IBES Summer Internship Opportunity – Palmyra Program

Number of Openings: 1
Start Date: Early July 1, 2019
Hours per week: 48 hrs
Location: Palmyra, Hawaii

Note: Palmyra is a remote atoll only reached by plane every couple of months. Student will leave from Honolulu and return to Honolulu 6-weeks to two months later via a TNC-chartered flight. IBES will pay the airfare to and from Hawaii.

Funding:
- $4,000 stipend
- $2,900 Department Summer Earnings Waiver (DSEW) award for students who qualify
- Couch airfare cost covered

About the RI Nature Conservancy
The Nature Conservancy (Conservancy) is a global conservation organization dedicated to conserving the lands and waters on which all life depends. Guided by science, we create innovative, on-the-ground solutions to our world’s toughest challenges so that nature and people can thrive together. The Conservancy’s Palmyra Program operates a research station at Palmyra Atoll (Palmyra). Palmyra is co-owned and co-managed by the Conservancy and the US Fish and Wildlife Service (USFWS). The Conservancy operates a research station within a preserve on the Conservancy-owned Cooper Island. The rest of Palmyra’s islands and all the marine habitat out to 12 nautical miles constitute the Palmyra Atoll National Wildlife Refuge. The Palmyra Program works with USFWS to protect the native species and ecosystems at Palmyra, and to provide a research platform for globally important conservation-science.

The Palmyra Atoll Research Station is equipped to host 24 visiting scientists engaged in marine or terrestrial research. The station has 17 double-occupancy cabins for staff and scientists, a common dining facility, and private flush toilets and shower stalls. The Conservancy is committed to a safe workplace and living environment and has strict policies against harassment or discrimination of any kind.

Project Description
The Conservancy’s Palmyra Program and the USFWS initiated an ambitious project to restore Palmyra’s rainforest which was greatly transformed following US military action at Palmyra during WWII and copra plantations established prior to and following WWII. Restoration of Palmyra’s rainforest provides a rare opportunity to achieve landscape scale conservation results without edge effect. With this project, we address the ubiquitous transformation of mixed-species native rainforest to coconut palm monoculture for sustenance or copra production on low oceanic islands and coral atolls throughout the tropics. How will coconut palm dominated systems respond to climate change compared to intact, native tree dominated systems? Palmyra is arguably the best living laboratory in which the answer to this question can be reached.

Our rainforest restoration project differs from most other climate change adaptation management initiatives by targeting a whole ecosystem including terrestrial and marine components, and the strong connection between the two. We are restoring a rainforest to protect a coral reef so the reef can, in turn, protect the rainforest. The results of this project will inform managers and policymakers about the benefits of a whole-system approach to climate change adaptation for low oceanic islands—both inhabited and uninhabited.

In addition to our rainforest restoration project, the Palmyra Program is exploring sustainable, limited agriculture to augment food stores for the research station. By producing limited plant-based foods at Palmyra in a way that does not impact the atoll’s native species or ecosystems, we will limit the amount of fresh fruit and vegetables brought to Palmyra and by doing this we will decrease the risk of introducing harmful pest species.
Internship Description

The Brown University intern will work closely with the Palmyra Program to advance the rainforest restoration project and the sustainable agriculture project. Tasking will include propagation and planting of native tree species, control of non-native plants (primarily coconut palms), preparation of sustainable agriculture plots, planting and harvesting fruit and vegetables, and general maintenance tasks as assigned by the Preserve and Research Station Manager (PRSM). In particular, the intern will:

- Map and control invasive alien weeds
- Assist the Palmyra Program in developing effective methods for propagating and outplanting native tree seedlings
- Monitor mosquitoes throughout TNC’s Palmyra Atoll Preserve as part of a mosquito control project
- Conduct general, unskilled maintenance of the research station facilities, e.g., painting, cleaning, organizing, grounds-keeping, and light repairs to buildings under the PRSM’s supervision.

The intern will be supervised by the PRSM and will be mentored by the Palmyra Program Director on conservation-science tasking and by the Palmyra Program Sustainability Director on sustainability tasking. The intern will be part of the Palmyra Program’s team that manages the preserve and operates the research station and, in this role, will attend staff meetings, be part of group decision making processes, and will interact with TNC partners and guests. The intern will meet with and receive tasking from the PRSM daily, and will meet (via phone) with her/his mentor(s) weekly. Research station staff work 8 hours a day, 6 days a week, (Monday through Saturday) with Sunday off to recreate (snorkel, kayak, explore) and rest. As part of the research station team, the intern will follow the same work schedule. The research station provides phone access to outside world via a satellite link, and limited (no video streaming) access to internet is also available at the station. Prior to traveling to Palmyra, the intern will receive the following:

- A reading list relevant to the Conservancy, the Palmyra Program, and the projects in which the intern will be engaged
- An orientation (at the TNC office in Honolulu) to the Conservancy, the Palmyra Program, the Palmyra Atoll Research Station, and Palmyra Atoll’s natural environment
- An assignment with detailed tasking and schedules covering the duration of the internship

The internship will begin in late June or early July and will end in late August or early September, exact dates will be determined at least three months ahead of time. The Palmyra Program will provide the intern with round-trip transportation from Honolulu to Palmyra and lodging and meals while at Palmyra. The intern is expected to be a functional part of the research station team; desired qualities include: effective communicator, team player, responsible, demonstrated interest in conservation biology and/or sustainability.