Calpionellid and nannofossil correlation across the Jurassic-Cretaceous boundary interval, Kurovice Quarry, Outer Western Carpathians

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Marine sequences of the Tethyan realm at the locality of Kurovice, Czech Republic were chosen for the multidisciplinary study of the J–K boundary. The aim of this study is to compare the distribution of calpionellids and nannofossils including the biostratigraphic interpretation. Tithonian–Valanginian strata, Kurovice Limestone and Tlumačov Marl respectively, are represented by whitish grey allodapic limestones intercalated with marlstones and belong to the Carpathian Flysch. REHÁKOVÁ (in ELIÁŠ et al., 1996) mentioned here calpionellid zones ranging from Late Tithonian *Crassicollaria* to Late Berriasian *Calpionellopsis* Zone. J-K boundary was not strictly confirmed due to tectonic reduction. Recent bed-by-bed study of Kurovice sequences confirmed more or less the calpionellid distribution pattern as it was presented in paper mentioned above, but J-K boundary and the onset of further calpionellid subzones is now more precised. Nannofossil and calpionellid record depends evidently on the lithological character of strata. This phenomenon may affect final stratigraphic and other interpretations. Calcarenites contain scarce nannofossils, not frequent calpionellids (many of them are resedimented); sponge spicules and radiolarians dominated in homogenous limestones in which calpionellids are rare and nannofossils are rare to few ones; marlstone intercalations contain relative abundant nannofossil specimens while calpionellids are seldom in them. Generally, calcareous nannofossils are poorly preserved, majority of calpionellid loricas are deformed, lorica's colars are often damaged. Nannofossils are characterized by dominance of Ellipsagelosphaeraceae (90 %) that may furnish proof of strong etching and secondary post mortem modification of nannofloras. Specimens of genus *Conusphaera* occur in small numbers and nannoconids are scarce especially in the lower part of section.

From the underlie to overlie, following succession of the first (FO) or last (LO) occurrences of nannofossils compared to the acme of *Calpionella alpina* was observed: the FO of *Helenea chiastia* accompanied by *Nannoconus puer* (NJT16b), FO *Nannoconus globulus minor* (NJT17a), FO *Watznaueria cynthae*, LO *Polycostella beckmannii,* FO *Nannoconus wintereri* (NJT17b, uppermost Tithonian), the acme of *Calpionella alpina,* follow the FO of *Nannoconus globulus globulus*, FO *Nannoconus kamptneri kamptneri* (NKT) and FO *Speetonia colligata*. Jurassic NJT and Cretaceous NKT nannofossil zones were applied by CASELLATO (2010).

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