

The scales are relatively large. The upper row of calyx scales is higher than broad, with strong prominences, and a median keel which runs out into a short spine. Height to breadth, 0.54–0.42 mm.; the succeeding scales are broader than high, with small teeth on the upper edge, often interspersed with stronger teeth. Height to breadth, 0.42–0.5 mm.

The opercular scales are triangular, pointed, with median keel. Height to length, 0.5–0.3; 0.65–0.4; 0.43–0.2 mm. The scales of the cœnenchyma are irregularly triangular to four-cornered with unequal sides. Height to breadth, 0.46–0.35; 0.46–0.2; 0.3–0.25 mm.

Several specimens which were obtained by the Challenger may be referred to this species.

The generally simple stem rises from a flat, leaf-like, calcareous base, which covers stones, &c.

The axis is horny, calcareous, brittle, yellow, with a golden sheen on the surface. Its transverse section is oval and the whole stem is twisted in a long spiral. The length of the stem reaches 150 to 200 mm.; the thickness at the base 2 to 2.5 mm. The twigs, which arise from three sides of the stem in an ascending spiral, are generally simple, up to 25 mm. long, coming off from the stem at nearly right angles. Their axis is stiff and bristle-like. The club-shaped polyps have a length of 2 mm. There are seven transverse rows of scales present and eight longitudinal rows. The form and size of the scales agree completely with those of the type specimen.

Calyx scales.—Upper row with short spines. Height to breadth, 0.6–0.29; 0.61–0.3; 0.46–0.3 mm.; those of the following rows are broader than high, 0.37–0.75; 0.37–0.58; 0.3–0.4 mm. Scales of the cœnenchyma, 0.35–0.3; 0.4–0.26; 0.45–0.35; 0.25–0.2 mm.

Habitat.—Station 148A, off the Crozets; depth, 550 fathoms; bottom, hard ground, gravel, shells.

5. *Thouarella affinis*, n. sp. (Pl. XXI. fig. 3).

Very like the preceding species. From the simple stem, which appears twisted in a long spiral, simple twigs come off, in ascending spirals, from three sides. These bear the polyps. The polyp calyces are 2 mm. long and contain scales, which are distinct from those of the preceding species in size and sculpture. The scales of the last row are not provided with spines but are simply toothed. The scales of the calyx are less prominent.

The specimen, broken into three pieces, has, from the base to the apex, which contains the summit of the colony, a length of 220 mm. The main stem, from which twigs come off along its whole course, has at the lower end a diameter of 2 mm. and