WILDLIFE MONITORING INTERN

Description: Collect data on wildlife populations in threatened coastal dry forests.

Project summary: Ceiba is monitoring wildlife populations and the impacts of human activity on wildlife in the region in and around the Lalo Loor Dry Forest Reserve. By using various monitoring techniques, we hope to gain knowledge on the status and health of the animal populations in the area and how are they affected by the change in habitat use and the resulting forest fragmentation. Interns participating in wildlife monitoring have different projects to choose from at the Lalo Loor Dry Forest Reserve and in other forest areas along the coast (also see Conservation Corridor Internship). Note that not all surveys are running all year long so contact us to get more information on the status of the projects depending on your dates.

What you'll learn:

- Standard methods and experimental design for terrestrial wildlife surveys using camera traps
- Standard methods and experimental design for monkey surveys
- Geographic data collection and processing using GPS and GIS
- Field identification of neotropical animals
- Data organization, management and analysis

▪ **Camera trap monitoring project**

The use of camera traps to study medium and large terrestrial mammals has increased in popularity because it is a non-invasive method that provides very useful information. The data can be used to do an inventory of species, study habitat use or activity pattern, and compare communities in different land uses. To date, we have recorded the presence of a surprising number of large vertebrates in the Reserve, including ocelot, jaguarundi, margay, deer, raccoons, tayra, and many more. We have also conducted surveys to determine how the different species use the different land uses (forest, reforestation plots, agroforestry plots, cattle pastures). We will continue doing these surveys in areas around the Reserve, especially in the areas categorized as priority for the Conservation Corridor.

What you'll do:

- Configure camera traps and prepare the field equipment (batteries, memory cards, data sheets, GPS)
- Install the camera traps in specific locations. Visit each location after 2-4 weeks to replace batteries and memory cards.
- Collect camera trap data, identify species captured, and enter into database
- Collect data on forest structure and characteristics to analyze preferred habitat for different species
- Analyze existing data to determine activity patterns, relative abundant indexes (RAI´s), etc.

▪ Monkey demographic and behavior study

A large population of Mantled Howler Monkeys (*Alouatta palliata*) makes its home in the Lalo Loor Dry Forest Reserve. Interns will collect data on the demographics and ecology of howler monkey groups in the reserve. This data is needed to determine whether the population is stable or changing, assess movement patterns, and identify important resources for the primates within the Reserve. Interns will spend long days in the forest following monkey troops to record data on troop size, gender, age, activity, and food sources. Interns will also map, identify, and tag feeding trees and troops locations. Encounters with the rarer Ecuadorian White-fronted Capuchin (*Cebus aequatorialis*) will also be recorded. Data collected will be entered into a database and used to generate an annual population estimate for howler monkeys in the Lalo Loor reserve. Interns may also create educational materials about the biology of these two monkey species.

What you'll do:

- Learn the sampling protocols used to collect monkey data
- Collect demographic and ecological data on howler monkeys
- Estimate current howler monkey population size in the reserve and compare to previous estimates
- Identify and map trees the howlers are utilizing for food and rest
- Update howler monkey educational display for the nature center
- Record any observations of capuchin monkeys in the reserve

▪ Highway mortality survey

Roads have become an omnipresent element that modifies ecosystem dynamics by fragmenting them and dividing animal populations. The most evident effect is the death of the animals that try to cross highways. This study tries to determine the impact of the Ecuadorian coastal highway (E-15) in the local fauna. Interns will conduct regular surveys of wildlife mortality on the coastal highway that passes in front of the entrance to the Lalo Loor reserve. Weekly surveys are conducted by vehicle; animals are identified and their location recorded by GPS. By identifying roadkill "hot spots", we plan to make recommendations to mitigate wildlife mortality.

What you'll do:

- Conduct weekly roadkill surveys and enter all data into a database
- Use GIS software to map mortality incidents and identify high-frequency mortality zones
- Identify hotspots of wildlife mortality along the road for the proposal of mitigation strategies

What we seek: Knowledge or experience in wildlife ecology, or interested and willing to learn; willing to hike long distances in rugged conditions and conduct field work, often in hot weather; knowledge of Excel; organized and attention to detail.