## Resedimented Cretaceous platform material in the Manín Unit, Western Carpathians.

Michalík, J.1,\*, Boorová, D.2, Lintnerová, O.3, Fekete, K.1, Soták, J.4

- 1) Slovak Academy of Sciences, Institute of Earth Sciences, Bratislava, Slovakia, \*E-mail: qeolmich@savba.sk
- 2) State Geological Institute of Dionýz Štúr; Bratislava, Slovakia
- 3) Comenius University, Faculty of Natural Sciences, Department of Economic Geology, Bratislava, Slovakia
- 4) Geological Institute, Slovak Academy of Sciences, Banská Bystrica, Slovakia

Lower Cretaceous sequence in the Manin Unit consists of Valanginian–Barremian pelagic carbonate sequence and of neritic carbonate complex compared with the "Urgonian" development (MICHALÍK et al., 2012). However, the latter sequence yielded planktonic foraminifers indicating the Albian Ticinella primula Zone, colomiellids Colomiella recta, C. mexicana, and calcareous dinoflagellate Calcisphaerula innominata. The rock consists mostly of numerous limestone clasts derived from destructed strata. Caprinid rudist shell fragments, orbitolinid foraminifers *Palorbitolina* ex gr. *lenticularis* and *O. (M.) texana* indicate their Aptian age (FEKETE et al., 2017). Isotopes within both formations change in wide intervals ( $\delta^{13}$ C is in range +1.03 to +4.20 % V-PDB and  $\delta^{18}$ O is in range -0.14 to -5.55 % V-PDB). High values of  $\delta^{13}$ C suggest that periplatform carbonate could retain isotope signal of former aragonite mineralogy. Distribution of  $\delta^{13}$ C in the section reveal eustatic sea level oscillation and suggest neritic conditions and continual marine diagenesis. During Late Aptian eustatic changes, this highstand carbonate platform sequence has been destroyed by erosion. A new mid-Albian lowstand carbonate platform accumulated carbonate clasts on toe of the slope. After stabilization and aggradation stage, carbonate platform growth was stopped and the platform collapsed. A hardground surface was formed, overlain by thin layer of calcisphaerulid limestone characterized by planktonic foraminifers of the latest Albian Thalmanninella appenninica Zone and calcareous dinoflagellates of the Innominata Acme Zone. This layer starts the sequence of Cenomanian pelagic marls of the Butkov Fm.

The research was supported by project of the Slovak Grant Agency APVV-14-0118, VEGA projects 2/0034/16 and 2/0057/16.

MICHALÍK, J. et al., 2012. Cretac. Research, **38**, 68-79. FEKETE, K. et al., 2017. Geol. Carpathica, **68**, in press.