

Genera:—*Euplectella*, Owen, *Habrodictyon*, Wyville Thomson, *Aphrocallistes*, Gray, *Farrea*, Bowerbank, *Aulodictyon*, Kent, *MacAndrewia*, Gray, *Dactylocalyx*, Stuchbury, *Fieldingia*, Kent.

II. CALLICISPONGIÆ, S. Kent. Sponge body supported by an interlacing or isolated spicular skeleton; never by a reticulate and continuous one. Reproductive gemmules membranous, furnished with protective spicules.

Genera:—*Pheronema*, Leidy, *Hyalonema*, Gray, *Asconema*, Kent, *Sympagella*, O. Schmidt, *Lanuginella*, O. Schmidt, *Vazella*, Gray.

In his Grundzüge der Zoologie, Claus maintained the union of the spicules into a firm network to be an important character of all Hexactinellida (which constitute his suborder of Hyalospongiæ), while Carter, 1873, like Saville Kent, only emphasised the differences in the modes of union of the spicules as the main basis of his classification. Carter<sup>1</sup> established the three following families:—

### I. VITREOHEXACTINELLIDA.

Spicules held together by silicified fibre.

*Dactylocalyx*, *Myliusia*, *Euplectella aspergillum*, *Aphrocallistes*, *Aulodictyon*, *Farrea*, *Sympagella*.

Including the three groups {

1. Patulina.	Example—	<i>Dactylocalyx pumiceus</i> ,
		Gray.
2. Tubulina.	Example—	<i>Euplectella aspergillum</i> ,
		Owen.
3. Scopulifera.	Example—	<i>Aphrocallistes bocagei</i> ,
		Wright.

### II. SARCOHEXACTINELLIDA.

Spicules held together by amorphous sarcode.

*Asconema*, *Crateromorpha*, *Rossella*, *Habrodictyon*, *Hyalonema*, *Pheronema*, *Meyerina*.

Including the two groups {

1. Rosettifera.	Example—	<i>Rossella</i> , Carter, and <i>Crateromorpha meyeri</i> ,
		Gray.
2. Birotulifera.	Example—	<i>Hyalonema sieboldi</i> , Gray;
		<i>Holtenia</i> , Wyv. Thomson; <i>Meyerina</i> , Gray, and <i>Labaria</i> , Gray.

### III. SARCO-VITREOHEXACTINELLIDA.

Spicules held together in one part by vitrified fibre, in the other by amorphous sarcode.

*Euplectella cucumer*, Owen.

<sup>1</sup> *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xii. p. 349; vol. xvi. p. 199.