

JIBAO18

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FOREWORD

The **JK2018** International Symposium focuses on a ca. 20 My interval of time spanning the Tithonian – Berriasian / Volgian – Ryazanian / – Valanginian interval (eventually overlapping slightly its lower and upper boundaries) in the Tethys area, as well as in the Panthalassa, Boreal and Austral regions.

This meeting is intended to bring together people with interests in the transition period spanning the latest Jurassic to the earliest Cretaceous times and to feature disciplines covering the many aspects of stratigraphy (litho-, bio-, magneto-, chemo-, cyclo-, sequence), as well as sedimentology, paleontology, paleogeography and global tectonics, at all scales, from the SEM – Scanning Electron Microscopy – to basin analyses.

The meeting is hosted by the **Muséum d'Histoire naturelle de Genève** and I take this opportunity to acknowledge the support provided by Jacques AYER (Director of the Museum), Dr Nadir ALVAREZ (Head of the 'Research and Collections' Unit), Dr Lionel CAVIN (Curator, Editor-in-Chief of *Revue de Paléobiologie*), their staff and colleagues, among whom are Dr Christian MEISTER, Dr André PIUZ, and Dr Éric MONTEIL. The organizing committee, which also includes Prof. Rossana MARTINI, Prof. Jean J. CHAROLLAIS, and Prof. Andreas STRASSER, thanks the 15 national and international organizations that agreed to be our scientific partners.

This abstract volume comprises 59 contributions, which is already an achievement. More than 70 participants representing at least 25 nationalities are attending and we wish you will all enjoy contributing to this stimulating meeting and to the debates.



Bruno GRANIER
President of JK2018

Note: In order to have fair, unbiased, and open discussions on the system boundary during the **JK2018** meeting and to give all sides the possibility to defend their views, it was suggested that, in both abstracts and figures, the author(s) should refrain as much as possible from using “JK system boundary”, and should preferably refer to stage boundaries instead. We did not censor any abstract. Accordingly, you will find some abstracts stating that the system boundary equates to the Tithonian-Berriasian boundary (more specifically the base of the acme /abundance/ zone of *Calpionella alpina*), which was not the conclusion of the meeting.

The Salima Formation *emend.*, which corresponds to an overall transgressive oolitic unit, is an unconformity-bounded unit. Based on our investigations: 1) the lower unconformity corresponds to a hiatus that encompasses at least the duration of the Berriasian; 2) the upper discontinuity corresponds to a hiatus that encompasses at least the upper Valanginian and the Hauterivian. Regardless of the selected option for the Jurassic-Cretaceous boundary (Tithonian/Berriasian or Berriasian/Valanginian), it unambiguously fits into the discontinuity at the base of the Salima Formation in Lebanon.

AZAR D. (1997).- Lebanese Amber.- *Meganeura*, Strasbourg, vol. 1, p. 26-27.

AZAR D. (2007).- Preservation and accumulation of biological inclusions in Lebanese amber and their significance.- *Comptes rendus Palevol*, Paris, vol. 6, no. 1-2, p. 151-156.

AZAR D., NEL A. & GÉZE R. (2003).- Use of amber fossil inclusions in palaeoenvironmental reconstruction, dating and palaeobiogeography. *In: Fossil insects.- Acta Zoologica Cracoviensia*, vol. 46, supplement, p. 393-398.

DUBERTRET L. (1955).- Notice explicative de la Carte géologique du Liban au 200.000e.- Ministère des Travaux Publics, Beyrouth, 74 p. (30 Pls.).

GRANIER B., AZAR D., MAKSOUD S., GÉZE R. & HABCHI R. (2015).- New fossiliferous sites with Barremian Charophyta in the "Grès du Liban " *auct.* (Lebanon), with a critical perspective regarding the nature of *Munieria* DEECKE, 1883.- *Carnets Geol.*, Madrid, vol. 15, no. 15, p. 199-229.

GRANIER B., TOLAND C., GÉZE R., AZAR D. & MAKSOUD S. (2016).- Some steps toward a new story for the Jurassic - Cretaceous transition in Mount Lebanon.- *Carnets Geol.*, Madrid, vol. 16, no. 8, p. 247-269.

HEYBROEK F. (1942).- La géologie d'une partie du Liban Sud.- Thesis, Dr in de Wis- en Natuurkunde aan de Rijksuniversiteit Groningen; *Leidsche Geologische Mededeelingen*, vol. XII, fasc. 2, p. 251-470.

