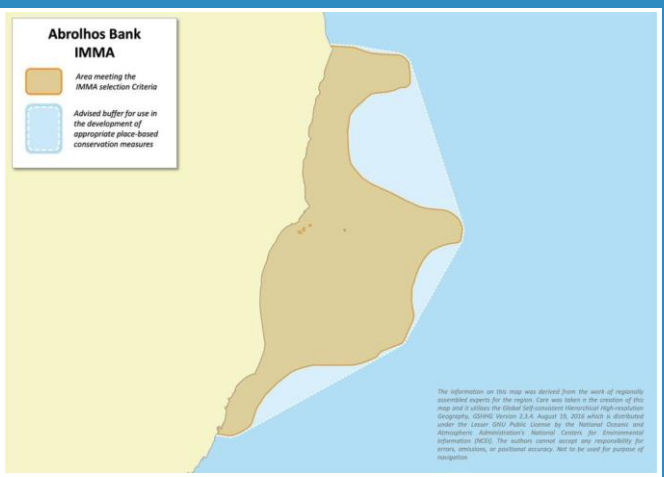

Area Size

60 378 km²

Qualifying Species and Criteria

Humpback Whale – *Megaptera novaeangliae*

Criterion B(2); C (1)

Guiana Dolphin – *Sotalia guianensis*

Criterion B (1)

Marine Mammal Diversity

Criterion D (2)

Megaptera novaeangliae, Sotalia guianensis, Pontoporia blainvillei, Eubalaena australis, Steno bredanensis, Tursiops truncatus truncatus, Balaenoptera edeni, Balaenoptera acutorostrata, Balaenoptera bonaerensis, Pseudorca crassidens, Feresa attenuata, Peponocephala electra, Grampus griseus, Stenella frontalis, Stenella attenuata, Stenella longirostris

Summary

Located in North-eastern Brazil, the Abrolhos and Royal Charlotte Banks comprise the largest coral reef environment in the South Atlantic, with associated coastal mangrove forests and estuaries. Its shallow (mostly less than 50 m) waters harbour between June and November the largest breeding and calving aggregation of

Abrolhos Bank IMMA

Summary, continued.

humpback whales (*Megaptera novaeangliae*) in the Western South Atlantic, as well as the only known offshore population of Guiana dolphins (*Sotalia guianensis*). At least 16 cetacean species occur in the Bank, including Southern Right whales (*Eubalaena australis*), Rough-toothed dolphins (*Steno bredanensis*) and three species of the oceanic dolphin genus *Stenella* (*S. attenuata, S. frontalis* and *S. longirostris)*.

Description:

The largest shelf extension in the Southwestern Atlantic is the Abrolhos Bank, a major biodiversity hotspot of 46,000 km² where the main coral reefs of the South Atlantic are located. This region is considered a centre of biodiversity and endemism in the South Atlantic, harbouring a high diversity of reef fish and coral species (Negrão et al., 2021). Some of the largest rhodolith (calcareous algae) beds ever described are also found within this area. The Royal Charlotte Bank is the second largest bank within the tropical Southwestern Atlantic, occupying about 7,000 km². It is composed of four different macrohabitats: rhodolith beds, macroalgal forests associated with these, calcareous sand deposits, and coral reefs (Dutra et al., 2005; Mazzei et al., 2016; Negrão et al., 2021).

Two Marine Protected Areas encompass portions of the Abrolhos Bank: Abrolhos National Marine Park, a federal no-take MPA with some 879.43 km², and the Abrolhos-Ponta da Baleia Environmental Protection Area, a State-managed multiple-use MPA of 3465 km². The Abrolhos Bank IMMA corresponds approximately to the westernmost third of the

