

The colony has been torn from its attachment, which had apparently been among shell debris, or to rock surrounded with the same; several *Balani* had bored their way into its base.

The sterile column is about 50 mm. high; it is broadly but irregularly oval in section, measuring 40 mm. in its broadest, and 27 mm. in its narrowest, diameter. The lower 20 mm. is distinguished from the upper portion by being rough with spicules, whereas the upper part is smoothish and finely wrinkled and striated. The whole substance is soft and rather spongy in the wet specimen. The capitulum is irregular in form, projecting over the column; in the wet specimen it is softish. While about 65 mm. in its broadest, its average width is not more than 45 mm. It is deeply plicated; the plicæ form four principal folds, of which the two on the one side are twice as large as those on the other. Each fold is also again deeply notched, one fold even twice. All these folds turn down like the lobes of an ear, and lie against the surface of the column. These lobes are at their bases about 8 mm. in thickness, but decrease to a width of 4 mm. at their free edges, which are somewhat inverted.

The autozooids are completely retractile within pit-like cavities, the walls of which, on the retraction of the polyps, almost completely close together, leaving but minute dimples to mark their places. The autozooids were in the unique specimen, well filled with ova of varying sizes up to 1 mm. in diameter. They are scattered over the whole of the upper surface of the capitulum, though most crowded at its edges.

The siphonozooids are numerous, apparently occupying all the spaces not otherwise filled by the autozooids; about three of them occur in the length of a millimetre. The mesoderm is greatly developed and of a firm gelatinous nature.

The colour of the whole mass is that of a dull brown.

The spicules of the sterile stem measure in the trunk:—The curved and straight intercalated spindles 1·0–1·2; 1·1–0·16; 0·96–0·14; 0·9–0·16; 0·56–0·08 mm. The branching spindles measure 1·4–0·2 mm. The spiny clubs measure 0·52–0·08; 0·4–0·06; 0·36–0·06 mm. In the capitulum, the cœnenchyma contains some spiny spindles with one end narrow, the other broad, measuring 0·3–0·04; 0·3–0·02; 0·22–0·02 mm. The four-rayed forms measure 0·1–0·1; 0·3–0·06 mm. In the tentacles some curved and straight spiny spindles occur, measuring 0·54–0·04; 0·44–0·02 mm.

*Habitat.*—Station 135, Tristan da Cunha; depth, 60 fathoms.

This seems to be near *Sarcophytum glaucum*, but is the only species of the genus from the Atlantic.

*Sarcophytum philippinensis*, n. sp. (Pl. XXXVIII. fig. 1; Pl. XLI. fig. 9).

The colony consists of a sterile stem and an expanded flattened polyp-bearing capitulum. Polyps dimorphic. The mass is attached to portions of broken shells, sand, &c.