New occurrence of big eye thresher shark *Alopias superciliosus* lowe, 1841 in Gulf of Mannar, southeast coast of India.

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The big eye thresher *Alopias superciliosus* Lowe, 1841 is a pelagic subtropical species with a circum-tropical distribution. Its occurrence in India has been reported to be restricted to southwest coast of India until this record. This is the first observation of capturing *Alopias superciliosus* Lowe, 1841 in southeast coast of India. Species was caught by surface gill net (locally called *paruvalai*) operated by fishers from Solapuram near Manapad, southeast coast of India (lat. 8°34’ N; Long. 78°06’ E) and the rare specimen caught was a male *Alopias superciliosus* whose total length was 295cm and caught on 27.07.2010. The characteristic deep horizontal groove on each side of nape (Figure 1), the very large eyes with expanded orbit onto the head’s dorsal surface and the position of the first dorsal fin base, closer to pelvic bases than to the pectoral, helped to identify the landed specimen as *Alopias superciliosus*. Morphological features recorded are given in Table. 1.

Various literature appraisals indicated that the species was never recorded from Gulf of Mannar, southeast coast of India. This is the first report about the occurrence of *Alopias superciliosus* from Gulf of Mannar, one of the important Biosphere Reserves located in India. Fischer and Bianchi indicated that these species normally occur at the depth range of 475-500 m. The present observation indicates that the specimen was caught by surface gill net at a depth less than 20 m which might be during the pelagic migration. Preti, *et. al.*, reported that these sharks have a diverse diet and feed opportunistically on locally and temporally available prey, including epipelagic, mesopelagic, epi-benthic and deep scattering-layer species. This migration likely relates to finding prey at night and avoiding predators during the day. Nakano. *et. al.*, also indicated that this species undertake a diel
vertical migration, spending daytime in deeper water, below the thermocline and ascending above it to
to water less than 100 m deep during night. Thresher sharks are listed as a game fish by the International
Game Fish Association (IGFA)\textsuperscript{12}. Recently all the thresher shark species are designated as Vulnerable
by the IUCN\textsuperscript{13}. Ebert \textsuperscript{14} indicated that the bigeye thresher sharks are highly susceptible to over-
exploitation due to its low lifetime fecundity.

Fischer and Bianchi\textsuperscript{4} revealed the availability of three species \textit{viz.}, \textit{Alopias pelagicus}, \textit{Alopias vulpinus} and \textit{Alopias superciliosus} in Indian waters. Of these three \textit{Alopias vulpinus} is the most
commonly occurring species of thresher sharks from southeast coast \textsuperscript{4,15} whereas \textit{A. superciliosus} was
recorded only in Arabian coast \textsuperscript{15} and it has been designated as a rare group \textsuperscript{16}.

Earlier report indicates that they are mainly caught by pelagic long line fishing and drift gill net
\textsuperscript{17,18,19}. Capture of this species was possible due to multiday fishing, as indicated by the fishermen of
southwest coast of India \textsuperscript{15}.

Jensen \textsuperscript{12} indicated that the male attains maturity by approximately 8.86 - 9.45 feet
(270 - 288 cm) around 9-10 years. The landed specimen length has been measured as 295cm,
indicating matured male and well developed claspers has been observed. The colour of the specimen
was brownish grey colour above, creamy below. Fischer and Bianchi \textsuperscript{4} indicated that this shark is an
ovoviviparous and could have a reproductive potential of up to 4 per litter. Low fecundity and slow
growth make the big eye thresher vulnerable to long line and gillnet fisheries \textsuperscript{14}. Sharks, a group
occupy the role of top predators in the marine food web \textsuperscript{20}. In general, overexploitation of
elasmobranchs resulting in considerable decrease in population will have a long term negative
influence on their stocks and also to the marine community. IUCN\textsuperscript{13} has recently included all the
three thresher shark species as Vulnerable to protect them from extinction. Present report is the first
report of their extended distribution in southeast Indian waters and particularly in the biodiversity rich
Gulf of Mannar region. As these species are rarely caught as by catch and considerable efforts and
educating the stakeholders are necessary to maintain the biodiversity of this vulnerable group in this
region and to protect the gulf ecosystem.
Table: 1. Morphometric characters of *Alopias superciliosus* captured from southeast coast of India

<table>
<thead>
<tr>
<th>Morphometric Characters</th>
<th>Measurement (in cm)</th>
</tr>
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<tbody>
<tr>
<td>Total length</td>
<td>295.00</td>
</tr>
<tr>
<td>Snout length</td>
<td>13.00</td>
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<tr>
<td>Standard length</td>
<td>165.00</td>
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<tr>
<td>Caudal fin length</td>
<td>130.00</td>
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<tr>
<td>Eye diameter</td>
<td>9.50</td>
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<tr>
<td>Mouth width</td>
<td>10.50</td>
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<tr>
<td>Pre dorsal length</td>
<td>96.00</td>
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<tr>
<td>Inter dorsal length</td>
<td>31.00</td>
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<tr>
<td>Pre anal length</td>
<td>156.00</td>
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<tr>
<td>Pre pectoral length</td>
<td>49.00</td>
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References