

Fernando de Noronha IMMA

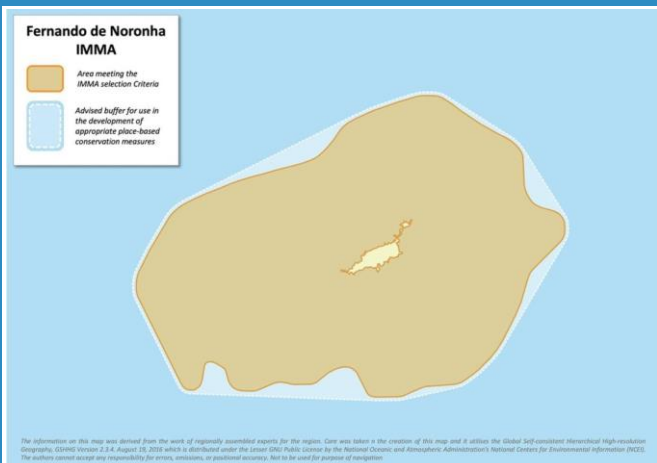
Summary, continued.

already been registered in the area. This IMMA falls within the Banks Chain of Northern Brazil and Fernando de Noronha EBSA, which already recognised that the Archipelago of Fernando de Noronha is used as habitat throughout the year by a population of spinner dolphin (*Stenella longirostris*).

Description:

The Fernando de Noronha Archipelago (3°51'S; 32°24' W) is 361 km off the northeast coast of Brazil. It is composed of a main island and 17 secondary islands, totalling an area of 26 km². The main island (the only one inhabited by humans), is 17.6 km², and has two main sides: the northwest, which is called the inner sea and is protected from the prevailing winds; on the opposite side there is the so-called outside sea, which faces the open ocean and is more exposed, with cliffs and rocky beaches. In relation to the nearest oceanic islands, Fernando de Noronha is 145 km west of Rocas Atoll and 625 km southwest of the Archipelago of São Pedro and São Paulo (ASPSP) (Silva Júnior, 2010).

Fernando de Noronha is the emerged top of a chain of underwater mountains of volcanic origin between the middle of the Atlantic ocean and Brazil. The base of the mountains are about four thousand meters deep. The island supports coral reefs and a high marine biodiversity, which draws the attention of researchers and tourists. The Archipelago is influenced by south-southeast winds and the South Equatorial ocean current (Linsker, 2003).



Area Size

2 032 km²

Qualifying Species and Criteria

Spinner dolphin – *Stenella longirostris*

Criterion B (1)

Summary

The Fernando de Noronha Archipelago (3°51'S; 32°24' W) is 361 km off the northeast coast of Brazil. It is the emerged top of a chain of underwater mountains of volcanic origin between the middle of the Atlantic ocean and Brazil. Its location, geological structure and oceanographic conditions provide refuge and food resources for ocean organisms, creating suitable conditions for the concentration of cetaceans. The archipelago is composed of two Federal Conservation Units and is considered by UNESCO as 1) A biosphere Reserve; 2) A World Natural Heritage Area (Recognized in 2001). The IMMA is important habitat for a resident population of spinner dolphins (*Stenella longirostris*) and the inshore waters are an important daytime resting area. At Fernando de Noronha Archipelago, large concentrations of spinner dolphins of up to ca. 2000 individuals are recorded throughout the year at the cove known as Dolphins' Bay. Ten species of cetaceans have



Figure 1: Spinner dolphins (*Stenella longirostris*) in Fernando de Noronha. Photo credit: Projeto Golfinho Rotador

The archipelago composed of two Federal Conservation Units:

1) Fernando de Noronha Environmental Protection Area (APA-FN) (created in 1996), which is a Conservation Unit for Sustainable Use, where activities such as housing, agriculture, fishing, hotels, provision of services and infrastructure facilities are authorized and regulated.