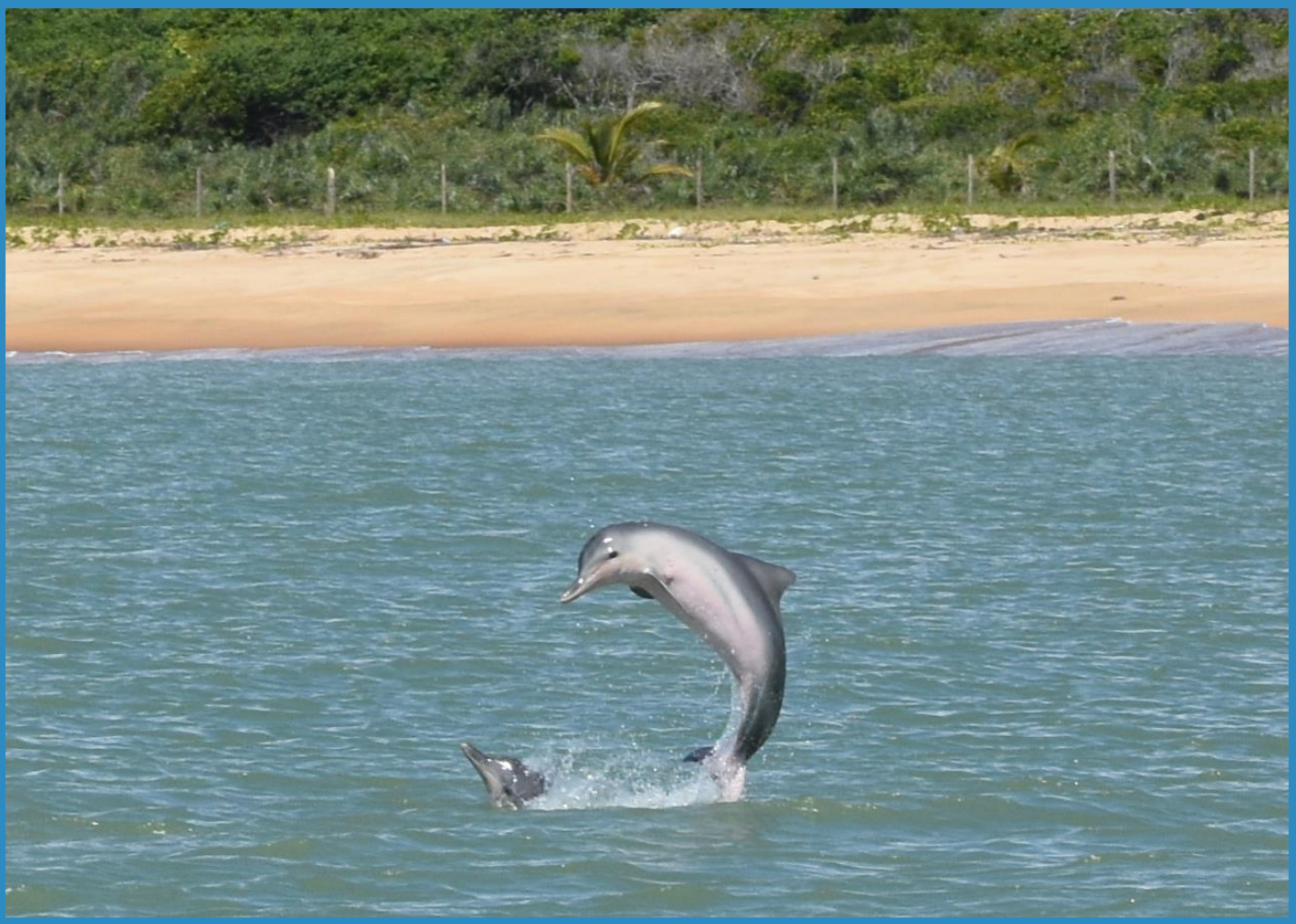

Figure 1: Guiana dolphins *(Sotalia guianensis)* in Abrolhos Bank. Photo credits: Joana Figueiredo / Humpback Whale Institute

Abrolhos Bank and Vitória-Trindade Chain EBSA as defined by the Convention on Biological Diversity. It is relevant to note that the designation of this EBSA refers to cetaceans in its justification, and also emphasizes in its introduction the variety of cetacean species that use this area for "feeding and breeding throughout the year".

Criterion B: Distribution and Abundance Sub-criterion B1: Small and Resident Populations

The area fulfils sub-criterion B1 due to the presence of a resident populations of Guiana dolphins (Rossi-Santos et al., 2006; Rossi-Santos et al., 2007). The population of Guiana dolphins in the Caravelas River estuary, eastern Brazil, was systematically monitored through a long-term mark-recapture study (2002–2021). Abundance estimates revealed a small population (57–124 dolphins), which include a portion of long-term residents (Cantor et al., 2012). For other areas of the IMMA there is less information about the size of the population.

Sub-criterion B2: Aggregations

The IMMA fulfils sub-criterion B2 as it is the main breeding ground of the Humpback Whale in the Western South Atlantic (Andriolo et al., 2010; Martins et al., 2013). The last abundance estimate of humpback whales within the Abrolhos Bank, from a distance sampling aerial survey conducted in 2019, was 9,206 whales (CI95% = 5.135 – 16.505; CV% = 29,3), which correspond to 63% of the total abundance estimated for the Brazilian coast.

