

organisms are each to be regarded as a nexus of more or less dependent variables; all change together, but at different rates; but amongst the less dependent are the microscleres, which thus maintain a relative constancy amidst the shifting changes of the rest. To the same conclusion Schulze appears to have been led, since in his already published system of the Hexactinellida, the systematic importance of the microsclere stands next in order to the Lyssacine or Dictyonine character of the main skeleton; just as in our classification it follows on the Lithistid or Choristid character. The same result will I expect be attained in the case of Monaxonida, when this large group has been more exhaustively studied. That this expectation is founded on something more than analogy will appear from some remarks (*vide* Appendix II.) on those Monaxonid Sponges which my colleagues, Messrs. Ridley and Dendy, transferred to me for examination on the supposition that they belonged to the Tetractinellida, a supposition which we shared together, and which was strengthened by the apparent absence of any close affinities between these Sponges and the rest of the Monaxonida with which my colleagues were familiar.

It will probably conduce to clearness if I give here an abstract of the classification of the Choristida so far arrived at, omitting the definitions, which will be given later:—

Order I. CHORISTIDA.

Suborder I. SIGMATOPHORA.

Family I. Tetillidæ. Family II. Samidæ.

Suborder II. ASTROPHORA.

Demus A. STREPTASTROSA.

Family I. Theneidæ. Family II. Pachastrellidæ.

Demus B. EUASTROSA.

Family I. Stellettidæ. Appendix—Epipolasidæ?

Demus C. STERRASTROSA.

Family I. Geodiidæ. Family II. Placospongidæ.

Suborder III. MICROSCLEROPHORA.

Family I. Placinidæ. Family II. Corticidæ. Family III. Thrombidæ.

In order to arrive at more general results first, we shall postpone a consideration of the families of the Choristida till we have passed in review the Lithistida.