A spinose appendage fragment of a problematic arthropod from the Early Ordovician of Morocco

Peter Van Roy and O. Erik Tetlie

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A highly spinose fragment of a possibly raptorial appendage from the Arenig (Early Ordovician) of the Upper Fezouata Formation north of Zagora, southeastern Morocco is described as the arthropod Pseudoangustidontus duplospineus gen. et sp. nov. The single fragmentary specimen displays a unique morphology, carrying at least 39 pairs of spines (i.e., 78 spines) of very regularly alternating lengths. Pseudoangustidontus gen. nov. shows some similarities to a number of spinose arthropod appendages and appendage parts, most notably to the spine-bearing podomeres of the third prosomal appendage of megalograptid eurypterids and the problematic and incompletely known genus Angustidontus. However, megalograptids and Angustidontus both have a lower spine count, while the latter also carries only a single row of spines. Because no known arthropod displays a morphology closely comparable to that of Pseudoangustidontus gen. nov., the affinities of the new fossil within Arthropoda remain uncertain.

Key words: Arthropoda, raptorial appendage, Arenig, Ordovician, Morocco.

Peter Van Roy [peter.vanroy@ugent.be], Department of Geology & Soil Science, Ghent University, Krijgslaan 281 / S8, B-9000, Ghent, Belgium; O. Erik Tetlie [erik.tetlie@yale.edu], Department of Geology and Geophysics, Yale University, PO Box 208109, New Haven, CT 06520-8109, USA.

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