

Importance of Marine Mammals in WIO

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Marine Mammals Twinning X

WIOMSA webinar

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Ocean
Governance



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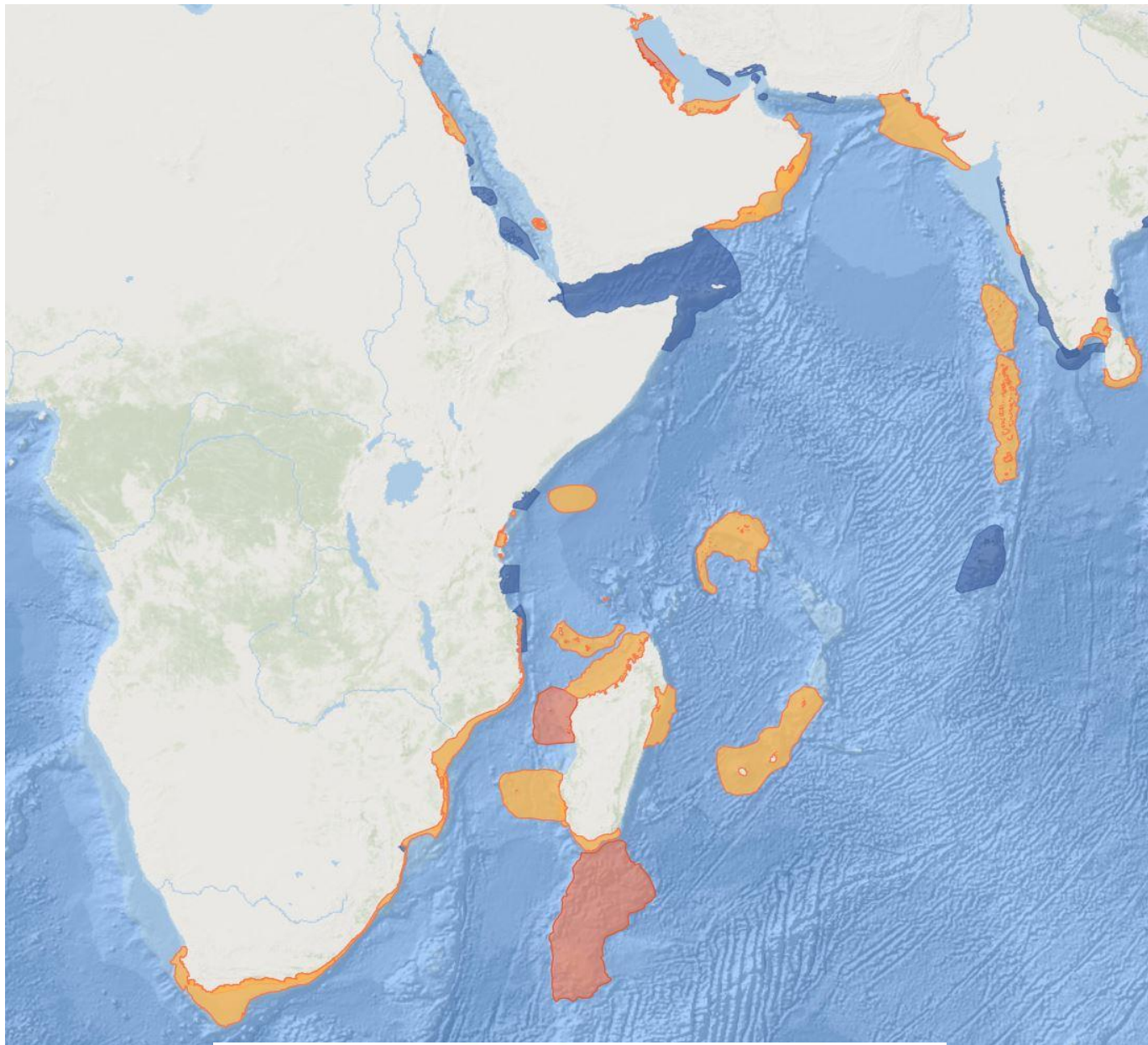
- **Education:** Whale and dolphin watching tours raise awareness of these marine mammals and conservation needs among the citizenry
- **Tourism:** The Indo-Pacific bottlenose dolphin sightings (Nov-April) and humpback whale migrations (July – Sep) support growth of tourism and other related activities.
- **Alternative livelihoods:** Whale and dolphin watching provide an alternative use of ocean resources and create local jobs, boosting the economy.
- **Ecological:** Large whales enhance primary productivity of marine ecosystems by concentrating nitrogen near the surface through excretion – an enriched coastal water can result in more productive fisheries and ultimately develop revenue and employment in the Fisheries sector.
- **Biodiversity:** Unique, threatened

