

Global Health Internship

Description:

Monitor drinking water sources and investigate linkages between water quality, land use, and public health.

Project background:

A changing climate is expected to directly influence health related issues and extreme weather events (floods and droughts) are likely to increase, threatening human health and safety. Of critical importance to community health, especially in rural areas of the tropics, is the availability of clean water. The presence of forests in riparian zones improves water quality, and helps maintain water availability during long dry seasons. Land use and land cover largely determine the type and amount of contaminants entering surface and groundwater sources, and, consequently, the health of human communities that rely on this water for drinking, cooking, and bathing. The purpose of this project is to work with local communities on long-term water quality monitoring, and to assess human relationships between land use, water quality, and human health. Pairs of interns will work in the field, following an established protocol for collecting water quality data in local rivers around the Lalo Loor Reserve. A second part of the project involves developing interviews with patients at the health center in Jama, developing educational material about health and water, and/or research in the local lab.



What will you do?

- Work independently and with community research teams to collect water quality data in four rivers, from their headwaters in the coastal mountains to their mouth at the Pacific Ocean.
- Participate in assessment and follow-up training for community research teams, including training on E. coli sampling methods
- Analyze water quality and water quality data to date and work with research teams to write a report of results
- Develop and perform interviews with patients and doctors in the Jama Health Center
- Develop educational material about the importance of water quality
- Work with local communities and schools on awareness on issues related to global health and/or water quality

What will you learn?

- Standard field methods for evaluating water quality of streams, including physical and biological parameters
- Identification of common aquatic invertebrate groups
- Management and analysis of long-term datasets
- GPS navigation and data collection
- Community-based research practices



- Communication techniques for public education on water quality

What do we seek?

- Knowledge or experience in aquatic ecology or water quality issues, or interest and willingness to learn
- Willing to hike long distances in rugged conditions and conduct field work in streams, often in hot weather
- Knowledge of Excel
- Organized and attention to detail
- Outgoing and willingness to work with local people
- Intermediate Spanish language ability

** Can be combined with the Conservation Corridor internship*