A note on the ribbonfish *Trichiurus auriga*

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The ribbonfishes belonging to the family Trichiuridae is a major fishery resource of India. Three species under the genus *Trichiurus* namely *T. lepturus*, *T. auriga* and *T. gangeticus* are reported from India. Of these, the largehead hairtail *T. lepturus* commonly grows to 100 cm in size and has high market demand. *T. auriga* (Pearly hairtail) is a small sized species (maximum size < 40 cm) and reported to occur in huge shoals in the upper slope regions. With little market demand for consumption due to its small size, whenever caught they are most likely to be diverted to fish meal plants. There is wide spread concern on the large scale capture of juvenile fishes which adversely affects the resources. Recently several restrictions on the capture of under-sized/ immature fishes of commercially important species and provisions for imposing fines on violations have been implemented

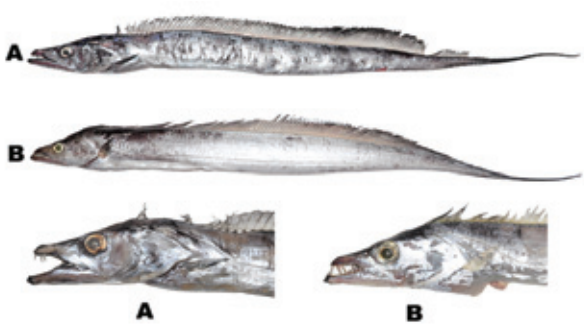

Fig. 1. *Trichiurus auriga* (A) and *T. lepturus* (B)

Fig. 2. Fang like anterior teeth without barbs in *T. auriga*

by the Fisheries Department of Kerala. Many fishermen themselves are concerned about the capture of juveniles and have enquired about the species identity of the small sized ribbonfishes landed by deep-sea trawlers operating off southern Kerala Coast, especially during October to December period which is the peak season for ribbonfish fishery along Kerala coast.

Silas and Rajagopalan (1974) first confirmed the occurrence of the small sized deep water ribbonfish *T. auriga* in Indian seas, based on the specimens collected from trawl surveys in the upper slope regions off south west coast. During the FORV *Sagar Sampada* cruise 332 on 6th December, 2014 a huge catch of small sized ribbonfish was made off

Fig. 3. Fang like anterior teeth with barbs in *T. lepturus*

Thriuvananthapuram (8^{0} 26'N 76^{0} 25' E) at 200 m depths which was confirmed to be *T.auriga*. The most characteristic feature of *T. auriga* is the presence of fang like teeth without barbs, the very slender body and blackish pectoral fins. In comparison, *T. lepturus* has fang like teeth with barbs, a comparatively shorter head with deeper body and larger pectoral fins which are transparent without any blackish tinge (Figs. 1-3). Although a few stray specimens of the *T.auriga* were found in other transects nearby, the magnitude of the catch off Thiruvananthapuram was so enormous (around 8 -10 tonnes) that the net could not be heaved on - board. During same period *T. lepturus* was being landed by commercial trawlers operating off Kochi, which also included small sized juveniles of 30 - 50 cm total length (TL) size in stray numbers. The size range of the *T. auriga* caught during the FORV *Sagar Sampada* cruise 332 was 120 – 267 mm TL with the 230 mm size group dominating. Fully mature males and females at sizes of around 270 and 340 mm TL respectively have been reported but the present catch consisted of indeterminate or immature stage specimens only. According to Silas and Rajagopalan (1974), the huge catches of ribbonfishes during FAO – UNDP exploratory surveys in the deep-waters of slope region in the Arabian Sea could possibly have been only *T. auriga*. It is possible that the maximum abundance of *T. auriga* lies in the region off southern Tamil Nadu and southern Kerala coast where it is caught by fishermen operating trawls in deeper waters. Ribbonfishes play an important role in energy transfer in marine food webs. They are an important diet component of high unit value carnivorous marine fishes like tunas and rock cods which significantly contribute to the fisheries sector in India.