WALLEY C. (1997).- The Lithostratigraphy of Lebanon.- *Lebanese Science Bulletin*, vol. 10, no. 1, p. 81-108.

WALLEY C. (2001).- The Lebanon passive margin and the evolution of the Levantine Neo-Tethys. *In: ZIEGLER P.A., CVAZZA W., ROBERTSON A.H.F. & CRASQUIN-SOLEAU S. (eds.), Peri-Tethyan rift/wrench basins and passive margins.- Mémoire du Muséum national d'Histoire naturelle*, vol. 186, p. 407-439.

31. New magnetostratigraphic data from the upper Volgian of the Moscow region

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Strong biogeographical segregation near to the Jurassic/Cretaceous boundary leads to the impossibility of direct Boreal-Tethysian correlation by biostratigraphy, thus identifying magnetostratigraphy as a key approach. However, magnetostratigraphic data from the Boreal section are very scarce. So far the only Nordvik section (northern Siberia) is characterized by a succession which permits direct correlation with Tethysian regions (*cf. HOUŠA et al.*, 2007; *SCHNABL et al.*, 2015), but ammonite findings in the upper Volgian of this section are uncommon and the position of zonal boundaries remains tentative (*ROGOV et al.*, 2015). Here we are describing the first preliminary results of a magnetostratigraphic study of the condensed upper Volgian succession in the Eganovo sand pit near Moscow (N55°32'0.16"; E38° 3'28.28"). This section is well-characterized by ammonites (*ROGOV*, 2017), and contains a nearly full succession of ammonite biohorizons except the uppermost middle Volgian Nikitini Zone, with a gap corresponding to its upper subzone. The uppermost part of the Volgian here is lacking any macrofossils and cannot be correlated to any ammonite zone. A total of 12 paleomagnetic samples were collected from the ~3.8 m interval. Each sample was prepared as several cubic specimens. The magnetic susceptibility (K) and

