

Stachyodes regularis, n. sp. (Pl. XI. figs. 2, 2 α ; Pl. XX. fig. 3).

Several fragments of this species were dredged near the Kermadec Islands. Two of these are branched. The axis on the largest of the specimens is 140 mm. in height, and about 1.5 mm. in diameter, horny, but with calcareous particles, highly iridescent and grooved. The branches are perfectly dichotomous. The cœnenchyma on the axis is thin, but covered with thickly set narrow scale-like spicules, the larger of which are 1.5 mm. long by 0.5 mm. wide; these form a well-marked layer and are intercalated one with the other. The basal portion is unknown.

The polyps are in close verticils of fours or fives, looking downwards, and with an interval between the polyp whorls of about 1 to 0.5 mm. The full-grown polyps measure about 3 mm. in height by 2 mm. in width. The body, or rather the dorsal or outer surface of the body of the polyp is enveloped by three series of scale-like spicules, which, when the polyp is retracted, just overlap one another. The first series consists of two broad, somewhat quadrilateral, hollowed-out scales, 1.5 mm. by 1 mm., jagged at their edges, and with a prominent projection; the sides of these scales slightly overlap each other, the projecting portion extends along and around either side of the polyp. The second series normally consist of two, but sometimes of three scales, smaller than those of the first series, somewhat quadrilateral, but not flat, about 1 mm. by 1 mm., the edges slightly overlapping, sometimes only touching. The third series of scales also consists of two, each of these is broader than the spicules of the second series, being 2 mm. in width. The series of opercular scales is eight in number, and consists of triangular-shaped scales, each deeply keeled, and projecting beyond the last series of the body scales. The scales of the inner or ventral surface are sometimes either feebly or non-calcareous, and the outer of the opercular scales, these just below the third series of body scales, are the largest.

A few irregular-shaped scale-like spicules are to be found on the ventral or inner surface of the body of the polyp.

The colony increases by apical growth of the whorl of polyps, and also by budding; these buds arise in whorls below and between the whorls of adult polyps, and by their intercalary growth, the main axis increases in thickness.

Spicules of the cœnenchyma irregular in shape, scale-like or even flattened spindles, measuring 1.50-0.50; 1-0.25; 1.45-0.45; 0.90-0.12 mm.

The opercular scales measure 1-0.50 mm.; at base 1-0.45 mm.

Habitat.—Station 171, off the Kermadec Islands; depth, 600 fathoms; bottom, hard ground.

This interesting form shows near affinities to the genus *Calyptrophora*, but differs in the spicules of the body of the polyp. To this genus will possibly belong