

**Project: Spatial Patterns of the Impact of Human Noise in the Largest Coastal
Marine Protected Area in Brazil
Update – April 7, 2025**

It is with great pleasure that I share the first updates from our project "*Spatial Patterns of the Impact of Human Noise in the Largest Coastal Marine Protected Area in Brazil*," developed with the support of the **Rufford Foundation**.

During the initial months of implementation, we achieved significant progress and successfully completed all the initial stages as outlined in our proposed schedule. The data collection phase has been successfully concluded.

We selected 25 sampling points distributed along the northern region of the Costa dos Corais Environmental Protection Area (APACC), located between the states of Pernambuco and Alagoas, Brazil. This region constitutes the largest coastal marine conservation unit in the country and one of the most important in Latin America. The selected points covered a range of environments and levels of human activity, allowing for a comprehensive assessment of the marine soundscape.

Field activities were carried out during the first weeks of March and April 2025. During this period, we conducted underwater recordings at all sampling points using hydrophones to capture marine sounds and anthropogenic noise present at each location. All fieldwork followed rigorous methodological protocols to ensure the quality of the data collected.

We are currently focused on the analysis of the acoustic data, which is already well underway. The initial analyses have begun to reveal important spatial patterns regarding the influence of human noise on the marine acoustic biodiversity of the APACC, providing valuable information for the conservation of this vital area.

We are deeply grateful to the Rufford Foundation for their essential support in making this project possible. We will continue working with dedication to generate knowledge that effectively contributes to the protection of Brazilian marine ecosystems.

New updates will be shared soon as we progress with our results and the next phases of the project.

Below are some images from our field activities.

Sincerely,

Túlio Freire Xavier

Lead Researcher

Federal University of Pernambuco – UFPE



Figure A - Project team in the field.



Figure B - Team member observing the community and marine organisms in the environment in preparation for the start of underwater recording.



Figure C - Activities involving human-generated noise in coastal regions.



Figure D - Access to the more coastal recording locations by using a kayak.



Figure E - Preliminary representation of the sampling sites of the project in the northern region of the Largest Coastal Marine Protected Area in Brazil.