

## Sighting of sea turtles in the Andaman Sea and Bay of Bengal

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### Introduction

Four species of sea turtles, olive ridley (*Lepidochelys olivacea*), green turtle (*Chelonia mydas*), leatherback (*Dermochelys coriacea*), and hawksbill (*Eretmochelys imbricata*) nest on the Indian mainland coast and the Andaman and Nicobar group of Islands (Choudhury, 2001). However, little is known about the presence of sea turtles in Indian waters, apart from a few studies in Orissa (e.g. Ram, 2000). The present paper describes at-sea sightings of three species of sea turtles in the Bay of Bengal and Andaman waters during a cruise of the Fishing and Oceanographic Research Vessel Sagar Sampada.

### Survey methods

Between 23 January and 15 February, 2005, we conducted at-sea observations of sea turtles during the research cruise 231 along the eastern coast of India in the Bay of Bengal and along the eastern and western sides of the Andaman and Nicobar Islands between 6° to 13°N and 91° to 94°E. Using binoculars (Vanguard BR.7500, 7X50 mm field: 7.1), we searched the ocean surface for signs of sea turtles during daylight hours (06:00-17:30). Each sighting was given a unique number and the following data were recorded: date and time of the observation, general locality (nearest landmark),

latitude & longitude, sea state, number of animals, distance from the vessel, depth of the area (m), weather conditions (wind speed, direction, sea swell and visibility), movement of the animals, presence of any other animals and behavior of the turtles.

### Results

During the 23-day survey period, we recorded a total of 15 sightings representing 3 species of sea turtles. They included 9 (56.3%) sightings in Andaman waters and 7 (43.7%) sightings in the Bay of Bengal on the east coast of India (Table 1). The majority of turtles observed were olive ridleys (n=14) while one green turtle was also seen. A leatherback turtle was also sighted in the south east of Barren Island. It was floating along with fishes near a wooden log at a point where the water depth was 783 m, approximately 5 m away from the vessel. Turtles were sighted mostly during morning (09:00-12:30) and evening (16:00-17:30) hours. In the Andaman area, the survey area was divided into five geographical sections and the cruise covered 1768 nautical miles. Two turtles were seen in the North Andaman region, seven turtles were seen in the south Andaman area, particularly around Port Blair, and no turtles were seen around Little and Middle Andamans, nor around the Nicobar Islands (Car Nicobar, Katchall, Little Nicobar, Great Nicobar and Indira Point).

**Table 1:** Sea turtle sightings during the cruise 231 on board FORV Sagar Sampada in Andaman Sea and Bay of Bengal

No	Date	Time	Lat & Long	Place	Depth (m)	Notes
1	25.1.05	12:35	13°34.46 N 86°51.02 E	Off North Andaman	3074	Adult olive ridley floating on the surface and moving easterly. Calm sea with slight sea swell, clear visibility and 134 nautical miles away from shore
2	25.1.05	16:25	13°37.52 N 87°31.02 E	Off North Andaman	3061	Sub-adult green turtle <i>Chelonia mydas</i> was sighted and moving westerly, 120 nautical miles away from the shore
3	30.1.05	11:00	12°29.63 N 93°28.20 E	Off Rangath Island, South Andaman	580	Adult olive ridley <i>Lepidochelys olivacea</i> , floating on the surface and moving northwesterly. Calm sea with slight sea swell, and 134 nautical miles away from shore
4	25.1.05	12:30	12° 01.06 N 93°59.56 E	Off Havelock Island South Andaman	1730	Sub-adult olive ridley, 175 nautical miles away from the shore
5	31.1.05	17:05	11°59.65 N 94° 07.57 E	South east of Barren Island	783	Juvenile leatherback observed, floating with a wooden pole surrounded by fishes
6	01.2.05	10:15	11°30.38 N 93°50.46 E	Off Port Blair, South Andaman	477	Adult olive ridley sighted in the open ocean
7	02.2.05	10:35	11°40.40 N 92°46.50 E	Near Ross Island South Andaman	54	Adult olive ridley, surfacing, barnacle was noticed attached to carapace
8	14.2.05	11:40 to 17:30	13° 03.52 N 87°37.56 E	Diglipur Island North Andaman	425	Adult olive ridley, feeding on the surface, moving north eastward
9	14.2.05	13:20	13°02.69 N 87°18.23 E	Off Chennai, Bay of Bengal	2200	Adult olive ridley, found on the surface and moving eastward
10	14.2.05	13:40	13°02.69 N 87°18.23 E	Off Chennai, Bay of Bengal	3107	Adult olive ridley, swimming on the surface and moving eastward
11	14.2.05	13:45	13°02.37 N 87°10.17 E	Off Chennai, Bay of Bengal	3100	Adult olive ridley, moving eastward
12	14.2.05	16:25	13°02.60 N 86°44.68 E	Off Chennai, Bay of Bengal	3072	Adult olive ridley, sighted 376 nautical miles away from Chennai coast, migrating eastward
13	14.2.05	16:45	13°02.91 N 86°39.56 E	Off Chennai, Bay of Bengal	3071	Adult olive ridley, sighted 368 nautical miles away from Chennai coast in the open ocean, migrating eastward
14	14.2.05	17:15	13°03.19 N 86°35.24 E	Off Chennai, Bay of Bengal	3000	2 adult olive ridleys, sighted 364 nautical miles away from shore, migrating eastward

## Discussion

Sea turtle sightings were highest in South Andaman (43.8%) followed by North Andaman waters (12.5%). Sea turtles were not seen anywhere in

the Nicobar group of islands. There were 7 sightings of olive ridleys in the Bay of Bengal waters off the east coast of mainland India. Since olive ridleys migrate from the Indian Ocean and adjacent areas, passing through Tamil Nadu and Andhra Pradesh

waters, to reach the mass nesting beaches in Orissa and follow the same route in reverse during their southbound migration (Kar, 1983, Subba Rao *et al.*,

1987, Shanker *et al.*, 2003), these sightings of olive ridleys in the Bay of Bengal may have been migrating turtles.

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