THE IMPACT ON THE LITHO- AND BIOFACIAL DEVELOPMENT OF THE MID DEVONIAN KAČAÁK EVENT IN THE PRAGUE BASIN, THE GRAZ PALAEOZOIC AND THE CARNIC ALPS

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The Kačák Event, named by House (1985), is one of 3 globally documented Mid Devonian events (Choteč, Kačák and *pumilio* Event). It is interpreted as a transgressive event (correlated to the Ie cycle of Johnson *et al*., 1985) and ranges from the upper part of the *kockelianus* to the lower part of the *hemiansatus* conodont Zone. Extensive extinction, substantial reduction in diversity of pelagic and benthic fauna globally, as well as appearance of new faunal elements is characteristic for the Kačák Event. Furthermore, it has played a significant role in evolution of some major fossils groups, such as are: goniatites, trilobites, brachiopods and conodonts (House, 2002; Walliser, 2000). A densely plot of carbon isotope values has recently been given by Buggisch and Joachimski (2006) for the entire Devonian. Their studies reveal a positive carbon excursion from less than 2‰ up to nearly 3.0‰ at the critical time interval.

Prague Basin: Here the Kačák Event shows one of the sharpest stratigraphical and lithological boundaries in the Barrandian area. It is represented by the onset of dark calcareous shale of the Kačák Shale Member (Srbsko Formation) sharply overlying the limestones of the Choteč Formation (Eifelian). In more proximal sequences of the Koněprusy area (Jirásek section), a dark grey bituminous limestone interval of less than 1 m occurs, which is regarded by some authors as an equivalent of the Kačák shales. However it has to be stated that this correlation is not that clear, because *Nowakia otomari* started earlier than the onset of black shales (as well as *Cabrieroceras rouvillei/crispiforme*).

Although the planktonic and nektonic elements were less affected, the decline in their diversity was remarkable. In Prague Basin, about 250 species are described from the Choteč Formation but only about 60 from the Kačák Member (Chlupáč and Kukal, 1986).

Graz Palaeozoic: The pelagic deposits of the Graz Palaeozoic during the middle to upper Eifelian are represented by the St. Jakob Formation (Laufnitzdorf Nappe). The sequence consists of tentaculite bearing limestones and lydites with inter-beds of immature sandstones. The shallow marine equivalent to the pelagic development can be found in the Rannach Nappe (Plabutsch Formation) where a highly diverse carbonate fauna (including stromatoporoids, corals, and brachiopods) developed out of a benthic pioneer community in the course of the transgressive phase.

Carnic Alps: In the Carnic Alps the discussed event is represented by a lithological change from limestones to black shales and lydites within distal slope settings (Oberbuchach II section). In shallow water environments of the Kellerwand Nappe (Spinotti Formation) the mid to late Eifelian transgression results in a change from massive birdseyes limestones (lagoonal to peritidal settings) to thick bedded peloidal limestones (approx. mid to deeper shelf settings). But due to lacking biostratigraphic constraints, it is not clear, whether this change reflects Kačák Event-deposits or not.

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