Zoology Part LXIV: Report on the ALCYONARIA. By Professor E. Perceval Wright. Bound in Volume 31,1889.

23. *Muricea*, Auct. *emend.* Verrill (as subgen.), Trans. Connect. Acad., vol. i. p. 450, 1869.

The colony is branched, with a thick cœnenchyma and terminally bilobed polyp calyces markedly projecting. In the polyps when retracted the dorsal half of the calyx projects as a lip. The tentacular operculum is drawn into the calyx. The spicules are either warty spicules, which are usually short and thick, or they sometimes approximate to the club-shaped form. Besides these, long spiny spicules usually occur in the deeper layers.

Family IX. PLEXAURIDÆ.

Plexauridæ, Gray, Ann. and Mag. Nat. Hist., ser. 3, vol. iv. p. 444, 1859.
Eunicidæ, Kölliker, Icones histiologicæ, pt. ii. p. 137, 1859.
Plexauridæ, Verrill, Trans. Connect. Acad., vol. i. p. 413, 1869.
Plexauridæ, Klunzinger, Korallthiere des rothen Meeres, pt. i. p. 51, 1877.

The polyp colony is usually branched and upright. The axis is horny, or horny and calcareous, especially at the base. The cœnenchyma is thick. The polyps occur over the whole circumference of the cœnenchyma. The anterior tentacular and œsophageal portions of the polyps are retractile into a calyx region, forming wart-like protuberances, or they are completely retractile into the cœnenchyma. Thus, in many instances the apertures of the polyps appear as openings or simple pores in the cœnenchyma. The canalicular system consists of small reticulate canals, radiating from the polyp cavities, and opening finally into the longitudinal canals, which latter are arranged symmetrically around the axis. The spicules are usually large, of variable form; the cortical layer mostly consists of a layer of clubs, beneath which spindle-shaped spicules are found. The tentacles of the polyps are at their bases provided with spindle-shaped spicules.

Verrill's[1] diagnosis of this family is here reproduced; he has most tersely summed up the characteristics of the group. The genus *Eunicella* was first referred by Verrill to the Gorgonidæ, but was afterwards[2] rightly placed in this family. A divergent type is, however, represented by *Eunicella albicans*, Verrill, in which the flat axis recalls the structure of many Gorgonidæ.

The Plexauridæ are most nearly related to the Muriceidæ, *Eunicea* is closely related to *Muricea*, while on the other hand *Eunicella* leads on to the Gorgonidæ.

1. *Eunicea*, Lamouroux.
2. *Plexaura*, Lamouroux.
3. *Plexauroides*, n. gen.
4. *Plexaurella*, Kölliker.
5. *Pseudoplexaura*, n. gen.
6. *Euplexaura*, Verrill.
7. *Psammogorgia*, Verrill.
8. *Eunicella*, Verrill.
9. *Platygorgia*, Studer.

[1] Notes on Radiata, *Trans. Connect. Acad.*, vol. i. p. 413.
[2] *Amer. Journ. Sci. and Arts.*, vol. xlviii., 1869.

http://19thcenturyscience.org/HMSC/HMSC-Reports/Zool-64/README.htm