## Subgenus Optonurus.

## Macrurus denticulatus.

Macrurus denticulatus, Rich., Voy. Ereb. and Terr., Fish., p. 53, pl. xxxii. figs. 1-3. Coryphænoides denticulatus, Günth., Fish., vol. iv. p. 396.

Hutton, Fish. New. Zeal., p. 49, No. 80.

D. 13. P. 17. V. 9.

Head compressed, with the sides vertical; snout short, convex, but not overlapping the mouth, which has the jaws equal, is anterior and lateral, and extends backwards to below the middle of the eye. The intermaxillary is but little shorter than the maxillary. Eye very large, more than one-third of the length of the head, longer than the snout and much wider than the flat interorbital space. Teeth of the upper jaw in a villiform band, with an outer series of much larger teeth. Lower jaw with a single series of widely-set teeth on the sides; near the symphysis the teeth are more crowded, small, and of equal size. Barbel very short.

Scales of moderate size, densely covered with minute spinelets, which are directed backwards; there are six series between the dorsal fin and the lateral line; snout and the greater portion of the side of the head scaleless. Anterior dorsal spine smooth; pectoral fin as long as the head without snout; outer ventral ray not produced. The lower margin of the præoperculum is membranaceous and finely denticulated. Distance between the vent and isthmus rather more than the length of the head.

Greenish; sides silvery, lower parts of the head and abdomen black.

The slit between the outer branchial arch and the wall of the gill-cavity is much narrowed by a membrane attached to both ends of the arch; it is only about twice as wide as the slit behind the fourth arch. The gill-laminæ are short, separated from one another. Gill-rakers in a double series; those of the anterior series of the first arch are small tubercles, fourteen in number, those of the posterior series longer, and beset with fine bristles.

The specimens obtained by the Expedition are all of very small size and still destitute of scales, but the British Museum has received several examples from the Colonial Museum at Wellington, which are probably adult; they are 15 inches long and came from Cook's Straits. Hutton says that this fish is thrown up in immense quantities after heavy gales.

Habitat.—Off New Zealand, Station 166; depth, 275 fathoms. One specimen, 4½ inches long.

The Kermadec Islands, Station 170; depth, 520 fathoms. Five specimens, 3 to  $4\frac{1}{2}$  inches long.