

2. *Pleurocorallium*, Gray, Proc. Zool. Soc. Lond., 1867, p. 126; Cat. Lithophytes Brit. Mus., 1870, p. 23; Ridley, Proc. Zool. Soc. Lond., 1882.

The species of this genus contain two kinds of spicules, and the polyps are mainly restricted to one surface of the compressed stem and branches.

Section II. HOLAXONIA.

Azifera, v. Koch, Morph. Jahrb., Bd. iv. pp. 474, 476.

Gorgonacea with an axis which consists of horny material, or of a calcified horny substance, or of alternating joints of amorphous calcareous material and horn.

The formation of the colonies in the Holaxonia appears to proceed on a somewhat different plan from that observed in the Scleraxonia. For while in the latter the axis first appears as a differentiation of the cœnenchyma at the original basal expansion of the colony, in Holaxonia it is formed from the beginning as a central support to the colony, and it is surrounded peripherally by the longitudinal canals.

The Holaxonia include the following families:—

V. Dasygorgidæ.		IX. Plexauridæ.
VI. Isidæ.		X. Gorgonidæ.
VII. Primnoidæ.		XI. Gorgonellidæ.
VIII. Muriceidæ.		

The Dasygorgidæ may be regarded as containing the most primitive forms. The polyps are non-retractile; the tentacles, which are furnished with spicules, are simply coiled, when at rest, over the oral disc. The axis is at once horny and calcareous. In one direction this family leads on to the Isidæ where the axis is differentiated into alternate horny and calcareous portions, and where, at least in some forms, the polyps are like those of the Dasygorgidæ.

From the subdivision Chrysogorginæ of the Dasygorgidæ, in which the spicules of the polyps are scale-like, the Primnoidæ may have been derived. In certain forms in which the parts of the polyp bodies are but slightly differentiated, the Muriceidæ also suggest an origin from Dasygorgidæ; though in other forms the differentiation of the polyps into a calycine and a retractile tentacular region becomes more pronounced, until finally in the genus *Muricea* there is a transition to the Plexauridæ, where the anterior portion of the polyp may be completely protected within the calyx or within a deep cœnenchymatous cavity. The Gorgonidæ may be regarded as a special division arising from the Muriceidæ or Plexauridæ, and they finally lead on by the calcification of the axis to the usually biradial colonies of Gorgonellidæ. The differentiation of the type may be hypothetically indicated in this scheme:—