

## **Neotropical Bat**

Internships are held at the T.R.E.E.S Hosting Center, a research and education center in the Maya Mountains of Belize. The center is operated by the Toucan Ridge Ecology and Education Society (T.R.E.E.S), a small grassroots not-for-profit organization whose mandate is to conserve Belize's natural and cultural heritage through education, conservation, and research. One way in which we meet our mandate is through hosting interns. By training international and local Belizean students in environmental and wildlife management field research techniques and data collection protocols, knowledge on the biodiversity of Belizean fauna and flora will be gained. This knowledge will then be compiled into peer-reviewed publications, Belizean government reports and regulations, field guides, and other publications that will increase the global visibility of Belizean fauna and flora and aid in their management and ultimately their conservation.

Our internship program is designed so that students will gain invaluable skills in their field which will aid them in finding their career paths and give them experiences that will help them find future employment. The hands-on experiences gained will increase the student's opportunities for employment in government agencies, Environmental NGOs, and in consultant firms. Through working on long-term monitoring projects that will be designed to be published in peer-reviewed journals and stressing the importance of good note taking, standardized data collection, and scientific writing, students will also be prepared for a future career in academia.

Interns pay a daily fee to cover their expenses and gain training and life experiences that they would not otherwise get at home. All fees go directly to supporting the development of conservation projects in Belize through paying T.R.E.E.S incurred expenses of hosting the student, for materials, tools, and transportation required for the intern's project, and for paying for locals' time in sharing their knowledge. A portion of the fees are set aside and used for scholarships and bursaries so local Belizean students can have the same training opportunities as international students.

If you are an international student in financial need, your academic institution may be able to offer a scholarship or bursary for this opportunity. Potential interns should also look into the possibility of getting accredited through their school for the internship. You should identify an academic advisor willing to support you in this internship, and we will discuss this opportunity directly with him/her as well as provide a letter of support to your academic institution.

### **Internship Specifics**

You want to learn more about neotropical bats? Did you know that there are over 70 species of bats in Belize, and we have recorded 65 of these species on the T.R.E.E.S property! Want to spend time living and learning about the jungle in the beautiful country of Belize? Want to learn how to handle bats and which important measurements to take? Then this is the internship for you!

The goal of this internship is to give the student various experiences in tropical bat studies that will aid the student in developing their skills for a variety of future education and employment opportunities. The main component of the project will be to work with T.R.E.E.S biologists and staff in establishing long-term bat monitoring projects (mist netting, habitat characterization, mark-recapture). These baseline data will contribute to future ecological studies (breeding season,

migration, activity phases, species composition) on bat populations present on the T.R.E.E.S property and elsewhere in the adjacent protected areas in the Maya Mountains.

We are looking for interns who are independent yet willing to work in a team environment. Applicants should be interested in improving their techniques for proper identification and survey methods applicable in the tropics. Applicants should have a desire for learning about the incredible biodiversity of Belize through systematic field surveys and data collection. If you are interested, you can always join our other ongoing research to gain a broad experience.

### **Tasks**

- Learn how to set up mist-nets and mist netting bats
- Learn how to I.D. bat species: processing, handling techniques, sex, and age
- Get trained on how to use acoustic monitoring which will be helpful for future jobs
- Work with T.R.E.E.S biologists, international collaborators, and other interns on the development of protocol design and complete a brief summary report that will help to establish future research protocols for continuing field work and data collection.
- Lead your own research project with the help of trained T.R.E.E.S and international biologist.
- Implement protocols in the field using the help of T.R.E.E.S staff and Ecorana tutors to find the best places to set-up long-term monitoring locations.
- Be trained on use of GPS to navigate to and mark survey locations.
- Share knowledge with locals and with other fields.
- Learn to enter data in a systematic manner and compile it into a scientific report with introduction and literature review, methods, results (including basic statistical analysis), and discussion using peer-reviewed scientific articles.
- Depending on involvement in project, may have opportunity to collaborate on future publications.

### **Desired Qualifications**

- Scientific research and writing skills (be able to navigate through peer-reviewed resources and write a basic literature review).
- Previous experience conducting field work at night (after dark).
- Knowledge of bats inventoring and monitoring techniques an asset.
- Experience with wildlife recording techniques an asset.
- Experience using Microsoft Office Suite
- Experience using sound recording software, statistical analysis software, and ArcGIS software an asset.
- Flexible easy-going attitude.
- No prior bat handling or mist-netting experience required however experience handling wildlife is an asset. However, experienced bat biologists are also welcome and will be treated according to their experience level and are eligible for \*discounted rates.

### **Physical Requirements and Work Conditions**

- Ability to tolerate high temperature and high humidity

- Ability to work in environments where exposure to spiky plants, toxic vines, scorpions, spiders, ticks, and biting flies is common. In addition, it is the jungle; venomous snakes are uncommon but present.
- Ability to live in remote conditions away from electronic amenities
- Possible indoor work is performed in a typical office setting.
- Ability to lift, carry, and position objects weighing up to 30 pounds.

## Benefits

- Gain a working knowledge of bat inventorying and monitoring methods.
- Learn Central American bats by sight and sound.
- Work with trained biologist in a professional setting.
- Opportunity to attend personal/professional development days with local experts on a range of projects.
- Opportunity to live in and enjoy the scenery, wildlife, and cultural resources of a beautiful country in Central America.
- Opportunities to work with other interns, guides and locals from diverse backgrounds that share a common interest in preserving and protecting our natural lands.

## Terms

- Multiple positions available
- No application deadline
- Start-date: now
- Length of position: minimum 4 weeks; longer is preferable.
- Schedule: 30 hours per week, Monday–Friday.

**Fees for the Apprenticeship:** \$479USD/week which includes all tutorship, access to all required equipment, all food (a combination of prepared meals by our cook as well as self-catering in communal kitchen but ingredients provided) and lodging at the research center in shared dormitory-style cabins with other same sex interns/apprentices/volunteers. *Fees do not include airport transfer, flights, or travel medical insurance.*

N.B. To handle bats you must have proof of up-to-date rabies immunity, including a recent titer if you received the vaccine more than two years ago. You will also be expected to follow COVID safe handling procedures, including wearing of face masks during bat processing and frequent hand washing and sanitization. If you have not been vaccinated for rabies but still wish to take the workshop, you are welcome to do so and will be able to participate in all activities except extraction of bats from nets and handling during processing. More information can be found here: [https://www.cdc.gov/rabies/specific\\_groups/doctors/serology.html](https://www.cdc.gov/rabies/specific_groups/doctors/serology.html)

## To Apply

Please email your resume and a thoughtful cover letter to: [info@treesociety.org](mailto:info@treesociety.org)

Please indicate the position title in your email subject line. ***No phone calls please.***

*\*To apply for discounted rates, please contact us directly to discuss your qualifications.*