

Geographic distribution of Blainville's beaked whale from Southwestern India

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Blainville's beaked whales (*Mesoplodon densirostris* de Blainville, 1817) belonging to the family Ziphiidae Gray, 1850 are generally documented from the deeper waters >500 m worldwide (Jefferson et al., 2008). They are also reported to undergo foraging dives into the mesopelagic and bathypelagic (Arranz et al., 2011) waters to prey fish and cephalopods (Santos et al., 2007). The species is notified as "Data Deficient" in the IUCN Red List (Taylor et al., 2008). Recently (December 2022), a new sighting of two female Blainville's beaked whales were recorded from off Mangalore coast, Southwestern Arabian Sea, by the Fishery Survey of India stating it as a first-time occurrence along Indian waters. Based on the data available from the Ocean Biodiversity Information System (OBIS) for the period of 1817-2022, CMLRE tried to investigate the migratory routes of the Blainville's whale within Indian EEZ. In the absence of any significant observations or sighting around the region (Fig 1), it is difficult to arrive a meaningful conclusion. However, seamounts are important foraging grounds and migration stops for larger pelagic marine organisms such as whales and dolphins. The abundance of prey around seamounts draws in many larger predatory species, such as tuna (Holland & Grubbs, 2007) and beaked whales (Johnstone et al., 2008). The geographical location of the current sightings reveals the presence of three seamounts (Bassas de Pedro Bank, Cora Divh Bank and Sesostris Bank) and several other knolls and ridges (between 12°N-14°N and 71°E-72°E) with varying size at different depths ranging from 43 to 2300 m. The seamount distribution map (Fig 2) was downloaded from GEBCO

undersea. These seamounts are intensively fished throughout the year and targets tunas, pelagic sharks, rainbow runner, groupers, sword fish and small fishes (Bineesh et al., 2014). Based on the analysis, we strongly believe that the sighting area seems to be a fascinating with higher productivity and need to be monitored closely to understand the distribution of such apex predators and their population patterns. Detailed research surveys required to establish whether there is a high population of such apex animals are available in the region by assessing the migrating potentials, environmental and bathymetric parameters, and acoustic signals (frequency modulated) echolocation pulses. Such findings can be a useful indicator to understand whether these organisms are using seamounts as their primary or supplementary feeding grounds or using them as only for communication or navigational purposes.

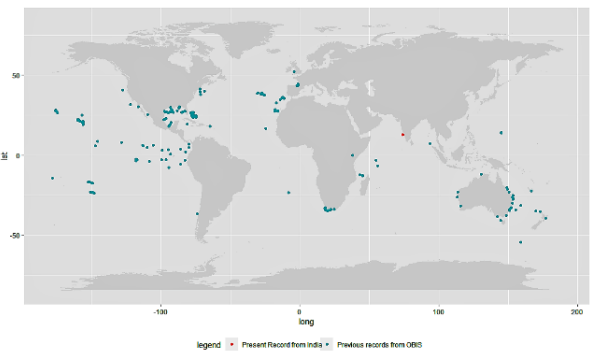


Fig 1. Distribution map for the blainville's beaked whale based on OBIS dataset (1817-2022) and present record.



Fig 2. Map showing the seamounts along the Karnataka coast