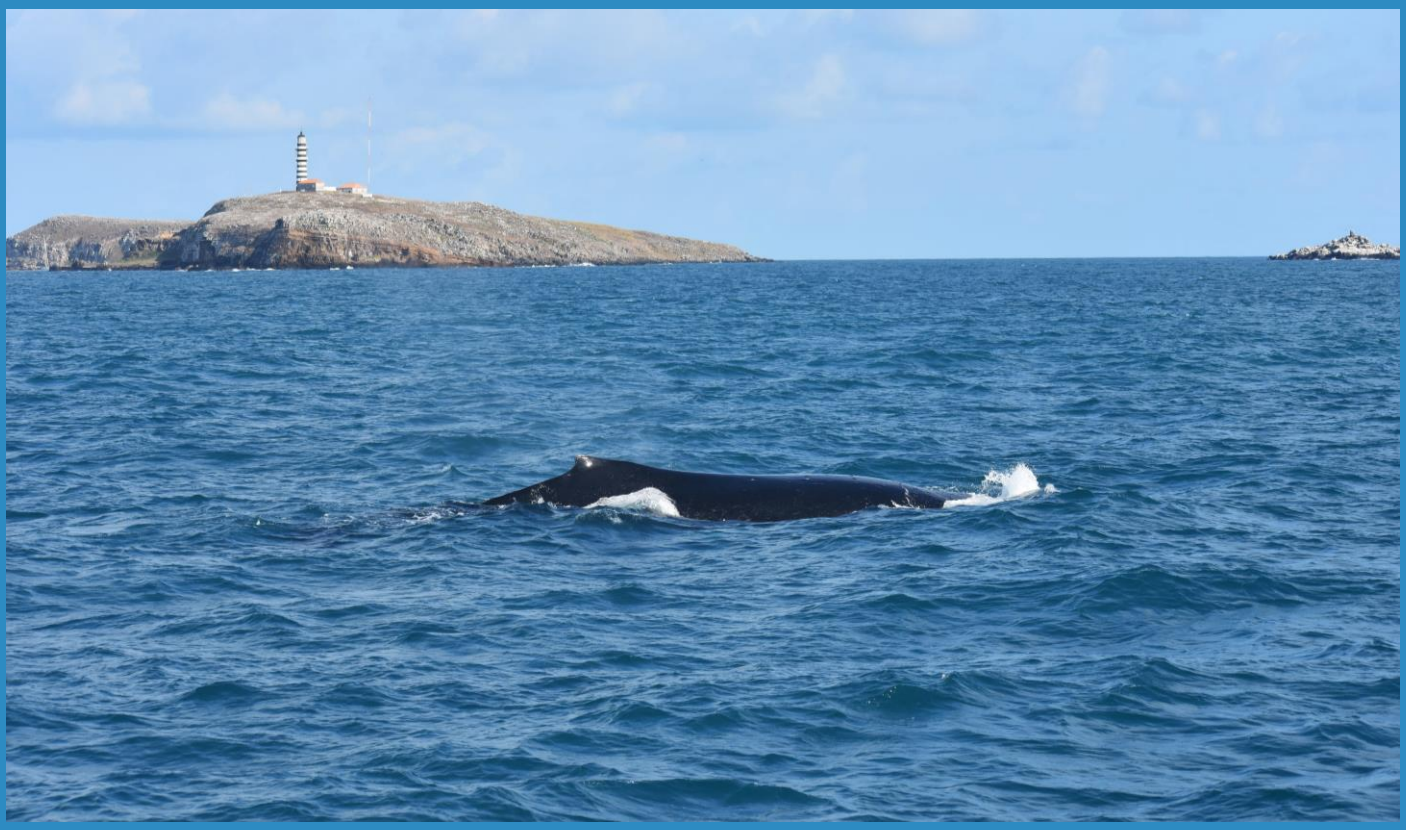

Figure 2: Humpback whale (*Megaptera novaeangliae*) and the Abrolhos Lighthouse.
Photo credit: Milton Marcondes / Humpback Whale Institute

Criterion C: Key Life Cycle Activities
Sub-Criterion C1: Reproductive Areas

The sub-criterion C1 is applied as the IMMA is important breeding and calving grounds for Humpback whales. The warm waters and wide extension of shallow habitats, with the presence of coral reefs and an archipelago constitutes typical breeding habitats of the species. The whales are present between July and November. Morete et al. (2008) describe temporal changes in the relative abundance of humpback whales around Abrolhos archipelago, over seven years (1998–2004). Whale count data were collected during July through to November and during one-hour-scans, observers determined group size within 9.3 km (5 n.m.) of a land-based observing station. A total of 930 scans, generated 7996 sightings of adults and 2044 calves. Competitive groups are also abundant in Abrolhos Bank (Martins et al., 2001), as well as intense male singing activity (Sousa-Lima & Clark, 2008).

