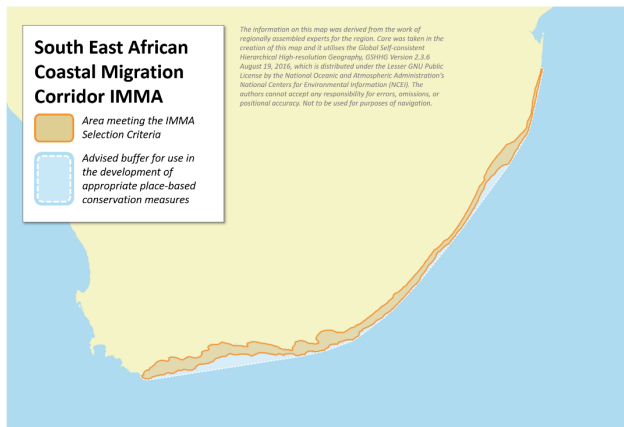


South East African Coastal Migration Corridor IMMA

- Area meeting the IMMA Selection Criteria
- Advised buffer for use in the development of appropriate place-based conservation measures

The information on this map was derived from the work of regionally assembled experts for the region. Care was taken in the creation of this map and it follows the Global Self-assessment Hierarchical High-resolution Geography (GSHG) Version 2.3.4 August 18, 2016, which is distributed under the Lesser GNU Public License by the National Oceanic and Atmospheric Administration's National Centers for Environmental Information (NCEI). The authors cannot accept any responsibility for errors, omissions, or positional accuracy. Not to be used for purposes of navigation.



Area Size

47,060 km²

Qualifying Species and Criteria

Humpback whale – *Megaptera novaeangliae*
Criterion C3

Marine Mammal Diversity

Megaptera novaeangliae, *Eubalaena australis*,
Stenella longirostris, *Orcinus orca*, *Tursiops aduncus*, *Sousa plumbea*, *Delphinus delphis*

Summary

This IMMA serves as the primary migration route for Southern Hemisphere humpback whales (*Megaptera novaeangliae*) that feed in sub-Antarctic waters during the Austral summer (December- May). These whales, belonging to the stock designated 'C1' by the International Whaling Commission, have been shown to be migrating to and from a breeding area off the coast of Mozambique. As they swim northward along the east coast of South Africa between June and August, they are driven closer to shore by the Agulhas Current. During the southward migration from September to November, they appear to swim slightly further offshore, but generally within 15 km of the coast, as indicated by both historic whaling catches and more recent shore-based surveys. While the connection between whales in this IMMA and breeding grounds in Mozambique are well established through the photo-identification of individuals, the relationship with other Breeding Grounds (IWC stocks C2, C3 and C4) is not well understood but believed to be limited based on genetic and photo-identification data as well as the timing of historical catches.

South East African Coastal Migration Corridor IMMA

Criterion C: Key Life Cycle Activities Sub-criterion C3: Migration Routes

The East Coast of South Africa is utilised by humpback whales (*Megaptera novaeangliae*) of the IWC-recognised C sub-stock (IWC, 1998) as a migration corridor for both the northward (June-August) and southward (October-November) migration (Findlay and Best, 1996; Best et al., 1998; Findlay et al., 2011). The orientation of the coast funnels whales into the inshore zone (and inshore of the southward flowing Agulhas Current) during the northward migration, while the southward migration appears to remain within the Agulhas Current. The migration corridor extends from the south Cape coast to the South African – Mozambique border (Best and Ross, 1996) and appears limited to within 15 km of the coast (Findlay and Best, 1996; Findlay et al., 2011), although more offshore records were found by aerial spotters in the Durban whaling grounds (Findlay and Best, 2016). Migratory destinations have been identified as the coastal waters of Mozambique (through photo-identification returns (Banks, 2013) and returns of lost harpoons (Olsen, 1914)) and, to a limited extent (a single individual), to Antongil Bay, Madagascar. Catch histories of the migration stream (at Durban) are markedly different to those of Madagascar (Findlay, 2001).

Shore-based surveys from Cape Vidal at 27°S between 1988 and 2002 show this sub-stock to be increasing at 9% per annum (Findlay et al., 2011). Preliminary results of recent surveys in 2018 suggest a slight slow in this rate of increase. Results of these surveys describe both the temporal aspects of this migration and the spatial distribution offshore. The northward migration (on which these surveys have concentrated) show a marked inter-annual consistency in the migration timing of a number of migration waves. Such waves possibly comprise different age or sex class cohorts of the population as identified by Dawbin (1966) from whaling catch data.

Olsen (1914) reported on the seasonality of humpback whale catches on the Durban whaling grounds over the period 1910 to 1912, and although Best et al. (1998) suggests that the 1912 data may be compromised, the seasonality of catches in both 1910 and 1911 show bimodal peaks during July and in mid- to late September over the last 10 days. Further bimodal seasonality of catches and sightings off Durban were reported by Matthews (1938) and Bannister and Gambell (1965), respectively, with similar seasonality. Sightings of humpback whales made by the Union Whaling Company's spotter aircraft on the Durban whaling grounds between 1972 and 1975 were too few to describe any seasonal abundance patterns (Findlay and Best, 2016).

This area therefore contains important habitat used for the annual northward and southward migration corridors of humpback whales, migrating between summer Antarctic feeding grounds and winter breeding grounds in low latitude waters of the Western Indian Ocean on the east coast of South Africa (Findlay and Best, 1996; Findlay et al., 2011). The orientation of the African coast to the northward migration and the presence of the southerly strong Agulhas Current funnels the northward corridors inshore (within 10 – 15 km from the coast), while during the southward migration the corridor still appears to be coastal as animals utilise the southward flowing Agulhas Current as far west as Knysna (Best and Ross, 1996). The linking of this migration with the Mozambique C1 Breeding Ground is well established through photo-identified individuals, however the relationship with other Breeding Grounds (C2, C3 and C4) is not well understood, but believed to be limited based on genetic data (Rosenbaum et al., 2009), sparse unpublished photo-identification (Banks, 2013) and catch timing data (Findlay, 2001), to be limited.

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Acknowledgements

We would like to thank the participants of the 2019
IMMA Regional Expert Workshop held in Salalah,
Oman for the identification of IMMAs in the Western
Indian Ocean and Arabian Seas. Funding for the
identification of this IMMA was provided to the Global
Ocean Biodiversity Initiative by the International
Climate Initiative (IKI). The German Federal Ministry
for the Environment, Nature Conservation and
Nuclear Safety (BMU) supports this initiative on the
basis of a decision adopted by the German
Bundestag. Support was also provided by Whale and
Dolphin Conservation and the Tethys Research
Institute.



**MARINE MAMMAL
PROTECTED AREAS
TASK FORCE**



IMMA

Supported by:



Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety



based on a decision of the German Bundestag

Suggested Citation: IUCN-Marine Mammal Protected Areas
Task Force, 2021. South East African Coastal Migration Corridor
IMMA Factsheet. [https://www.marinemammalhabitat.org/
wp-content/uploads/imma-factsheets/
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