

## Beach Impact Project:

**Description:** Contribute to long term data collection that will inform management plans for the beaches of Manabí, with the aim of promoting more sustainable use.

**Project background:** The northern Manabí coast is experiencing a major influx of visitors and residents, and we are seeking interns to help monitor their impact on Pacific beaches. Biotic indicators can be one of the best techniques for assessing the long-term impacts of human visits to and use of beaches. Ceiba is particularly keen to gather baseline data on remote beaches that are relatively undisturbed, so we can monitor the effects that growing tourism may have on them and suggest limits or restrictions on beach usage or access to limit any negative impacts we might detect. Obviously, tourism and a growing population can bring economic benefits to local communities; however, poorly-managed tourism development can damage the health and beauty of the coastal beaches that are the main visitor attraction. Interns will conduct surveys of ghost crabs (an indicator species) by assessing the density of crab burrows. Our aim is to encourage the growth of sustainable tourism in the region, while maintaining the health of important coastal ecosystems.

### What will you do?

- Sample several beaches along the coast of Manabí
- Collect data on crab densities and various human impact parameters
- Enter collected data in the database for analysis
- Organize environmental activities, for example beach clean-ups with local people

### What will you learn?

- Standard methods and experimental design for crab surveys (transects and quadrats)
- Geographic data collection and processing using GPS and GIS
- Data organization, management, and analysis
- Use of camera traps

### What do we seek?

We seek interns who are self-motivated, organized, and willing to conduct fieldwork in rugged conditions, often in hot weather. The results of this investigation will be published in a scientific journal and/or a report targeted at local decision-makers. The goal is to share information and provide science-based recommendations to support a better management plan for coastal areas and awareness of the importance of preserving coastal ecosystems.