

AGROFORESTRY

Description: Maintaining and developing an organic agroforestry demonstration plot and take data for its long-term monitoring.



Project Summary: Deforestation resulting from the advancing agricultural frontier is the main threat to forests on the Ecuadorian coast. We need to find solutions that satisfy both the socio-economic needs which rely on natural resources while also helping to preserve these diverse ecosystems and their flora and fauna. Agroforestry systems have proven themselves as an efficient tool for this purpose. Over the past few years, we have been working with local landowners to implement these systems on their properties (see Conservation Corridor). In 2016 we decided to establish our own agroforestry plot to research sustainable and productive agroforestry techniques and to provide data that support the idea that agroforestry systems are beneficial for biodiversity and their ecosystems. The goal of this project is to create an agricultural system that maximizes biodiversity while also creating a productive landscape. This project can be combined with the Conservation Corridor Internship or the Forest Dynamics Research Internship.

What you'll do:

The intern's tasks will vary depending on the season and the needs of the plot. The lack of water in the dry season is a strong limitation for the development of the plants and, therefore, our activities are scheduled accordingly.

- Plant productive and/native plants as needed
- Maintain plot (watering, cleaning, and weeding as necessary)
- Catalog species and create a map documenting plantings
- Collect data on abiotic factors, planted trees (height and diameter), and biodiversity (birds and mammals).
- Collect seeds of fruits and timber trees
- Harvest as necessary
- Develop and maintain a nursery
- Maintain records of plantings, maintenance, and biodiversity monitoring
- Produce organic fertilizers
- Collaborate with local landowners and regional experts to evaluate various agroforestry methods
- Conduct meetings in local communities to disseminate results

What you'll learn:

- Identification and cultivation techniques of common tropical agricultural crops
- Principles and practices in organic agroforestry
- Conventional agricultural practices in the tropics
- Sampling methods for monitoring biomass, soil nutrients, and biodiversity



What we seek: Strong interest in botany, horticulture, forest ecology, and agroforestry; detailed and organized, with good data collection and management skills; knowledge of Excel; ability to use keys and other resources to identify plants; willing to conduct field work in rugged conditions.