

The known species are found in the tropical seas of both hemispheres at somewhat moderate depths.

- Villogorgia nigrescens*, Duch. and Mich., Guadeloupe.
 „ *intricata*, Gray, Australian Seas.
 „ *gracilis*, Studer, Bougainville.
 „ *mauritiensis*, Ridley, Mauritius.
 „ *flabellata*, Gray.

Of these only the following one is in the collection of the Challenger :—

Villogorgia intricata (Gray) (Pl. XXIII. fig. 3, *a*, *b*; Pl. XXVII. fig. 1).

Brandella intricata, Gray, Cat. Lithophytes Brit. Mus., p. 30, fig. 8, 1870.

Villogorgia intricata, Ridley, Ann. and Mag. Nat. Hist., ser. 5, vol. ix. p. 188, 1882.

The diagnosis of this species, which despite its transparent horny axis was in a very curious way placed by Dr. Gray among the Corals with calcareous axes, is emended by Ridley, who gives full details about the spicules.

The Challenger specimen agrees in all its details with the type in the British Museum, but it is a fairly complete specimen, while the original specimen only represents the fragment of a colony. The colony is upright, richly branched in one plane, with numerous branches whose terminal twigs sometimes anastomose. The principal stem arises from a horny base which grows over a stone; the base is cone-shaped; the main axis gives off near the base a large lateral branch, by which it is diverted from a vertical position and becomes slightly inclined to one side. The branches arise from both sides of the stem, at an angle of 50°, irregularly alternate, but more numerous on the convex side than on the concave. From the branches lateral twigs which stand off perpendicularly arise. Some bend after a short perpendicular course, and then run parallel with the branch; others run straight to the nearest branch, with which they anastomose. The branches often give off others of the second order, which behave similarly. The terminations of the branches and twigs which do not unite remain free for a considerable extent. The height of the colony is 125 mm., its greatest breadth is 150 mm. The length of the principal stem is 120 mm., that of the larger branches 100 to 110 mm. The thickness of the principal stem at the base is 3 mm., of the larger branches 1·5 to 2 mm. The free terminal branches reach to 20 mm.

The coenenchyma is thin, on the older portions of the colony it is translucent. The polyps rise perpendicularly from the stem and branches, mostly from either side, and at irregular intervals of 1 mm. The termination of a branch is occupied by a polyp. The polyps measure 0·5 mm. in height by 0·54 mm. in breadth. The