

Arnhold Environmental Graduate Fellowship Spatial planning for Climate Change: Land Use for Conservation, Agriculture, and Energy (SPARCLE)

Fall 2025

Project Background

In 2021, the University of California Santa Barbara (UCSB) and Conservation International (CI) launched the Arnhold UC Santa Barbara-Conservation International Climate Solutions Collaborative to unify their demonstrated expertise and networks to conduct cutting-edge applied research to yield tangible, progressive solutions, and propel the careers of emerging environmental professionals. This partnership includes several applied collaborative research projects aimed at pushing the boundaries on resilient ocean and land conservation. The Collaborative has also created the Arnhold Environmental Fellows program—a powerful opportunity for undergraduate and graduate students to engage in collaborative research projects and receive mentorship from experts in the fields of environmental and ecological science.

Climate-driven shifts in both species ranges and in the spatial configuration of threats to biodiversity will affect the success of conservation. In this project, "Spatial planning for Climate Change: Land Use for Conservation, Agriculture, and Energy (SPARCLE)", UCSB and Cl advance the science of integrated spatial planning for balancing conservation and human livelihoods under climate change. We are currently hiring part-time, hourly graduate fellows to support projects under this umbrella. Students will contribute to one of two ongoing projects based on skills, interest and project needs: 1) evaluating the potential of co-locating multiple land uses (eg., energy and agriculture; "multi-functional landscapes") to balance competing demands for agriculture, energy, and biodiversity conservation, and 2) modeling human-wildlife conflict under climate, crop, and other land cover changes. This student will work with Bren faculty, Cl collaborators, and international colleagues, as well as undergraduate researchers to produce impactful research.

Responsibilities

During this opportunity, the Fellow will gain experience working on an applied research project and will have the opportunity to engage with the following activities:

- Gather and review literature
- Find and manage spatial data related to land use/land cover, agriculture, climate, energy & biodiversity
- Develop and execute reproducible code for spatial and statistical analyses related to land/climate change, species distribution modeling, connectivity modeling and landscape fragmentation analyses
- Mentor undergraduate student researcher(s)

• Contribute to presentations and reports

Desired Skills and Experience

- Coursework and/or experience with ecology/conservation
- Advanced knowledge of GIS
- Advanced knowledge of R, Google Earth Engine, and/or ArcGIS
- Prior independent research experience
- Interest or experience in mentoring or teaching

Fellow Selection Criteria

Students will be selected as Arnhold Environmental Fellows based on the following criteria:

- Excellence in environmental and ecological science and research
- Interest, skills, and experience related to the project responsibilities described above
- Registered UCSB graduate student in good academic standing

How to Apply

To apply, please send your resume and cover letter to Jennifer Bone at jebone@ucsb.edu. In your application package, please include the following:

- 1. Your resume
- 2. A short cover letter (no longer than one page) that includes information on (a) your schedule/availability for fall quarter, and (b) any relevant work or volunteer experience that relates to the desired skills and experience outlined above.

The Arnhold Environmental Graduate Fellow will be paid commensurate with academic and professional experience, starting at \$22/hour and will work for approx. 7 weeks from their start date, which is ideally in early November, with possibility of continuation in future quarters.

Application Deadline: October 16th, 2025