Evaluating Rapid Response Devices for Island Biosecurity
Bren Environmental Leadership Program + The Nature Conservancy Summer Fellowship

Background
Invasive species like rats are among the greatest threats to island endemic species. Toxicant baits are a traditional method of removing and controlling non-native rats, but their use can have adverse effects on non-target species, including rare and endemic animals like the island fox and the Guam kingfisher. We are evaluating how both native and target species interact with a non-toxic, self-resetting rat trap (A24, Goodnature), with the end goal of deploying these devices for biosecurity purposes on The Nature Conservancy (TNC) preserves in Santa Cruz Island (SCI), CA, and Palmyra Atoll. Interns will use remote cameras to test devices designed to exclude native species from rat traps on SCI. Concurrently, interns will collect data to understand the usage of traps by rats on the mainland and predict their behavior in the event of an incursion to an island. For testing purposes, rat traps will be disarmed for the duration of the study.

Project Goals and Responsibilities
- Travel to field sites on SCI and a mainland site (exact location TBD) roughly once per week
- Deploy disarmed A24 traps (with and without exclusion devices) and use camera traps to evaluate potential impacts to non-target species (primarily island fox, island spotted skunk, island scrub jay, island deer mouse) on SCI
- Deploy disarmed A24 traps (with and without exclusion devices) in mainland CA and use camera traps to evaluate target species (rat) interactions with devices
- Generate a written report with tables and figures summarizing findings and providing recommendations

Qualifications
- Interest in conservation and island biosecurity
- Enjoys working in the field
- Willingness to learn about experimental design and deployment of new technologies
- Good driving record and ability to use UCSB vehicles or travel to field sites independently
- Excellent organizational skills and attention to detail
- Strong written communication skills
- Experience with statistical data analysis preferred

Details
The position is 10 weeks, 35 hours per week, with exact dates flexible between mid-June to mid-September. The student will receive a $6500 stipend. This position is part of the Bren Environmental Leadership (BEL) Program – the student will participate in professional development training during the summer and a poster session at the Mantell Symposium on Environmental Justice and Conservation Innovation in Fall 2024. Applicants must be full-time continuing undergraduate students at UCSB (not graduating within the 2024 calendar year).
How to Apply
Please submit applications to this form by March 3 at 11:59 pm. Applications should include:

- A brief statement (2-3 paragraphs) or cover letter describing why you are interested in this project and how your previous experience and qualifications make you a good fit for the position. We are committed to fostering an inclusive environment and supporting diverse students in Environmental Science, including those from underrepresented, low-income, and first-generation college backgrounds, and those active in DEI, environmental justice, or social justice. We welcome insights into how your experiences or perspective might shape your contribution to the BEL community.
- A resume or CV, including any relevant coursework and previous experience

Interview and Selection Process: Approximately two weeks after the submission deadline, applicants selected for interviews will be notified by email. Though only some students will be selected for interviews, all applicants will be notified of the status of their application when the interview/selection process is complete (approximately 3-5 weeks after the application deadline).