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AMPHIPORA ONTOGENY

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The Eifelian–Frasnian limestones of SE Moravia (on Brunnia) have greatly developed facies of *Amphipora*-limestone, which prevail in lower parts of several sedimentary cycles.

The relevant beds display a large variety of sedimentary fabrics from slightly washed 'in-situ' bafflestones up to grainstone/floatstone storm beds. The unbroken *Amphipora* 'straws' are mostly linear and 10–30 cm long. Undulated or branched growth-shapes are usually rare. The growth of carbonatized tissues starts typically from small chambers with gradual thickening to 'adult' diameter of the 'straws'. The *Amphipora* populations are monotonous, associated only with green algae of type-*Issinella*. Possible past habitat was lagoonal 'seagrass', alternatively, also irregular mattresses from tangle of these 'straw-like' specimens. The strikingly linear or only slightly bent shapes (and absence of holdfasts) suggest, that *Amphipora* 'straws' must be kept in vertical position by bubbles in their upper living parts.

Investigation of *Amphipora* early growth stages (Hladil, in press) was focused to species related to *Amphipora rudis*, *A. laxeperforata* a.o. Here, the first stages correspond to bottom discs (thin, irregular, with granulae or rudimentary pillars; d= 0.3 mm). The primary tubes (2–6 mm long), grow from these discs and, in terminal parts of these tubes, the 'adult' spongy tissues start by protuberances on their outer and inner sides. The last change is fast but fluent.

However, the imperfectly developed bottom discs of *Amphipora ramosa* are not so strictly separated from the tube. These discs are integral parts of thick, rounded and tubercular chambers (d = 0.2 mm). Short funnels (0.5 mm) rapidly expand and have early transitions to 'adult' spongy morphology (Fig. 1).

The new studies of *Amph-ipora* ontogeny suggests, that *A. ramosa* and *A. rudis* have unlike origin and amphiporids, in general, are rather linked to some common protozoan ancestors of archaeocyaths and cnidarians than to 'normal' stromatoporoids.

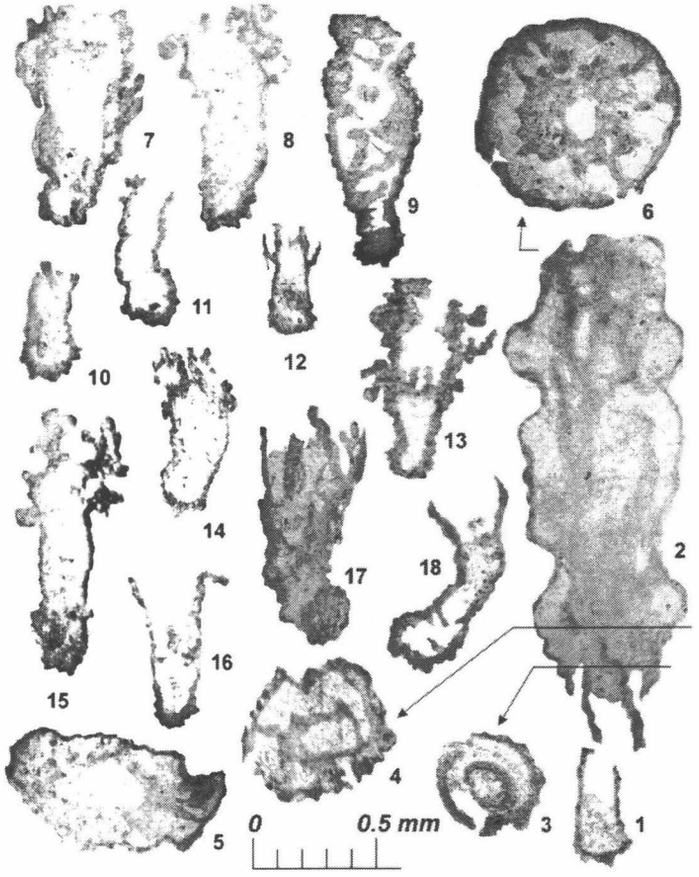

Figure 1. Young growth stages of *Amphipora ramosa*. Josefov in Moravian Karst, JOBA section, 10 m. 1 to 6 : Relationships among juxtaposed sections, illustration of early ontogenic stages. 7 to 18 : Variability of first chambers and funnels (longitudinal sections).

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Reference:
Hladil, J.: *Amphipora* babies and growth strategies. - A. Univ. Carol., Geol. (in press)