Efforts this far



- The International Whaling Commission (IWC)/ Bycatch Mitigation Initiative in the Western Indian Ocean and Arabian Sea
- Dr Per Berggren and team + Institute of Marine Science in Menai bay Conservation Area, Zanzibar
- The Omura Whale project-Madagascar
- The Marine Conservation Ecology Lab, Florida International University, USA
- Marine Megafauna Foundation -Mozambique
- Mammal Research Institute Whale Unit, University of Pretoria, South Africa
- Nelson Mandela University, South Africa
- Coastal Resources Center, University of Rhode Island, South Africa
- Kenya Marine Mammal Network

37 Important Marine Mammal Areas identified in the Western Indian Ocean and Arabian Seas



IMMAs cIMMAs AOI

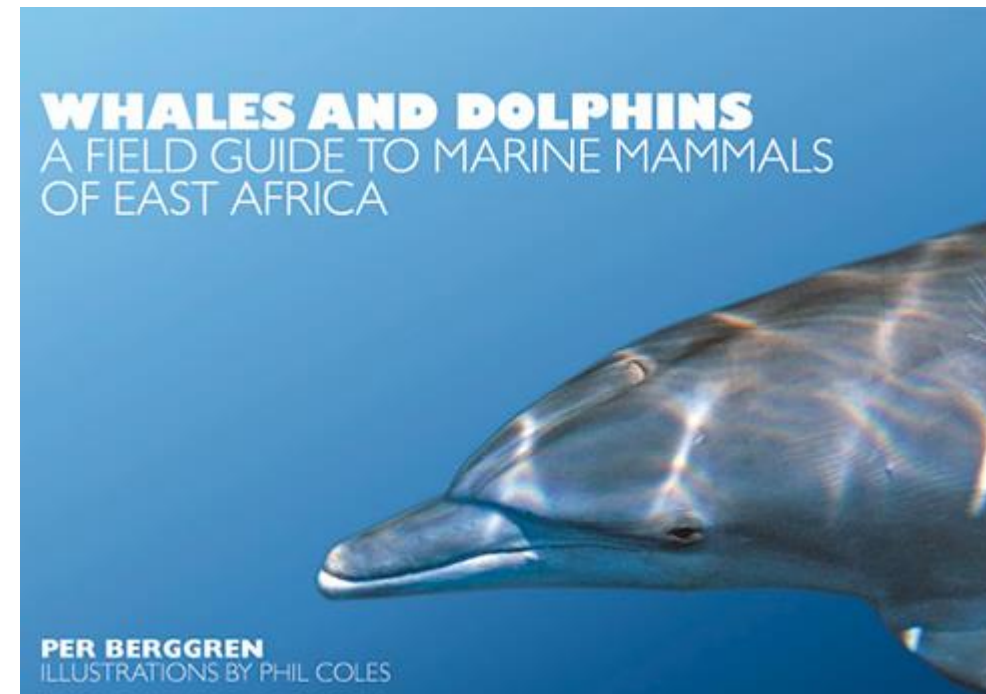
Criteria used is based on:-

1. Species or Population vulnerability,
2. Distribution and abundance (small resident population, Large aggregation),
3. Life cycle activities (Breeding habitat, Feeding habitat, migration routes)
4. Special attributes (distinctiveness, diversity)

