

MORPHOLOGICAL AND MICROSTRUCTURAL OBSERVATIONS ON THE ONTOGENY OF CARYOPHYLLIIDS; TERMINOLOGICAL ASPECT

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Abstract - In the Caryophylliina radial elements are built by a medially situated row of minitrabeculae (d from ca. 15 to 50 μm). In their classification an important role play types of thecal structures. There are very few observations and interpretations of the ontogeny of thecal microstructures.

In the ontogeny of caryophyllids three main stages can be distinguished : **(1)** The initial stage starts with the basal plate, and ends with a distinct constriction of the corallum diameter. All investigated forms (e. g. *Caryophyllia*, *Desmophyllum*, *Paracyathus*, *Parasmilia*) have in this stage a marginothecal wall (MORI & MINOURA 1980). Minitrabeculae of the wall are coalescent with a trabecular palisade of the septa. The septa and wall are formed simultaneously and there is no evidence of presence of the solitary 'euthecal' ring. Usually, in the later growth the original very thin skeleton is covered by thick exothecal sclerenchymal tissue and often also filled by endothecal sclerenchyme (=stereome). **(2)** The juvenile stage starts with an enlargement of the corallum diameter. The development of radial structures (costae) causes interruption of the marginotheca and the formation of a trabeculotheca (sensu CHEVALIER 1987). The trabeculotheca consists of interseptal segments of minitrabecular nature. Thickening of the septa and reaching their ultimate number (for particular species) usually is combined with vanishing of trabeculothecal segments and formation of the septotheca in the **(3)** adult stage. In neotenic groups of caryophyllids (i.e. flabellids) the marginothecal wall is present in the whole ontogenetic sequence.

