

## On the occurrence of pelagic thresher shark, *Alopias pelagicus* (*Alopiidae: Laminiformes*) from the Tuticorin, Gulf of Mannar

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The family Alopiidae (thresher sharks) is found distributed worldwide in tropical and temperate seas. Alopiidae have one genus and three species viz., the pelagic thresher, *Alopias pelagicus* Nakamura, 1935, the bigeye thresher, *A. superciliosus* (Lowe, 1839) and the common thresher, *A. vulpinus* (Bonnaterre, 1788). On 20<sup>th</sup> June, 2013 a single specimen of *A. pelagicus* (Sex: female; total length: 270 cm; weight: 3000 g) was landed in by large meshed drift gillnet (“Paruvai”) operated from fishing craft (“Vallam”) in Tharuvaikulam fish landing centre. The gear was operated between 100 and 150 m depth, at a distance of 60 nautical miles from the coast. The specimen was photographed and morphometric measurements were made with a measuring tape to the nearest centimeter and weight was taken to the nearest gram. The species identification was carried out based on Compagno (1984).

Head very narrow, convexly arched in dorso-lateral profile; snout moderately long and conical; eyes moderately large, orbit not expanded onto dorsal surface of head; mouth semicircular and placed below eyes, labial furrow absent; teeth very small and sharp-edged; weak nuchal groove present above the brachial region. Two dorsal fins, the first moderately large and the position of the first dorsal fin base closer to pelvic bases than pectoral bases; second dorsal fin minute and positioned well ahead of the small anal fin; pectoral fins with straight and very broad tips; caudal fin very slender; nearly equal to rest of the specimen body. Body blue to grey with silvery sides on dorsal surface; white colour from ventral side but the abdominal white colour does not extend over the pectoral fin base.



Fig. 1. *Alopias pelagicus* landed

Table 1. Morphometric measurements of *Alopias pelagicus* from Tuticorin, Gulf of Mannar

Measurements	cm
Total length	270
Standard length	158
Snout to eye	12
Snout to mouth	10
Mouth width	11
Eye diameter	5
Snout to first gill-slit length	34
Prepectoral length	44
Predorsal (1 <sup>st</sup> ) length	74
Prepelvic length	107
Distance between pectoral to pelvic fin	50
Caudal fin upper lobe length	138

The pelagic thresher is an oceanic epi-pelagic and highly migratory species distributed in the Indo-Pacific regions and Indian Ocean. The species is found to occur in a depth ranging from surface to at least 152 m. The distributional information of pelagic thresher is rather hindered by identification problems and confusion with the common thresher. Two species are externally distinguished based on the difference in colour pattern *i.e.*, skin color on the sides above the pectoral fin base, pectoral fin shape, second dorsal fin position, and presence or absence of labial furrows (Table 2).

Table 2. External distinguishing characters between pelagic thresher and common thresher

Characters	Pelagic thresher	Common thresher
Sides above the pectoral fin base	Uniformly dusky gray	Mottled white
Pectoral fin shape	Straight and broad tips	Falcate and narrow tipped
Labial folds around the mouth	Present	Absent
Origin of the second dorsal fin	Aligned anterior to the free rear tip of the pelvic fin	Aligned posterior to the free rear tip of the pelvic fin

The pelagic threshers are smallest and early maturing among the three thresher sharks reaching its asymptotic length ( $L_{\infty}$  is about 330 cm TL) at about the growth rate,  $K=0.09$  per year. In waters off Taiwan Liu *et al.* (1999) found that the length at first sexual maturity for females was found to be 282 to 292 cm TL (8 to 9.2 years) and for males it was 267 to 276 cm

TL (7 to 8 years). The size at birth in the pelagic thresher varies considerably, ranging from 158 to 190 cm TL and representing the largest pup-to-maximum-adult size ratio of the three species of *Alopias*. Globally, the populations of *A. pelagicus* were declining due to over exploitation and IUCN declared the threat status is as “vulnerable” (IUCN, 2013).