

**CETACEAN ABUNDANCE AND
PHOTO IDENTIFICATION OF BLUE WHALES
(*Balaenoptera musculus*), OFF MIRISSA, SRI LANKA**

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2018

ABSTRACT

Sri Lanka is rich with marine cetaceans (whales, dolphins and porpoises). Mainly whale watching industry has immensely developed in Mirissa. But up to date survey data on cetacean populations in Southern marine water is not well documented. During 48 survey days from August - December 2018, along Southern coast off Mirissa on sighting a cetacean, time of sighting, GPS location of boat, number of individuals in the group and observed behaviors were recorded. 5 baleen whales (suborder *Mysticeti*) and 8 toothed whales (suborder *Odontoceti*) were recorded during the survey period (13 total species). Blue whale (*Balaenoptera musculus*) was the most common type of baleen whale with 443 sightings in $80^{\circ}10' - 80^{\circ}46' E$, $05^{\circ}55' - 05^{\circ}17' N$ and 1 - 3 range was their average pod size while spinner dolphin (*Stenella longirostris*) was the highest abundant toothed whale with 2765 sightings. 60, 4 and 3 sightings of Bryde's Whales (*Balaenoptera edeni*), Fin whales (*Balaenoptera physalus*) and Ormura Whales (*Balaenoptera omurai*) were recorded respectively. Under the suborder *Odontoceti*, 2765 of Spinner Dolphin (*Stenella longirostris*), 571 of Bottlenose Dolphin (*Tursiops truncatus*), 125 of Stripped Dolphin (*Stenella coeruleoalba*), 75 of False Killer Whale (*Pseudorca crassidens*), 54 of Rissos Dolphin, (*Grampus griseus*), 30 of Pilot whale (*Globicephala macrorhynchus*), 7 of Killer Whale (*Orcinus orca*), 6 of Sperm whale (*Physeter macrocephalus*) and 3 of Humpback Whale (*Megaptera novaeangliae*) were sighted. As per whale watcher's data, Humpback Whales were recorded in Southern coast after 2015. Since the whale watching industry in Southern coast is mainly rely on Blue whale population, they are highly vulnerable group from whale watching, shipping and fishing activities. Results provide important information on the conservation status of cetaceans. Therefore, a powerful management measure is highly needed for the conservation of cetacean populations and the sustainability of whale watching industry.

Survey was conducted with the support of commercial whale watching cruise "Raja and the Whales".

Keywords: Cetaceans, Mirissa, Abundance, Sightings