



Master's Internship – 2024

Preliminary study of the distribution, movements, acoustics and habitat use of beaked whales (*Ziphiidae*) in the Lesser Antilles.

About CCS

The Caribbean Cetacean Society (CCS) is an NGO created by locals of Lesser Antilles, recognized as being of general interest, which aims to conserve cetaceans in the Caribbean. This NGO is a French association under the law of 1901, based in Martinique. Its objectives are to promote cooperation between the islands. To set up research programs to collect missing data. To use these data to support the development of conservation measures adapted and effective with each territory. Raise awareness of the richness and fragility of cetaceans. This is currently the only organization dedicated to cetacean conservation throughout the West Indies.

The Caribbean Cetacean Society (CCS) - Presentation video

Context and objective

Beaked whales are members of the Ziphiidae family, which comprises 22 species in six genera, found in tropical, subtropical and temperate waters (Mead, 2009; MacLeod et al., 2006). These deep-diving cetaceans spend very little time at the surface, barely more than two minutes, while apneas reach more than an hour at average depths of over 1,000 meters (Schorr et al., 2014; Shearer et al., 2019). Because of their offshore distribution and predominantly deep-sea lifestyle, these species are difficult to observe and are, in fact, classified as rare. Consequently, population densities and trends across their range remain poorly documented.

In addition to being a difficult family to observe, beaked whales are threatened by human activities. Beaked whales are largely classified as Data Deficient (DD; Global IUCN Red list). Ship strikes (Ritter, 2012), ingestion of anthropogenic waste (Panti et al., 2019; López-Martínez et al., 2023), by-catch fishing (Dolman et

al., 2016) and noise pollution (Weilgart et al., 2007) are the main known pressures on these species.

It is therefore important to take stock of beaked whale populations in order to fill this knowledge gap for better management and conservation of these species.

The aim of the internship is to study the distribution, movements, relative abundance and habitat use of this species in the Lesser Antilles. To this end, beaked whale sightings, photo-identification and acoustic recordings will be collected from 2021 to 2023.

Missions

This is a mainly computer-based internship involving the use of a large dataset. The project is suitable for a Master's student with the possibility of completing an internship lasting more than 5 months.

- Review of beaked whale knowledge.
- Creating a species distribution model.
- Analysis of photo-identification data.
- Scientific field expedition to acquire additional data (depending on time remaining after analysis and editing).
- Ongoing support for various CCS actions.

Supervising

The internship will be supervised by Valentin Teillard (CCS marine biology engineer), with support from Jeffrey Bernus (CCS director and marine biology engineer). The intern will also collaborate with Lucas Bernier, another Marine Biologist at CCS.

Work conditions

The internship will last 5 to 6 months between January and August and will take place in Martinique at the Caribbean Cetacean Society's offices.

Applicant profile

- Knowledge of the Lesser Antilles region.
- Knowledge of statistics applied to R software.
- Autonomy
- Rigor
- Experience in the use of geographic information systems (GIS) preferred.
- Conservation and cetacean interest.

Good team spirit, strong work motivation and positive attitude.

Applications

Send your CV and covering letter in a single PDF file with the following nomenclature 2024INTERNSHIP_BKW_LastName_FirstName, to valentin.teillard@ccs-ngo.com and contact@ccs-ngo.com, before November 15, 2023.

- Please include in your cover letter: A justification of why you are a good candidate for this project. What you expect to gain by participating in this project. Your long-term goal. Your experience in the Caribbean
- If your application is successful, you will be invited to an interview. Please do not hesitate to contact us if you have any questions about the internship.