

with a broadened web-like expansion at the origin of each of the twigs. The nutrient canals as in *Plexaura*.

The spicules of the cœnenchyma are as follows:—First the foliaceous clubs, which measure 0·3–0·26; 0·2–0·18; 0·2–0·1; 0·18–0·2 mm. The foliaceous portions are broad and short with a wavy outline, the root-like processes are spreading and very spiny. The spiny spindles are small, 0·3–0·04; 0·24–0·04; 0·12–0·04 mm. The tri- and quadriradiate forms are few and have not the characteristic form generally to be found in the species of this genus, they measure 0·2–0·1; 0·12–0·1 mm. The curved and straight needle-shaped spicules found in the tentacles are 0·2–0·02; 0·1–0·02 mm.

While in the structure of the axis this species must be referred to *Plexaurella*, yet it would seem to differ in several respects from all the hitherto described forms; and the spicules seem intermediate between those of *Plexaura* and *Plexaurella*. It must however be conceded that there is a great deal of uncertainty as to the species which should be placed under these genera, and a careful examination of all the types of Esper, Milne-Edwards, and Verrill will be needed ere this question can be properly settled.

Klunzinger¹ suggests that *Plexaurella* should be placed near to *Juncella*, which no doubt in the structure of its axis it somewhat resembles, but pending a thorough revision of the group it seems more advisable to leave it in the family Plexauridæ.

Habitat.—Station 208, January 17, 1875, Philippine Islands; depth, 18 fathoms.

Genus *Pseudoplexaura*, n. gen.

Professor Kölliker emended the diagnosis of the genus *Plexaura*, having separated first therefrom the species forming the new genus *Plexaurella*, by forming two sections, called by him "duræ" and "molles," which differed in the nature of the cœnenchyma, in the former large spindle-like spicules being found, while in the latter the cœnenchyma is soft, thick, and friable without the large spicules. In both the outer layer is composed of club-shaped or spiny spicules of various shapes. In the present genus the axis is horny, with a central calcareous portion, the outer layer of cœnenchyma is soft and when dry friable; the inner layer contains a number of light purple or violet coloured irregularly stellate spicules or spindles with few rays. The following diagnosis will help to distinguish it from *Plexaura*.

The colony is but feebly branched; the axis horny, in the older portions solid; in the younger and terminal portions the centre is partially filled with calcareous particles. The cœnenchyma is thick and membranous, the outer layer is white, friable; in older portions the outer layer of spicules gets rubbed off, leaving a soft membrane in which the polyps are embedded, but in the younger portions there is a well-marked layer of colourless spindle-shaped spicules. The polyps are placed close to one another in a somewhat regular spiral

¹ Die Korallthiere des rothen Meeres, Th. i. p. 59.