

more numerous. In the form of the axis and character of the spines, this species comes nearest to *Cirripathes anguina*, Dana, from which, however, it differs, in having shorter and more numerous unequal spines, arranged in irregular longitudinal rows. The sclerenchyma is about 1.4 mm. thick, black and shining, the diameter of the central canal being slightly less than one-third of that of the axis. I have not noticed the nodes in the axis, mentioned by Dana as occurring at irregular intervals in *Cirripathes anguina*, but as this specimen had the polyps well preserved all over the axis, it did not seem advisable to disturb them any more than actually necessary. The polyps (in spirit) are dull black, rounded in outline, and stand out prominently from the cœnenchyma, which is relatively thin and pale. The polyps are a little irregular in size, and average about 1.5 mm. in diameter. About five are distributed to each centimetre in the length of the axis, but not quite in a straight line. The height of the polyps from the cœnenchyma to the tip of the tentacles is usually about 1.7 mm. The polyps are distributed somewhat spirally, but the arrangement is irregular. The mouth is situated on a prominent oral cone, which is constricted at the base, where it joins the general surface of the peristome. In specimens preserved with the mouth open, the outline presents ten crenations due to an evolution of the stomodæum, but at first sight appearing like ten stunted circumoral tentacles. The crenations correspond with the ten inter-septal chambers which are continued into them. The tentacles are short, thick, and rapidly tapering, and are frequently laid around the mouth in spirit specimens (Pl. X. figs. 9 and 12).

This being the only species of the genus of which I have been enabled to examine sections, it may be well to add a few words concerning the structure of the cœnenchyma. In most Antipathidæ the polyps are normally distributed along the branches in a single linear series, in which case neighbouring polyps are brought into communication with one another by two stolon-like outgrowths of their cœlentera occupying the transverse axis of the polyps. In this genus the polyps are distributed all around the stem, and the cœnenchyma is, consequently, not so important, consisting only of interzooidal areas which correspond with that portion of the cœnenchyma in other forms occupying the zooidal surface of the stem or branch. The interzooidal communication is also apparently brought about in a different manner. The cœnenchyma contains a number of irregular canals, collected into groups in the interzooidal areas, which take a general direction at right angles to the axis of the stem. These communicate with the base of each polyp at one or more points (Pl. X. fig. 13). Thus the interzooidal canals in the genus appear to be more nearly related to those of *Savaglia* than to those of the majority of other Antipathidæ. Whether *Stichopathes* agrees with *Cirripathes* in this respect is at present uncertain, but the observations of Pourtalès seem to support such a view. In *Stichopathes*, however, the polyps are distributed in a single linear series, so that his suggestions on this point require verification.

*Habitat.*—Off Cape Moresby, New Guinea, in 4 fathoms (Brit. Mus.).