

## **Threats to sea turtles on the Rameswaram – Dhanushkhodi Coast**

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### **Exploitation for trade**

Turtle fishing has been practiced for a long time in the Gulf of Mannar and Palk Bay in Tamil Nadu. Five species of sea turtles - olive ridleys, green turtles, hawksbill turtles, loggerhead and leatherback turtles are recorded from this area (Bhupathy and Saravanan, 2002). Prior to 1972, there was legal live turtle trade between India and Sri Lanka. Live

turtles were transported by sailing boats from Pamban, Tamil Nadu to Jaffna, Sri Lanka (Agastheesapillai, 1996) and turtle shells were exported to France, U.K. and several other European countries. In 1960, it was estimated that an average of about 3000 to 4000 turtles were landed every year in the Gulf of Mannar area and 1000 turtles in the Palk Bay; green turtles formed 75% of the landings, and olive ridley and loggerhead

formed 20% (Jones and Fernando, 1973). The turtle trade was stopped in the early 1980s.

### Accidental catch

Introduction of mechanisation in fisheries resulted in the accidental catch of turtles in gillnets, which became a major threat to their populations. The Indo-Norwegian project established a boat-building yard in Mandapam to construct 32-foot trawlers in 1970. Several trawlers were constructed under this programme and the fishermen of Mandapam, Pamban, Rameswaram and Kilakarai availed of loans to buy trawlers. The operation of trawlers in this area not only increased fish catch but also resulted in a substantial increase in the accidental catch and mortality of sea turtles. A recent study of sea turtles off the Tamil Nadu coast revealed that fishing is one of the major causes of turtle mortality there (Bhupathy and Saravanan, 2002).

Although rates of accidental catches of sea turtles are relatively high in this area, most of them go unreported or unnoticed. Accidental catch of olive ridleys, *Lepidochelys olivacea*, was reported at Pamban (Kasinathan, 1988) and off Dhanushkodi (Krishna Pillai *et. al.* 1989). The accidental catch of leatherback turtles, *Dermochelys coriacea*, was reported from Dhanushkodi (Krishna Pillai *et. al.* 1989), Rameswaram (Krishna Pillai *et. al.* 1995) and Mandapam (Rao *et. al.* 1989). Due to more attention in recent times to the conservation and management of sea turtles, (Jayaprakash *et. al.* 1993), the stranding of turtles has been reported

more frequently (Kasinathan and Palanichamy, 2002).

Recently, another threat has emerged in the form of dynamite fishing along the 19 km Rameswaram-Dhanushkodi coast. Dynamite fishing is practiced to catch fish, particularly soles, along the coast of Tamil Nadu and Kerala. Dynamite fishing in the Chaliyar river, north Kerala was reported by Lal Mohan (1991). Dynamite fishing is regularly practiced in the Rameswaram area, which often causes the death of endangered species, such as dolphins and sea turtles. Regular and continuous dynamite fishing operations caused the death of more than 10 turtles which were washed ashore during the end of January 2004 along the Rameswaram-Dhanushkodi coast.

### Conclusion

Sea turtle populations in this area have already been depleted due to their over-exploitation for trade and from accidental drowning in fishing gear of gill nets and trawlers (Bhupathy and Saravanan, 2002). Boat propellers can also cause damage to the flippers and shells of sea turtles. Recently, dynamite fishing has become yet another threat to their populations. Such dynamite fishing should be stopped during the turtle nesting season (from December to March) to save the turtles from this additional threat. The state fisheries department, forest department and its wildlife wing, the Coast Guard and the local police should work together and take action to stop dynamite fishing and prevent further turtle mortality.

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