

opercular process, a more rapid slope occurs all round, so that the upper part forms a short cone with the base at the operculum, and its apex inferiorly abuts on a dilated region, which sometimes shows three prominent folds, while the distal end of the peduncle is specially narrowed immediately beneath. Both divisions are more delicate or membranous than in *Placostegus tridentatus*. A small example presents a variation in the structure of the operculum, for a second small horny plate is mounted on an inverted cone above the usual one (which is flexible), and the three membranous folds inferiorly are absent. A slight enlargement also exists at the distal end of the peduncle.

The collar is prolonged into remarkable membranous processes. Dorsally a long lanceolate appendage occurs on each side of the middle line, a very long process on the left side extends about three-fourths the length of the branchiæ, and the collar on the right is split into several shorter processes. A forked appendage exists ventrally on each side of the middle line. This lacinate condition of the collar is peculiar.

The anterior bristles (Pl. XXIXA. fig. 29) are pale yellow, and resemble those of *Placostegus tridentatus*, the tip being finely tapered, slightly curved backward, and supplied with distinct wings.

The anterior hooks (Pl. XXIXA. fig. 30¹) are very numerous, and consist of thin plates with a thickened outer edge, very minutely serrated, and having inferiorly a longer spine, the homologue of the great fang. The fineness of the serrations along the thickened edge is probably in relation with the very dense and smooth tube. The hooks, moreover, seem to possess greater flexibility than usual. The posterior uncine do not materially differ, though the crown appears to be more rounded.

The food of this form consists of fine mud containing a few minute Foraminifera, sponge-spicules, and Coccoliths. Only traces of Diatoms occur.

The tube is glassy, somewhat triangular, with a dorsal and two lateral ridges, each terminating in a spine anteriorly. Moreover, several have, at the elevated anterior part of the tube, one or two prominent spines on the dorsal and lateral ridges. The tube is attached by the flattened lower surface to various submarine bodies, such as tests of Echinoderms, the anterior end, as a rule, being elevated. In well-marked specimens the dorsal ridge forms a spinous crest, with the points directed forward. The lateral ridges possess a similar though less developed armature. In minute examples these spines are more regular and beautiful, and they are quite visible on young specimens about the diameter of a hair. They are attached to the tubes of the older forms. Some of the tubes show peculiar lines, apparently due to a borer or other parasite.

Attached to a piece of a spatangoid test is a fragment of an opaque tube having six ridges superiorly, the three middle spinose.

A special feature in transverse sections of the anterior region is the great extent of the rows of hooks. The longitudinal dorsal muscles meet in the middle

The engraver has not executed his task correctly along the serrated edge.