

twigs is quite soft, so that the latter are flexible in every direction and are like soft strings. The colour is brownish-yellow. The spicules in the cœnenchyma are long, slightly bent spindles and rods, which are armed with small, sharp, widely separated spines, they are closely placed in the longitudinal direction of the branches and twigs. Generally they are truncated at one end and pointed at the other and often somewhat bent in their course. Their length reaches 0.48; 0.25; 0.2 mm.; their thickness 0.015 mm. and less. In the polyps the spicules form eight longitudinal rows. Each longitudinal row is formed of two rows of spicules which converge towards the edge in a Λ -like manner and are covered again by straight longitudinally-placed spicules. These longitudinal rows are continued up into the bases of the tentacles, where they suddenly cease, so that they form eight radial lobes; from these arise the long bundles of spicules, composed of from two to three needles, which surround the oral region of the polyp. These latter contain needle-like spicules, 1.1 mm. long and 0.03 mm. thick, and 0.7 mm. long and 0.04 mm. thick. The spicules of the calyx wall have a lower, divergent, blunt end and run out into a point, they have small, sharp spines; length to breadth in mm.—0.6–0.025; 0.7–0.04; 0.4; 0.35–0.01. In the tentacles the spicules are placed longitudinally; they are thin, bent, and provided with small spines, 0.25 mm., towards the point only 0.1; 0.06 mm. long. The colour of the polyps and cœnenchyma in alcohol is yellowish.

Habitat.—Station 207, off Tablas, Philippine Islands; depth, 700 fathoms; bottom, blue mud.

2. *Acanthogorgia ridleyi*, n. sp. (Pl. XXII. fig. 3; Pl. XXV. fig. 2).

The colony consists of a simple stem which rises from a flat, horny base. The stem gives off thin, rod-like branches on three sides, of which those of two opposite sides are most developed and give off a few lateral twigs which remain simple. In the largest specimen the stem has a length of 250 mm. and at the base is 3 mm. thick. It begins to give off branches near the base, which are all unbranched, and of which those coming off in one plane, on two sides, attain a length of 95 mm., whilst the individual ones coming off in a third direction reach a length of 33 mm. Throughout the last 60 mm. of the stem no more branches are given off.

In a second specimen, in which the stem is 150 mm. long, branches come off in one plane at intervals of 5 to 10 mm., alternating on two sides of the stem, and having a length of 20 to 35 mm. The branches which arise in the third direction have at most a length of 5 mm. In a third specimen, 92 mm. long, the larger branches, which are 45 mm. long, develop simple lateral twigs.

The cœnenchyma is thin and transparent. The polyps are placed perpendicularly on the stem and branches at intervals of 3 to 4 mm. from one another. They form