

Filling the Silurian gap of solutan echinoderms with the description of new species of *Dehmicystis* from Spain

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Solutans were among the most enigmatic pre-radial and asymmetric echinoderms. A new species *Dehmicystis ariasi* sp. nov. is described from the upper part of the Llagarinos Formation, lower Ludlow (Silurian) of Northwest Spain. This is the first solutan formally described from Iberia and the first from the Silurian worldwide. *Dehmicystis* was previously known based on a small number of poorly preserved specimens from the Emsian, Lower Devonian Hunsrück Slate of Germany. New observations based on the newly studied material suggest that *Dehmicystis* displayed a feeding appendage facing towards the substrate, and the periproct on the opposite face of the theca. Comparisons with other solutans and new data suggest that *Dehmicystis* was a detritus feeder that moved over the substrate capturing organic particles from the sediment with a single feeding arm.

Key words: Echinodermata, Soluta, pre-radial, asymmetric, Rhuddanian, Silurian, Spain.

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