

may be absent altogether from the older portions of the corallum, which is then smooth and polished.

This genus differs from all other known Antipathidæ in possessing twelve instead of ten mesenteries, as well as in several other points. Gray's name has been retained for it on the presumption that *Antipathes glaberrima* (Esper), formed the type of his genus, which, as already stated, is uncertain. The other species, included by Milne-Edwards and Gray in the same genus, have no place in it as now modified. A discussion of their probable position will be found in the first section of this Report. The name *Leiopathes* was first suggested by Gray, but the first definition of the genus is due to Milne-Edwards and Haime.

The arrangement of *Antipathes lenta*, Pourt., under this genus is only provisional, as I have not had an opportunity of examining the polyps. Judging from the description and figures given by Pourtalès it appears more closely allied to *Leiopathes glaberrima* (Esper), than to any other species of Antipathidæ with which I am acquainted.

*Leiopathes glaberrima* (Esper), M.-Edw. (Pl. IV. figs. 8, 9; Pl. XII. figs. 21, 22; Pl. XV. figs. 3-5).

*Antipathes glaberrima*, Esper, Pflanzenth., pt. ii. p. 160, pl. 9; Lamk., Hist. nat. anim. sans vert., t. ii. p. 306; Dana, Zooph., p. 585; Pourtalès, Bull. Mus. Comp. Zoöl., 1880, p. 118, fig. 2.

*Antipathes dichotoma*, Gray (*non* Pallas), Proc. Zool. Soc. Lond., 1832, p. 41.

? *Leiopathes glaberrima*, Gray, Synop. Brit. Mus., 1842, p. 135; M.-Edw. and Haime, Distrib. méthod. (Monogr. d. polypiers foss. d. terr. palæoz.), Archives d. Mus. Paris, t. v., 1851, p. 176; Gray, Proc. Zool. Soc. Lond., 1857, p. 290.

*Leiopathes glaberrima* (Esper), M.-Edw., Coralliaires, t. i. p. 322.

? *Antipathes dissecta*, Duch. and Mich., Mem. Acad. Torino, ser. 2, t. xxiii., p. 142.

*Antipathes dissecta* (Duch. and Mich.), Pourtalès, Cat. Corals Harvard Mus., No. iv., 1871, p. 53.

Corallum large, irregularly branched, with long crooked branches of more or less elliptical section. At other times the growth is more regular, giving a dendritic form not unlike a flattened ash. The main stem is 2 or 2.5 cm. in diameter, jet black and polished; the branches gradually taper, and all have the same polished smooth appearance as the stem. The ultimate branchlets are slender, laxly pinnate, pale brown in colour, and covered with short distant spines (Pl. XII. figs. 21, 22). Height of the corallum 1 m. or more. There is a fine specimen of this species in the British Museum.

I am indebted to Dr. Dohrn, of the Naples Zoological Station, for a few terminal twigs of this species, on which the polyps are well preserved. The specimens had been killed in osmic acid, so that the ectoderm is black. In portions not affected by the acid the colour in spirit is a dirty yellow. The mode of branching near the apex of the corallum is lax and irregular, the ultimate pinnules being usually at right angles to the branchlet from which they arise. One fragment 5.5 cm. long bears eight branchlets,