

**ON THE SPECIFIC IDENTITY OF A RIBBONFISH (FAMILY
TRICHIURIDAE) DESCRIBED BY HAMILTON (1822) FROM THE
RIVER GANGES**

In the course of codifying the nomenclature of the species described by Hamilton in his 'Gangetic Fishes' (1822), it was found that the description of one of the forms he had tentatively assigned to *Trichiurus lepturus* called for clarification as to its position in the System. It is evident that Hamilton, while recognising the similarities his specimens evinced to *T. lepturus*, was also aware of the many points of differences from its then known descriptions and drawings, for he remarked that '... I think it unnecessary to multiply distinctions, and shall only add a full description, so that those who have an opportunity may judge how far any differences to be observed in different places may be adequate to distinguish these kindred fishes into different species'. This description which appeared under his second Order Apodes which contained 'Fishes having the dorsal spine or bone and wanting ventral fins' was not accompanied by a figure but the salient characters mentioned therein are as follows :

1. Elongate, with head and body considerably compressed, the latter resembling 'the blade of a very sharp sword'.
2. Colour, bright silvery throughout the body.
3. Head and body devoid of scales.
4. Lower jaw ending bluntly, but longer than the upper ; jaws with long distant teeth, and tips of each jaw with two teeth longer than the others.
5. Vent situated before mid-length of body ; tail having both edges sharp and mid-ventrally 'indented with almost seventy-four small prickles, and terminate in a very long slender point, which towards its end resembles a bristle'.

6. Eyes are placed high.
7. Gill-covers large and finely cut at edges ; gill-openings also large.
8. Lateral line decurved from nape and running along lower half of body.
9. Dorsal fin long with 114 rays.
10. Pectorals short, sharp above, each with 11 rays.

While several of the later ichthyologists have not remarked on Hamilton's description of this trichiurid, Day (1878) relegated it to the synonymy of *Trichiurus haumela* (Forsk.) with no comments. Recently, Tucker (1956) had adduced reasons to show that *Trichiurus lepturus* Linnaeus and *T. haumela* (Forsk.) are conspecific, the former name having priority over the latter, with which view we also agree.

