TAENIACANTHUS DENTATUS SP. NOV., A COPEPOD PARASITE OF THE FISH BEMBROPS CAUDIMACULATA STEINDACHNER*

By M. J. SEBASTIAN
Central Marine Fisheries Research Institute, Mandapam Camp

BASSETT-SMITH (1898) was the first to describe a piscicoleous taeniacanthid, Irodes tetradontis (Bassett-Smith), from the Indian region. However, taeniacanthid copepods of the genus Taeniacanthus Sumpf, 1871, have never been reported from Indian fishes until quite recently, when eight species of taeniacanthids belonging to five different genera, including one new genus and seven new species, were described by Pillai (1963) from South Indian fishes. Of these, three belonged to the genus Taeniacanthus and were new. Herein is described a fourth species, T. dentatus.

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Taeniacanthus dentatus sp. nov.

(Figs. 1-10)

Material—Eleven females were collected by the author from the inner surface of the opercle of a single specimen of the fish, Bembrops caudimaculata Steindachner, caught from Palk Bay on 24th June, 1962.

The holotype, a female, is deposited in the Reference Collection Museum of the C.M.F.R. Institute, Mandapam Camp, S. India (C.M.F.R.I. No. 75).

Female—Body is slender and elongated. Cephalothorax is slightly broader than long and dorsally convex. Its anteromedian part is produced into a very small rostral process. Lateral border of the cephalothorax is provided with a thin flexible membrane originating from the ventral side. First thoracic segment is fused with the carapace, but the fusion is not complete. Thoracic segments two to five are comparatively short and subequal in length, the fourth being the longest. Genital segment is small and subequal to the fifth thoracic segment in length and breadth and these two segments show signs of getting fused. Abdomen is four-segmented and it steadily narrows backwards. Fourth segment is slightly longer than all the others. Anal laminae are long, only slightly shorter than the last abdominal segment; each carries a short seta in the middle of the outer border and a similar subapical inner seta; distal border has two pairs of setae, inner pair is very long and its inner member is longer than the outer; all the setae are plumose.

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The antennule is six-segmented, the proximal three segments are comparatively broad and armed with five, eleven and eight flattened pectinate setae respectively. The three distal segments are cylindrical, short and armed with simple non-plumose setae. Maxillary hook has a stout base and curved strong claw. Antenna is of the usual type, inner border of its third segment is very feebly denticulated and the distal border has two spine-setae and four strong claws. Mandible has a stout base, apical blades are rather broad, subequal in size and devoid of spines. First maxilla carries three setae, outer seta is stout and the middle seta is comparatively small. Inner expansion of the first maxilla is apically narrowed and overlaps the mandible. Second maxilla is stout and carries a small pectinate spine and two long strongly barbed blades. Maxilliped is three-segmented, basal segment is fused with the
body and hence not clearly visible, second segment is large and carries on its inner
border a pair of setae, third segment is bent backwards and curved inwards and
characteristically armed, on the distal half of its inner border with five comparatively
stout, blunt teeth.

First leg is only moderately flattened, protopod is two-segmented and both
exopod and endopod are three-segmented. Protopod of second leg is two-seg-
mented, second segment has an outer seta, the rami are three-segmented and the
endopod is slightly stouter than the exopod. First exopod segment carries an outer
spine-seta, second segment has an outer spine-seta and inner long plumose seta,
third segment has two outer spine-setae and six plumose setae of which the first
is naked on the outer side. First endopod segment has one inner plumose seta, second
has two inner setae and the third has three strong outer claws and three setae. First
claw is small, second slightly longer than the first and the third more than twice
as long as the second. Outer border of the endopod and inner border of the exopod are
hairy. Third leg is similar to the second except that the third endopod segment has
only two plumose setae and the third claw is slightly longer. In the fourth leg, the
third endopod segment carries only two stout claws and a single long naked seta.
Fifth leg is uniramous and two-segmented, basal segment is nearly half the length
of the distal and carries a single seta. Distal segment has three strong blunt spines and
one seta and its inner distal part carries a patch of denticles. Sixth leg is composed
of three setae.

Egg-sacs are cylindrical, slightly shorter than the body and whitish in colour.

Length—2.5 mm.

Remarks—T. dentatus sp. nov. (dentatus, alluding to the dentate structure of the
maxilliped with five well-defined teeth) somewhat resembles T. acanthocepolae Yama-
guti (1939), T. neopercis Yamaguti & Yamasu (1959), Parataeniacanthus platycephali
Yamaguti (1939) and P. longicervis Pillai (1963) in possessing a dentate maxilliped.
But T. acanthocepolae and T. neopercis differ from it in the shape of the body, that
of the maxillary hook and the fifth leg and also in the claw of the maxilliped being
produced inwards at its base. In the dentate nature of the maxilliped T. dentatus is
closer to P. platycephali and P. longicervis. But P. platycephali is a much more
slender species with the teeth on the maxilliped quite indistinct and P. longicervis
has totally different armature of the legs. The other species described by Pillai (1963),
Shino (1957), Wilson (1911 & 1922), Yamaguti (1939) and Yamaguti and Yamasu
(1959) are very much different from the present form.

According to Yamaguti (1939) Parataeniacanthus differs from Taeniacanthus
in the incomplete fusion of the first thoracic segment with the head and of the fifth
thoracic segment with the genital segment. These two characters are variable and
are exhibited by species assigned to both the genera that it is extremely difficult
to assign a species to one or the other. Therefore, the present species is placed
under the older genus Taeniacanthus.
REFERENCES


