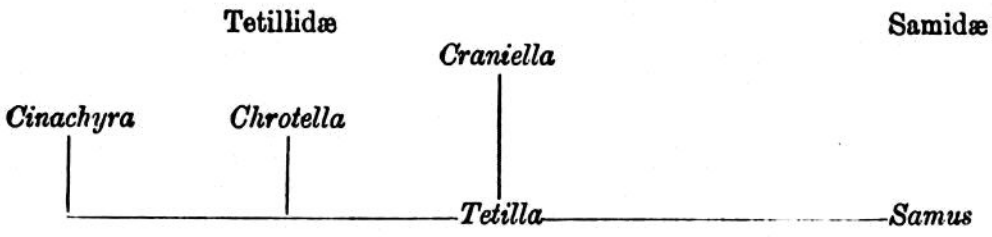
PHYLOGENY OF THE SIGMATOPHORA.



Suborder II. ASTROPHORA, Sollas.

Asterophora, Sollas, Encyclopædia Britannica, vol. xxii. p. 423, 1887.

Choristida in which one or more of the microscleres is an aster.

Demus I. STREPTASTROSA, n. n.

Spirastrosa, Sollas, Encyclopædia Britannica, vol. xxii. p. 423, 1887.

Astrophora in which one of the microscleres is a spiraster, or when this is not the case one of the megascleres is a calthrops.

The name originally given to this group, Spirastrosa, is too similar to that adopted by Ridley and Dendy for a Monaxon family, Spirastrellidæ, and for the sake of distinction Streptastrosa is now substituted.

Family I. THENEIDÆ, Sollas.

Group *Theneanina*, Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. xi. p. 354, 1883.
Theneidæ, Sollas, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 178, 1886.

History.—This family is founded on the genus *Thenea*, Gray, who evidently had some notion of the value of the spiraster in classification; a point that was subsequently insisted on by myself both as distinguishing *Thenea* from *Stelletta* and as allying it with *Pœcillastra*.[1] It was next made use of by Carter, who chose it as the distinctive character of a subfamily, which he named Theneanina, including in it the genera *Thenea* and *Pœcillastra*. The group is here regarded as of family rank.

Definition.—Streptastrosa in which the microscleres are spirasters or amphiasters, and oxyasters or microxeas.

The ectosome never forms a cortex. The mesoderm is a collenchyma. The chamber-system is eurypylous.

The family cannot be defined by the spiraster alone, as this is also present in the Pachastrellidæ, which no doubt are very closely allied to the Theneidæ, bearing somewhat the same relation to them that the simpler genera of Tetillidæ do to the more complex.

[1] Sollas, *Ann. and Mag. Nat. Hist.*, ser. 5, vol. ix. pp. 434, 443.