

Genus *Lophogorgia*, Milne-Edwards.

Lophogorgia, Milne-Edwards, Hist. Nat. des Coralliaires, vol. i. p. 167.

Gorgonia, Kölliker (*pars*), Icones Histiol., p. 139.

Leptogorgia, Verrill (*pars*), Amer. Journ. Sci. and Arts, vol. xlvi. p. 425.

This genus was formed by Milne-Edwards for *Gorgonia palma*, Esper non Pallas, the *Gorgonia flammaea*, Ellis and Solander; it must not be confounded with *Gorgonia palma*, Pallas, which is a Euniceid, near *Eunicella*, Verrill. We are not able to follow Kölliker's plan of sinking this and other genera under the common denomination of *Gorgonia*, and we venture to differ from Verrill, who places *Lophogorgia* as a section of the emended genus *Leptogorgia*.

Lophogorgia is here retained for those Gorgonids with more or less flattened stems and branches, these latter spreading in nearly the one plane and sometimes being cylindrical at their growing tips. The polyps are retractile within the coenenchyma, without verrucæ. The larger nutrient canals are on the flattened portions of the stem to be found on the flattened surfaces, though in the cylindrical twigs they are symmetrical.

The genus would come next to *Leptogorgia*.

Lophogorgia lutkeni, n. sp. (Pl. XXX. figs. 1, 1 α ; Pl. XXXIV. fig. 1).

Colony attached by a disc-like base; branched, branches arising in the one plane. Axis horny, flexible and compressed. The branches, which are also somewhat compressed, are given off at irregular intervals, sometimes continuing simple, at other times once again branching. Height of the colony 240 mm., the widest diameter of the main stem is 3 mm., and the principal branches have the same diameter. The main stem and branches are marked on both surfaces with an irregular wavy line.

The coenenchyma is moderately thick, granular, containing numerous warty double spindles.

The polyps are numerous and occur on both the stem and branches; the verrucæ are very slightly elevated. The central portion of both the main stem and the branches on both surfaces are destitute of polyps. The polyps are completely retractile. The tentacles are well furnished on their dorsal surfaces with slender needle-shaped spicules. When the polyps are completely withdrawn, the verrucæ present the appearance of oblong slits, but there is a considerable difference in their size, the long diameter varying from 1.5 to 2.5 mm. The spicules of the coenenchyma are warty spindles, measuring 0.2-0.04; 0.3-0.02; 0.34-0.02; 0.2-0.025; those of the tentacles are needle-shaped, feebly spined, sometimes curved, and measure 0.3-0.02; 0.12-0.02; 0.22-0.02; 0.16-0.04 mm.

The colour in spirit is a dull yellowish-red.

Habitat.—Station 145A, off Prince Edward Island; depth, 310 fathoms.