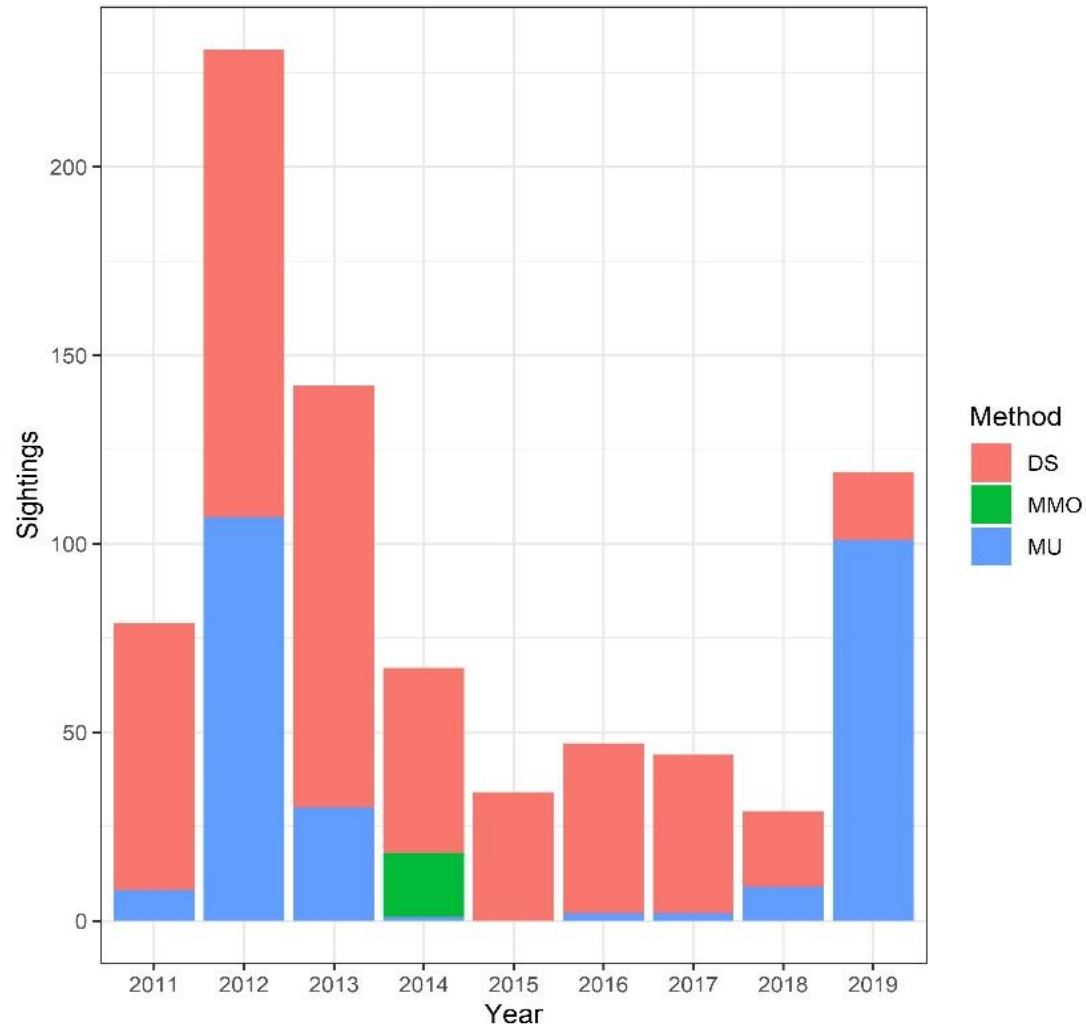
#	Common Name	Scientific Name	Status
1	Indo-Pacific bottlenose dolphin	<i>Tursiops aduncus</i>	NT
2	Indian Ocean Humpback dolphin	<i>Sousa plumbea</i>	EN
3	False Killer Whale	<i>Pseudorca crassidens</i>	NT
4	Killer Whales	<i>Orcinus orca</i>	DD
5	Melon-headed Whale	<i>Peponocephala electra</i>	LC
6	Striped Dolphin	<i>Stenella coeruleoalba</i>	LC
7	Risso's Dolphin	<i>Grampus griseus</i>	LC
8	Fraser's Dolphin	<i>Lagenodelphis hosei</i>	LC
9	Short-finned Pilot Whale	<i>Globicephala macrorhynchus</i>	LC
10	Pantropical Spotted Dolphin	<i>Stenella attenuata</i>	LC
11	Common Dolphin	<i>Delphinus delphis</i>	LC
12	Common Bottlenose Dolphin	<i>Tursiops truncatus</i>	LC
13	Rough-toothed Dolphin	<i>Steno bredanensis</i>	LC
14	Long beaked spinner dolphin	<i>Stenella longirostris</i>	LC
15	Humpback Whale	<i>Megaptera novaeangliae</i>	LC
16	Sperm Whale	<i>Physeter macrocephalus</i>	VU
17	Brydes whales	<i>Balaenoptera edeni</i>	LC
18	Dwarf Minke whale	<i>Balaenoptera acutorostrata</i>	LC
19	Blue Whale	<i>Balaenoptera musculus</i>	EN
20	Sei Whale	<i>Balaenoptera borealis</i>	EN
21	Pygmy Sperm whale	<i>Kogia breviceps</i>	LC
22	Dwarf Sperm Whale	<i>Kogia sima</i>	LC
23	Longman's Beaked Whale (Indo-pacific Beaked Whale)	<i>Indopacetus pacificus</i>	LC
24	Blainville's Beaked Whale	<i>Mesoplodon densirostris</i>	LC
25	Cuvier's Beaked Whale	<i>Ziphius cavirostris</i>	LC
26	Dugong	<i>Dugong dugon</i>	CE

