Stable isotope record (δ^{13} C, δ^{18} O), invertebrates and small vertebrate fauna from the Jurassic-Cretaceous transition of the Kurovice quarry (Czech Republic, Outer Western Carpathians)

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A high resolution sampling in the Kurovice section (Czech Republic, eastern Moravia) provided a new data of the stable isotope record (δ^{13} C and δ^{18} O) from almost 52 m thick section (lower Tithonian–Berriasian *sensu* Eliáš et al., 1996). Additionally, a very rare invertebrate macrofauna and both macro- and micro- vertebrate faunas have been recorded in a few fossiliferous horizons. The stable isotope record shows only minor excursions of the δ^{13} C, not exceeding values 0.5‰ (varying from 0.7 to 1.2 ‰ V-PDB, the largest negative peak exceeds 0.2 ‰ V-PDB, probably in the lower part of the M19 magnetozone). Similar trend at the critical J/K boundary interval (M19-M18 magnetozones, near the *C. alpina* LORENZ abundant occurrence) is seen in several Tethyan sections (i.e. Brodno, Hlboča, Puerto Escaño, Hárskút HK II, and numerous others – see the summary in PRICE et al., 2016). The δ^{18} O curve shows a larger excursions varying between -1.5 to -4.3 ‰ V-PDB in the J/K boundary interval.

While the aptychii fauna has been described and revised in great details by MĚCHOVÁ et al., 2010, rare belemnite rostra (Belemnopseidae NAEF and Duvaliidae PAVLOW) are reevaluated herein within the modern belemnite taxonomic concept and they are stratigraphically investigated. Less diversificated rhyncholites (genera *Rhynchoteuthis* D´ORBIGNY, *Hadrocheilus* TILL, *Leptocheilus* TILL) as well as the vertebrate fauna consisting predominantly of Chondrichthyans (i.e. hybodontid sharks, etc.) are reported newly from the J/K boundary interval in the Kurovice section and they are compared to those fauna within the North-west Tethyan localities.

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ELIÁS et al., 1996. Věst. Českého geol. Úst., **71**/3, 259–276. MĚCHOVÁ, L. et al., 2010. Bull. Geosci. **85**/2, 219–274. PRICE, G.D. et al. 2016. Palaeogeogr. Palaeoclimatol. Palaeoecol., **451**, 46–61.