The Charles Darwin Foundation for the Galapagos Islands is seeking a Field Technical Assistant - Shark Research

Position:	Field Technical Assistant - Shark Research
Location:	Galapagos, Ecuador
Job Type:	Full-time Employment
Application Deadline:	March 17, 2024
Duration:	Four years, with the possibility of renewal based on performance and available funds.

Introduction

The Charles Darwin Foundation for the Galapagos Islands (CDF) is recruiting a Field Technical Assistant to join our shark research team and strengthen the ongoing long-term research on the ecology of shark populations and conservation carried out by the CDF. The selected candidate will integrate the technical team of the Project "Habla Tiburón", funded by the United States Agency for International Development (USAID).

We are looking for a motivated and committed professional to actively contribute to research on the ecology, population dynamics, and conservation of sharks in Ecuador and the Eastern Tropical Pacific, contributing to the development of scientific sampling methods and experimental design to collect the necessary data for the project. The activities carried out by the technician will generate high-quality scientific data that will help improve knowledge about shark populations in the Exclusive Economic Zones (EEZ) of Ecuador, including the Galapagos Islands.

Objective of the Position

The Field Technical Assistant - Shark Research will join a new project aimed at improving the long-term viability of shark and ray populations in Ecuadorian waters by: 1) strengthening participatory governance of fisheries responsible for the highest shark catches; 2) strengthening monitoring, control, and enforcement capacities of stakeholders to combat illegal, unreported, and unregulated (IUU) fishing in Ecuadorian waters; and 3) collaborating with fishing sectors to implement best fishing practices to reduce shark and ray bycatch and mortality in Ecuador.

The candidate will be a key member of the team, playing a central role in data collection and processing for the project, from organizing field trips to generating databases in formats suitable for research.

The ideal candidate will have a strong background in executing marine research fieldwork (ideally in the field of sharks), along with experience in data processing and management, integrating technologies to optimize data processing, especially video analysis.

This position will involve conducting marine fieldwork to carry out data collection for standardized studies using various methods, such as underwater visual census using diver-operated video cameras (DOV), baited remote underwater video systems (BRUVS), remotely operated vehicles (ROV), and aerial visual census using unmanned aerial vehicles (UAV).

As part of a team, the technician will also carry out fieldwork for shark tagging and biological sampling.

The technician will also be responsible for processing, managing, and preserving large datasets, maintaining project equipment, and integrating technological tools aimed at optimizing data collection and processing (link for example), reference below).

Required Profile

Activities

The selected candidate will maintain close and active interaction with the Principal Investigators of the Shark Ecology Project. The selected individual will also collaborate closely with other team members and close project partners, including NGOs, industry, and government. Additionally, the selected candidate may co-develop collaboration initiatives with local, national, and international institutions and will work alongside the Galapagos National Park Directorate (GNPD) and other strategic partners.

The main responsibilities of the position are:

Field logistics and data collection:

- Contribute to the execution of marine fieldwork. This will include organizing logistics (provisions, scientific and safety equipment, etc.), ensuring that all safety protocols are followed, and complying with internal administrative processes.
- Conduct shark and pelagic fish surveys using underwater tools and techniques such as BRUVS, DOVS, UAVs, and ROVs to collect data on shark relative abundance and spatial data.
- Contribute to the capture, handling, and tagging of sharks, ensuring animal welfare and operation safety.
- Contribute to the collection and storage of biological samples for various studies.
- Ensure proper maintenance and review of field equipment and project equipment.

Data processing and analysis:

- Contribute to the processing and analysis of videos produced during field trips. This will include (but not be limited to) video processing, database generation, management, and updating.
- Collaborate on the video processing optimization project, using Artificial Intelligence to

automate data generation (link, reference below).
- Collaborate on the development of maps integrating spatial, biological, and fisheries data for the production of scientific publications, reports.

Qualifications and Experience

- Technical degree in marine biology, information technologies, or another field related to the technical requirements of the position.
- Ability and experience to coordinate and conduct marine fieldwork for long periods under basic conditions and in remote areas.
- Demonstrated experience in marine research fieldwork, including experience in underwater studies with SCUBA, ideally with shark handling and tagging.
- Rescue diver certification, with excellent scientific diving skills with SCUBA (minimum of 100 scientific dives).
- Experience in freediving (certification will be valued).
- Experience operating DOVs, BRUVs, UAVs, and ROVs.
- Remote Pilot Aircraft System (RPAS) certification.
- Ability and experience to input and analyze data (Excel).
- Excellent verbal and written communication skills in English and Spanish.

Desirable Qualifications

- Experience in maintaining electronic equipment, diving gear, and remote-control devices.
- Knowledge of ArcGIS/QGIS software.

Employment Conditions

The selected candidate will be based at the Charles Darwin Scientific Station in Puerto Ayora, Santa Cruz, Galapagos Islands, Ecuador. The researcher will faithfully comply with the norms, regulations, and procedure manuals of the CDF; additionally, they will strictly observe the rules and regulations marked by the GNPD. Among these practices: follow authorized trails, do not remove sand, stones, or elements from nature, and DO NOT introduce any foreign element into the ecosystem, such as food, plants, and pets.

The working hours of the FCD are from 07:45 to 12:30 and from 14:00 to 17:15. Due to the nature of the position (fieldwork, unexpected activities), the hired person must be flexible. The position may require field expeditions and work during evenings or weekends.

The Human Resources department of the CDF will supervise all residency documents related to the hiring process but will require the candidate's assistance to obtain the necessary legal documents. For foreigners, a work visa must be requested and issued by the Ecuadorian government. The CDF will also oversee the processing of residency permits in Galapagos for the selected candidate.

To Apply

Interested candidates should send the following information via email to pro.seleccion@fcdarwin.org.ec

- An updated resume.
- A letter of interest (maximum 1 page), describing your interest in the position and skills according to the minimum requirements described above.
- Names and email addresses of two professional references.
- We ask that you send all necessary documents in a single PDF file with the Subject: "Speak Shark - Field Research Assistant - Sharks." If you need more information, you can contact us at the same email address provided above.

References

Butcher, Paul A., et al. "The drone revolution of shark science: A review." *Drones* 5.1 (2021): 8.

Villon, Sébastien, et al. "Toward an artificial intelligence-assisted counting of sharks on baited video." *Ecological Informatics* (2024): 102499.