East Africa has marine mammals 33 species

Of these- 26 species of dolphins, whales and dugong are recorded in Kenyan waters



Data collection methods for marine mammals in Kenya

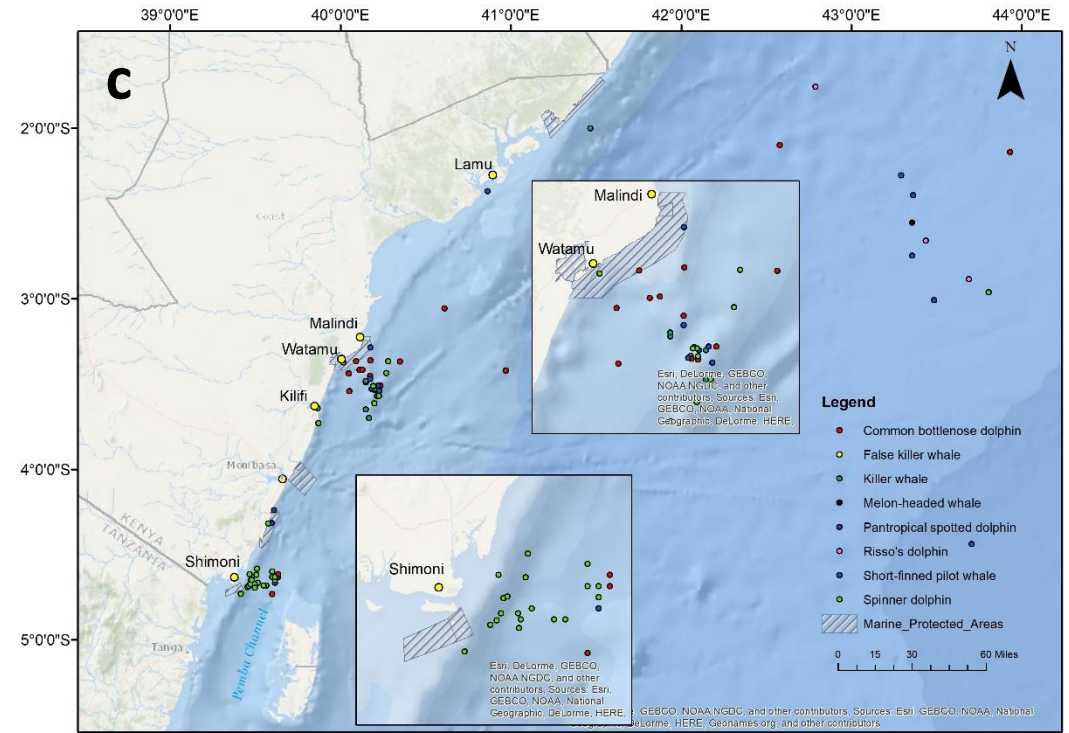
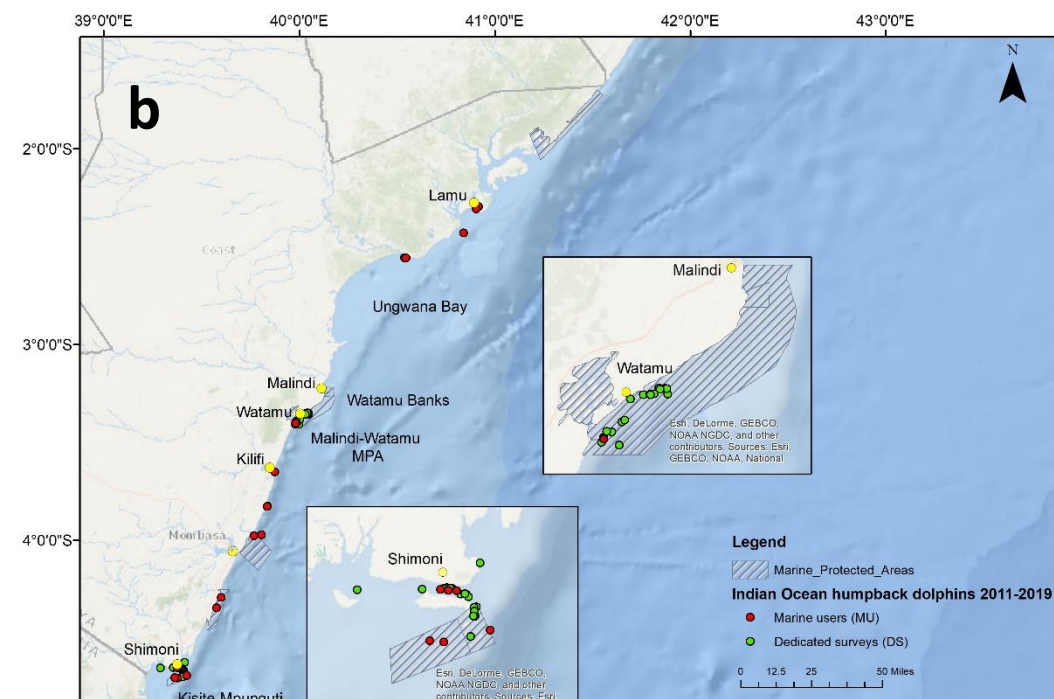
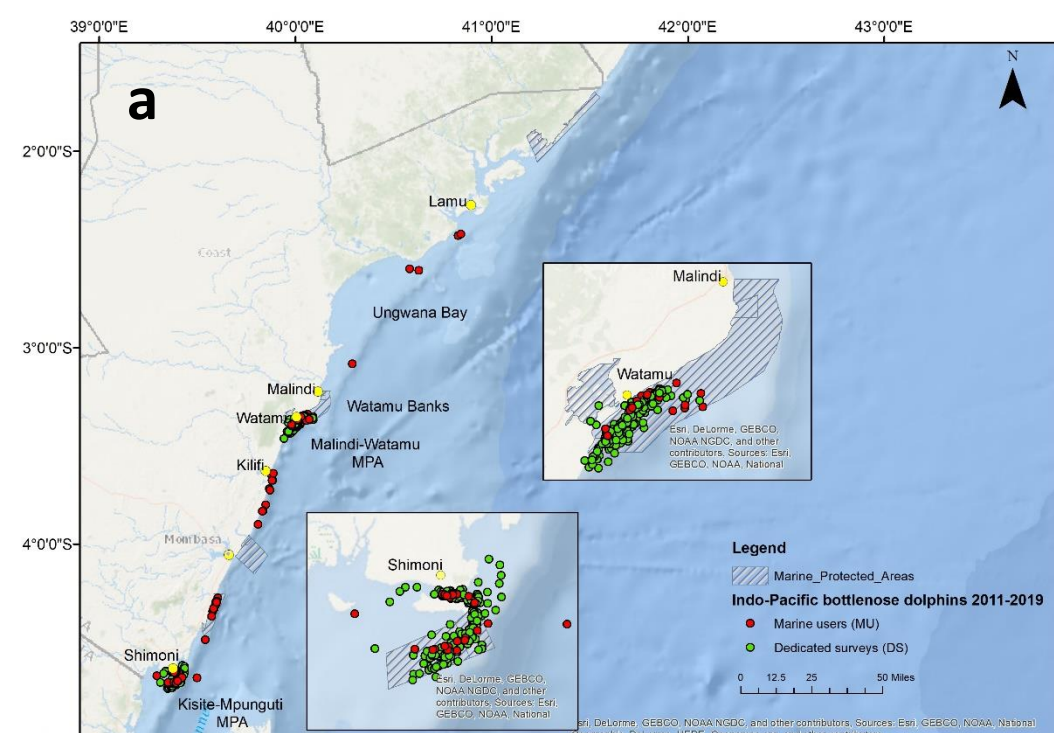


