

**Dolichorhynchus indicus, n. g., n. sp.**  
**A New Acraniate.**

By

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IN the collection of Polychæta made during the voyages of H.M.S. "Investigator," in the Indian Ocean, under the direction of Dr. Alcock, there is a tube containing several specimens of an *Amphioxus*, which on inspection has proved to be the type of a new sub-genus of the genus *Branchiostoma*.

Not one of the specimens appears to be in a condition of sexual maturity, in spite of the fact that the largest attains a length of 25.75 mm. The body is elongated, slender, laterally compressed, and tapering gradually towards the posterior end. There are seventy-one myotomes, and the formula is 42—14—15.

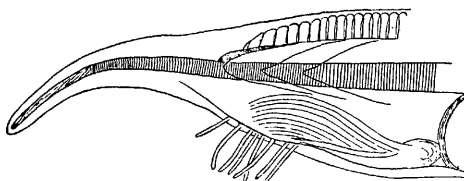
The feature which at once differentiates it from all other known forms of *Amphioxus* is the great length of the præoral lobe, close upon 2 mm. measured from the anterior termination of the neurochord, or equal in length to the first six myotomes (Fig. 1). The metapleural folds terminate symmetrically some distance behind the atriopore on either side of the ventral fin, a fact which denotes the systematic position of the species in the absence of data afforded by the gonads (Fig. 2). There are about forty-five ventral fin chambers behind the termination of the metapleural folds, and four or five in front of this point. In the specimen figured the tentacular cirri (buccal cirri) are mostly concealed within the vestibule of the mouth, but the ends of several are projecting from beneath the oral hood in front.

The dorsal fin is well marked, being about one fifth the

total height of the body. In the single specimen cut for the examination of the ventral fin rays they do not appear as paired structures, but as massive median expansions of the hyaline laminar tissue.

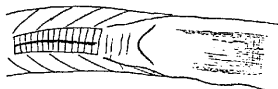
It will be noticed that the modification which characterises this species, namely, the prolongation of the notochord and cephalic fin in front, is of an exactly opposite nature to that

FIG. 1.



Anterior region of *D. indicus*, comprising the oral hood and præ-oral lobe from the left side. The anterior end of the neurochord with the eye-spot projects in front of the first myotome.

FIG. 2.



Region of the atriopore of *D. indicus* in ventral view, to show the symmetrical termination of the metapleural folds on either side of the ventral fin behind the v-shaped atriopore.

which distinguishes *Asymmetron*, where the notochord and caudal fin extend far behind the posterior limit of the myotomes.

Locality.—Off Black Pagoda, Orissa Coast; 11 fathoms; January 15th, 1889.

The following tabulation of the genera and sub-genera of *Amphioxus* will serve to show the systematic position of the new form.

Genus I.—*Branchiostoma*, Costa, 1834.

With biserial gonads.

Sub-genus 1.—*Amphioxus*, Yarrell, 1836.

Type, *A. lanceolatus* (Pallas).

Sub-genus 2.—*Dolichorhynchus*, n. g.

Type, *D. indicus*, n. sp.

Genus II.—*Heteropleuron*, Kirkaldy, 1895.

With uniserial gonads.

Sub-genus 1.—*Paramphioxus*, Haeckel, 1893 [in Semon's 'Forschungsreise,' Bd. i, p. xiii].

Type, *P. bassanus* (Günther).

Sub-genus 2.—*Epigonichthys*, W. Peters, 1876.

Type, *E. cultellus*, Peters.

Sub-genus 3.—*Asymmetron*, E. A. Andrews, 1893.

Type, *A. lucayanum*, Andrews.

Of the above sub-genera the three which are most peculiar in external form, namely, *Dolichorhynchus*, *Epigonichthys*, and *Asymmetron*, are monotypic if we consider *Asymmetron caudatum*, Willey, 1896, to be merely of subspecific rank, as would seem to be the case.