

Preliminary Report on the Survey of Sea Turtles along Andhra Pradesh coast

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Of the five species of sea turtle occurring in the eastern Indian Ocean and coastal waters of India, four species have been reported from the Andhra Pradesh coast (Kar & Bhaskar 1982, Bhaskar 1993, Biswas 1982). However, nesting of only olive ridleys (*Lepidochelys olivacea*) have been confirmed (Kar 1983, Subba Rao *et al.* 1987). There are a few nesting beaches present in the northern Andhra Pradesh coast where ridleys congregate in large numbers, but at the same time, absolutely no information is available on the nesting status along the central and southern Andhra Pradesh coast.

The southern most rookery of Orissa is close to Andhra Pradesh, so mass aggregations in suitable beaches along Andhra Pradesh coast cannot be overruled. The olive ridley sea turtles traverse through the Tamil Nadu and Andhra Pradesh coast for reaching mass nesting beaches in Orissa, and follow the same route during their post nesting migration to the Indian Ocean and its adjacent areas (Kar 1983, Rajasekhar 1998). Over the years, there has been a rapid increase in the intensity of mechanised fishing along this coast, so the risk of incidental catch related mortality has increased. But no proper estimates have been made on incidental capture and fisheries related mortality of sea turtles along the Andhra Pradesh coast. The survey of sea turtles and its nesting beaches in Andhra Pradesh is being carried out by the Wildlife Institute of India, Dehradun, in collaboration with the Forest Department, Government of Andhra Pradesh. This report is based on the result of pre-nesting survey carried out along the Andhra Pradesh coast as part of the survey programme.

Study area and Methods

Andhra Pradesh is one of the largest maritime

states in India with a coastline of 980 km and is ranked 5th in marine fishery resources. There are 450 fishing villages and more than 280 landing centres along the coast. The major fishing harbours are Visakhapatnam, Kakinada and Machilipatnam with Nizampatnam and Krishnapatnam emerging recently, altogether contributing more than 37% at the total fish production. The major rivers along the coasts are Vamsadhara, Godavari, Krishna and Pennaru with several smaller rivers and tributaries. The beach was divided into sectors and various sites were visited. Fishing villages and nearby beaches were visited. Fishermen and local people were interviewed regarding sea turtle occurrence in their localities. Species of turtle nesting/ sighted in offshore waters were confirmed by showing them photographs of different species of sea turtles. They were also interviewed on the number of dead turtles found on their beach, cause and peak season. Other information collected included incidental catch of turtle in artisanal gear, type of net used, etc. Besides, developmental activities along the beach such as plantations, industries, land use pattern, socio-economic status and consumption of turtle eggs and meat by local villagers were also taken into account. Major and minor fishing harbours situated all along the coast were visited. Forest officials and Fisheries Department personnel were also interviewed about sea turtle nesting in their jurisdiction. In total, 40 coastal fishing villages including fish landing centres and 20 beaches close to the river mouths were visited..

Results

Northern Andhra Pradesh coast

Though the beach substratum is predominantly rocky in the northern side of Northern Andhra

Pradesh coast, interview results reveal sporadic nesting of olive ridley all along this coast, which spread between Bahuda and Godavari (Goutami) river mouth. The nesting concentration varies between >5 to <50 per night in different areas, during the peak season in January (locally called *Makarasankranti nala*). According to some fishermen of Kalingapatnam, there is a 10 – 15 km stretch of sandy beach between Vamsadhara and Nagavali river mouth, where large numbers of turtles nest during *Sivaratri mela*, a festival which falls in February/March. Fishermen of Visakhapatnam harbour informed us about the occurrence and nesting of green turtles in a beach south of Visakhapatnam, which is rocky and with luxuriant seaweed growth. Two carcasses of olive ridleys were found at this beach during the survey visit. There is some consumption of turtle eggs and meat by the fishing community, and turtle carcasses and liver are used as medicine. The local fishermen rarely catch turtles in their net, and when they do, the turtles are immediately released.

Central Andhra Pradesh coast

This constitutes the area between Godavari (Goutami) and Krishna river mouth. Degraded to fairly dense mangroves are present in the Goutami, Veinateya and Vasista river mouths, which are all parts of Godavari river system. Some patches of mangroves are also present in both banks of the Krishna river mouth. According to some elder fishermen of the settlement at Hope Island, which is situated few miles inside Bay of Bengal, more turtles nested in this Island two to three decades back. But due to human disturbance, trawling near the Island and Casuarina plantation on the beach, very few turtles nest on this island now. As per information gathered from villagers of Neelarevu and nearby areas, olive ridleys nest in large numbers in the Sacramento shoal beach area during *Antarvediteertham*, a village festival of this area generally celebrated in the month of January/February. It is a wide sandy beach at the Southern end of Goutami river mouth and is backed with dense mangrove forests. The same

concentration of nesting takes place in the Krishna river mouth as well. Besides this, turtles occurs and nest along the rest of the coast between January - March. They also observe more dead turtles on the beach during this period. Consumption of turtle eggs and meat is still in practice in some coastal villages.

Southern Andhra Pradesh coast

Sporadic nesting occurs along this coast, but little information is currently available. 3 carcasses of Olive ridleys were recorded from the Krishnapatnam harbour beach.

Conclusion

The prenesting survey field visit and secondary information from local people, fishermen and Forest officials as well as from Fisheries Department personnel shows that Olive ridleys nest sporadically all along the Andhra Pradesh Coast and in few beaches they congregate in large numbers. Like wise there is incidental capture related turtle mortality along the coast, but the intensity is unknown. Though there is no commercial market, consumption of turtle eggs and meat still continues in some coastal villages. The nesting concentration in different beaches and number of dead turtles washed ashore as well as biotic and abiotic threats to turtles all along the coast can be ascertained only after the nesting survey, which is to be done extensively during the period January-April 2001.

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