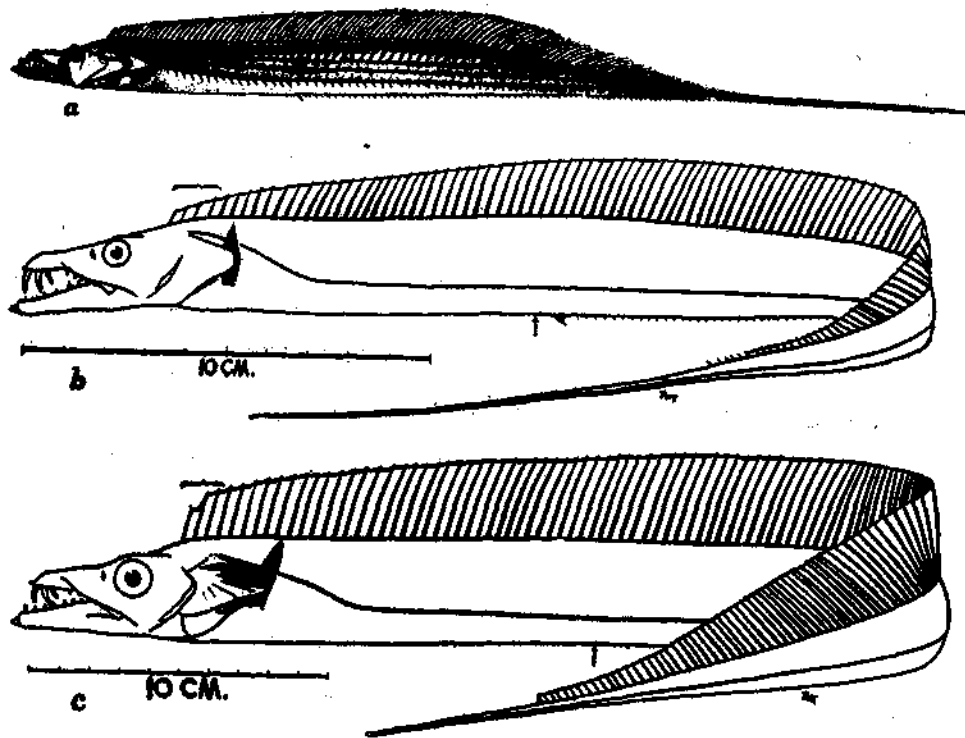


Figure 1. a. Hamilton's original figure of *Trichiurus lepturus* Lacépède (after Hora, 1929); b. *Lepturacanthus savala* (Cuvier) and c. *Trichiurus lepturus* Linnaeus (b and c after Tucker, 1956).

Hora (1929) found that original drawings of this trichiurid labelled as *Trichiurus lepturus* Lacépède, and those of some other species described by Hamilton, but not published by him during his time or subsequently by other workers did exist in the Asiatic Society Collections as well as at the British Museum (Natural History). The published figure of Hamilton's *T. lepturus* (Hora, *op. cit.*, pl. xviii, fig. 1) shows that it is in conformity with the description except that the dorsal fin is shown as

having 118 rays and the anal with 83 indented spinules instead of 114 and 74 respectively.

In the light of recent researches on the trichiurids in general (Tucker, 1956), and certain species of these fishes occurring in Indian waters (James, 1959), it is now clear that Hamilton's description and drawing of *Trichiurus lepturus*, does not represent *Trichiurus lepturus* Linnaeus as redefined by Tucker (*op. cit.*), but definitely depicts an allied species, *Lepturacanthus savala* (Cuvier) (= *Trichiurus savala* Cuvier, of Day and several other workers). The characters such as the dagger-like enlarged second anal spine (as shown in the drawing); the anal spinules breaking the ventral profile throughout the length of the fin and the spinules directed backwards; the relatively smaller eyes (about 7.0 times in head length in the figure); the fin ray counts, and the bristle-like terminal part of the tail help in fixing the specific identity of this species as *L. savala*, at the same time distinguishing it from *T. lepturus* in which the corresponding anal spine is rudimentary; the anal spinules absent or if present not breaking through the skin; eyes large (5.0 to less than 7.0 in head length) and the terminal part of the tail relatively shorter and tapering gradually. However, as seen from Fisheries Reports, it is evident that *T. haumela* (= *T. lepturus*), also occurs in the Hooghly and Matla estuaries. In addition to these, two other lesser known ribbonfishes, namely *Eupleurogrammus intermedius* (Gray), and *E. muticus* (Gray) also occur in the Gangetic estuary as collections obtained by one of us from the Matla and Hooghly estuaries indicate. Both *L. savala* and *T. lepturus* are easily distinguishable from the genus *Eupleurogrammus* Gill in several characters including the decurved lateral line and the total absence of the pelvic fins. The diagnostic characters of these four Indian species and a synopsis to their identification have been given elsewhere (James, 1959).

Incidentally it may be mentioned here that all these four species have also been obtained from fish catches landed at Sassoon Docks, Bombay, on a single day. It has been interesting to find that at many places where they are fished or form part of regular catches along the Indian coast, more than one or all these four species of trichiurids occur even in a single haul which has often presented difficulties to the untrained eye in distinguishing them.

SUMMARY

Trichiurus lepturus Hamilton (*nec* Linnaeus) is relegated here to the synonymy of *Lepturacanthus savala* (Cuvier). Attention is also drawn to the occurrence of the four Indian species *Trichiurus lepturus* (of which *T. haumela* (Forsk.) is a synonym), *Lepturacanthus savala*, *Eupleurogrammus intermedius*, and *E. muticus* in the Gangetic estuary and along the Bombay Coast.

Central Marine Fisheries Research Station,
Marine Fisheries P.O.
Mandapam Camp.

E. G. SILAS
P. S. B. R. JAMES

REFERENCES

- DAY, F. 1878. *Fishes of India*, etc. p. 201.
HAMILTON, F. (Formerly Buchanan). 1822. *An Account of the Fishes found in the river Ganges and its branches*. Edinburgh. pp. 31, 364.