

Sampling of Azores seabirds with camera-traps - Year 2019

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Abstract

The Azores holds the largest population of Cory's shearwater *Calonectris borealis* (Cory, 1881) in the world. One of the major threats of this species in the Azores is the predation by invasive mammals, which were introduced from European colonization of the islands.

The present publication provides a data set from a camera-trapping survey performed in colonies of Cory's shearwater. The sampling was conducted between 8 April and 23 October of 2019, covering the entire breeding season, in three colonies of the Terceira Island (Azores). A total of 32 nests were sampled using motion-triggered cameras. This publication aims to provide information about the ecological patterns of the Cory Shearwater, and to identify potential nest predators.

This publication includes a total of 6972 records across 15 species (9 species of birds, 5 of mammals and 1 of reptiles), which 5414 records are of Cory's shearwater, 478 of potential mammal predators and 1080 of another vertebrate species. Information about biology of the species is also provided, as species circadian behaviour and habitat description.

Keywords: Biodiversity, Camera-traps, Invasive predators, Inventory, Oceanic Islands,

Invasive predators

Project details

Project title: Surveying seabird colonies with camera traps: The impacts of invasive predators on Cory Shearwater

Personnel: Lucas Lamelas-López, Paulo A.V. Borges

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Study area descriptions/descriptor: The study was conducted in three Cory's shearwater colonies, on Terceira island (total area: 400.2 km²; maximum elevation: 1021 m a.s.l.; 27° 10' W, - 38° 40' N), which belong to the Azores archipelago (North Atlantic). Chanoca colony is located in southern coast of the island, and it is formed by cliffs and rocky bays, slightly covered by some herbaceous plants as sour fig *Carpobrotus edulis*. Raminho colony is located in the north-west, and it is characterized by cliffs dominated by low native, mainly composed by *Erica azorica* and *Morella faya*. Finally, the Agualva colony is located in the north of the island, and it consist in a rocky area scarcely covered by patches of native vegetation (*Erica azorica*).

Design description: Motion-triggered infrared cameras (Bushnell Trophy HD, Moultrie 880i and 990i) were installed in the colonies at the beginning of the breeding season (e.g., Lamelas-López et al. 2020). We installed one camera per nest, which remain recording continuously until the final of the breeding season, or until the nest was abandoned or depredated, where the camera was moved to another nest. The cameras were deployed at 50-100 of the nest entrance. Cameras were configured to take 8 MB-photos, with 30 seconds of delay between them (Lamelas-López et al. 2021). Date and time were automatically recorded for each event. The nests were monitored each 10 days, in order to assess the nest condition, and replace the SD cards and the batteries of the cameras if necessary. The study comprised from 8 April and 23 October of 2019. The obtained photos were posteriorly analysed and identified by L.L.L.

Data published through GBIF: http://ipt.gbif.pt/ipt/resource?r=camera-trap_seabirds_2023

Taxonomic coverage

General taxonomic coverage description: The following Classes and Orders are covered:

Aves: Procellariiformes, Columbiformes, Passeriformes;

Mammalia: Carnivora, Lagomorpha, Rodentia;

Reptilia: Squamata.

Taxonomic ranks

Class: Aves, Mammalia, Reptilia

Order: Procellariiformes, Columbiformes, Passeriformes, Carnivora, Lagomorpha, Rodentia

Common names: Birds, Mammals, Reptiles, Petrels, Doves, Passerine, Carnivores, Rabbits, Rodents

Spatial coverage

General spatial coverage: The study was conducted in three Cory's shearwater colonies, on Terceira island (total area: 400.2 km²; maximum elevation: 1021 m a.s.l; 27° 10' W, - 38° 40' N), which belong to the Azores archipelago (North Atlantic). Chanoca colony is located in southern coast of the island, and it is formed by cliffs and rocky bays, slightly covered by some herbaceous plants as sour fig *Carpobrotus edulis*. Raminho colony is located in the north-west, and it is characterized by cliffs dominated by low native, mainly composed by *Erica azorica* and *Morella faya*. Finally, the Agualva colony is located in the north of the island, and it consist in a rocky area scarcely covered by patches of native vegetation (*Erica azorica*).

Coordinates: 38°37'51.6"N and 38°49'8.4"N Latitude; 27°23'16.8"W and 27°1'48"W Longitude

Temporal coverage: April 8, 2019 - October 23, 2019

Methods

Method step description: Between 8 April and 23 October of 2019, a total of 32 camera-traps were installed in three Cory's shearwater colonies on Terceira island, covering the entire breeding period. We searched occupied nests and installed a camera per nest, which remain recording continuously until the final of the breeding season, or until the nest was abandoned or depredated, where the camera was moved to another nest. Cameras were deployed at 50-100 cm of the nest entrance, and were programmed to take photos, which recorded date and time of the event. Nests were monitored each 10 days, in order to assess the nest condition and to replace the SD cards and batteries of the cameras. The obtained photos were posteriorly analysed and identified by L.L.L.

The data has been published as a Darwin Core Archive (DwC-A), which is a standardised format for sharing biodiversity data as a set of one or more data tables. We provided an event data table, which contains 2976 records; and an occurrence data table, with 6972 records.

Study extent description: The study was conducted in three Cory's shearwater colonies, on Terceira island (total area: 400.2 km²; maximum elevation: 1021 m a.s.l; 27° 10' W, - 38° 40' N). Chanoca colony is located in southern coast of the island, and it is formed by cliffs and rocky bays, slightly covered by some herbaceous plants as sour fig *Carpobrotus edulis*. Raminho colony is located in the north-west, and it is characterized by cliffs dominated by low forests of native vegetation, mainly *Erica azorica* and *Morella faya*. Finally, the Agualva colony is located in the north of the island, and it consist in a rocky area scarcely covered by native vegetation (*Erica azorica*).

Sampling description: Motion-triggered infrared cameras (Bushnell Trophy HD, Moultrie 880i and 990i) were installed in the colonies at the beginning of the breeding season (e.g.,

Lamelas-López et al. 2020). We installed one camera per nest, which remain recording continuously until the final of the breeding season, or until the nest was abandoned or depredated, where the camera was moved to another nest. The cameras were deployed at 50-100 of the nest entrance. Cameras were configured to take 8 MB-photos, with 30 seconds of delay between them (Lamelas-López et al. 2021). Date and time were automatically recorded for each event. The nests were monitored each 10 days, in order to assess the nest condition, and replace the SD cards and the batteries of the cameras if necessary. The study comprised from 8 April and 23 October of 2019. The obtained photos were posteriorly analysed and identified by L.L.L.

Quality control description: All the Photos were carefully verified by the authors.

Datasets

Dataset description

Object name: Darwin Core Archive Sampling of Azores seabirds with camera-traps - Year 2019

Character encoding: UTF-8

Format name: Darwin Core Archive format

Format version: 1.0

Distribution: http://ipt.gbif.pt/ipt/archive.do?r=camera-trap_seabirds_2023

Publication date of data: 2023-02-19

Language: English

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Metadata language: English

Date of metadata creation: 2023-02-15

Hierarchy level: Dataset

References

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