

*Habitat.*—Near the Kermadec Islands, Stations 170, 170A; depths, 520 and 630 fathoms. Two specimens, 13 inches long.

The form of the body of this singular type of fishes is somewhat elongate, moderately compressed; its greatest depth is below the origin of the dorsal fin and equals one-sixth of the total length, without caudal. The head is broad, composed of solid bones, about as deep as wide, and terminates in a long, depressed, wedge-shaped snout. The eye is minute, two-thirds as distant from the extremity of the snout as from the hind margin of the gill-cover. Interorbital space very broad, osseous, convex, with a width equal to the length of the snout.

The bones composing the jaws are very powerful and firm, thus compensating for the weakness of the dentition, which consists merely of a narrow band of villiform asperities in the jaws and of a similar patch on each side of the vomer. The intermaxillary alone is toothed, styliform, tapering and closely fitting into the front margin of the maxillary; the latter is toothless, about half as long as the head, and its hinder portion, which extends beyond the intermaxillary, is dilated into a broad and oblong lamella. When the mouth is closed, the maxillary occupies a horizontal position in about the middle of the depth of the head, and extends beyond the middle of its length. The lower jaw is extremely broad, its halves touching each other below, when the mouth is shut. Its symphyseal portion forms a strong and large projection.

Branchial apertures very wide, extending forwards to the end of the isthmus, the gill-cover remaining entirely free. There are four gills with well-developed gill-laminæ. All the branchial arches are provided with gill-rakers, but those of the outer arch are the longest and those of the inner the shortest. The outer arch has thirty gill-rakers in its lower branch and twelve in its upper; they are slender, needle-shaped, the longest about one-fourth of the length of the head.

The dorsal fin occupies exactly the middle between the extremity of the upper jaw and the root of the caudal fin; it is much higher in front than behind, the anterior rays being rather higher than the body underneath. Adipose fin narrow, nearly midway between the dorsal and caudal. Anal fin opposite to the space between the dorsal and adipose. Caudal fin emarginate. Pectoral fin lateral, placed in the middle of the height of the trunk, and composed of exceedingly elongate and simple rays, which are quite free, not connected by membrane; the longest reach to the end of the anal fin. An exceedingly long and compressed ray is detached from the fin and articulated at the upper end of the clavicle, opposite to the upper margin of the gill-cover. It extends far beyond the caudal fin and is bifid in its posterior half; it is accompanied below by two other rays, which are much shorter and connected by a membrane with the long ray. By a separate set of muscles (Pl. XLVIII. fig. B') it can be moved outwards or upwards (*c*) so as to form nearly a right angle with the longitudinal axis of