

## Family I. AXINELLIDÆ (O. Schmidt).

The ectosome is not a cortex, the mesoderm of the choanosome is collenchymatous, the chamber-system is eurypylous. The skeleton consists of axial fibres and radial fibres proceeding from them to the surface. The megascleres are styles and rhabdi, which may be isoactinate or anisoactinate, or both. The microsclere when present is a spheraster or oxyaster or strongylaster (in one genus, *Tricentrium*, the aster is sometimes a microcalthrops).

*Genera.*

1. *Hymeniacidon* (Bowerbank), Ridley and Dendy, *loc. cit.*, p. 166.
2. *Phacellia* (Bowerbank), Ridley and Dendy, *loc. cit.*, p. 169.
3. *Ciocalypta* (Bowerbank), Ridley and Dendy, *loc. cit.*, p. 173.
4. *Acanthella* (O. Schmidt), Ridley and Dendy, *loc. cit.*, p. 176.
5. *Axinella* (O. Schmidt), Ridley and Dendy, *loc. cit.*, p. 178.
6. *Raspailia* (Nardo), Ridley and Dendy, *loc. cit.*, p. 188.
7. *Dendropsis*, Ridley and Dendy, *loc. cit.*, p. 191.
8. *Thrinacophora*, Ridley and Dendy, *loc. cit.*, p. 193.
9. *Dictyocylindrus*, Bowerbank, Mon. Brit. Spong., vol. iii., pl. xix. figs. 1-7, vol. ii. p. 116.
10. *Epallax*, n. gen.

## Family II. DORYPLERIDÆ.

The ectosome is not a cortex, and the choanosome not regularly folded, the mesoderm is collenchymatous. The megascleres are oxeas arranged without order. The microsclere is a large oxyaster.

Genus 1. *Dorypleres*, n. gen., with a single species, *Dorypleres dendyi*.

## Family III. TETHYIDÆ, Vosmaer.

The ectosome is a well-differentiated cortex with a distinct fibrous layer. The megascleres are strongyloxeas, radially arranged. The microscleres are spherasters, but other forms of euaster are frequently present.