



Master's Internship – 2024

Preliminary Study of the Distribution, Movements, Relative Abundance, Threats, and Habitat Use of Bottlenose Dolphins (*Tursiops truncatus*) 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

The bottlenose dolphin is one of the most studied cetacean species worldwide. This species can be found in all tropical and temperate seas on the planet. There is considerable variability in the ecology of the bottlenose dolphin, with some populations being coastal and others pelagic (Hoelzel et al., 1998). Some are resident while others are migratory (Taylor et al., 2016). There have been some studies conducted on the bottlenose dolphin in the Caribbean. In Puerto Rico, one study estimated the population to be around a hundred individuals using photo identification and found that over a quarter of the individuals displayed scars of anthropogenic origin (Rodriguez-Ferrer, 2019). More descriptive studies have also been carried out. One showed similarity in dorsal fin shape on a Caribbean scale (Niño-Torres et al., 2023), while another studied the relationship between age, sex, and individual growth in Cuba (Ruenes et al., 2023). In the Lesser Antilles, the bottlenose dolphin, although often observed, has been

poorly documented, making it currently impossible to describe the distribution and health of the population.

To address this gap, CCS has implemented the 'Ti Whale An Nou' program, which has enabled several scientific expeditions for cetacean surveys to be conducted between March and October in all the islands of the Lesser Antilles. Observation and photo-identification data were collected between 2021 and 2023.

The objective of the internship is to study the distribution, threats, relative abundance, movements, and habitat use of the bottlenose dolphin in the Lesser Antilles. This will provide concrete support for future conservation efforts in the Lesser Antilles.

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 Bottlenose dolphin 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 Jeffrey Bernus (CCS director and marine biology engineer), with support from Valentin Teillard and Lucas Bernier (CCS marine biology engineer)

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_TT_LastName_FirstName, to Jeffrey.bernus@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.