Number of reports per data collection method and year between 2011 and 2019

Data collection methods:

- marine users (MU),
- dedicated surveys (DS)
- marine mammal observers (MMOs)

Distribution of marine mammal sightings between 2011 and 2019 along the Kenyan coast



Maps showing the distribution of Indo-Pacific bottlenose dolphin, b) Indian-Ocean humpback dolphin and c) other small cetacean species sightings between 2011 and 2019 along the Kenyan coast.

Aerial surveys conducted in Kenya and beyond

KENYA WILDLIFE SERVICE
MARINE AERIAL SURVEY
MARINE MAMMALS, SEA TURTLES, SHARKS & RAYS



KWS TECHNICAL SERIES REPORT NO 1

(Wamukoya, 1996)

MOMBASA

KWS leads aerial marine survey along coastline

Kenya Wildlife Services (KWS) is conducting an aerial survey to assess marine life along the territorial waters in the Indian Ocean.

It is the first time the survey of the country's marine coastline stretching from Tanzania in the South to Somalia in the North of the Western Indian Ocean is being done in last 29 years.

Scientists drawn from KWS and Wildlife Research Training Institute (WRTI) hope to obtain vital information showing trends of sea life.

The survey, supported by the International Fund for Animal Welfare, will also look at how sea life has responded to man-made threats such as climate change, pollution, and over fishing.

"We have seen a decrease in important marine megafaunas such as sea turtles and sharks, inspiring a call for worldwide action to protect these creatures and their habitats," said Dr Patrick Omondi, the director of WRTI.

Dr Omondi said healthy populations of marine megafauna are a key indicator in assessing the



health of ecosystems and play a crucial role in maintaining their balance.

He said Kenya is committed to implementing international conservation measures including "this census which is expected to inform the

national blue economy plan." "This survey will provide scientific information to support marine spatial planning, pinpoint areas that need to be protected to conserve marine megafauna, and identify potential new tourism opportunities," said Dr Omondi.

The officer said the survey will help ensure a healthy environment for a sustainable blue economy and preserve marine megafauna populations.

