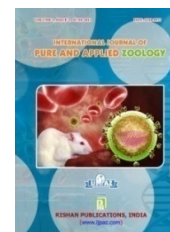




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CONSERVATION OF MARINE TURTLE - ON TURTLE SPEED IN THE EAST COAST OF TAMILNADU, SOUTHERN INDIA

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ABSTRACT

Marine turtles are declining throughout the world and all the species are on the verge of extinction due to reckless human activity. A number of reasons are pointed out by the global conservation groups for the alarming decline of turtles. Indian coastal habitat supports five species of marine turtles and ironically all the species face great threat over the years in India. Especially the East coast region of Tamilnadu the number of death spiraling up every year due to the use of gillnets by the fishermen. Moreover, overfishing leads to the decline of turtle species. Immediate conservation measures are need of the hour unless the Asian region will lose few more turtle species which will badly reflect on the declining marine biodiversity.

Keywords: Turtles, gillnet, East coast, Tamilnadu.

Sea turtles are declining throughout the world and all the species are on the verge of extinction. A number of reasons are pointed out by the global conservation groups for the alarming decline of turtles. The reasons pointed out are; over hunting, stealing of eggs by the predators including stray dogs and human beings, encroachment, dumping of plastic materials including carry bags, coastal development projects, unscientific and unconventional fishing methods and plantation of casuarina trees on the sea shores (Bhupathy and Karunakaran, 2003; Velusamy and Sundararaju, 2009 and Sandilyan and Kathiresan, 2012). These actions put all the turtle species into a deep survival crisis throughout its breeding habitats in particular India.

Interestingly Indian coastal habitat supports five species of globally declining marine turtle species *Viz.*, Leatherback Turtle (*Dermochelys coriacea*), Hawksbill Turtle (*Eretmochelys imbricate*), Green Turtle (*Chelonia mydas*), Loggerhead Turtle (*Caretta caretta*) and Olive Ridley Turtle (*Lepidochelys olivacea*) (Kar and Bhaskar, 1982). Ironically all the species which visit Indian coast during their breeding period suffer a lot by several anthropogenic pressures and every year the mortality rate spirals up in an alarming way (Bhupathy, and Saravanan, 2002; Bhupathy *et al.*, 2006 and Vinoth and Sandilyan, 2012). We are in a pressing need to create awareness among the local people especially fishermen flock about the need for the conservation of turtles. It is not an exaggeration

to say that pace or speed of conserve the endangered species at the turtle speed in India.

The temperature and the soil texture prevailing in the east coast region are the ideal factors for the congregation of turtle species in this region for breeding from time immemorial. Tamilnadu is such a coastal area in the east coast which attracts more number of turtles during the season. But on the other hand, the mortality rate

significantly grows up every year. For instance a study from SACON Coimbatore in 2000-2001 reported 205 carcasses in Nagapattinam coast alone. In another study 139 turtle carcasses were found within 3 km stretch of Mamallapuram - Pondicherry coast during 2003-04 (Bhupathy *et al.*, 2006). Likewise, 143 carcasses of Olive Ridley Turtle in the Karaikal region from December 2011 to March 2012 (Figure 1) (Vinoth and Sandilyan, 2012).



Figure 1. Carcasses of Olive Ridley Turtle in on Karaikal coast.

It is reported that the east coast region is effectively utilized by the marine turtle species between December and March *i.e* monsoon and post monsoon seasons (Bhupathy *et al.*, 2006). Within this stipulated period, the number of mortality is higher especially during January of

every year. All the studies invariably pointed out that using of gillnets by the fishermen are the prime reason for the higher number of turtle mortality. Almost every day we can find new carcasses on the beaches in this region during this period. Moreover using of mechanized boats

was increased in the east coast regions of Tamilnadu after 2004 tsunami (Sandilyan, 2009). Number of national and international NGOs sponsored motor boats to the fishermen community of this area increased rapidly and obviously it is very hard to see catamarans on sea these days (Sandilyan, 2009). Furthermore the subsidy for petrol and diesel for the fisherman community in this region will increase the frequency of their fishing trips (Sandilyan *et al.*, 2010). Obviously the exploitation of fishes and mortality of turtles are higher over the years. It is needless to state that overexploitation may affect the collective ecological services provided by the species to the marine ecosystem and it cascades its impacts on terrestrial groups too.

Conclusion

This problem can be easily solved by the strict ban on the usage of gill nets and mechanized boats at least during the breeding period of turtles. Round the clock mobile veterinary camps and patrolling teams should be available around the coastline in order to attend and rescue the wounded turtles. Consortium of fisheries and forest department teaming up with NGOs should organize camps and create awareness among the fishing community about the importance of marine turtles. Otherwise soon Asian region lose few more marine turtle and their associated species.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest associated with this article.

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