Recent biostratigraphical and lithostratigraphical research in the Štramberk Limestone in the Kotouć Quarry

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In the last three years, rather comprehensive biostratigraphical and lithostratigraphical research of the Kotouč Quarry was carried out. This research concerned both the Štramberk Limestone and so-called foreign rocks occurring within the Štramberk Limestone succession and associated strata. The paper dealing with the taxonomic interpretation of a collection of ammonites from the Lower Cretaceous deposits of the Štramberk area by V. Houša (Houša & Vašíček 2005) was already published. V. Houša also submitted a new, important proposal on the stratigraphical position and lithostratigraphical division of the Upper Jurassic and a part of Lower Cretaceous deposits (with some new lithostratigraphical units). Moreover, extensive micropalaeontological researches of the non-carbonate accompanying deposits younger than the Štramberk Limestone were conducted. Some results of this work can be found in Svobodová *et al.* (2004) paper; other results are being prepared for print.

H. Eliášová studied a new collection of corals (Scleractinia) from the Štramberk Limestone. She determined 39 species, 5 species were new. The results are being prepared for print.

The palaeontological collecting together with the detailed lithological, microfacies and biostrati-graphical research have been done in Kotuč Quarry in 2003. The lithological studies were conducted by P. Skupien and Z. Vašíček, while the microfacial and microbiostratigraphical studies based on thin sections were performed by D. Reháková and M. Mišík from Bratislava.

The carbonate deposits and their calpionellids in the area of Štramberk were already previously studied by V. Houša (Houša 1990). On the basis of this studies he established the age of the Štramberk Limestones: ?Late Kimmeridgian, Tithonian (documented by *Chitinoidella* and *Crassicollaria* calpionellid Zones; older rocks being of course without calpionellids), to the Early Berriasian (*Calpionella* Zone, *Alpina* and *Ferasini* Subzones). After short interruption at the end of Early Berriasian, carbonate sedimentation continued as Oupek Formation (new name) in the Elliptica and Longa Subzones (in *Calpionella* Zone) and the *Simplex* Subzone (in *Calpionellopsis* Zone). After the hiatus in the Late Berriasian, carbonate sedimentation continued into the Valanginian Gloriet Formation (new name) and the Kopfiivnice Limestone as proved by ammonites.

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In addition to carbonate deposits, Valanginian is also represented by dark grey pelites with a similar association of ammonites often preserved as pyrite moulds. Besides the Valanginian pelites, with the age well evidenced by ammonites, the other lithologically similar Albian and Cenomanian pelites occur in this area. Their age has been proved by latest micropaleontological studies (spores and pollens, non-calcareous dinoflagellates, calcareous nannoplankton, foraminifers).

In addition to the above-mentioned sediments, green sandstones and layers of dolomite accompany locally the Štramberk Limestone. Their spetial relation is not known yet.

References

- Houša V. 1990. Stratigraphy and calpionellid zonation of Stramberg Limestone and associated Lower Cretaceous beds. *Atti II Conv. Int. "Fossili Evoluzione Ambiente" Pergola 1987*, 365-370. Pergola.
- Houša V., Vašíček Z. 2005. Ammonoidea of the Lower Cretaceous deposits (Late Berriasian, Valanginian, Early Hauterivian) from Štramberg, Czech Republic. *Geolines*, **18**: 7-58.
- Svobodová M., Hradecká L., Skupien P., Švábenická L. 2004. Microfossils of the Albian and Cenomanian shales from the Štramberk area (Silesian Unit, Outer Western Carpathians, Czech Republic). *Geol. Carpath.*, **55**: 371-388.