

# Report on avian prey in the diet of sharks from the eastern Arabian Sea

Carol C. Morris<sup>1,2</sup>, P.K. Seetha<sup>2</sup> and Shoba Joe Kizhakudan<sup>2\*</sup>

<sup>1</sup>Department of Life Sciences, CHRIST (Deemed to be University), Bengaluru 560 029, Karnataka

<sup>2</sup> ICAR-Central Marine Fisheries Research Institute, Kochi-682 018, Kerala

\*E-mail: jkshoba@gmail.com

Studies on the food and feeding of the graceful shark *Carcharhinus amblyrhynchoides* and the tiger shark *Galeocerdo cuvier* from specimens collected from the landings at Cochin Fisheries Harbour, Kerala, on 13<sup>th</sup> February and 13<sup>th</sup> March 2024 respectively, showed surprising insights into the dietary habits of these shark



*C. amblyrhynchoides* landed at Cochin Fisheries Harbour



*Chlidonias niger* obtained from the gut of *C. amblyrhynchoides*

species. The male *C. amblyrhynchoides* specimen, which measured 210 cm in total length and weighed 54 kg was caught by a hook and line operated in the Arabian Sea off the south-west coast of India. The gut length was 46 cm, with a weight of 880 grams. Notably, the content weight was found to be 358 grams, indicating substantial recent feeding activity. The state of the gut was observed to be three-fourth full, suggesting a well-fed condition. Among the dietary findings was the presence of a bird belonging to the Laridae family identified as *Chlidonias niger* (Black Tern) from its black and white plumage with a black bill and black eyes. It weighed 133 grams. The presence of this bird in the gut contents indicated the shark's opportunistic predatory behaviour. In addition to the bird, the gut contents also included 1 puffer fish, 2 crabs (*Charybdis smithii*) and beaks of the oceanic purpleback flying squid *Sthenoteuthis oualaniensis*, showing the wide diet spectrum of *C. amblyrhynchoides*.

The male tiger shark specimen, which measured 350 cm in total length and weighed 50 kg was caught by a hook and line operated in Gujarat waters of the Arabian Sea. The fishermen who brought the shark to the landing centre mentioned that they observed the shark catching a bird, prompting them to quickly deploy a hook-and-line operation. This observation underscores the dynamic interactions that occur within marine ecosystems, shedding light on the opportunistic and highly predatory nature of tiger sharks and their potential impact on avian populations. The gut measured 59 cm in length and weighed 11.47 kg. The content weight was found to be 4.37 kg, and the gut's condition was noted to be 3/4 full, indicating that the animal was well-fed. A bird belonging to the Laridae family *Larus fuscus*, also known as the Lesser Black-backed



*G. cuvier* landed at Cochin Fisheries Harbour



*Larus fuscus* obtained from the gut of *G. cuvier*

Gull, was identified in the diet contents. Its characteristics include a white head, white neck, dark grey back, longer, pointed black wings, and yellow legs. We also observed parts of a turtle in the shark's stomach, demonstrating the diverse feeding habits of *G. cuvier*.

Tiger sharks are among the most voracious predatory sharks and have been known to prey upon sea birds, with anecdotal instances of feeding upon terrestrial birds too. The first scientific evidence of tiger sharks feeding regularly on terrestrial birds was reported by Drymon *et al.* (2019). These findings challenge traditional notions of shark feeding behaviour and emphasize the species' role as an apex predator capable of preying on a variety of organisms. They also warrant the need for continuous monitoring and research efforts in our marine ecosystems to better understand the dynamics of marine food webs and the ecological roles played by apex predators like *C. amblyrhynchoides* and *G. cuvier*.

## References

Drymon *et al.*, 2019. *Ecology*, 100(9): e02728. 10.1002/ecy.2728