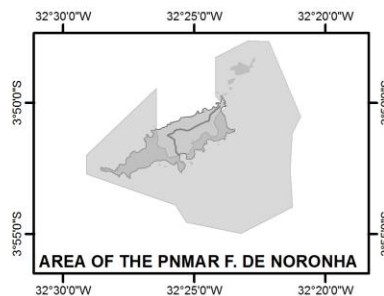
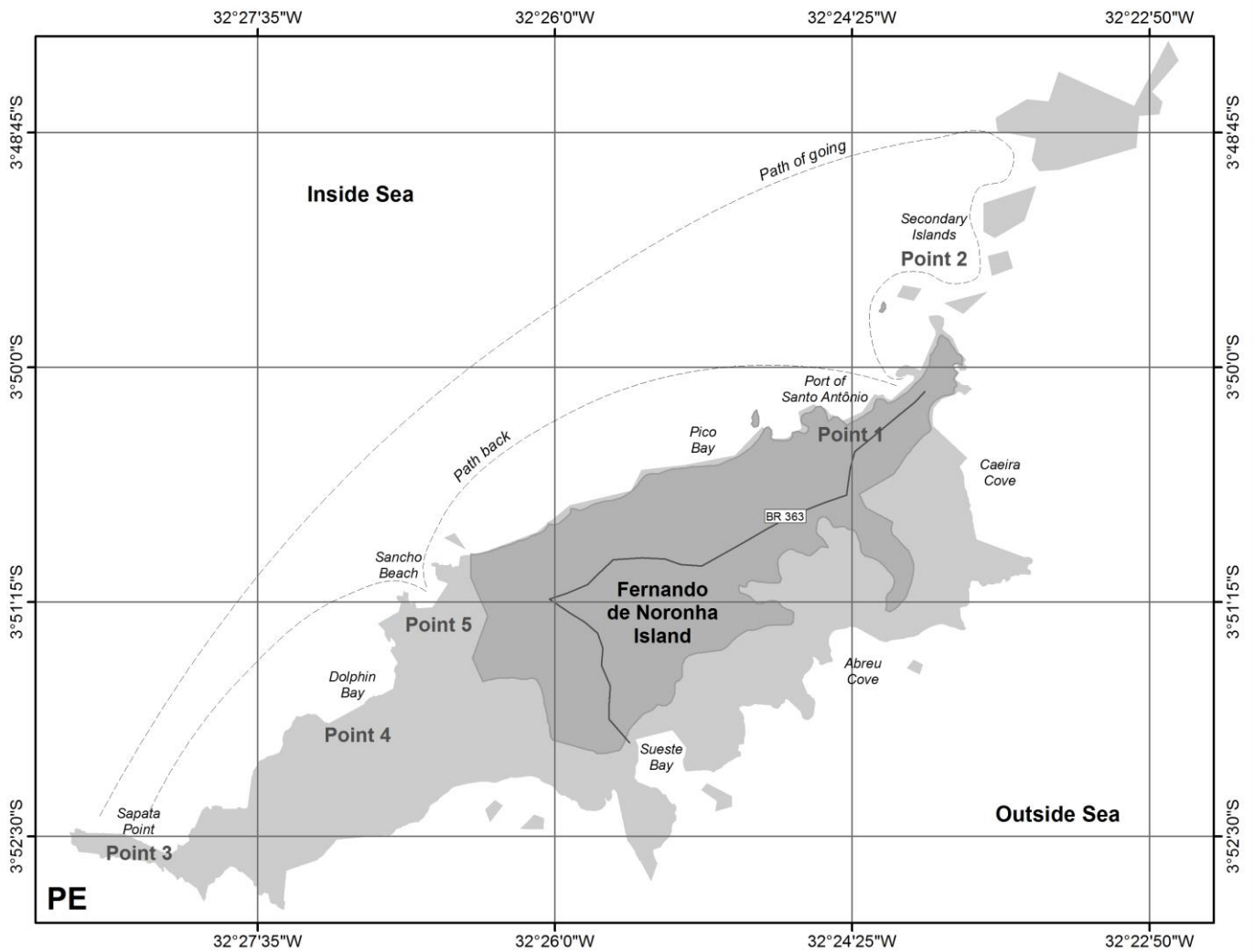
2) Fernando de Noronha Marine National Park (PARNAMAR-FN) (created in 1998), which is an Integral Conservation Unit, in which only visitation and research are allowed. It comprises approximately 50% of the area of the main island, all the other 17 secondary islands of the Archipelago and most of the adjacent waters up to a depth of 50 m. It has a total area of 112.7 km², representing about 70% of the

Archipelago (Silva Júnior, 2010).

The Fernando de Noronha Archipelago represents a large part of the insular surface of the South Atlantic, playing a fundamental role in the reproduction, dispersal and colonization of marine organisms in this region.

Due to its environmental characteristics, the Archipelago was considered by UNESCO as 1) a Biosphere Reserve; 2) a World Natural Heritage (Recognized in 2001). The World Natural Heritage is due to the importance of the archipelago for marine life: its waters guarantee the reproduction and feeding of marine mammals, tuna, sharks, turtles, and it is home to the largest concentration of tropical sea birds in the Atlantic Ocean (Silva Júnior, 2010).

LOCATION MAP OF FERNANDO DE NORONHA ISLAND PERNAMBUCO, BRAZIL



Cartographic Projection
Horizontal Datum - SIRGAS 2000
Creator: Ana Alencar

Figure 2: Location of the Fernando de Noronha Archipelago, with limits of PARNAMAR-FN and APA-FN. Map excerpt from Projeto Golfinho Rotador



Figure 3: Group of spinner dolphins (*Stenella longirostris*) resting in Fernando de Noronha. Photo credit: Projeto Golfinho Rotador

Criterion B: Distribution and Abundance

Sub-criterion B1: Small and Resident Populations

This IMMA fulfils sub-criterion B1 due to the presence of a resident population of spinner dolphins (*S. longirostris*) which are observed on about 90% of the days of the year. The spinner dolphins have a daily cycle in the area consisting of nocturnal feeding, in more distant areas around the archipelago, and daytime concentrations in bays (mainly “Baía dos Golfinhos” and “Entre-Ilhas”), where dolphins perform resting, reproduction, parental care and social interactions. At Fernando de Noronha Archipelago, large concentrations of spinner dolphins of up to ca.

2000 individuals are recorded throughout the year at the cove known as Dolphins’ Bay (Silva-Jr. et al., 1996; Silva-Jr. et al., 2005a). The number of spinners observed averaged around 300 per day, with a maximum of about 2700 in a single day (Silva & Silva-Jr., 2009; Silva-Jr. et al., 2005a; Silva-Jr. et al., 2005b; Silva-Jr. et al., 2007; Tischer et al., 2013; Tischer et al., 2017; De Carli et al., 2017). Spinner groups congregate in Dolphin’s Bay during the morning and early afternoon, leaving the bay in the afternoon to forage in the open sea (Silva-Jr. et al., 1996).

There was also a constant frequency of spinner dolphins in Baía dos Golfinhos, with the daily number varying between the seasons. The highest daily

average concentration was confirmed for the dry season (September to February), with an average of 155 individuals and the lowest average was in the rainy season (March to August), with a minimum daily average of 26 individuals (Silva & Silva-Jr, 2009).

This IMMA falls within the Banks Chain of Northern Brazil and Fernando de Noronha EBSA, which already recognised that the Archipelago of Fernando de Noronha is used as habitat throughout the year by a population of spinner dolphin (*Stenella longirostris*) (Silva-Jr., 2005).

Supporting Information

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