**California Native Plant Society**



**Organization/Agency:** California Native Plant Society, Vegetation Program

**Supervisor/Sponsor:** Julie Evens **Supervisor/Sponsor title:** Vegetation Ecologist

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**# of interns needed/Hours** **Needed for quarters: Options (choose one)**

**worked per intern:** Fall X Winter Remove your listing by

 **1**  Spring Summer X Or keep on file for one year

**Describe the internship assignment:**

Interns will work remotely to contribute to data entry and quality control of long-term monitoring plot data collected by the California Native Plant Society (CNPS) in redwood forest communities in Santa Cruz Co. Tasks will also include maintaining detailed notes of data errors and data interpretation of burned and unburned habitats in Santa Clara and Santa Cruz Co. by comparing detailed vegetation measurements (e.g., diameter at breast height, percent cover by species, burn severity, etc.) as well as research and reporting tasks. Participants will learn about different survey methods used by the CNPS and California Department of Fish and Wildlife (CDFW) to assess patterns across the landscape.

The California Native Plant Society (CNPS) is a statewide non-profit conservation organization (www.cnps.org) founded in 1965, with more than 10,000 members in 35 chapters across California and Baja California Mexico. The mission of CNPS is to increase understanding and appreciation of California’s native plants and to conserve them and their natural habitats through scientific study, education, advocacy, horticulture, and land stewardship. The CNPS Vegetation Program supports a uniform system for vegetation sampling, classification, and mapping and maintains vegetation information databases. This system, developed over the past 25 years by CNPS and the California Department of Fish and Wildlife (CDFW), is used by both governmental and non-governmental institutions to map, categorize and describe vegetation.

Vegetation mapping and ground-based sampling are useful tools for resource assessment, land management, regional planning, and long-term resource monitoring. Since Santa Cruz County experienced an unprecedented wildfire season in 2020 as well as other fires in recent years (CalFire 2020), CNPS and partners set up an array of monitoring plots in redwood forests that span a two-dimensional gradient of burn intensity (from high intensity to unburned) and hydrology (from drier to wetter). By having numerous monitoring plots, land managers can better evaluate ecosystem biodiversity in redwood forests across a broad swath of Santa Cruz County and evaluate invasive plant threats, particularly in areas with recent fire or near development. This research can also provide further insight on fire risk, invasive plants, Sudden Oak Death Syndrome (SODS), and other impacts. Assessing ecosystem biodiversity and threats will directly assist land managers to prioritize restoration efforts across this region where habitat fragmentation, climate change, and other disturbances continue to occur. Additionally, other post-fire plots were established in forest, shrubland and herbaceous vegetation types to survey the characteristics of burned vegetation and fire-followers at State Parks such as Big Basin Redwoods SP and Henry Coe SP.

All participants will follow public health instructions issued by local, state, and federal governments including, but not limited to social distancing, wearing masks, frequent hand washing, and avoiding the sharing of equipment.

Recommended Faculty Sponsor is Professor Gregory Gilbert, who is a collaborator on this project.

**Prerequisites:**

Outline the skills and background information necessary to participate in this internship.

* Attention to detail
* Basic knowledge about California floristics
* Enthusiasm about learning about different plants/vegetation, doing plant/vegetation research, data entry and quality control of data, and synthesis of information
* Basic understanding of field data collection techniques and Geographic Information Systems (GIS)

