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# LARVA OF *IDIACANTHUS FASCIOLA* (PISCES—FAM. IDIACANTHIDAE) FROM THE BAY OF BENGAL

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Two larval specimens of *Idiacanthus fasciola* were found by the author in the plankton samples collected while he was a visiting scientist on board R.V. Anton Brunn during her first cruise of the International Indian Ocean Expedition in the Bay of Bengal. These specimens were collected from Station 56 (Lat. 18°.15'N.; Long. 89°.20'E.; Oblique haul from 25 metres to surface on 8-IV-1963 at 0900 hrs., 1 *ex.* 5.3 mm.) and Station 82 (Lat. 17°.06'N.; Long. 90°.17'E.; Oblique haul from 25 metres to surface on 20-IV-1963 at 23.48 hrs., 1 *ex.* 15.5 mm.).

The larval stages of *Idiacanthus fasciola* are of considerable interest since they were originally described under the generic name *Stylophthalmus*. It was Brauer (1902) who created a new genus *Stylophthalmus* on the basis of a collection of 35 specimens from the 'Valdivia' Expedition. Weber (1913), created a new species *Stylophthalmus braueri* since he found the two specimens collected by the 'Siboga' Expedition to differ in certain respects from *Stylophthalmus paradox* described by Brauer (1902 & 1908). Tate Regan (1924) described yet another species *Stylophthalmus macrenteron* from the collections of British Antarctic 'Terra Nova' Expedition and he considered it to be a larval stage of *Eustomias obscurus*.

Beebe (1929) reported the occurrence of *Stylophthalmus paradoxus* from the Hudson Gorge in the Atlantic, and later, examining the deep sea fishes of the Bermuda Oceanographic Expedition, found the fishes hitherto classified under the genus *Stylophthalmus* in the family Stylophthalmidae to be the larva of *Idiacanthus fasciola* of the family Idiacanthidae (Beebe, 1933 & 1934). According to him *Stylophthalmus paradoxus* represents the larva and post-larva of *Idiacanthus fasciola* while the so-called post-larval stages of *I. fasciola*, characterized by the enormous post-orbital light organs and absence of mental barbels, are in reality diminutive larvoid but sexually mature males. These males present extreme lengths of 32 to 45 mm., while the adult females measure from 60 to 270 mm. Beebe (1934) has also observed that the transition from so-called *Stylophthalmus* stage to *Idiacanthus* is effected by the gradual absorption into the head of the optic nerve which runs the length of the enormously elongated eyestalk of the larva and also pulling the eye with it. The cartilage supporting the elongated eyestalk gets coiled and sunk into pre-opercular socket which later on gets completely absorbed as growth proceeds.

The present account deals with the two larval specimens of *Idiacanthus fasciola* measuring 5.3 mm. and 15.5 mm. from the Bay of Bengal. The height and length of body are in the ratio of 1 : 7.6 in the smaller specimen and 1 : 17.2 in the larger specimen and that of the length of the head to the length of body is 1 : 7.6 in the

smaller specimen and 1: 12.9 in the larger specimen. The body measurements are given below :—

| | | |
|---|---|---|
| Total length | .. 5.3 mm. | 15.5 mm. |
| Standard length | .. 4.8 „ | 14.0 „ |
| Depth | .. 0.7 „ | 0.9 „ |
| Head | .. 0.7 „ | 1.2 „ |
| Eye-talk | .. 1.3 „ | 2.0 „ |
| Snout to intestinal exit | .. 3.2 „ | 8.8 „ |
| Intestine (protruding) | .. | 3.4 „ |

Both the specimens resemble the larva of *Idiacanthus fasciola* described by Brauer (1902 & 1908) and Beebe (1929) in having long body, serpentine in shape, with flat head, eyes on long immovable stems and in the absence of ventral fins. In the smaller specimen (Fig. 1) the fin rays are not discernible and the snout is spoon shaped. Teeth are absent. The protruding intestine could not be seen in this specimen. It appears that the protruding portion of the intestine was damaged and lost.

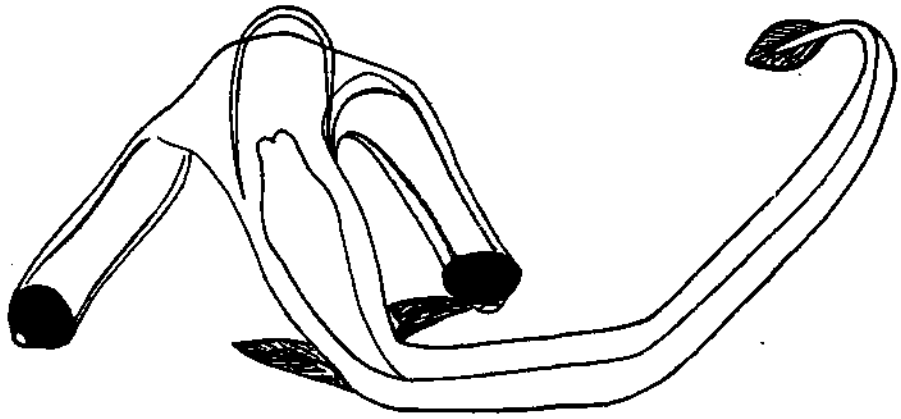

FIG. 1. Larva of *Idiacanthus fasciola* 5.3. mm.

The larger specimen is 15.5 mm. in length. The snout margin is rounded and is spoon shaped. Lower jaw is protruding and sharp teeth are present on jaws. The fins excepting the caudal are not fully developed and partly they are in the stage of development. Caudal fin is partly damaged and showed 16 rays. Two small rows of black pigment spots extend along the ventral margin and above them another row of pigment blotches are found from the gill slits to the caudal region along the mid-lateral line. Similar rows of black pigment blotches and photophores have been reported by Beebe also (1929).

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