



Master thesis project - 2024

**Preliminary Study of the Diversity, Distribution, Movements, Threats
and Acoustic of *Kogiidae* species in the Lesser Antilles**

About us

The Caribbean Cetacean Society (CCS) is an organization founded by locals from the French West Indies, recognized as a public interest organization, with a mission to conserve cetaceans in the Caribbean. This NGO is a French association governed by the 1901 law and is based in Martinique. Its objectives include promoting cooperation among the islands, establishing research programs to collect missing data, using this data to support the development of appropriate and effective conservation measures with each territory, and raising awareness among the population about the richness and fragility of cetaceans.

Presentation video: <https://www.youtube.com/watch?v=TBkyj9gwIUc&t=3s>

Abstract

The Kogiidae subfamily comprises two species of odontocete that are widely distributed between temperate and tropical regions. Genetically closely related to the sperm whale, the dwarf sperm whale (*Kogiidae sima*) and pygmy sperm whale (*Kogiidae breviceps*) are among the most misunderstood cetaceans around the world.

Both species are present in the Caribbean and more specifically in the Lesser Antilles even though species identification is challenging and not always possible.

Overall description of Kogiidae in the Caribbean is limited to sightings and strandings reports (Cardona-Maldonado and Mignucci-Giannoni, 1999) resulting in a very limited understanding of the species and their ecology in the Lesser Antilles. Meanwhile, they face diverse threats such as small cetacean hunting (Fielding and Kiszka, 2021), collision or noise pollution for example.

Currently, the literature does not provide a comprehensive description of the distribution and health of the Kogiidae species. To address this gap, the Caribbean Cetacean Society (CCS) has implemented the 'Ti Whale An Nou' program. As part of it, several scientific expeditions to survey cetaceans each year in the majority of the islands of the Lesser Antilles. Observation and photo-identification data have been collected between 2021 and 2024.

The objective of the internship is to study the diversity, distribution, movements and threats of those species in the Lesser Antilles. This project aims to value the acoustic database as Kogiidae visual detection is often challenging. This will provide concrete support for future conservation efforts in the Lesser Antilles.

Missions

This internship primarily involves computer work, including the use of a large dataset. The project is suitable for a Master's level student who can undertake an internship lasting more than 5 months.

The main responsibilities include:

- Reviewing existing knowledge related to Kogiidae species.
- Utilizing species distribution models.
- Valorizing the acoustic database to inform the presence and distribution of the species
- Performing a scar analyses and analyze the overlay between distribution and threats
- Analyzing photo-identification data.
- Participating in scientific field expeditions for additional data collection (depending on time availability after analysis and report writing).
- Providing general assistance for various actions of the Caribbean Cetacean Society (CCS).

This internship offers a comprehensive experience in data analysis, species distribution modeling, and fieldwork, making it a valuable opportunity for a Master's student interested in cetacean research and conservation.

Supervising

The 2025 internships will be supervised by Louise Simon and Lucas Bernier, Marine Biologists at the Caribbean Cetacean Society (CCS), with support from Jeffrey Bernus, the Director of CCS and a Marine Biologist.

Work conditions

The internship will preferably last for 5 to 6 months, from January to August, and will take place at the offices of the Caribbean Cetacean Society in Martinique.

Applicant profil

- Knowledge of the Lesser Antilles region (Geography, issues...).

- Knowledge in statistics applied to R software (Proficiency in R programming).
- Autonomy
- Rigor
- Experience in the use of Geographic Information Systems (QGIS/ArcGIS).
- Interest in cetaceans' conservation.
- Ability to read and summarize scientific articles in English.
- Good team spirit, strong motivation in work, and a positive attitude.

Applications

To apply, please first fill the following google form:

https://docs.google.com/forms/d/e/1FAIpQLSdRbHHnW46w5ezQn_-8srYHJNRz-MN0etTVURu0it_K-ENUng/viewform?usp=sf_link

Please also send your CV and your cover letter as a single PDF file with the following naming convention 2025INTERNSHIP_LastName_FirstName to louise.simon@ccs-ngo.com and contact@ccs-ngo.com, before **Octobre 30, 2024**.

Please include in your cover letter:

- A justification of why you are a suitable candidate for this project.
- What you hope to gain from participating in this project.
- Your long-term objectives.
- Your experience in the Caribbean.
- If your application is shortlisted, you will be invited for an interview.

Feel free to get in touch if you have any questions about the internship.

Please note that you should follow the specific instructions provided for sending your application.