

Final CLP Internship Report

Creating a safer environment for seabirds on Príncipe Island

The overall aim of the internship was to introduce the intern to the field of conservation, by providing the opportunity to participate in data collection and processing and coordination of relevant seabird-related projects on Príncipe Island. This allowed for the intern to gain specific skills pertaining to field work, data management, report writing, budgeting, stakeholder involvement and communications. The activities carried out by the intern formed part of ongoing and/or past projects related to seabirds at Fundação Príncipe. This allowed the intern to get exposure to working with a variety of species and gain experience in a wide range of fieldwork activities.



Príncipe, Sao Tome and Príncipe
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Fundação Príncipe

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Executive Summary

The Island of Príncipe, in the Gulf of Guinea, is surrounded by several islets of critical importance for seabird populations in the eastern tropical Atlantic. Of the many resident and migratory birds relying and breeding on these refuges, the Concozucu (White-tailed Tropicbird, *Phaeton lepturus*) is particularly poorly studied despite potentially locally threatened. Simultaneously, there is a severe lack of conservation capacity on Príncipe Island (and the wider country of São Tomé and Príncipe), highlighting the need for a combined approach.

The present internship project, therefore, aimed to build local conservation capacity through conservation fieldwork experience, including wildlife monitoring, data collection, analysis and reporting, as well as improve the ecological and behavioural understanding of the local Concozucu breeding population.

To this end, the Mosteiros Islet was selected as the study site due to the significant seabird breeding population it hosts, its accessibility and proximity to shore. The monitoring protocol, implemented throughout the internship period, consisted of nest identification, marking, and regular occupancy recording. Juvenile and adult individuals were also ringed, and informal observations regarding threats were documented.

Contributing towards the development of communication and stakeholder engagement skills, a number of awareness raising activities were also implemented. These took place across a number of the island's schools and educated the island's youth on the subject of nature conservation and threats posed by human unsustainable practices.

Simultaneously, the internship involved collaborations with multiple other ongoing projects in Fundação Príncipe, extending the spectrum of subjects, skills and experiences and thereby the educational experience as a whole.

The project produced valuable information on the breeding population of Concozucu in Mosteiros Islet, such as a nest estimate of approximately 30 over the main breeding period, between December and February. Key to conservation goals, was the identification of threats to this population, which will prove critical towards the design of a future mitigation strategy. Perhaps more important, however, was the professional and personal development the internship allowed for. Also noteworthy, is its contribution to female empowerment and conservation capacity in Príncipe Island.

Introduction

The Islet of Mosteiros is located along the coast of the island of Príncipe, in the island state of Sao Tome and Principe, in the Gulf of Guinea. The islet Mosteiros is of utmost importance for conservation because it harbors multiple species of seabirds, despite still largely unstudied.

The project took place with Fundação Príncipe which was also the main partner of my internship. I also had the opportunity to collaborate with multiple other organizations, such as CIBIO- INBIO, Príncipe Natural Park (PNP), Birdlife International, the Regional Government of Príncipe, Clube Arribada, or the Biosphere Reserve of Príncipe Island.

My internship sought to improve the understanding of the population of Concozucu (*Phaeton Lepturus*) nesting in Mosteiros islet since there was previously no study on the species in national territory. Following the completion of the study, there is now a basis on which it will be possible to base future research and conservation strategies that mitigate the impact of identified threats.

Objectives

The objective of this project was to understand the reproductive ecology of the species *Phaeton Lepturus* since there was no information about this bird in São Tomé and Príncipe. Specifically, the work developed intended, through regular monitoring of the Mosteiros Islet, to characterize the habitat and breeding behavior, including nesting, hatching, parental care, feeding, and the possible threats to the species continued survival. Similarly, the study aimed leverage the field data collected to devise a strategy to improve the local conservation status of the species.

In addition, the internship aimed to provide experience and skills in ecological monitoring and thus create local capacity for conservation.

Activities and Methodology

Regarding its fieldwork component, the internship consisted primarily of weekly expeditions for the monitoring and identification of Concozucu nests in the Mosteiros and collection of data related to the occupation of the nests. The methodology consisted of the GPS marking and occupation characterization of nests (i.e., with egg, chicks, juveniles, adults, or a combination of the above), and the documentation of morphometric data of juvenile and adult occupants. The protocol provided for 3 weekly expeditions, however, due to logistical difficulties this frequency was not possible. An orthomosaic of the islet was also produced using drone photography with the subsequent overlap of the geographical points relative to the identified nests (Fig. 1).

The internship also included a component of environmental education in which a series of activities were carried out in Clube Arribada. These activities were intended to sensitize children about the importance of the conservation of the island's biodiversity, as well as its various threats. These activities focused specifically on the Concozucu, the Príncipe Thrush (*Turdus xanthorhynchus*) and the Giant Obô Snail (*Archachatina bicarinata*).

The internship further involved collaboration with other ongoing projects at Fundação Príncipe, including participation in various activities, such as: training in acoustic monitoring (Audiomoth), with researchers Martim Melo and Bárbara Freitas of CIBIO-InBio, within the framework of the work on the newly discovered Príncipe Scops Owl; bird censusing for the International Waterbird Census, including monitoring of the breeding population of seabirds in the Tinhosas Islets; monitoring the Príncipe Thrush and the Giant Obô Snail populations within the PNP; conducting surveys in the island's communities, in collaboration with the Protetuga project, on sea turtle hunting; or the implementation of a series of awareness-raising activities in the schools and kindergartens of Príncipe on the conservation of local biodiversity.

Finally, the internship included a representation of Fundação Príncipe in the presentation workshop for the project on the implementation of the National Adaptation Plan, thus acquiring an important perspective on the problem of climate change and the national adaptation strategy, as well as strengthening interpersonal and communication skills.

