

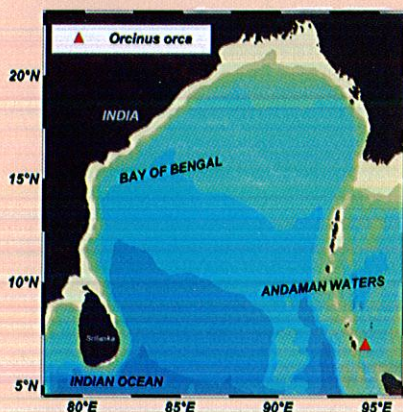
# OCCURRENCE OF KILLER WHALE *ORCINUS ORCA* IN ANDAMAN WATERS



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- The Killer Whale *Orcinus orca* is the only recognized species in the genus *Orcinus*, one of many animal species originally described by Linnaeus in 1758 in *systema Naturae*. Konrad Gessner wrote the first scientific description of a killer whale in his "Fish book" of 1558, based on examination of a dead stranded animal in the Bay of Greifswald that had attracted a great deal of local interest.
- Records of killer whale *Orcinus orca* in the Indian Ocean and adjacent seas are very rare. They have been reported as bycatches from longlines targeting tuna in the Indian Ocean (Sivasubramanian 1965).
- In 2003, CMFRI with funding from MoES commenced the first systematic project to generate knowledge on Marine mammals in the Indian EEZ and the contiguous seas.
- The study area included the coastal, continental shelf and oceanic waters and the Sri Lankan waters. The surveyed area extended between 5° - 23° N Latitude and 69° - 95° E Longitude with depth range of 20 to 5000 meter.
- So far no killer whale has been sighted during the 2003-2010 survey period.
- The killer whales (four numbers) were sighted for the first time during this survey from southern Nicobar Island (Lat: 6°59'- Long: 93°58') on 23.9.2010 reported here.
- In India, a single sighting was recorded north- east of the Andaman Islands in the Bay of Bengal in 1983 (Leatherwood *et al.* 1984): two unconfirmed sightings have been reported in 1976 (off Madras) and in 2000 (Lakshadweep islands); and a single stranding was reported from Armadass in Baroda State in 1943 (Sathasivam 2004).
- In opportunistic oceanographic surveys off Sri Lanka and India in the past three decades, there was no record of killer whale (Illangakoon, 2002; Afsal *et al.*, 2008).
- During the year 2009 a dedicated cetacean survey was conducted by Illangakoon (2009) to study the abundance in Sri Lankan waters and three killer whales were recorded.



## A sequence of six photographs showing a killer whale breaching the water surface. The whale is dark grey/black with a white patch near its eye. The sequence captures the whale from the moment it starts to breach to the point where it is fully out of the water.

- Ship based visual survey is a conventional and widely practiced method for the study on marine mammals.
- The sighting surveys were onboard FORV *Sagar Sampada* (overall length: 71.4m).
- Cruises were not dedicated to marine mammal sightings and the cruise tracks were determined by the needs of other projects.
- A single observer positioned on the flying bridge and equipped with a Nikon hand held binocular and a Nikon D80 camera fitted with Nikkor 70-300mm lens, collected data during daylight hours.
- The species identifications was validated later with the photographs taken onboard. 'Marine Mammals of the World' (Jefferson et al, 1993) and 'Sea Guide to Whales of the World' (Watson, 1981) aided identification.

In November 2010, along with other projects, cetacean sighting survey was carried out in Andaman waters onboard *FORV Sagar Sampada* (Cruise No. 280) and the salient observations were recorded.

- During this cruise the killer whale *Orcinus orca* was sighted nearshore on 23.9.2010 of southern Nicobar Island (Lat: 6°59' S Long: 93°58'). Four numbers were sighted, but only two animals were sighted close to the vessel, enabling identification of clear features.
- The identification features are the rounded tip to the dorsal fin and a closed saddle patch which does not extend further forward than the midpoint of the dorsal fin.
- The eye patch was medium-sized oval oriented parallel to the body axis.
- The individuals were identified as Type 'A' killer whale
- Type A killer whales are the largest of all three types and have pointed dorsal fin tip than residents, always possessing a closed saddle patch.
- The saddle patch typically extends quite far forward sometimes nearly to the anterior insertion of the dorsal fin. There is no obvious dorsal cape and the eye patch is a medium sized oval oriented parallel to the body axis.

- Presence of male and a female was observed.
- Sex identification was done on the basis of dorsal fin characteristics (Jefferson et al, 2008).
- The dorsal fin of female whale is falcate, and are generally pointed or slightly rounded at the tip.
- Adult male tend to have dorsal fin that are triangular or that may even forward to varying degrees.

- There has been no earlier records of the presence of the killer whale in Andaman waters for the past three decades. It is not clear whether the presence of killer whale in Anadaman waters is a new occurrence or was not recorded earlier.

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