

already stated in 1861,<sup>1</sup> these fishes will, no doubt, have to be placed in a distinct order; but it would be premature to establish this order before its characters can be defined from a detailed examination of several of the species.

### *Notacanthus*, Bloch.

Body elongate, terminating in a band-like, tapering tail. A dorsal fin is represented by a series of short spines, entirely, or very nearly replacing the soft rays. The whole of the tail is fringed by an anal fin, the anterior elements of which are transformed into spines. Ventrals abdominal, with more than five soft rays. Snout protruding beyond the mouth, which is inferior, shark-like. Palatine bones movable; armed with a series of closely-set teeth like the jaws. Shoulder-girdle loosely suspended from the skull by ligaments. Air-bladder present, without open pneumatic duct. Gills four; pseudobranchiæ absent. Ovaries without oviducts.

This genus may be divided thus:—

*a.* Dorsal spines in small number (six to eleven); teeth in the upper jaw compressed, obliquely triangular:—*Notacanthus*.

*β.* Dorsal spines more than thirty; teeth in the upper jaw but little compressed, and erect:—*Polyacanthonotus*.<sup>2</sup>

#### *a. Notacanthus.*

*Notacanthus sexspinis* ((Pl. LX. figs. 9–15; Pl. LXI. fig. A).

*Notacanthus sexspinis*, Richards, Voy. Ereb. and Ter., Fish., p. 54, pl. xxxii. figs. 4–11.

B. 9. D. 6–8 | 1. A. 13–15 | 160. P. 12. V. 7–8. Cæc. pyl. 5.

Gill-membranes united across the isthmus, emarginate in the middle. Teeth in single series, twenty-eight on each intermaxillary. Ventral fins completely united.

The body is compressed, terminating in a band-shaped tapering tail, the length of which is a little variable. The vent is placed at a distance from the head, equal to one and two-thirds or twice the length of the latter. Head rather narrow and compressed, its depth being one-half or less than one-half of its length; it is produced into an obtusely pointed snout, supported by the narrow rostral cartilage, on each side of which are subcutaneous cavities, filled with a large quantity of mucus. The eye, which is covered by a semitransparent skin and lacks an orbital fold, is one-sixth the length of the head, and occupies a position in the middle of the depth of the head and in the anterior half of its length. Nostril in front of the upper margin of the eye with two openings, which are close together, situated in a common depression. The projection of the snout is

<sup>1</sup> Fish., vol. iii. p. 544.

<sup>2</sup> This name was first proposed by Bleeker, though on insufficient grounds.