

Blacktip reef sharks caught in trammel nets at Lazarus Island

Subjects: Blacktip reef shark, *Carcharhinus melanopterus* (Chondrichthyes: Carcharhinidae).

Subjects identified by: Contributors.

Location, date and time: Singapore Strait, Lazarus Island; 16 August 2015; around 0800 hrs.

Habitat: Marine. Intertidal coral reef in a lagoon.

Observers: Contributors.

Observation: Thirteen juvenile sharks of between 47.8 and 56.3 cm total length were found dead alongside a myriad of marine animals in three trammel nets set in a lagoon (Figs. 1 & 2). Nine of the sharks are males and four are females. The owner of the nets (a member of the public) who showed up while the contributors were about to retrieve the nets, said the nets had been left in the lagoon overnight.

Remarks: This incident has been reported by Tan (2015). All 13 specimens of the blacktip reef shark were collected and preserved in the Zoological Reference Collection of the Lee Kong Chian Natural History Museum at the National University of Singapore, under the catalogue number ZRC 54691 (Fig. 3). Some of the sharks bear lacerations on their bodies, gills and fins, probably from struggles to free themselves, and possibly from attacks by scavengers such as crabs.

The blacktip reef shark is one of the more commonly encountered sharks in Singapore waters (Wang & Lim, 2011). Examples were often sighted by the contributors and their colleagues during intertidal surveys at the shores of some of the islands off the southern coast of Singapore Island. Usually more than one individual was sighted at any one time. The sharks, particularly the juveniles, seem to prefer shallow waters near coral reefs (personal observations).

The juvenile sharks in the present observation could have been lured by the other fishes caught in the trammel nets, which resulted in their entrapment. The entangled sharks are believed to have drowned as the inability to swim would have fatally restricted their respiratory oxygen intake.

This is a graphic example on how trammel nets, including drift-nets and gill-nets, kill marine animals indiscriminately. A similar incident in which three adult blacktip reef sharks were found dead and entangled in a gill net was recorded on a reef flat at Semakau landfill in May 2010 (Yeo, 2014). Although the unlicensed use of fishing gears such as drift-nets in Singapore is explicitly prohibited under the Fisheries Act, it is unclear which government agency holds the responsibility for governing the marine environment and enforcing the relevant law (Lye, 2011: 205).

References:

- Lye L. H., 2011. Legal protection for nature in Singapore. In: Ng, P. K. L., R. T. Corlett & H. T. W. Tan (eds.), *Singapore Biodiversity: An Encyclopedia of the Natural Environment and Sustainable Development*. National University of Singapore & Editions Didier Millet, Singapore. pp. 202-205.
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- Tan, A., 2015. 13 young sharks found dead in fishing nets at Lazarus Island. *The Straits Times*. Monday, August 17, 2015: Home B5.
- Yeo, R. K. H., 2014. Blacktip reef sharks at Semakau Landfill. *Singapore Biodiversity Records*, 2014: 33–34.

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Fig 1. Two of the dead blacktip reef sharks entangled in trammel nets.



Fig 2. Dorsal view of the 13 juvenile sharks (47.8 to 56.3 cm total length) extricated from the trammel nets.



Fig 3. Side view of one of the blacktip reef sharks (ZRC 54691c).

Photographs by Rene Ong