

Rare Killer Whale sighting in Lakshadweep

Killer whales (*Orcinus orca*) are the apex marine predators distributed widely in open sea and coastal waters throughout the world's oceans. During our marine mammal survey in Lakshadweep waters on 28th April, 2024, two killer whales were sighted at latitude 11.75361N and longitude 72.7475E (off Chetlat). Of the two orcas, one was larger with a length of about 7 m and the other one was of approximately 5 m. The depth of the sighting area was 1700 m and

the closest distance from the shore was 4 nautical miles. The initial cue of sighting was the water spouts and a large dorsal fin observed approximately 300 m away from our research vessel. The height of water spouts from the expiration was nearly 2 m. The observed average blow interval was 44 seconds with a minimum interval of 7 seconds and maximum of 200 seconds. Upon close examination and photographic evidence, their unique body coloration

of black and white patterns confirmed the species identification as a killer whale (*Orcinus orca*), from the family Delphinidae. The white underside of killer whales helps them blend in with the lighter water below, while their black back helps them blend in with the darker water above. This camouflage makes it harder for prey to spot them, giving them an advantage in hunting. Initially both of them were observed foraging on fishes and later they started interacting with our research vessel for 20 minutes, blowing, porpoising and observing from the sides, demonstrating their social nature. This rare encounter provides valuable insights into their behaviour and habitat. The surface water temperatures at the sighting locations was recorded as 32°C, with salinity 34.1 ppt, DO 5.6 ppm, pH 7.86, and Chl-a concentration of 0.3 µg/L. The sea state during the sightings varied from moderate to rough, and the weather conditions matched a Beaufort scale reading of four to five. The sighting of a killer whale in Lakshadweep highlights the need for expanded research on cetacean populations in the region. To fully understand killer whale ecology in this region, comprehensive studies on their stock structure, behaviour, feeding habits, and potential threats are essential. Additionally, a broader survey of cetacean diversity is needed to identify other species and assess their ecological roles. This knowledge is crucial for developing effective conservation strategies to protect these magnificent creatures and their fragile marine habitat.



The Killer whales were identified through the morphological features and exhibited various behavioural attributes including blowing (a. & b.), foraging (c. & d.) and porpoising (e. & f.).

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