# Taxonomy and stratigraphy of the Lower Cretaceous belemnites from Štramberk (Czech Republic, Outer Western Carpathians)

***Vanková, L.*[1]**

*1) Institute of Geology and Palaeontology, Faculty of Science, Charles University, Prague, Czech Republic, E-mail: vankova.luc@seznam.cz*

Belemnites belong in Štramberk area (Czech Republic, north Moravia) to the quite common fossils. A relatively high taxonomic diversity of belemnites is closely connected to geological development of this heterogenous complex. There are strongly ambiguous views on the genesis of the reef Štramberk limestone, suggesting a different sedimentary history (i.e. HOUŠA, 1975; ELIÁŠ & STRÁNÍK, 1963). The Lower Cretaceous sediments infill fissures or pockets in older Jurassic limestones, therefore, the stratigraphic position seems to be sometimes confusing.

Diversificated belemnite fauna from the "Š-12 pocket" (Kotouč quarry) stratigraphically ranges from the Tithonian to the Barremian. The belemnite distribution in time was triggered by selective exposition and erosion of an individual sedimentary units during the Jurassic and the Lower Cretaceous age (within the Outer Western Carpathians orogeny). Therefore, belemnite rostra and especially their alveolar cavities are natural archives containing depositional record. Analysis of several generations of sediment infills seems to be an excellent tools for a study of sedimentary history (as these rostra have several times been reworked).

Detailed research of belemnites rostra from the "Š-12 pocket" (collection of Dr. V. Houša - almost 10 000 belemnites rostra), reveals both belemnite taxonomy and systematics and sedimentary units stratigraphy as well. Inside of examined belemnites (Duvaliidae, Pseudobelidae, Mesohibolitidae), the oldest representatives of the genus *Conobelus* (Tithonian) were recorded. The majority of rostra investigated belong to the Berriasian through the Hauterivian genera *Duvalia*, *Berriasibelus* and *Pseudobelus*. The genus *Castellanibelus* has been recorded and rarely. Abundantly present *Mesohibolites* and *Conohibolites* (the Barremian and younger deposits) reported herein do not correspond with the previously assumed age of pocket, and it rather corresponds to the Upper Lower Hauterivian (*sensu* SVOBODOVÁ et al., 2011). Belemnites clearly demonstrate not only the younger age of sedimentary units but they also upgrade the geological understanding of the formation region in a broader context.

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