



New echinoderm Lagerstätten from the Upper Ordovician of Erfoud area (eastern Anti-Atlas, Morocco)

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In the past, sites in the Erfoud area (eastern Anti-Atlas, Morocco) have already yielded remarkable soft bodied fossils (e.g., eldonioids) preserved in coarse clastic sediments, showing Ediacara-type preservation. Here, we report on the recent discovery of four distinct Late Ordovician echinoderm Lagerstätten from the same region (W of Risani, Tafilalt). They have yielded hundreds of exquisitely preserved specimens. Their taphonomy (fully articulated individuals, showing even the most delicate skeletal elements of their feeding appendages) and associated lithology are both suggestive of a rapid, in situ burrial of life assemblages by storm deposits, in relatively shallow palaeoenvironmental conditions (distal upper offshore). The oldest assemblage (Izeguiene Formation, lowermost Sandbian) is dominated by eocrinoids, ophiuroids, and stylophorans (cornutes and mitrates), associated with rare crinoids. It shows strong similarities with slightly older faunas described in the underlying Ouine-Inirne Formation (upper Darriwilian) in Central Anti-Atlas. The second assemblage (lower part of Lower Ktaoua Formation, Sandbian) is composed of abundant ophiuroids, small solutes, and mitrates, along with rare eocrinoids. The third assemblage was collected in the upper part of the Lower Ktaoua Formation (upper Katian). It is dominated by

ophiuroids and large sponges, associated with common diploporites and rhombiferans, and rare crinoids and mitrates. Finally, the youngest assemblage (lower part of Upper Tiourine Formation, upper Katian) has yielded abundant remains of edrioasteroids and rhombiferans.