

Pourtalès in his earlier notices referred this form to *Cirripathes Desbonni*, D. & M., but in 1880 he described both forms, which are very distinct. This, the spiral species, he referred to *Antipathes spiralis*, Pallas, suspecting, however, that it might differ, but having no means of comparison at the time. Both forms have a spiral habit, but this of Pourtalès has, in proportion to its length, a much more slender axis. It further seems very probable that in the spiral species, *Antipathes spiralis*, Pallas, the polyps are distributed spirally around the stem, in which case it comes under the genus *Cirripathes*, as modified in the present Memoir.

*Habitat*.—Off Sand Key, Florida, 45 fathoms. Very common, occurring at twenty-three stations and at depths from 45 to 878 fathoms, off Havana, Santa Cruz, Montserrat, Martinique, St. Vincent, the Grenadines, Granada, and Barbadoes.

*Stichopathes gracilis* (Gray) (Pl. XII. figs. 17–19).

*Antipathes (Cirripathes) gracilis*, Gray, Proc. Zool. Soc. Lond., 1857, p. 291.

? *Antipathes (Cirripathes) setacea*, Gray, Ann. and Mag. Nat. Hist., ser. 3, vol. vi. p. 311.

Gray's description of this species, consisting only of the words "slender, tapering, slightly spinose," is of no value whatever in the identification of the species. The specimen to which he referred is in the British Museum, its identity being made certain by the reference, "Madeira, Mason, 1857," on the label. This specimen appears to have been broken in two. The lower portion bearing the label, though not actually possessing the dilated base of attachment, is probably the lower part of the stem, being covered for three or four inches near the base by parasitic growths, and having a number of bivalve molluscs attached to the axis. This portion is contorted, not spiral, and is 75 cm. long, slightly tapering, and having a diameter of 2.5 mm. near the base. Another specimen, without label, which I take to be the upper portion of the type specimen, has the same wavy outline, and is 1.1 m. long. The diameter of the lower portion of this specimen agrees with that of the apex of the type. The diameter at the apex is only 0.45 mm., and if my surmise be correct, the whole specimen must have measured nearly 2 m. in length.

A more recent specimen (1863) from the same locality is nearly straight, 1.3 m. long, 3 mm. in diameter at the base, and 1.4 mm. at the apex. This specimen has the dilated base attached to a mass of broken shells, &c. In the lower portion of the stem the spines are arranged in seven rows, running almost longitudinally, but twisted in a very open spiral, which requires over three inches to complete one revolution of the axis. Still another specimen of this species is found in the British Museum Collection (Reg. No. 72.6.22.3), but whether regarded by Gray as a specimen of this species or of his *Antipathes setacea*, I am unable to say. (I have been unable to find Gray's type of *Cirripathes setacea*, which was described in 1860, from Madeira—the same locality as that in