It is worth our while to investigate in this place the treatment which the Monaxonida, thus constituted by Zittel as a distinct group of sponges, have met with at the hands of other recent authors.

Commencing with Bowerbank, we find that his classification of sponges has the one advantage of simplicity, though, based as it is almost solely upon the arrangement of the skeleton, without any regard to the anatomy of the soft parts or to the forms of the spicules (except as specific characters), it has led to the most absurd results and has been followed by no one. Briefly, then, it is as follows:[1]—

Class *Porifera.*

Order 1. Calcarea.
Order 2. Silicea.
Order 3. Keratosa.

The "Silicea" and "Keratosa" are further divided into suborders (but these have no names) and then straightway into genera. The Monaxonida are chiefly to be found amongst the Silicea, being dispersed through five suborders; but two genera, *Chalina* and *Ophlitaspongia*, are relegated to the Keratosa.

Gray took the field armed with a much more elaborate scheme, which cannot be said to possess even the advantage of simplicity; it was as follows:[2]—

Class *Poriphora.*

Subclass 1. P. Silicea.

Section A. Thalassospongia.

Subsection 1. Leiospongia.

Order 1. Keratospongia.

Families—

1. Spongiadæ.	4. Dysideidæ.	7. Halichondriadæ.
2. Ceratelladæ.	5. Chalinidæ.	8. Polymastiadæ.
3. Hirciniadæ.	6. Phakelliadæ.	9. Ophistospongiadæ.

Order 2. Suberispongia.

Families—

1. Suberitidæ.	2. Raphiophoridæ.	3. Clioniadæ.

[1] *Vide* Mon. Brit. Spong., vol. ii. p. xx.

[2] The arrangement of the subclass Silicea here quoted, is to be found in Gray's paper—Notes on the Classification of Sponges, in *Ann. and Mag. Nat. Hist.*, ser. 4, vol. ix. p. 446, 1872. The Calcarea are not dealt with in this, Gray's second, scheme, but his arrangement of them will be found in his first scheme in *Proc. Zool. Soc. Lond.*, 1867, p. 553.