ACTA PALAEONTOLOGICA POLONICA

Molluscs from Early Frasnian Goniatite Level at Kostomłoty in the Holy Cross Mountains, Poland

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Acta Palaeontologica Polonica 51 (4), 2006: 707-718

The uniquely goniatite-rich pyritic level, 1.6 m thick, exposed at Kostomłoty (Holy Cross Mountains, central Poland) represents a distinct, local biotic event in the Early Frasnian interval corresponding to the inception of a major geochemical (carbon cycling) perturbation in the stagnant deep-water and oxygen-deficient Kostomłoty basin. The taxonomic and palaeoecologic characteristics ofmolluscan fossil associations from the Goniatite Level are presented. Most of the goniatitids and orthoconic nautiloids from the studied fossil assemblages are juvenile conchs or protoconchs, or incomplete phragmocones and represent the genera *Acanthoclymenia* and *Linguatornoceras,* the former being predominant, and a single adult specimen probably of the genus *Koenenites*. In contrast, gastropods and bivalves are generally well preserved and identifiable to species level. Two new species are described: a gastropod *Palaeozygopleura* (*Bohemozyga*) *pyritica* sp. nov. and a bivalve *Glyptohallicardia multicostata* sp. nov. These studied mollusks and also amphiporoids are allochthonous elements which must have been transported into the deeper settings during sea-level rise and flooding of fringing reefs (Timan Event) and/or storm events, and there were mixed with pelagic cephalopods. Probably, a sea-level rise even led to flooding of nearby areas, and thus to introduction of pelagic material (juvenile cephalopods) into reefal settings, and then back to the deeper water again by the quasi-estuarine circulation of water masses.

Key words: Goniatitida, Nautiloida, Gastropoda, Bivalvia, palaeoecology, Frasnian, Devonian, Poland.

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Full text (1,445.7 kB)