

Morphology and ecological setting of the basal echinoid genus *Rhenechinus* from the early Devonian of Spain and Germany

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Acta Palaeontologica Polonica 58 (4), 2013: 751-762 doi: <http://dx.doi.org/10.4202/app.2011.0098>

Based on new material from Germany and Spain, the echinoid “*Lepidocentrus*” ibericus from the Early Devonian (Emsian) of northern Spain is shown to be congeneric with *Rhenechinus* from the Hunsrück Slate of south-western Germany. New information on the lantern, pedicellariae and internal structure of the theca is provided, and confirms this genus as a member of the Echinocystitidae–Proterocidaridae clade and the most primitive of all Devonian echinoids. The two environmental settings in which *Rhenechinus* is found are very different: the Spanish specimens come from a relatively shallow-water bryozoan meadow setting while the German specimens are preserved in a deep-water setting. We deduce that the rare echinoid specimens from the Hunsrück Slate are all allochthonous, whereas the Spanish material is preserved in situ.

Key words: Echinodermata, Echinoidea, morphology, phylogeny, Devonian, Spain, Germany.

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