

by an interval from the first and last. The latter, however, may be accidental. The first lateral plate is almost wedge-shaped, and ends in a sharp tooth. The second forms a much larger quadrangular area, with a single tooth next the foregoing. Instead of a separate accessory plate, so generally present posteriorly, a process of this anterior plate (occupying a similar position) represents it. The curved bar running backward to the maxilla is comparatively short on one side, longer on the other (left). The size and shape of the anterior lateral plate is characteristic on viewing the dental apparatus from above. The ventral dentary surface of the mandibles (Fig. 18) is crescentic, but the median fissure is very distinct, and the union of the limbs somewhat lax. Two prominent teeth occur on the anterior margin on each side of the middle line, besides an elevated ridge externally. The black pigment below the latter sends off broad touches which proceed a short distance backward, and rather wide parallel veins which meet those of the opposite side.

About the tenth foot the posterior lobe is much more pointed superiorly in the abyssal species, and the winged bristles much longer and more slender, as well as devoid of the deep tinge seen in the shafts of those of *Lumbriconereis fragilis*. The spines in *Lumbriconereis abyssorum* are also pale. At the thirtieth foot the bristles and spines show the same differences, but as the specimen has lost its hooks, a minute comparison cannot be made.

The posterior hooks (Pl. XVIII. fig. 10) differ from those of *Lumbriconereis fragilis* (from the same region) in having a smaller and more elongated tip with a less pronounced curve and less distinct serrations on the crown.

The posterior end is in process of regeneration.

In section of the body-wall the nerve-area is comparatively large and sessile, and the ventral longitudinal muscles do not so closely surround and even surmount it laterally as in the typical form. No neural canal is visible in the preparation, but the condition of the latter perhaps gives a margin for doubt in regard to minute structure.

It is uncertain whether the *Lumbriconereis brasiliensis* of Grube,¹ from the Atlantic, off Rio Janeiro, is closely connected with this species, though it has four teeth in the great dental plates. It differs also in having two eyes. The foot of *Lumbriconereis abyssorum* somewhat resembles Schmarda's *Lumbriconereis (Aracoda) heterochæta*,² but the dental armature shows considerable differences behind the maxillæ. This was also procured off Valparaiso. The *Lumbriconereis atlantica* of Kinberg,³ from the Atlantic, off the mouth of the River Plate, which has four teeth in the great dental plates, differs from the present form in the structure of the head.

¹ Annul. CErstediana, 1857 (sep. Abd.), p. 2.

² Neue wirbell. Thiere, I. ii. p. 116.

³ Öfversigt k. Vetensk.-Akad. Förhandl., 1864, No. 10, p. 568. Reference is given to pl. xix. in the Voyage of the "Eugenie." The most complete copy I have been able to secure wants pls. xix. to xxvi.