VI.—THE FAUNA OF BRACKISH PONDS AT PORT CANNING, LOWER BENGAL

PART VIII.—PRELIMINARY DESCRIPTION OF AN OLIGOCHÆTE WORM OF UNCERTAIN POSITION.

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The worm which forms the subject of the following notice was sent to me along with a colony of *Victorella pavida* (on which as well as on *Bowerbankia caudata* and *Loxosomatoides*, it lives) by Dr. Annandale, having been found by him in the brackish pools at Port Canning. The specimens were in a good state of preservation; but, with the exception of the general outlines of the alimentary canal, details of internal anatomy are scarcely to be recognised in preserved specimens; and the following description has mainly to do with the general external characters and the setæ.

The worms were whitish in colour, and measured (probably in a somewhat contracted condition) from 1·5 to 4·5 mm. in length; the average was from 3 to 4 mm. There is a well-marked prostomium, bluntly conical in shape; the anterior part of the body is somewhat swollen in an ovoid manner; then follows a short, slightly constricted region; after which the body, enlarging again, maintains a cylindrical shape to the posterior end. It is possible that in preserved specimens the anterior end appears more swollen than during life, since the setal bundles are placed closer together here; the anterior portion of the body having contracted more, probably, than the posterior. There are no eyes.

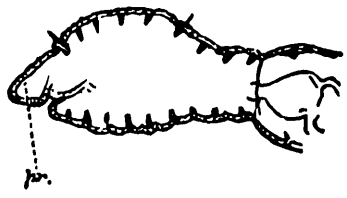

FIG. 1.—Side view of anterior part of body, showing the arrangement of the setal bundles of one side: *pr.*, prostomium.

The number of segments varies from about 20 to about 30. The posterior, regularly cylindrical part of the body is constituted by all the segments after the tenth, the anterior ovoid portion comprises the first eight or nine, and the constricted region

consists of the tenth and perhaps the ninth segment also. In the anterior part of the body the segments may be delimited on the ventral surface by a series of narrow, groove-like, transverse markings.

There are two dorsal and two ventral setal bundles in all segments from the second onwards. The setæ are of two kinds, hook-setæ and needle-setæ; the most anterior bundles, both dorsal and ventral, consisting of needle-setæ, the posterior of hook-setæ.

The needle-setæ are from ·08 to ·12 mm. in length, finely pointed, not bifid, the extreme point being slightly recurved. They are somewhat bayonet-shaped, and appear to be definitely strengthened or thickened along the convexity of the angle of their chief curve (v. text-fig. 2). They project from the body-wall for about half their length, that is, from the region of the angle; the angle looks forwards, and the distal pointed extremity backwards

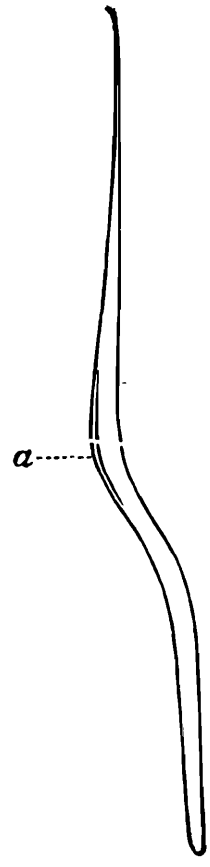

FIG. 2.

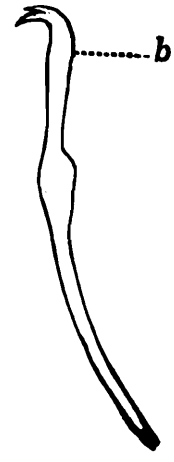

FIG. 3.

FIG. 2.—A needle-seta: *a.*, Apparent ridge-like thickening of needle-seta at its most prominent angle.

FIG. 3.—A hook-seta: *b.*, the slightly thicker part of the hook-seta, near its free end.

The hook-setæ are from ·033 to ·055 mm. in length. In the most anterior segments (vi—viii) in which they occur, they are longer (·05—·055 mm.) than is the case posteriorly (mostly ·035—·04 mm.). They are bifid at the free end; the proximal prong of the fork is considerably longer and stouter than the distal, and its axis is about at right angles to the shaft of the seta. There

is a nodulus at the junction of the middle and distal thirds of the shaft, and between the nodulus and the terminal hook the shaft is again slightly thickened. The proximal portion of the shaft shows a gentle curve in a direction the reverse of that of the hook, the whole being thus somewhat ∫-shaped (v. text-fig. 3). These setæ project very slightly from the surface of the body.

The dorsal bundles as far as the seventh segment are generally (or always, with perhaps the exception of the seventh itself) made up of needle-setæ alone; the eighth segment may bear dorsally either needles, or hooks, or both; the ninth and succeeding segments bear hooks only. The ventral bundles, as far as the fifth segment, have only needle-setæ; those of the sixth and seventh, needles, or hooks, or both; posterior to this the ventral bundles consist of hooks only. The needle-setæ, therefore, extend somewhat further back dorsally than ventrally.

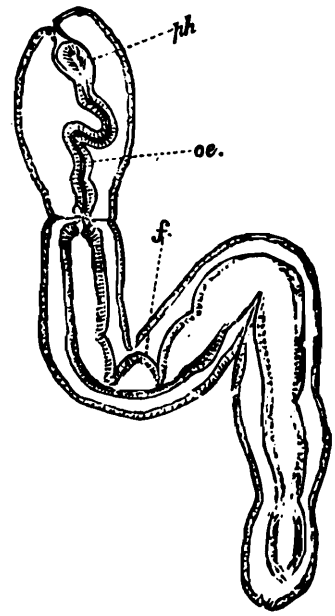

FIG. 4.—Showing the general shape and the outlines of the alimentary canal; the setæ are not shown: *f.*, black particles in intestinal wall; *œ.*, œsophagus; *ph.*, pharnyx.

The number of setæ in a bundle is three or four in the anterior and middle portions of the animal's length, diminishing to two or one at the posterior end.

The pharynx is a somewhat globular organ in the second and third segments; the œsophagus, a narrow tube with comparatively thick walls, forms in the preserved specimens a series of curves, passing through a stout septum behind the tenth segment (septum $\frac{10}{11}$), and widens abruptly into the intestine. This latter tube may be regularly dilated and constricted throughout a large part of its length, the constrictions being probably due to its passage through the septa. The epithelium shows within its component cells, through a large part of its extent, a number of fine black particles (text-fig. 4).

Although no signs of asexual reproduction have been seen in any of the specimens so far examined, the general appearance and structure of the worm would seem to indicate that it belongs to the Naididæ. The peculiar arrangement of setæ has not, so far as I know, been described in any form hitherto known; and I would therefore propose for its reception the creation of a new genus *Matla*, adopting for this purpose the native name of Port Canning, where the animal was found; as its specific name I would suggest *bengalensis*. Both these names I owe to the kindness of Dr. Annandale, who discovered the worm and gave me the opportunity of examining it.