

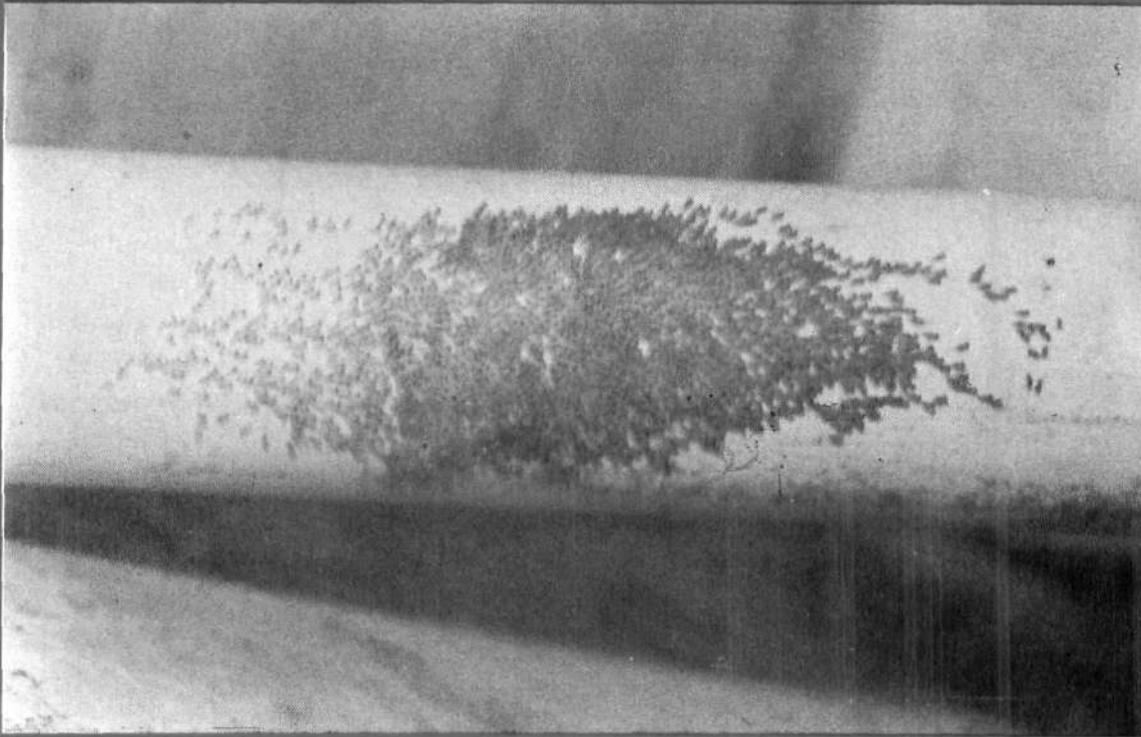
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909 HOLOTHURIA (THYMIOSYCTIA) ARENICOLA SEMPER, A RARE HOLOTHURIAN FROM THE GULF OF MANNAR

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On a regular and routine trip for the collection of holothurians for the hatchery purpose a single specimen of *Holothuria (Thymiosyctia) arenicola* Semper of 200 mm in length was collected on 19-5- '93 from east of the Van Island (Gulf of Mannar) from a depth of two metres. This species was recorded from the Gulf of Mannar more than one hundred years back. After this nobody had seen this species in the Gulf of Mannar. Several specimens of *Holothuria (Thymiosyctia) arenicola* were collected by the author from the Andamans and Lakshadweep Islands where this seems to be a common species living in the intertidal region under coral stones.

In the extended condition the body is slender and vermiform. The mouth is small and surrounded by tentacles which are ventral in position. On the dorsal side there are a few papillae. The pedicels are small and not conspicuous. On the ventral side they are arranged in three bands. The mid-ventral band is not distinct. In the other bands there are three or four pedicels in a row. Anus is terminal and surrounded by five groups of four papillae.

The calcareous ring consists of ten pieces of which the radials are distinctly longer than the inter-radials. There is one large polian vesicle and a stone canal. The gonads are situated in a single tuft on the left side of the dorsal mesentery. The respiratory trees are long and much branched.

The spicules consist of tables, buttons and supporting plates. The buttons are smooth and regular with six holes. Their edges are regularly indented between each pair of holes. Sometimes there are two holes on one side and three on the other side. Buttons are numerous on the body wall. The disc of the table has a smooth border and is quadrate-circular in outline. There is a large hole at the centre and a small one at the base of each spire. The peripheral holes vary in number from 4 to 10. The spire is made up of four rods, one cross beam and a crown ending in 10-20 teeth.

The supporting rods of the pedicels are smooth, dilated at the ends and in the middle 3-5 perforations are present. Generally there are two or three oval holes in the middle.

In the living condition the colour is white. The dorsal side is scattered with very small brown dots which are not conspicuous. The ventral side is uniformly white.

This is a fossorial form. When left on the sand in one tonne tank it showed very little movement. On the next day it was found to be completely buried in sand and its presence in the tank was indicated by a small depression. The pedicels and papillae are highly reduced and therefore the burrowing is effected only by the contraction of the body muscles. In the Lakshadweep the presence of the holothurians is indicated by a jet of water when the tide recedes. It is often almost impossible to collect them since they go deeper when disturbed. The holothurian lived in a healthy condition for over six months in the hatchery. At the end of December, 1993 when the salinity dropped to less than 10ppt the animal died.

In one of the specimens collected at Port Blair (Andamans) a Carapid fish *Encheliophis (Jordanicus) gracilis* was found to live inside the main tube of the respiratory tree.

It is a tropicopolitan species. It is known from the West Indies, Red Sea, Zanzibar, Mauritius, Lakshadweep, Andamans, East Indies, Philippines, Southern Japan, Fiji, Hawaii, Tahiti, Galapagos, Cocos Island and Eastern coast of Australia.



Fig. 1. *Holothuria (Thymiosyctia) arenicola* Semper, a rare and interesting holothurian from the Gulf of Mannar.