

This species appears to differ in the form of its spicules from all hitherto described.

*Habitat*.—Stations 194 and 194A, off Banda ; depth, 200 and 360 fathoms ; bottom, volcanic mud.

5. *Acanella simplex*, Verrill (Pl. IX. fig. 5).

*Acanella simplex*, Verrill, Bull. Mus. Comp. Zool., vol. xi. p. 17.

Axis slender, apparently unbranched, 1 mm. in diameter ; calcareous internodes sulcated, solid, or in the youngest internodes with a very minute central tube ; horny nodes short. Polyps arranged in an alternate manner on the axis, prominent, about 5 mm. distant on lower portion of the axis, with lesser intervals towards apex, more or less cylindrical in shape, from 4 to 5 mm. in height and about 1 mm. broad. The cœnenchyma on the axis is thin, but when in a perfect condition it is crowded with obtuse fusiform spicules ; these are easily rubbed off. The base of the polyp is packed with larger and more curved fusiform spicules, and the tentacles are stiffened with minute, echinated, oblong spicules ; from six to eight rather blunt fusiform spicules form a projecting fringe around the imperfectly closed tentacles.

This species was described by Verrill (*loc. cit.*) from two specimens, one taken in 334 fathoms, off Martinique, and the other in 399 fathoms off Barbados. It seems to belong to *Acanella*, and it is quite possible that it is a feebly branching form, so that the genus may not require to be emended so as to include simple stemmed forms. The solid calcareous joints will serve to distinguish this form from any of the species of *Ceratoisis*.

The long needle-shaped spicules on the polyp vary greatly in length from 3·5–0·5 ; 2·0–0·5 ; 1·5–0·25 mm. Those on the cœnenchyma and tentacles measure 0·5–0·09 ; 0·67–0·04 ; 0·4–0·06 ; 0·89–0·05 ; 0·06–0·015 mm.

*Habitat*.—Station 56, off Bermudas ; depth, 1675 fathoms ; bottom, Coral mud.

Genus 4. *Bathygorgia*, Perceval Wright.

*Bathygorgia*, Perceval Wright, Narr. Chall. Exp., vol. i. p. 691, fig. 236.

Axis with long, irregularly curved, and somewhat square calcareous internodes and small horny nodal joints. Cœnenchyma of the axis thin ; but covered with oblong warty spicules. Polyps large, uniserial, with non-retractile tentacles, body covered with large, spiny, biclavate, and club-shaped spicules.

*Bathygorgia profunda*, Perceval Wright (Pl. VI. fig. 3 ; Pl. VA. fig. 9).

*Bathygorgia profunda*, Perceval Wright, Narr. Chall. Exp., vol. i. p. 691, fig. 236.

The axis in the only specimen of this remarkable form, dredged during the cruise of the Challenger, is evidently but a fragment ; it is about 6 cm. in length and 1 mm. in