

This specimen diverges in certain respects from either of the preceding.

The branchiæ appear to be similar, but the pinnæ are decidedly longer, if the preparation is to be relied on. The tips of the radioles have smooth filiform processes. The operculum somewhat resembles that of *Placostegus benthalianus*, though the surface is less scooped in the example. Moreover, it is borne on one of the branchial radioles, which is specially strengthened for its support, while clothed with pinnæ up to the terminal dilatation below the opercular region proper. Another branchial radiole is somewhat thickened, and bears at the tip a clavate process, representing a rudimentary opercular development.

The cephalic collar is incomplete, but a large rounded flap occurs on each dorso-lateral region.

Most of the thoracic bristles are absent. In one tuft (apparently the second) two groups are present, viz., a series of slender tapering bristles, probably the dorsal, and another group of stouter bristles (Pl. XXXA. fig. 29), with peculiar tips, a distinct shoulder occurring below a concavity or "bite." The former probably indicates the distal end of the shaft. When viewed antero-posteriorly an enlargement is also very evident at the upper end of the shaft, showing that it is thickened all round.

The anterior hooks (Pl. XXXA. fig. 30) approach the foregoing forms in outline, but differ in possessing five teeth above the great fang, in having a sharper angle at the inflection of the dorsal line, and in possessing a proportionally wider base than either *Placostegus ornatus* or *Placostegus benthalianus*.

The tube is not pentagonal, but from the presence of a deep groove on each side has rather a quadrangular appearance in transverse section, though the dorsal line is rounded (convex). It is somewhat wrinkled, but is devoid of the bold transverse ridges of *Placostegus ornatus* or the longitudinal toothed eminence of *Placostegus benthalianus*.

*Placostegus assimilis*, n. sp. (Pl. LV. fig. 9; Pl. XXIXA. figs. 29, 30).

*Habitat.*—Dredged at Station 33 (off the Bermudas), April 4, 1873; lat. 32° 21' N., long. 64° 35' W.; depth, 435 fathoms; surface temperature, 68°·0; sea-bottom, coral mud.

The specimen is about the same size as the British *Placostegus tridentatus*, J. C. Fabricius.

The branchiæ appear to agree in form with those of *Placostegus tridentatus*, but they are longer. They also have a smooth filiform tip. The opercular region, however, differs very considerably in shape. The dull yellowish operculum proper is less concave, though of similar thickness and having the same brownish rim. Instead of the simple clavate