

*Definition.*—Euastrosa in which the megascleres are oxeas and triænes. The chamber-system is aphodal and the mesoderm of the choanosome sarcenchymatous. The ectosome may or may not form a cortex.

There may be but one form of aster or there may be two or more forms present; in the former case the additional aster is usually a euaster or a euaster reduced to a microrabd, but there are some few cases (*Tribrachium*, *Tethyopsis*, *Disyringa*) in which it is a sanidaster, and one in which it is an irregular form of amphiaster (*Stryphnus*).

The arrangement of the megascleres is as a rule on the "radiate type," even when absent in large fully grown Sponges this arrangement usually occurs in the young Sponge; but there are one or two cases in which there is an almost total absence of arrangement in all known stages, e.g., in *Stryphnus*, and the species *Stelletta pathologica*, O. Schmidt, of which the generic relations are obscure.

The triænes invariably present are usually ortho- or dichotriænes, the former, however, sometimes replaced by plagiotriænes; anatriænes may or may not be present in addition. In *Stelletta pathologica* remarkable centrotriæne forms are met with, and these attain their full development in the choanosome as well as in the ectosome, while in the rest of the family the triænes are never fully grown till they reach the ectosome or its vicinity.

In the following genera the ectosome does not form a cortex:—*Myriastræa*, *Anthastræa*, *Ecionema*; in the following the cortex is chiefly spicular:—*Aurora*, *Papyrula*, *Stryphnus*, *Algol*; in the remainder chiefly fibrous or fibro-spicular:—*Pilochrota*, *Astellæa*, *Psammastræa*, *Tribrachium*, *Ancorina*, *Disyringa*, *Tethyopsis*.

*Classification of the Stellettidæ.*—The only attempt yet made to reduce the species of the overgrown genus *Stelletta* (for our Stellettidæ is almost equivalent to Schmidt's genus) to order is that of Carter, whose classification is as follows:—

"Group Stellettina.

"Subsection I. Psilodermata:—'Thin-skinned Stellettæ.'

"a. Cortex thin or next to nothing, charged more or less with minute stellates only (Stellifera).

"b. Cortex similar, but charged with bacilliform bodies chiefly (Bacillifera).

"Subsection II. Pycnodermata:—'Thick-skinned Stellettæ.'

"a. Cortex thick, charged with discoid bodies (Discifera).

"b. Cortex thick, charged with globostellates (Globostellata)."

No illustrative species of Stellifera are given; of Bacillifera, *Ecionema acervus*, Bwk., *Ecionema densus*, Bwk., *Ecionema ponderosus* (= *Stryphnus ponderosus*), Bwk., and *Stelletta helleri*, O. S., are quoted; of Discifera, *Stelletta euastrum*, O. S., *Stelletta discophora*, O. S., *Stelletta mamillaris*, O. S.; and of Globostellata, two new species, *Stelletta reticulata*, Crtr., and *Stelletta globostellata*, Crtr.