

bearing lateral and subvertical pinnules in the usual way, their size depending on the size of the branchlet. The pinnules vary from 1·3 to 3·8 cm. in length, but most come nearer the shorter dimension. It is usually (always?) certain of the lateral pinnules which develop into smaller branchlets, and these may be 1·2 to 2·5 cm. apart. The four series of pinnules are often tilted obliquely to one side.

The arrangement of the pinnules in four series brings this form near to *Aphanipathes alata*, but the two are really very different. In this form the branches, branchlets, and pinnules are all slender, and the pinnules are relatively far apart, the smaller lateral branchlets breaking the lax plumose effect which might otherwise be obtained. In *Aphanipathes alata* the lateral pinnules are closely set like the pinnules of a feather, and the whole four series are much more distinct. The two forms differ also in the arrangement of the spines. Here they are relatively large, subconical, and distant, being arranged in irregular open and steep sinistrorse spirals. They are also arranged in longitudinal rows, four of which may be counted from one aspect of a pinnule. The members of a row are from three to four lengths apart (Pl. XII. fig. 2). This species seems more closely related to *Parantipathes hirta* (Gray), but is much more lax in its growth, and the pinnules are longer and more definitely arranged in rows. Its precise position cannot be decided until the polyps have been studied.

*Habitat.*—Japan (Anderson), Brit. Mus.

*Antipathella ? tristis* (Duch.).

*Rhipidipathes tristis*, Duchassaing, Rev. d. Zooph. et d. Spongiaires d. Antilles, Paris, 1870, pp. 23, 24.

*Antipathes tristis*, Pourtalès, Bull. Mus. Comp. Zoöl., vol. vi. p. 115, pl. iii. fig. 10.

“Humilis, delicatula, 3 pollicaris, flabellatim expansa; ramis tenuibus, capillaribus, tenuissime (oculo armato) hirsutis, reticulatim anastomosantibus, nec nodoso-strangulatis” (Duchassaing, *op. cit.*, p. 23).

Portalès obtained several specimens of this delicate species from 3 to 4 inches high. He remarks that the branches are very slender, and anastomoses not plentiful; they are more properly defined as adherences. The spines are sharp, triangular, and arranged in irregular dextrorse (?) spirals (*cf.* Pourt., 71, pl. iii. fig. 10). Polyps small, with short digitiform tentacles and moderately prominent mouth; the two lower tentacles are sometimes laid around the mouth, as in *Stichopathes pourtalesi*.

*Habitat.*—Guadeloupe, 200 feet (Duchassaing). Ranges from 45 to 226 fathoms in eight stations off Santa Cruz, Montserrat, Martinique, St. Lucia, and Barbadoes (Portalès).