

Scolecodonten aus oberordovizischen Öjlemyrflintgeschieben von Gotland

Scolecodonts from Upper Ordovician Öjlemyrflint glacial erratics of Gotland

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Zusammenfassung

Aus dem unverwitterten Typus der Gotländer Öjlemyrflintgeschiebe wurde eine sehr gut erhaltene Scolecodontenfauna mit insgesamt 28 Arten aus 15 Gattungen und 9 Familien nachgewiesen. Eine Häufigkeitsanalyse der Scolecodontensclerite weist auf eine stratigraphische Einstufung ins obere Pirgu hin. Die Dominanzverhältnisse innerhalb der häufigsten Arten bestätigen als Heimat das ehemalige Flachmeergebiet nordöstlich Gotlands.

Abstract

The present paper provides the first more detailed documentation of scolecodonts from Upper Ordovician Öjlemyrflint geschiebes. The latter occur in three different varieties depending on their degree of weathering. The so-called Braderup Type, which occurs on the Isle of Sylt, is strongly weathered and all primary calcareous fossils are secondarily silicified. Organic microfossils are almost completely lacking. The Wielen Type distributed in western Niedersachsen (Wielen near Uelsen) is less weathered. Although the primary calcareous fossils are also silicified, it still contains organic microfossils. The Gotland Type, which is only known from the Isle of Gotland, is completely unweathered. It is extremely fossiliferous having the primary calcareous hard parts preserved as well as the organic microfossils. Except for *Acritarcha* (Eiserhardt 1992) organic microfossils had not been subject to closer investigations. The yet recorded scolecodonts comprise a total of 28 species out of 15 genera from 9 families and additionally, some sclerites described in open nomenclature. Like other microfossil groups such as bryozoans (Oraspold 1975), ostracods (z.B. Schallreuter 1981), chitinozoans (Grahn (1982), scolecodonts deliver no index fossils for a proper stratigraphic determination. However, a quantitative analysis of the association compared with results presented by Hints & Eriksson (2007) for the Baltoscandian region permits a stratigraphic assignment with a high degree of confidence. In general, the Öjlemyrflint association resembles Hints' & Eriksson's (2007) results for both Vormsi and Pirgu stage in their dominance of placognath and ctenognath taxa with *Mochtyellidae*, *Xanioprionidae* and *Tetraprionidae*. They are followed by *Polychaetaspidae*. *Atraktoprionidae* and *Polychaeturidae* are of subordinate significance only. *Ramphoprionidae* are completely lacking in the study material and – according to Hints & Eriksson (o.c.) only take a very minor part in the Pirgu stage. Differences to yet known associations of the Porkuni stage (Hints 2001) refer to other than the herein described dominances within the genus *Mochtyella*, the absence of *Paulinitidae* and the absence of *Oenonites* n.sp. B (Hints 2001), although this genus is represented in the study material with five species and is richest in individuals. This confirms the previous suggestions of a Pirgu age for the Öjlemyrflint. Since the scolecodont association is distinctly dominated by *Pistoprion* transits, a taxon confined to the shallow marine Marginal Confacies Belt of the Baltoscandian Palaeobasin (Hints 2001), it strongly confirms an origin of the Öjlemyrflint geschiebes from a region in the direct vicinity northeast or north-northeast of the Isle of Gotland (comp. Martinsson 1958, Spjeldnaes 1985).