



**Arnhold Environmental Undergraduate Fellowship**  
***Spatial planning for area conservation in the face of climate change (SPARC)***  
Summer 2024

**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. Through this partnership, several applied collaborative research projects were launched, pushing the boundaries on resilient ocean and land conservation, natural climate solutions, and the frontier of impact investing in the blue economy. 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 area conservation in the face of climate change (SPARC)", UCSB and CI will further advance the science of spatial planning for projected ecosystem responses to climate change. We will do so through several projects related to 1) climate-proofing conservation reserve networks, 2) evaluating the potential of co-locating multiple land uses (e.g. agriculture & renewable energy; "multifunctional landscapes") and 3) elucidating how climate and land use change will impact human-wildlife conflict.

We are currently seeking highly motivated part-time undergraduate student fellows to support the above projects. These students will work with Bren faculty Ashley Larsen, CI and international collaborators, and graduate student researchers to produce impactful research.

**Responsibilities**

During this opportunity and depending on the project, the Fellows will gain experience working on an applied research project and may be responsible for the following activities:

- Gather and synthesize peer-reviewed literature
- Find and manage spatial data related to land use/land cover, agriculture, energy, climate, & biodiversity
- Develop and execute reproducible code for spatial and statistical analyses
- Contribute to presentations and reports

### **Desired Skills and Experience**

- Coursework and/or experience with ecology/conservation
- Experience reviewing and synthesizing peer-reviewed literature
- Experience with or interest in learning GIS
- Experience or interest in learning R and/or Google Earth Engine
- Attention to detail
- Prior research experience

### **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 undergraduate student in good academic standing

emLab is committed to sustaining an equitable and inclusive workplace and to the goal of reflecting the rich diversity of our campus community within our staff. We encourage applications from students of all backgrounds and majors and special consideration will be given to candidates who enhance diversity in the environmental sciences.

### **How to Apply**

Apply for this position via Handshake with either the: a) job number – 8944582; b) job title – Arnhold Environmental Undergraduate Fellowship: Spatial planning for area conservation in the face of climate change (SPARC); or c) employer – Marine Science Institute. In your application package, please include the following:

1. Your resume including relevant coursework
2. A short cover letter (no longer than one page) that includes information on (a) your project preference, (b) any relevant work or volunteer experience that relates to the desired skills and experience outlined above, (c) if applicable, any information on how your participation in the Fellowship would enhance diversity in the environmental sciences, and (d) availability for either a part-time or full-time summer fellowship.

For questions, please contact: Jennifer Bone ([jebone@ucsb.edu](mailto:jebone@ucsb.edu)). The Arnhold Environmental Undergraduate Fellowship will be paid \$16/hour and will work for 12 weeks from their start date.

**Application Deadline: May 10th, 2024**