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Morphogenesis and relationships of *Trochophyllum* Milne-Edwards and Haime, 1850 (Coelenterata, Anthozoa)

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Detailed study of the holotype and topotypes of the type species of *Trochophyllum* Milne-Edwards and Haime reveals that this genus has a unique internal morphology most similar to *Neaxon* Kullman. Although the systematic relationships of small, aulate solitary corals remain dubious, *Trochophyllum* is referred provisionally to the family Petraiidae de Koninck. The genus is represented by the type species, *T. verneuilanum* Milne-Edwards and Haime, and the informal taxon *T.* sp. 1, which are known only from Tournaisian (early Osagean) strata in Kentucky and Indiana, USA. Previously published records of *Trochophyllum* outside the type locality of its type species are either invalid or unconfirmable on present published information *Trochophyllum* is distinguished by a highly variable aulos that is typically of the stereotheca-type, filled with stereoplasm at maturity; axial tabulae absent or not preserved at maturity;
cardinal septum shortened in the calice; and minor septa developed only as foundations.

Key words: corals, Rugosa. Carboniferous, systematics.