



Master's Internship – 2024

Preliminary Study of the Diversity, Distribution, Movements, Threats and Habitat use of Globicephalinae 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

This internship follows a previous master thesis achieved on the Short-finned pilot whale in 2023, and the associated report is available in the resources section of the CCS website.

Link to the report section of the website:

<https://www.ccs-ngo.com/reports-publications>

The Globicephalinae are a subfamily of dolphins genetically distinct from other species of dolphins. According to a phylogenetic study (McGowen et al., 2020), six cetacean species are part of this category in the Lesser Antilles: the short-finned pilot whale (*Globicephala macrorhynchus*), the melon-headed whale (*Peponocephala electra*), Risso's dolphin (*Grampus griseus*), the rough-toothed dolphin (*Steno bredanensis*), the pygmy killer whale (*Feresa attenuata*), and the false killer whale (*Pseudorca crassidens*). These species are globally distributed

in almost all tropical and subtropical waters. However, they are often less represented in the literature compared to other cetacean species. There have been some studies focused on the short-finned pilot whale in the Caribbean. The first, conducted in 2014, described the genetic diversity of short-finned pilot whale stranded on the islands of Jamaica, Puerto Rico, the British Virgin Islands, Trinidad and Tobago (Télez et al., 2014). A second study published in 2019 reported on the short-finned pilot whale population on the Caribbean coast of Martinique (Fléchet et al., 2019). While knowledge about this species remains limited in the Caribbean, information about other Globicephalinae is mostly limited to occasional sightings or strandings (Mignucci-Giannoni et al., 2000). Whale hunting, on the other hand, continues in some Caribbean islands (Fielding and Kiszka, 2021), primarily targeting 'blackfish', especially the short-finned pilot whale, the most abundant in this category in the Lesser Antilles. Currently, the literature does not provide a comprehensive description of the distribution and health of the Globicephalinae population. To address this gap, the Caribbean Cetacean Society (CCS) has implemented the 'Ti Whale An Nou' project, consisting of several scientific expeditions to survey cetaceans between March and October in all the islands of the Lesser Antilles. Observation and photo-identification data have been collected between 2021 and 2023. The objective of the internship is to study the diversity, distribution, movements, threats and habitat use of this family 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.

- Reviewing existing knowledge related to Globicephalinae
- Creating a species distribution model.
- Performing a scar analyses and analyze the overlay between distribution and threats
- 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 Lucas Bernier, a Marine Biologist at the Caribbean Cetacean Society (CCS), with support from Jeffrey Bernus, the Director of CCS and a Marine Biologist. The intern will also collaborate with Valentin Teillard, 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_globi_LastName_FirstName, to lucas.bernier@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.