

larger specimen, but it would appear as if the greater part of the trunk had been scaleless. At any rate, no trace of the existence of scales is visible on such parts of the trunk of the smaller specimen as have the skin preserved. The coloration was uniform black.

The luminous organs are apparently less developed than in *Gonostoma denudatum*, but their arrangement is essentially the same. Two rows run near to the lower edge of the abdomen; the lowermost series containing four in front of the pectoral, ten between pectoral and ventral, four between ventral and vent, and twenty-two between the vent and caudal fin. The upper abdominal series is composed of twelve organs, but does not extend to the tail. A short series of oblong glandular masses occupies the root of the upper and lower rudimentary caudal rays. Another similar mass is imbedded behind the upper portion of the maxillary bone. A luminous organ also occupies the root of each of the branchiostegals, as in *Gonostoma denudatum*, but none of the opercular organs are preserved, if they were present at all.

Gonostoma gracile (Pl. XLV. fig. C).

Gonostoma gracile, Günth., Ann. and Mag. Nat. Hist., 1878, vol. ii. p. 187.

D. 10. A. 26. P. 11. V. 6.

Apparently scaleless. The cheek is not entirely covered by the infraorbital. The larger teeth in the upper jaw rather numerous. The height of the body is one-ninth of the total length, the length of the head one-fifth. Tail very slender and narrow. Adipose fin absent.

Habitat.—South of Japan, Station 232; depth 345 fathoms. One specimen, $4\frac{3}{4}$ inches long.

South of Japan, Station 230; depth 2425 fathoms. One specimen, $2\frac{1}{2}$ inches long.

The height of the body is one-ninth of the total length, without caudal, the length of the head one-fifth. Vent midway between the root of the caudal and the end of the snout. Eye rather small, two-thirds of the length of the snout, about one-seventh of the length of the head, and but little narrower than the width of the interorbital space. Cleft of the mouth exceedingly wide, the maxillary extending to the posterior angle of the præoperculum; lower jaw very prominent in front. The maxillary is armed with about thirteen larger teeth, which are not very remote from each other, the interspaces being occupied with small teeth. Intermaxillary with two or three, mandible with about eleven larger teeth, the latter being much smaller than those of the upper jaw. The infraorbital bone is dilated into a very thin lamella, which extends backwards along the upper half of the maxillary, and leaves the greater portion of the cheek uncovered. Gill apparatus as in *Gonostoma elongatum*; branchiostegals ten.