

Suborder I. HOPLOPHORA.

Lithistida provided with special ectosomal spicules, and usually with some form of microsclere.

Demus I. TRIÆNOSA.

Hoplophora in which the ectosomal spicules are some form of triæne, and in which microscleres (spirasters, amphiasters, or microrabds) are invariably present. The chamber-system is aphodal.

Family I. TETRACLADIDÆ (Zittel).

Tetracladina, Zittel, Abhandl. d. k. baier. Akad. d. Wiss., Bd. i. p. 100.

Triænosa in which the desma is tetracrepid.

Genus 1. *Theonella*, Gray.

Theonella, Gray, Proc. Zool. Soc. Lond., p. 438, 1868.

„ Zittel, Abhandl. d. k. baier. Akad. d. Wiss., Bd. i. pp. 103, 151, 1878.

Tetracladidæ with one or more simple oscules, pores in sieves generally distributed. Microsclere a microstrongyle.

Type—*Theonella swinhoei*, Gray (p. 284).

Genus 2. *Discodermia*, Bocage.

Discodermia, Bocage, Journ. d. sc. math. phys. et nat. Lisbonne, p. 160, pl. xi. fig. 1, 1869.

„ Zittel, Abhandl. d. k. baier. Akad. d. Wiss., Bd. i. p. 151, 1878.

Tetracladidæ with differentiated oscular and poriferous surfaces; the pores in sieves, the oscules numerous and simple. The microscleres are microxeas and microstrongyles.

Type—*Discodermia polydiscus*, Bocage (p. 330).

Genus 3. *Racodiscula*, Zittel.

Racodiscula, Zittel, Abhandl. d. k. baier. Akad. d. Wiss., Bd. i. p. 151, 1878.

Tetracladidæ with discotriænes; the microscleres are microrabds and spirasters; the pores and oscules are simple.

Type—*Racodiscula polydiscus* (O. Schmidt) (p. 332).