

Recent sightings of the Hawksbill turtle *Eretmochelys imbricata* (Linnaeus, 1757) on the coast of Northern Andhra Pradesh, India

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ABSTRACT

The coast of Northern Andhra Pradesh has predominantly rocky and sandy shores with sporadic nesting sites of olive ridley turtles *Lepidochelys olivacea*. However, there have been rare sightings of hawksbill turtles *Eretmochelys imbricata* along this coast in the past couple of decades and their nesting is seldom observed. Carcasses of two adult hawksbill turtles were observed on 29/12/2010 and 07/03/2011 along the coast of Visakhapatnam in Northern Andhra Pradesh, India. These sightings of dead hawksbill turtles along this coast come recently after a long gap of several years and emphasize on the need to carry out surveys in the area for devising effective long term conservation management strategies.

Key words: Hawksbill turtle, Visakhapatnam coast, incidental capture, Conservation management

INTRODUCTION

Hawksbill turtles have pan tropical distribution and nesting primarily on the tropical and sub-tropical beaches of the Pacific, Atlantic and Indian Oceans. They are generally distributed in India and Indochinese waters (Smith 1931, Tikader & Sharma 1985, Tikader 1983, and Murthy 1981). In India, the species is reported to occur around mainland and make nests on various islands in the Gulf of Kutch and along the Gulf of Manner, especially on offshore islands (Bhaskar, 1979a, b and Frazier, 1982). Hawksbills are also reported to nest more commonly in the vicinity of Lakshadweep, Andaman and Nicobar Islands (Bhaskar, 1979 a, b, Biswas and Sanyal, 1980, Valliappan & Puspajjn 1973, Frazier 1982, and Silas 1984).

Their occurrence in the coastal waters of northern east coast of India is very rare. This note describes more recent sightings of hawksbill turtles along the east coast of northern Andhra Pradesh. The state of Andhra Pradesh (13°34'- 19°06'N & 80°16'- 84°47'E) is one of the largest maritime states in India with a coastline of 980 km. Fishing is one of the important occupations in the coastal districts of the state. Andhra Pradesh is adjacent to the mass nesting grounds of olive ridley turtles *Lepidochelys olivacea* in Orissa. The northern Andhra Pradesh coast (370 km) is predominantly rocky interspersed with sandy beaches and the central Andhra Pradesh coast (205 km) comprises delta regions of Godavari and Krishna Rivers interspersed with mangroves and mudflats. The southern Andhra Pradesh coast (310 km) is largely vast stretches of sandy beaches (Tripathy & Choudhury 2001).

Two dead hawksbill turtles were encountered on the coast of Visakhapatnam in northern Andhra Pradesh during an on-going survey (November 2010 - May 2011) being carried out by Green Mercy - an NGO working for sea turtle conservation in the region (Table 1). On 29th December 2010, a dead hawksbill was found washed ashore at Gudlavanipalem beach near Sagarnagar in Visakhapatnam. Furthermore, another specimen was spotted on Palm Beach area in Visakhapatnam on March 7th 2011 (Image 1). From morphometric measurements of these two turtles, it appears that both were adult females. No apparent injury marks were present on the carapace and plastron of any of the specimens, and it is suspected that deaths were caused by incidental capture in fishing trawlers and subsequent drowning. Intensive near-shore fishing takes place between Visakhapatnam and Bimunipatnam, a distance of nearly 25 km (Tripathy&Choudhury,2001).

Incidental capture in trawl and gill nets is a major cause of marine turtle mortality along the east coast of India (Rajagopalan *et al.*, 1996). There were instances of hawksbill turtle being caught in the sea, off Visakhapatnam on the Waltair coast of Andhra Pradesh (Biswas, 1984). However, interviews with fishermen in the area suggested that there have been sporadic sightings of hawksbill turtles, in some instances, even coming ashore for nesting along the northern Andhra Pradesh coastline in the past, albeit very rarely. These are unconfirmed reports since only olive ridleys have been reported to nest in this state (Kar,1983, Rao *et al.*, 1987). Local fishermen also have a vernacular name for hawksbill turtles. They call it as “Chilaka Mukku Tabelu” which means a turtle with parrot beak. Hawksbill turtles are

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Table 1. Morphometric parameters of two dead hawksbill turtles found along the coast of Andhra Pradesh, India (CCL- Curved Carapace Length; CCW- Curved Carapace Width)

Specimen	Sex	Location	Geographical Coordinates	Morphometric Measurements		
				Length in Centimeters	Weight in Kilograms	
1.	Female	Palm Beach, Visakhapatnam	17°43'28.37"N & 83°20'38.41"E	CCL	CCW	53
				76	68	49
2.	Female	Sagarnagar, Visakhapatnam	17°45'40.93"N & 83°21'34.22"E	71	66	

categorized as Critically Endangered worldwide on the IUCN Red List (IUCN, 2010) and are included in Schedule I of Wild Life (Protection) Act, 1972. Similarly, it is listed in Appendix 1 of the Convention of the International Trade of Endangered Species of flora and fauna (CITES).



Image 1. Dead *Eretmochelys imbricata* found at Palm Beach, Visakhapatnam along the east coast of Andhra Pradesh, India. (Photo- K.L.N. Murthy).

Our sightings are significant as they not only come after a long gap but also shed light on some intriguing migratory behavioral aspects of hawksbills along this coast which require further investigations. We recommend intensive regular surveys be carried out in the area which may yield accurate data on the status of hawksbill turtles along the coast of northern Andhra Pradesh. The control measures which can be taken up by the authorities to reduce fisheries related mortality include stringent enforcement of laws and use of TED (Turtle Excluder Device) in the fishing gear.

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