

1. *Echinogorgia pseudosassapo*, Kölliker (Pl. XXIII. fig. 9; Pl. XXV. fig. 5).*Gorgonia sassapo*, var. *reticulata*, Esper, Pflanzenthier, 1791, Taf. viii.*Echinogorgia pseudosassapo*, Kölliker, Icones Histologicae, vol. i. p. 136.

There can be no doubt about the identity of the Challenger specimen with *Gorgonia sassapo*, var. *reticulata*, Esper, after a comparison of Esper's drawing and of the spicules as illustrated by Kölliker (*loc. cit.*). The colony presents an upright stem, richly branched in one plane, the smaller branches of which frequently anastomose with one another, and so form a loose network. The main stem rises from a flat expanded base to a height of 170 mm., with a diameter of 4.5 mm., and gives off branches on both sides, in alternating series, which, arising at an acute angle, either take a course at right angles, or, bending upwards, take a direction parallel to the principal stem and with their apices reaching its level. Their length is from 100 to 120 mm. Their basal thickness 2.5 mm. Twigs arise from the branches, as well as from the principal stem, which are given off at almost right angles, and which either anastomose with some of the other branches and thus form a network, or terminate as simple knobs, or finally bend in order to run parallel to the main branch, and then give off in their turn, short, lateral, knob-like endings. The length of the simple terminal branches is about 16 mm., with a thickness at their commencement of 2 mm., increasing to 2.5 mm. at their ends.

The cœnenchyma is thick and rough on the stem and branches. The polyps on the stem and branches are in closely packed spirals; they form but small, wart-like projections, with longish oval, slit-like mouths. The tentacles are quite retractile, and there is but a feebly developed operculum, which does not project beyond the margin of the calyx. The polyp is at most 1 mm. in diameter, with a height of 0.5 mm. The spicules are in part peculiar spiny discs of a triangular shape, armed with warts as figured by Kölliker in this species,¹ having a length of 0.63 mm., and a breadth of 0.18 mm.; there are others with from three to four branched prominences and with a usually tri-foliate expansion, which is either flattened out or is again trifurcate. These spicules measure, from the root to the apex of the foliar expansions, 0.24, 0.25, 0.21 mm., with a breadth for the foliar expansions of 0.14, 0.2, and 0.13 mm. Besides, forms occur which remind one of the spicules of the polyps of *Paramuricea*; multirayed stellate forms, from which a smooth pointed ray goes off. Lastly, there are spindles, frequently curved and unilaterally rayed, of a length by breadth of 0.16-0.05; 0.25-0.07 mm. Both the foliar expansions and spines project beyond the surface of the cœnenchyma and of the polyps and give these a roughened appearance.

The opercular portions are formed by short, smooth spines, of which two or three are found on the bases of each tentacle. All the spicules are of a dark-red colour.

¹ *Loc. cit.*, pl. xviii. fig. 10.