

the tip in some of these has a hastate outline, from a constriction and then a dilatation. The dorsal bristles are similar. The ventral hooks, again (Pl. XXIV A. fig. 20), quite differ in the shape and denticulations of the crown, and in the general contour of the shoulder and shaft, from the previous species as well as *Nicomache lumbricalis*. About five distinct teeth and traces of a sixth occur above the great fang, so that the crown is peculiarly elongate. The shoulder is very distinctly marked.

Mud rich in Diatoms, minute spicules of sponges, the peculiar elongated cylindrical spicules with the pointed ends, and fragments of various kinds, occurred in the intestinal canal.

The body-wall of this species offers certain peculiarities. Thus while the cuticle and hypoderm have average development and the position and structure of the nerve-area are typical, the muscular coats are greatly diminished in bulk. The circular forms only a linear band round the body. The longitudinal ventral muscles are limited in area, and present a series of almost isolated fasciculi. The longitudinal dorsal also consist of a thin layer of similar fasciculi. The oblique muscles are well marked, and are fixed ventrally over the outer border of the nerve-area. The blood-vessels are of large size, and the perivisceral corpuscles have the usual mulberry-appearance.

*Nicomache (?) benthaliana* (Pl. XLVI. fig. 8 ; Pl. XXIV A. fig. 21).

*Habitat*.—Trawled at Station 241 (in the Pacific, west of Japan), June 23, 1875 ; lat. 35° 41' N., long. 157° 42' E. ; depth, 2300 fathoms ; bottom temperature 35°·1, surface temperature 69°·2 ; sea-bottom, red clay.

Only the funnel and a few adjoining segments are present.

The terminal cup or funnel is of a more delicate structure than usually seen, and shows twenty-two teeth of a lanceolate form, and arranged very closely. Moreover, grooves run between each, so that they possess a peculiar distinctness, especially as the funnel is semitranslucent. Three bristled segments exist in front of the funnel, besides the penultimate (if the space with an unarmed lateral eminence be such). In regard to the latter arrangement, therefore, the fragment approaches *Nicomache* rather than *Praxilla*, and the structure of the hooks (Pl. XXIV A. fig. 21) tends in the same direction. Five rapidly diminishing teeth occur above the great fang, only three, however, being distinctly seen, and the crown is comparatively little developed—a contrast to the condition in such as those of *Nicomache japonica* in fig. 20 of the same plate. The fibres (vibrissæ) arise a very short distance below the great fang, and there is a comparatively slight constriction above the shoulder. Indications of a lateral series of teeth appear at the bases of the larger fangs. The hooks are decidedly larger than in *Praxilla*.

The funnel approaches that of *Praxilla* rather than that of *Axiothea*.