Workshop of the Jurassic/Cretaceous Boundary Subcommission of the International Commission on Stratigraphy

Smolenice, Slovakia, April 6th – 9th, 2010

At the Marseille, Milan and Plymouth meetings of the ***IUGS Stratigraphic Subcommission*** for the **Jurassic/ Cretaceous Boundary** in recent years, a resolution was accepted to meet in *April 6th to 9th 2010* in *Smolenice Castle*. Smolenice is a very picturesque edifice in western Slovakia, only 50 km north-east of Bratislava, at the edge of the Little Carpathians. Smolenice Castle, built in the 14th century, offers the best possibility for scientific meetings as the Conference House of the Slovak Academy of Science.

Plenary meetings of the J/K Boundary Subcommission with talks and discussion were held on April 6th and 7th. Importance was laid on discussion of the reliability of boundary indexes. The ammonite vertical distribution is regarded as the major argument for recognizing the J/K boundary. However, basically contradictory views exist in the concepts of different authors (W. Wimbledon, B. Arkadiev, V. Guzhikov, M. Rogov, L. Bulot). M. Rogov proposed to regard the base of the Kochi Zone/Occitanica Zone as an alternative, world-wide traceable base of the Cretaceous system boundary. The evolution of calpionellids and calcareous dinoflagellates in the J/K boundary interval is accepted as one of alternative keys for drawing the boundary. Several speakers (I. Premoli Silva, D. Reháková, A. Pszczółkowski, E. Halásová) introduced examples of micro- and nannofossil successions through the J/K boundary from the Apennines, Alps and Carpathians. Another hope is connected with the carbon isotope correlations (J. Grabowski, J. Schnyder, O. Lintnerová) or with the paleomagnetic record in rock sequences around the J/K Boundary (J. Grabowski, P. Pruner, B. Arkadiev, V. Guzhikov). However, further investigations are still necessary.

On the third day, April 8th a short field trip to important J/K boundary localities in western Slovakia (Hlboča, Vršatec-Strapková, Strážovce and the Brodno sections) was organized.

The first section in the **Hlboča Valley** is situated very close to the place of the workshop, in the Central West Carpathian Vysoká Nappe. The boundary sequence, represented by red nodular limestone overlain by massive Padlá Voda Formation limestone is complicated by a synsedimentary breccia layer. The good biostratigraphic and paleomagnetic record indicate that sedimentary gap was not very impressive.

The second, **Strapková section** is exposed below the most impressive Vršatec Klippe in the Pieniny Klippen Belt. It is characterized by a relative deep sequence of siliceous limestones.

The third, **Brodno section** in an abandoned railway quarry was proposed recently (Michalík et al. 2009) as the regional stratotype for the Western Carpathians. It exposes a typical basinal sequence of the Pieniny Klippen Belt from red nodular limestones of the Czorsztyn Formation to maiolica-type hemipelagic limestones of the Pieniny Formation with well preserved microfossils, nannofossils, isotope and paleomagnetic record (but very poor in ammonites). Two short paleomagnetic excursions helping in division of the boundary interval (the Kysuca- and the Brodno submagnetochrons were first recognized right here).

The last, **Strážovce section** belongs to the Central Western Carpathians, again. The rock sequence represents a basinal environment: Upper Jurassic dark marls (the Jasenina Formation) covered by Berriasian "biancone" limestones of the Osnica Formation. The rock sequence is affected by diagenetic alteration resulting in shift in oxygen isotope values and in partial remagnetization.

The final overnight was in the Čičmany mountain village with remarkable ethnological heritage (with painted houses and formerly also with very characteristic white national costumes).

Text and photo by ***Jozef Michalík***