. Projects may include fieldwork; specimen-based activities (identifying, imaging, and databasing) at the Entomological Research Museum at UCR, Bohart Museum of Entomology at UCD, and/or the California State Collection of Arthropods; and integration of museum specimen data with data from online resources (e.g., iNaturalist). Projects may also include taxonomic descriptions of new species, exploration of Convolutional Neural Networks for species identification, modeling distribution ranges using ecological niche modeling approaches, biological control, or focus on tracking invasive species using museum collections and online resources.

**Products** may include identification keys (e.g., following the format of the Canadian Journal of Arthropod Identification), informational webpages on taxa following the format of the <a href="http://outreach.chalcid.org/diversity">http://outreach.chalcid.org/diversity</a> pages, and peer-reviewed publications (e.g., species descriptions).

**HOW TO APPLY: Applications** will be accepted from motivated students in the life sciences (preference for sophomore or junior standing) with interest in insect systematics, effective communication skills, and interest in pursuing a career in entomology and/or agriculture. Completion or current enrollment in ENTM 100 required, with preference for students who have also completed or are enrolled in ENTM 107, ENTM 112 or ENTM 109. REUs can only be awarded to US citizens and permanent residents.

Please email 1) a one-to-two-page resume (CV); 2) a 500-word statement of interest; and 3) one letter of recommendation to Dr. Christiane Weirauch (christiane.weirauch@ucr.edu).

Deadline for applications is Friday, November 17, 2023.