

The form of the body of this extremely interesting type is compressed and elongate, in fact it simulates in some respects the Stomiid type. The depth of its body is nearly uniform between the head and vent, and contained six and a half times in the total length (without caudal); the length of the head, which is compressed and much longer than deep, five times and one-third. The length of the upper surface of the head only half the length of its side; snout extremely short and obtuse, with its anterior profile parabolic. Mouth small, provided with extremely small teeth on the intermaxillary and on the anterior portion of the mandible. The maxillary is short, broad, very thin, extending somewhat beyond the anterior margin of the eye. Eye well developed, immediately below the upper profile, wider than the interorbital space, and two-ninths of the length of the head; it is much longer than the snout.

The gill-opening is closed above, and begins from opposite the root of the pectoral fin. Branchiostegals slender, six in number. Four gills, with well-developed laminae; gill-rakers rather long, stout, lanceolate, twenty-five on the outer branchial arch. The opercles and branchiostegals are enveloped in a common thick skin, so as to be indistinguishable without dissection.

Vent midway between the roots of the caudal and pectoral. The dorsal fin commences immediately above, and the anal behind the vent; both fins low, coterminous; peduncle of the tail not quite twice as long as deep. The caudal fin is deeply forked, each lobe produced into a short filament; the upper and lower rudimentary rays are numerous and extend forwards for more than one-half of the length of the peduncle. Pectoral fin inserted low down the sides, with a very narrow base, rather pointed behind, and three-fifths of the length of the head. The ventral fins are likewise narrow, half as long as the head and extending to the vent.

The skin is tough and leathery, finely wrinkled longitudinally, with minute scale-like productions irregularly scattered over the body. The lateral line is a broad continuous straight canal, which arises close behind the eye and runs along the middle of the body and tail. Very small raised nodules¹ with whitish centre are distributed over the body. They are arranged in subquincuncial order, and even extend on to the rays of all the fins except the caudal. On the head they form series, one series following the infraorbital ring, two others the lower limb of the præoperculum, and the fourth the margin of the gill-opening. I consider these organs to possess luminous properties.

Fig. *c* on Pl. LVIII. represents a piece of skin slightly magnified, with four luminous nodules and a number of minute scattered scales.

¹ Their histological structure will be described in Appendix B.