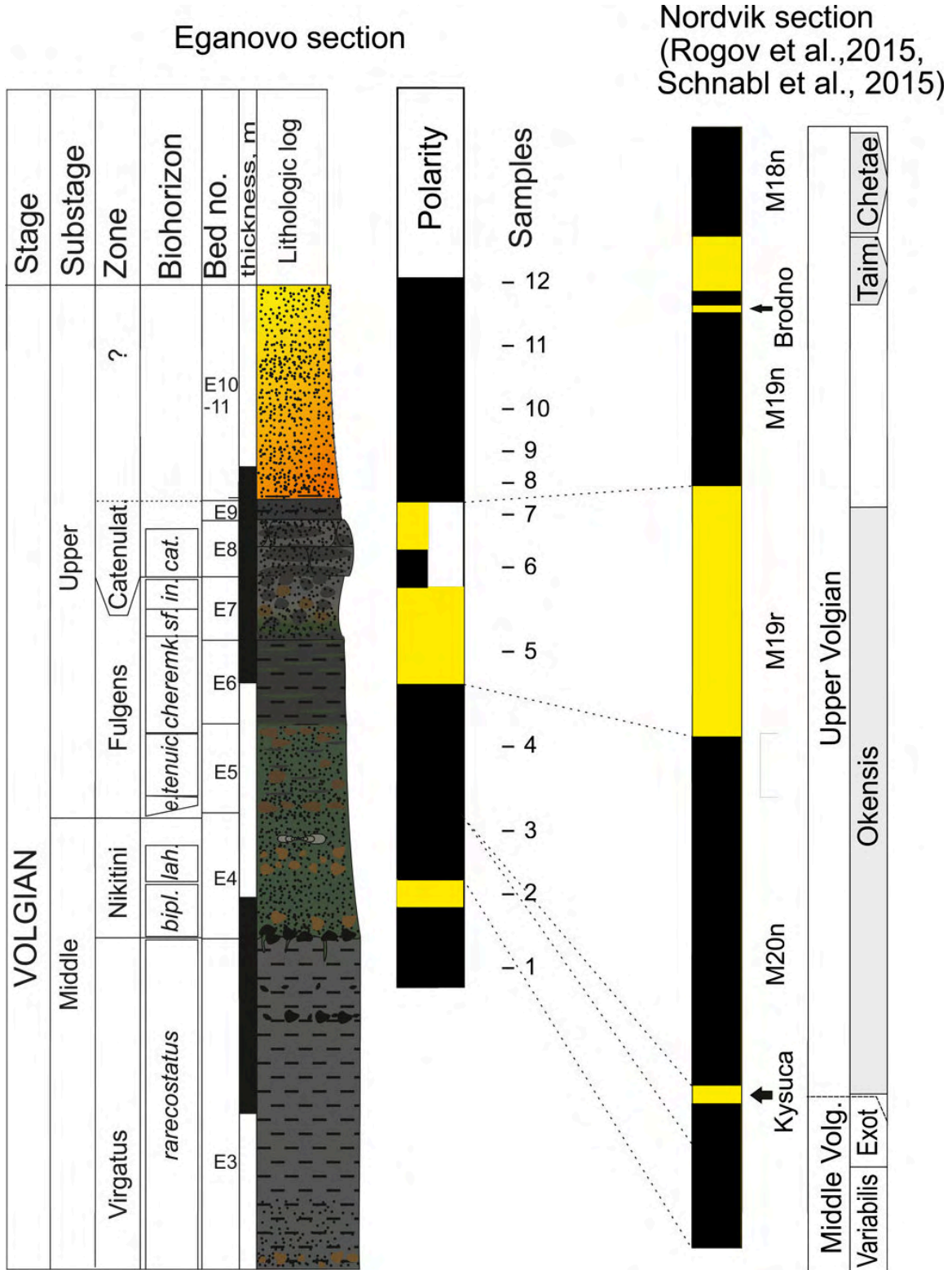


Figure 1: Lithostratigraphy and ammonite biostratigraphy of the Eganovo section plotted together with the polarity zones detected and their comparison with polarity zones recognized in Nordvik (Northern Siberia).

anisotropy of magnetic susceptibility (AMS) were measured using MFK1-FB kappabridge, while the natural remanent magnetization (NRM) was measured using a 2G Enterprises. Alternating field demagnetization was carried out from 3 to 80 mT with 3 mT steps. As revealed by magneto-mineralogical study, the main sources of natural remanent were magnetite and closely related minerals, but some samples from member 2 are characterized by the presence of iron hydroxydes. In the studied section, different lithologies are characterized by different NRM and K values. AMS of samples from the Member 2 (beds E2-E9) is characterized by a nearly equal distribution of K1 axes suggesting weak hydrodynamics with only a little influence of bottom currents from NW to SE, but some samples show an anomalous distribution of axes suggesting active hydrodynamics. Paleomagnetic data are relatively poor, as in other strongly condensed successions. As follow from Zijderveld diagrams, nearly all samples are characterized by the presence of low coercitivity remanent magnetization and characteristic remanent magnetization (ChRM). The latter was used for determination of magnetic polarity. ChRM was recognized in 7 samples only, but even such preliminary data permits recognition of a succession of magnetic polarity zones which could be correlated with both the Nordvik succession and the Standard succession. Two reverse polarity zones, which correspond to the lower part of the middle Volgian Nikitini Zone and the upper Fulgens to Catenulatum upper Volgian zones could be ascribed to M20r and M19r respectively. These results fit well with biostratigraphic correlation of Eganovo and Nodrvik successions.

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- HOUŠA V., PRUNER P., ZAKHAROV V.A., KOSTAK M., CHADIMA M., ROGOV M.A., ŠLECHTA S. & MAZUCH M. (2007). - Boreal-Tethyan correlation of the Jurassic-Cretaceous boundary interval by magneto- and biostratigraphy.- *Stratigraphy and Geological Correlation*, vol. 15, p. 297-309.
- ROGOV M.A. (2017). - Ammonites and infrazonal stratigraphy of the Kimmeridgian and Volgian stages of southern part of the Moscow syncline.- *Transactions of the Geological Institute*, v. 615, p. 7-160.
- ROGOV M.A., ALIFIROV A.S. & IGOLNIKOV A.E. (2015). - Revised ammonite succession of the Upper Volgian of Nordvik section: zonal boundaries and uncertainties.- The International Scientific Conference on the Jurassic/Cretaceous boundary. September 7-13, 2015, Samara (Russia). Kassandra, Togliatti, p. 70-76.
- SCHNABL P., PRUNER P. & WIMBLETON W.A.P. (2015). - A review of magnetostratigraphic results from the Tithonian-Berriasian of Nordvik (Siberia) and possible biostratigraphic constraints. - *Geologica Carpathica*, vol. 66, p. 489-498.