

The dimensions given in the description are those of the large specimen figured (Pl. XVII. fig. 11) from 10 fathoms. The rest of the specimens are much smaller, and are about the size of the specimen figured from 20 fathoms (Pl. XVII. fig. 10).

The test contains numerous light brown blood-vessels, with terminal knobs (Pl. XVII. fig. 14), and also minute rod-like spicules, with slightly enlarged ends and transverse bands of minute echinations (fig. 15).

In a slide mounted by Mr. Murray during the expedition, and labelled "varia from Papiete Harbour," there is a squeezed specimen of a small Ascidian, which in all probability belongs to this species. Nothing can be made out in it except the test, which, however, shows the same structure as that of *Cynthia papietensis*, and contains exactly similar blood-vessels and spicules.

The mantle is thin, but contains distinct brown muscle bands, and has numerous very graceful fusiform spicules, tapering to fine points and minutely echinated in transverse bands.

The branchial sac is like that of *Cynthia pallida* in most respects, but has only fourteen folds. The transverse vessels are also apparently all of the same size, and the meshes are not elongated transversely (Pl. XVII. fig. 12). The delicate fusiform calcareous spicules (fig. 13) are found chiefly in the transverse vessels, and are very similar to those in *Cynthia pallida*.

The languets (Pl. XVII. fig. 12, *l.*) are small, and very closely placed. The tentacles (Pl. XVII. fig. 16) consist of three sets, two of which are compound, while the third set, alternating with the others, is simple. The peritubercular area is regularly triangular, and is rather deep, the small dorsal tubercle being entirely included in it (Pl. XVII. fig. 12, *d.t.*). The intestinal loop is wide.

There are seven specimens of this species in the collection, all from Papiete Harbour, Tahiti, Society Islands, September 28, 1875. Five of them are labelled "from 10 fathoms," and the other two, "from 20 fathoms."

*Cynthia complanata*, Herdman (Pl. XVII. figs. 1-9).

*Cynthia complanata*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1880-81, p. 62.

*External Appearance.*—The body is elongated, oblong in shape, pointed at the anterior end, and flattened laterally; the dorsal edge is straight or slightly concave, the ventral is convex; the posterior end is wider than the anterior, but is narrow. The body is attached by the ventral edge of the posterior end. The branchial aperture is terminal, quadrangular, tubular and wide; the atrial is on the dorsal edge, one-third of the way down from the branchial aperture to the posterior end; it is slightly projecting, and is also quadrangular and wide.

The surface is irregular but smooth, and is slightly creased. The colour is a dirty white. Length of the body, 5.6 cm.; breadth of the body, 2.7 cm.