Micropaleontology of the Jurassic and Cretaceous boundary deep marine sediments

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The natural outcrop near Bruzovice village represent deep marine sediments of the Jurassic/Cretaceous boundary. Lower part of the section is formed by the uppermost part of the Vendryně Formation, which is represented by dark grey calcareous claystones with two horizons of concretions and blocks of limestones. Limestones represent gravels, blocks and concretions of size at least 1.5 m in size. Accumulation of limestones can be compared with the Ropice horizon (MENČÍK *et al*., 1983) which occures in the uppernost part of the Vendryně Formation. Upper part of profile is represented by lowest layers of Těšín Limestone, formed by light gray limestones (detritic in the lower part), gray, spotted claystones and marlstones.

Claystones of the Vendryně Formation provided a relatively poor association of non-calcareous dinoflagellates with *Circulodinium distinctum, Cometodinium* sp., *Cribroperidinium* sp., *Endoscrinium* sp., *Gonyaulacysta* sp., *Stiphrosphaeridium anthophorum, Systematophora areolata, Tubotuberela* sp., *Valensiella* sp. Dinoflagellate cyst association is of late Tithonian age. Palynofacies are dominated by phytoclasts and amorphous organic matter typical for anoxic environment.

Thin-sections of the concretions and blocks are recrystalized. Cysts of calcareous dinoflagellates are common: *Cadosina semiradiata semiradiata* (Wanner), *Cadosina semiradiata cieszynica* (Nowak), *Cadosina semiradiata fusca* (Wanner), *Cadosina semiradiata olzae* (Nowak), *Cadosina minuta* (Borza), *Cadopsinopsis nowaki* (Borza), *Colomisphaera fortis* (Rehanek), *Colomisphaera conferta* (Rehanek), *Colomisphaera carpathica* (Borza), *Colomisphaera lapidosa* (Vogler), *Cadosina parvula* (Nagy), *Colomisphaera fibrata* (Nagy), *Colomisphaera minutissima* (Colom), *Colomisphaera radiata* (Vogler). Limestones studied contain small bioclasts and fragments of echinoids ophiuroids, spicules, ostracods, pyritized radiolaria and foraminifera.

The micritic limestones of the Těšín Limestones provided determinable and stratigraphically important microfossils. Representatives of calpionellids *Calpionella alpina* (Lorenz), *Calpionella elliptica* (Cadisch), *Calpionella grandalpina* (Nagy), *Calpionella minuta* (Houša), *Crassicollaria massutiniana* (Colom), *Crassicollaria parvula* (Remane), *Lorenzeilla hungarica* (Knauer), *Lorenziella plicata* (Remane), *Remaniella durandelgai* (Pop), *Remaniella catalanoi* (Pop), *Tintinnopsella carpathica* (Colom), *Tintinnopsella doliphormis* (Colom) and calcareous dinoflagellates *Cadosina semiradiata fusca* (Wanner), *Cadosina semiradiata cieszynica* (Nowak), *Cadosina semiradiata semiradiata* (Wanner), *Colomisphaera fortis* (Řehánek), *Colomisphaera radiata* (Vogler), *Colomisphaera lapidosa* (Vogler) were determined.

The association of calpionellids is typical for the uppermost Tithonian to lower Berriasian age (LAKOVA & PETROVA, 2013). The age of limestones from the sample Br3 is Early Berriasian on the base of the presence of *Tintinnopsella doliphormis* (Colom).

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LAKOVA, I. & PETROVA, S., 2013. Acta Geologica Polonica, **63**, 201–221.

MENČÍK, E. et al., 1983. Geologie Moravskoslezských Beskyd a Podbeskydské pahorkatiny. Praha, ÚÚV v nakladatelství ČSAV.