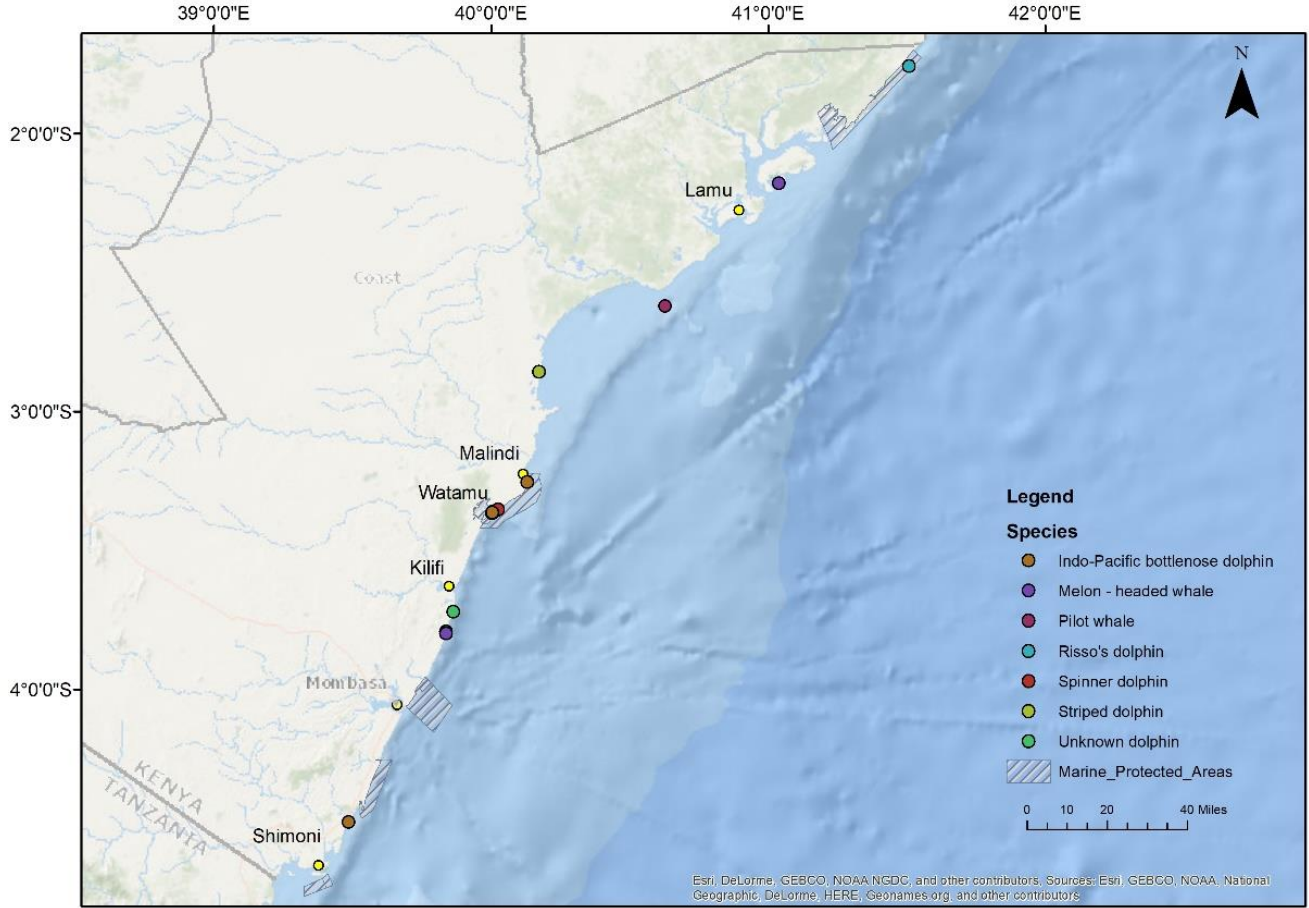
Eastern Africa Regional Head of Programmes at International Fund for Animal Welfare (IFAW) Maurice Nyaligu underscored the importance of the survey to Kenya's Vision 2030 regarding the blue economy.

"The survey has come at a crucial time to show the conservation and economic value of Kenya's marine resources to the nation and the region in general," said Nyaligu.

He said IFAW is proud to be part of the process at such a pivotal moment, "given that the future of our marine life is on the line." **[Phillip Mwakio]**

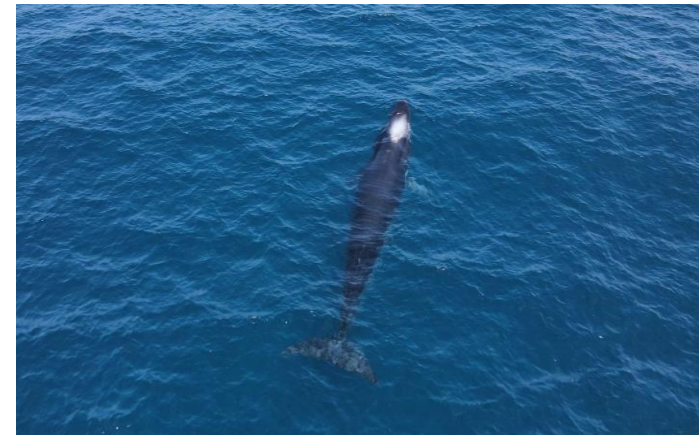


Locations of stranded small cetaceans reported along the Kenyan coast between 2011 and 2019



Way forward

1. Implement the Bycatch Mitigation Initiative (BMI)
2. Establish the movements of animals between MPA's
3. Determine the preferred habitat of species in previously unstudied and unprotected areas
4. Understand the threats to populations
5. Raise the profile of cetacean bycatch, and the need to address it, within RFMOs and their contracting governments in the region.
6. Map the WIO coasts to assist in marine spatial planning and marine mammal conservation strategies.
7. Support existing research efforts through the Kenya Marine Mammal Network and others in the WIO



Acknowledgements

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- IUCN

Image credits

- Michael Mwangómbe
- Kenya Marine Mammal Network



We thank all the citizen scientists, fishers and communities we have worked with

