ACTA PALAEONTOLOGICA POLONICA

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

Samuel Zamora and Juan Carlos Gutiérrez-Marco
Acta Palaeontologica Polonica 68 (2) 2023: 185-192 doi:10.4202/app.01054.2023

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.

Samuel Zamora [s.zamora@igme.es; ORCID: https://orcid.org/0000-0002-3917-4628], Instituto Geológico y Minero de España (IGME-CSIC), Residencia CSIC, Campus Aula Dei, Av. Montañana 1005, E-50059 Zaragoza, Spain. Juan Carlos Gutiérrez-Marco [jcgrapto@ucm.es; ORCID: https://orcid.org/0000-0003-4213-6144], Instituto de Geociencias (CSIC, UCM) and Área de Paleontología, Departamento GEODESPAL, Facultad de Ciencias Geológicas, José Antonio Novais 12, E-28040 Madrid, Spain.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.


Full text (1,402.4 kB)