Criterion D: Special Attributes
Sub-Criterion D1: Distinctiveness

Guiana dolphins, a habitat specialist of estuarine and coastal environments (Lobo et al., 2021), have their only known offshore population in the Abrolhos Bank IMMA. Guiana dolphins are found living more than 70 kilometers from the coast in a coral reef environment (Borobia et al., 1991; Rossi-Santos et al., 2006).

Sub-Criterion D2: Diversity

The area fulfils sub-criterion D2 as the habitat is regularly used by at least 16 cetacean species (Andriolo et al., 2010; Danilewicz et al., 2013; IBJ, 2012; Moreno et al., 2003; Nara et al., 2022; Rossi-Santos et al., 2006; Wedekin et al., 2009).

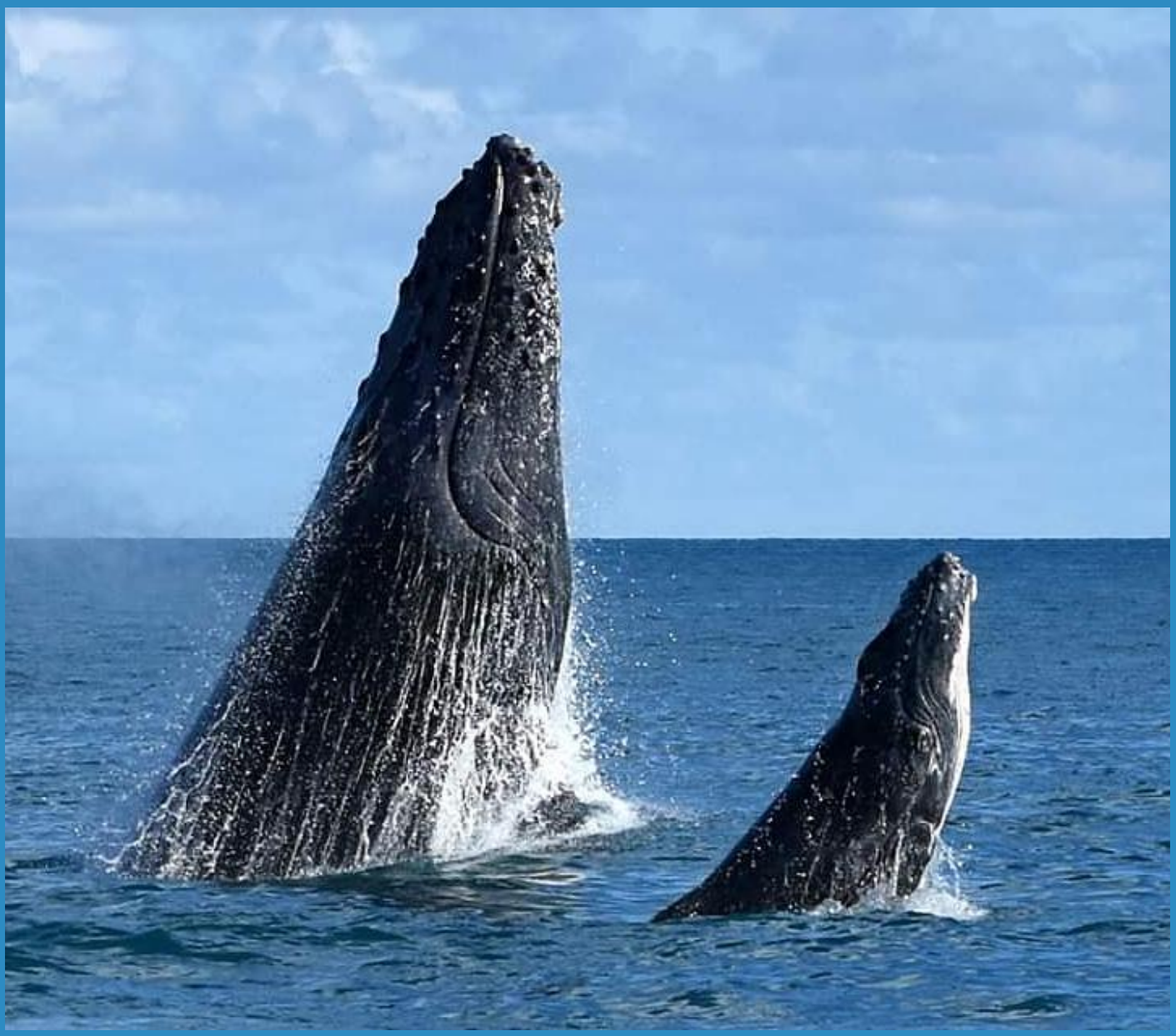

Figure 3: Humpback whale (*Megaptera novaeangliae*) mother and calf. Photo credit: Eduardo Camargo / Humpback Whale Institute

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