

Schmidt, in his work on the Atlantic Sponges,¹ makes the following main divisions, which represent his latest independent classification :—

1. <i>Hexactinellidæ</i> .	5. <i>Chalinæ</i> .	9. <i>Chalinopsidinæ</i> .
2. <i>Lithistidæ</i> .	6. <i>Renierinæ</i> .	10. <i>Ancorinidæ</i> .
3. <i>Halisarcinæ</i> and <i>Gumminæ</i> .	7. <i>Suberitidinæ</i> .	11. <i>Geodinidæ</i> .
4. <i>Ceraospongiæ</i> .	8. <i>Desmacidinæ</i> .	12. <i>Calcispongiæ</i> .

Here Groups 5, 6, 7, 8 and 9 correspond to Zittel's Monactinellidæ (Monaxonida), and, at a later date (1880), as has already been pointed out by Vosmaer, Professor Schmidt adopts Zittel's modification, grouping together Nos. 5 to 9 as Monactinellidæ, and 10 and 11 as Tetractinellidæ.²

We next come to Mr. Carter's classification of the Sponges, which is as follows :³—

Class SPONGIDA.

Order 1. *Carnosa*.

FAMILIES—1. *Halisarcida* 2. *Gumminida*.

Order 2. *Ceratina*.

FAMILIES—1. *Luffarida* 2. *Aplysinida* 3. *Pseudoceratida*.

Order 3. *Psammonemata*.

FAMILIES—1. *Bibulida* 2. *Hircinida* 3. *Pseudohircinida*.

Order 4. *Raphidonemata*.

FAMILIES—1. *Chalinida* 2. *Cavochalinida* 3. *Acervochalinida* 4. *Pseudochalinida*.

Order 5. *Echinonemata*.

FAMILIES—1. *Ectyonida* 2. *Axinellida*.

Order 6. *Holoraphidota*.

FAMILIES—1. *Renierida* 2. *Suberitida* 3. *Pachytragida* 4. *Pachastrellida* 5. *Potamospongiida*.

Order 7. *Hexactinellida*.

FAMILIES—1. *Vitreohexactinellida* 2. *Sarcohexactinellida* 3. *Sarcovitreohexactinellida*.

In this scheme the following families are Monaxonida :—

<i>Chalinida</i> .	<i>Pseudochalinida</i> .	<i>Renierida</i> .
<i>Cavochalinida</i> .	<i>Ectyonida</i> .	<i>Suberitida</i> .
<i>Acervochalinida</i> .	<i>Axinellida</i> .	<i>Potamospongiida</i> .

All these schemes of classification have been fully discussed by Dr. Vosmaer in his useful and comprehensive work on the Porifera, in Bronn's Klassen u. Ordnung. des Thierreichs, a work which has been of great service to us in compiling these pages ; hence no discussion is needed here, and we give them, as shortly as possible, only

¹ Grundzüge einer Spongien-Fauna des Atlantischen Gebietes, 1870.

² Spong. Meerb. von Mex., pt. 2.

³ Ann. and Mag. Nat. Hist., ser. 4, vol. xvi. p. 126.