

Stichopathes ? *lütkeni*, n. sp. (Pl. XII. figs. 28, 28a).

Cirripathes filiformis, n. sp., Lütken, MS.

Stem about 80 cm. long, slightly tapering; diameter 2 mm. at base, 0.7 mm. at apex. The lower portion of the stem is nearly straight, the upper is flexed and twisted into three irregular open spirals, the terminal ones being 7 cm. in diameter. This species bears a general resemblance to *Stichopathes filiformis* (Gray), and in the subspiral growth of the stem is intermediate between that form and the truly spiral species, such as *Stichopathes pourtalesi*, n. sp., and *Cirripathes spiralis* (Linn.). It is probable that the amount of flexure, &c., may vary in different specimens. This species is, however, readily distinguished by an examination of the spines, which are slightly but distinctly papillose, a character not found in any other species of this or the preceding genus hitherto described. The spines, as in *Cirripathes spiralis* and some other species, are longer on one side of the axis than on the other. The short spines are triangular, somewhat compressed, and have a sharp apex; the longer ones are conical, only slightly tapering and have a blunt apex. Each is covered for almost its whole length with fine granular papillæ. The spines are arranged in irregular spirals and also in longitudinal rows, eight of which are visible from one aspect in the portion figured (Pl. XII. figs. 28, 28a). In the lower part of the stem the spines are arranged in longitudinal rows, which turn very gradually round the stem. They are here short and triangular, and apparently subequal. The polyps have not been observed.

Habitat.—West Indies. The type is in the Zoological Museum of the University of Copenhagen.

Section II. RAMOSÆ, corallum branched.

Genus *Leiopathes* (Gray), M.-Edw. and Haime, *emend*.

Antipathes (pars), Esper, Pflanzenth.; Lamarck, Hist. nat. anim. sans vert., t. ii.; Dana, Zooph.; Gray, Proc. Zool. Soc. Lond., 1832, p. 41; Duch. and Mich., Mem. Acad. Torino, ser. 2., t. xxiii.; Pourtalès, Cat. Corals Harvard Mus., No. iv., 1871; Bull. Mus. Comp. Zool., 1880.

Leiopathes (pars), Gray, Synop. Brit. Mus., 1842, p. 135; M.-Edw. and Haime, Brit. Foss. Corals, Introd., p. lxxiii.; Archives d. Mus. Paris, t. v., 1851, p. 176; Gray, Proc. Zool. Soc. Lond., 1857, p. 289; M.-Edw., Coralliaires, t. i., 1857, p. 322.

The polyps possess three pairs of primary mesenteries and three pairs of secondary ones. One pair of secondary mesenteries is very short, and none of them extend into the lower section of the cœlenteron. The sagittal tentacles are usually longer and thicker than the other four. The corallum is dendriform, and the ultimate branchlets are always very slender. The spines are very short and never very numerous. They