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Rhaetian ophiuroids from the Netherlands: a preliminary report

(Poster)

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For the first time, ophiuroids are recorded from the quarry complex at Winterswijk, eastern Netherlands. Strata excavated at the quarry comprise mainly Lower Muschelkalk (Anisian, Middle Triassic) limestones, renowned for their abundant vertebrate body fossils and traces. Recently, a subrosion pipe fill in the Muschelkalk (OOSTERINK et al. 2006) yielded dark shales being dated as early to middle Rhaetian on bivalve and palynological evidence (KLOMPMAKER et al. in prep.). Also, similar, early to middle Rhaetian dark shales occur in situ in the northern part of the quarry complex (HERNGREEN et al. 2005; KLOMPMAKER et al. in prep.). The ophiuroid faunule presented herein was collected from both shale appearances of the quarry by splitting the soft slabs. Specimens generally are rare and occur individually or in groups of three to four individuals.

The material consists of more than 15 complete and articulated specimens and disc fragments, plus some 30 arm fragments. Specimen size (disc diameter) ranges from about 1 to 6 mm. Most specimens are at least partially pyritised. Compaction and recrystallisation, however, tend to blur morphological details of many specimens. To make matters worse, small gypsum needles and encrustations formed some weeks after recovery of the slabs, preferably on the ophiuroid remains. However, in thoroughly pyritised specimens, brief exposure to a 20% H₂O₂-solution turned out to be succesfull - disc and arm fragments could be freed from the matrix and from thin clayey encrustations. This preparation method leaves specimens prone to fragmentation but it does render them perfectly exposed and suitable for SEM-examination.

The prepared specimens exhibit enough morphological detail to be taxonomically assessed. First observations suggest that the faunule is monospecific. There are affinities with species of the genus *Aplocoma* D’ORBIGNY, 1852, and ongoing investigations aim at a precise taxonomic assignment and
comparison with other Rhaetian ophiuroids from Europe and especially from the lithologically comparable Penarth Group in Britain (Hess 1965; Swift & Martill 1999).

References


Kloppmaker, A.A., Herngreen, G.F.W. & Oosterink, H., (in prep.). Uppermost Triassic (Rhaetic) sediments and subrosion pipe age and stratigraphy at Winterswijk, the eastern Netherlands.
