

Claus¹ now pronounced against any close systematic union of *Euplectella* and *Hyalonema*.

On the other hand, in 1868 Wyville Thomson first recognised the common relationship of all Hexactinellida, though he was not able to separate them sufficiently sharply from the Lithistida. The characters of his order Vitrea were given in these words:²—“Sarcodæ in small quantity, very soft, never containing formed horny matter, either fibrous, membranous or granular. The skeleton consists entirely of siliceous spicules, either separate (in fascicles or scattered) or anastomosing and combined into a continuous siliceous network. The sarcodæ contains small spicules of a different character from the general spicules of the skeleton, and of complicated forms. The spicules, whether of the skeleton or of the sarcodæ, may all be referred to the hexradiate stellate type,” and in another place (Phil. Trans., 1869, p. 713):—“In all the known genera all the spicules are modifications of the hexradiate stellate type.”

In the order Vitrea, Wyville Thomson noted (*loc. cit.*, p. 713) the following genera and species:—

Genus 1. <i>Euplectella</i> , Owen,	. <i>Euplectella aspergillum</i> , Owen.
„ 2. <i>Habrodictyon</i> , Wyv. Th.,	. <i>Habrodictyon speciosum</i> , Quoy et Gaimard. <i>Habrodictyon corbicula</i> , Valenciennes.
„ 3. <i>Aphrocallistes</i> , Gray,	. <i>Aphrocallistes beatrix</i> , Gray. <i>Aphrocallistes bocagei</i> , Wright.
„ 4. <i>Dactylocalyx</i> , Stuchbury,	. <i>Dactylocalyx pumicea</i> , Stuchbury. <i>Dactylocalyx subglobosa</i> , Gray. <i>Dactylocalyx prattii</i> , Bowerbank. <i>Dactylocalyx callocyathes</i> , Gray. <i>Dactylocalyx azorica</i> , Gray. <i>Dactylocalyx(?) torva</i> , Duchassaing et Michelotti.
„ 5. <i>Farrea</i> , Bowerbank,	. <i>Farrea occa</i> , Bowerbank.
„ 6. <i>Holtenia</i> , Wyv. Thom.,	. <i>Holtenia carpenteri</i> , Wyville Thomson.
„ 7. <i>Hyalonema</i> , Gray (in part),	. <i>Hyalonema sieboldii</i> , Gray. <i>Hyalonema lusitanicum</i> , Gray. <i>Hyalonema loveni</i> , n. sp.
„ 8. <i>Adrasta</i> (n. gen.),	. <i>Adrasta infundibulum</i> , n. sp.

If we except the genus *Adrasta*, which, though named, has remained undescribed, and even undiagnosed, and further, the above-mentioned *Hyalonema loveni*, which is not sufficiently defined, and finally the doubtful *Dactylocalyx torva*, Duch. and Mich., there are only two of the above-cited species quoted which are not Hexactinellida, but belong to the Lithistida, namely, *Dactylocalyx prattii*, Bowerbank, and *Dactylocalyx*

¹ Uber *Euplectella aspergillum*, 1868, p. 4.

² *Ann. and. Mag. Nat. Hist.*, 1868, vol. i. pp. 114–132.