ACTA PALAEONTOLOGICA POLONICA

Upper Cambrian trilobite biostratigraphy and taphonomy at Kakeled on Kinnekulle, Västergötland, Sweden

Fredrik Terfelt
Acta Palaeontologica Polonica 48 (3), 2003: 409-416

A section through the Upper Cambrian black shales and limestones at Kakeled on Kinnekulle, Västergötland, Sweden, extends from the lower-middle part of the Agnostus pisiformis Zone into the *Peltura scarabaeoides* Zone. Fossils are usually preserved only in the stinkstones, but in the *A. pisiformis* Zone trilobites can be found also in the shales. Lithologically, the stinkstones can be subdivided into primary coquinoid limestone, which include the majority of the fossils, and early diagenetically formed limestone. The orientation of cephala and pygidia of *A. pisiformis* were measured on four shale surfaces and one stinkstone surface. The majority of the shields were deposited with the convex side up and showed a preferred orientation, suggesting that their positions were affected by currents. Above the *A. pisiformis* Zone the section comprises the *Olenus/Homagnostus obesus* Zone (0.30 m), the upper part of the *Parabolina spinulosa* Zone (0.05 m), the *Peltura minor* Zone (1.15 m), and the *Peltura scarabaeoides* Zone (2.50 m). The *Leptoplastus* and *Protopeltura praecursor* zones are missing. The *Olenus/H. obesus* Zone is represented only by the *O. gibbosus* and *O. wahlenbergi* subzones, whereas the *O. truncatus*, *O. attenuatus*, *O. dentatus*, and *O. scanicus* subzones are missing.

Key words: Trilobita, biostratigraphy, alum shale, depositional environment, Upper Cambrian, Kakeled, Kinnekulle, Sweden.

Fredrik Terfelt [Fredrik.Terfelt@geol.lu.se], Department of Geology, GeoBiosphere Science Centre, Sölvegatan 12, SE–223 62 Lund, Sweden.

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 (946.4 kB)