

Aspects of life mode among Ordovician asteroids: Implications of new specimens from Baltica

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Acta Palaeontologica Polonica 52 (3), 2007: 519-533

A new genus and species of Asteroidea (Echinodermata), *Estoniaster maennili*, is described from the Upper Ordovician (Caradocian) of Estonia; it is similar to the western European genus *Platanaster* and the North American *Lanthanaster* and an as yet unpublished new genus. Specimens of *Urasterella?* sp. and *Cnemidactis* sp. are recognized from the Middle Ordovician of northwest Russia; although similar to known species, incomplete preservation precludes more precise taxonomic assessment. Asteroids are important in many existing marine communities, and in spite of a meager fossil record, diversity suggests they were important in the early Paleozoic as well. Some debate has centered on arm flexibility in early asteroids, which bears on their roles in their communities. Parallels in ambulacral series arrangement between Ordovician and extant species and presence of an ambulacral furrow indicate similar broad ranges of motion and therefore potentially parallel ecologic roles. Many factors might have contributed to the differences between ancient and extant ambulacral articulation, including changes in positioning of a part of the water vascular system, changes in predation and bioturbation pressures, and taphonomic events that obscure skeletal details.

Key words: Echinodermata, Asteroidea, functional morphology, Ordovician, Baltica.

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