

***Holothuria* sp. (Type Pentard), a new teat-fish variety from Indian waters**

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Commercial sea cucumbers that are targeted for the dried product '*beche-de-mer*' preparation consist of species belonging to seven genera under two families (Holothuridae and Stichopodidae) of the order Aspidochirotids and one genus under the family Cucumariidae of the order Dendrochirotida. Among the *Holothuria* genus, five species are processed world-wide. Teat fishes consist of group of three species under the genus *Holothuria* characterised by the presence of teat like projection on their lateral side. They are widely processed and are considered high valued species in the commercial market. Mainly two varieties are coming under this group, the black teat fish *Holothuria nobilis* which is black on the dorsal side with white blotches and spot on the sides of the animal and around the teats. The white variety *H. fuscogлива* has varied colour pattern, ranging from dark brown to dark grey with whitish spots, or whitish or beige with dark brown blotches. Dried items are prized US\$20-80 and US\$17-33/kg for *H. nobilis* and *H. fuscogлива* respectively. Colour variants of teat fishes like *Holothuria whitamaei* (black teat fish), *Holothuria* sp. (type Pentard) commonly called flower teat fish are recently been included in this category and fetched high values in the international markets.

Earlier *H. whitamaei* was considered a synonym of *H. nobilis*, but recent taxonomic investigations revealed both species are valid. The Pentard is a new variant having dark brown on the dorsal side and mottled with irregular shaped, cream coloured blotches with prominent teats on the lateral side. Commonly inhabited in the lagoon over sandy beaches between 10-50 m depth, it forms a major fishery in Seychelles, Tanzania, Sri Lanka and Maldives. It is also reported to occur in Comoros and Madagascar. The *beche-de-mer* from this species is highly priced around US\$17-26/kg. This species is not described taxonomically and further studies

are required to decide if it is another species or simply a variety of Indian Ocean black teat fish *H. nobilis*.

In India teat fishes are reported to occur from Andaman and Nicobar and Lakshadweep Island in good numbers. *H. nobilis* is common on shallow reef bottom of lagoon areas and *H. fuscogлива* in deeper water on clean sand with turtle grass. Availability of *H. fuscogлива* has already been reported from the Kayalpatinam coast of Gulf of Mannar area in 1998. The author has noticed a semi processed teat fish among the sea cucumber raw material of a vendor in Threspuram area of Tuticorin in early 2003, during which period the ban on sea cucumber processing was not strictly implemented. The specimen was first recognized as *H. nobilis* and later identified as *Holothuria* sp. (type Pentard). Spicules of the dorsal and ventral body wall consist of tables and buttons which are ranged between 70-120 and 60-120 μm respectively, while that of tentacles are spiny rods of size 80-500 μm . On a survey, it was revealed that this species had been regularly collected by the divers of Kayalpatinam coast from a depth of 60 m and sold to processors of Threspuram at a rate ₹ 200/piece.

In India, the sea cucumber industry that once existed was mainly depending on high value species like *H. scabra* and *H. spinifera* since long time and due to the inadequate fishery management, the resources had been over exploited, later the fishery came to a standstill due to the ban imposed by Ministry of Environment and Forest, Government of India since 2003. The industry can be revived again by looking forward to explore the unexploited the teat fish resources along Indian coast. The simultaneous implementation of judicious fishery management and wild and captive stock enhancement of these resources will ensure sustainability in the long run.