

Var. *c. gracilis*.

A very elegant, finely ramified form. The stem is 140 mm. long and is thin and flexible; it has at the base a diameter of 1.5 mm.; at first firm and brittle, it soon becomes horny and flexible. The twigs have at the base a diameter of 0.5 mm. and soon give off lateral twigs, usually 2 to 3 mm. long. These are always simple, thin, their length reaching 10 to 15 mm. The twigs are developed to about the same extent throughout the whole colony, only towards the apex they are shorter, they come off symmetrically on the three sides, and are bent at the ends, so that the colony acquires quite the appearance of a plume.

The polyps are placed on the twigs in close spirals of threes, they are cup-shaped and 2 mm. long.

The scales of the calyx form five transverse rows, those of the last and last but one develop spines, which form a crown around the calyx mouth and may completely cover the opercular scales, yet they never develop to the length of those of the type.

Spicules.—Calyx scales large, those of the uppermost row, rhombic or triangular, with a long spine, which is the continuation of a median keel radiating from the nucleus and projecting from the scale. Height to breadth, 0.62 to 0.32, the spine takes up 0.25; 0.36–0.36 to 0.68–0.25 mm. The succeeding scales are broad, but possess also a median keel and a short serrated spine. Height to breadth, 0.5–0.42; 0.45–0.33 mm. The lowest scales are without the spine, but are strongly serrated on the upper edge, 0.33–0.5; 0.41–0.4 mm.

The opercular scales are small and high, triangular, deeply furrowed in the middle line. Height to breadth, 0.5–0.2 mm.

The scales of the cœnenchyma are in the upper layer irregularly polygonal to four-cornered, on the free edge sharply serrated, with an excentric, but sometimes a marginal nucleus. Height to breadth—0.37–0.4; 0.22–0.3; 0.25–0.31 mm. Those of the lower layer are thin lamellæ with fine warts, four-cornered or irregular, provided with processes 0.1–0.11; 0.1–0.14 mm.

Habitat.—Station 150, off Heard Island; depth, 150 fathoms; bottom, coarse gravel.

Genus 6. *Amphilaphis*, n. gen.¹

Colony generally ramified in one plane. Branches dividing off from the main stem on two sides in alternating series; these either remain simple or give off simple lateral twigs. Branches as well as twigs run parallel to one another, coming off from the stem or the branches, at angles of about 45°. The club-shaped polyps arise at varying intervals from one another in the circumference of the stem, of the branches and of the twigs, originating mainly from four different sides of the periphery. The scales of the calyces

¹ ἀμφί, λαφύς, dividing into branches.