Results

The project contributed towards and increased understanding about the behavior of the Concozuco and the identification of its main threats in the Mosteiros islet, namely, hunting, due to the accessibility of the Islet to local fishermen, and the population of crabs that prey on eggs and chicks in the nests. These factors consequently contributed to the identification of the need for legislation that effectively protects the area and the species.

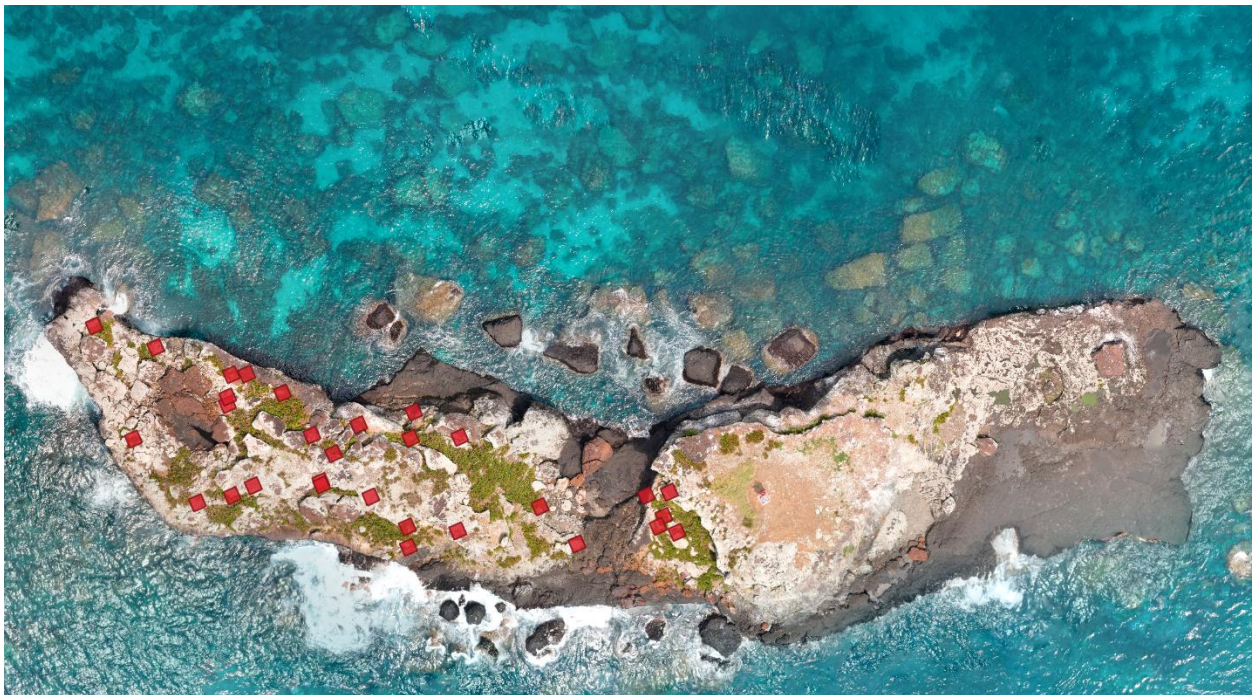


Fig. 1 - Orthomosaic of Mosteiros Islet; red squares correspond to the location of identified Concozuco (*Phaeton lepturus*) nests.

Based on the data collected, the main reproductive period occurs between December and February, during which 35 nests were identified, of which 7 were lost due to predation, hunting or unknown causes. These results, along with the general ignorance about the species and its threats, imbued with increased importance the awareness raising work in schools, kindergartens and Clube Arribada. Awareness activities engaged one hundred and thirty-two (132) children in Clube Arribada, two hundred and twenty (220) children in kindergartens, and one thousand four hundred and seventy-seven (1477) children in schools.

Finally, the project also allowed for the identification of several knowledge gaps regarding the ecology of the species. Further work should focus, among others, on the issue of hunting, through awareness raising, species protection and islet protection.

Impact

This internship allowed us to collect important data on the Concozucu that could serve as a baseline for future work. The identification of local threats to the conservation of the species was a critical tool in the design of mitigation strategies. On a personal and professional level, the experience was remarkable, both for the knowledge and technical skills acquired, as well as for the opportunity to work in the field with wildlife and in the communities and schools with children. This first contact with conservation also contributed to overcoming fears and to inspire and encourage other women and girls in Príncipe to pursue similar opportunities.

Conclusion

The internship contributed to the development of conservation capacity, to gain experience and knowledge, exchange ideas and develop strategies and work plans.

It was important to have the Mosteiros islet as a study area, considering that it allowed us the opportunity to learn how to identify nests and get to know Concozucu for the first time, as well as other seabird species. It was a rewarding project.

In the future, I will continue performing the same functions in the monitoring of birds, and raising awareness of children and youngsters in kindergartens and schools of the island, that is, what I learned during my internship, thus contributing to conservation in São Tomé and Príncipe. Relying on the knowledge acquired during this internship I can now fully support team at Fundação Príncipe.

I intend to apply my skills in the Príncipe thrush project and the Protetuga project, or in other projects that Fundação Príncipe implements. Now as a collaborator, I am sure that I can work in the field or in the office, despite preferring field work.

Acknowledgments

First of all, I want to thank Fundação Príncipe, especially my Director Estrela Matilde for the opportunity to join this team so wonderful and warm, I also thank my coordinator João Carlos Alves and my supervisor Yodiney dos Santos, the Protetuga project's marine team, and Ayres Pedronho who accompanied me throughout the internship on the visits to the Mosteiros Islet. I further want to thank CLP for this internship that was so important for my professional development and which I will repay in the best possible way working in conservation. Thank you all.