

Magnetic susceptibility and chemostratigraphy of the Tithonian - Berriasian succession in the Polish Basin

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During the Early Cretaceous, climate went through some perturbations which are well recorded in some sections. The Polish Basin is part of the Central European Basin, but because of its specific position, connected to the Tethys in the south and to the North Sea Basin in the northwest, it can be important for studies of the paleoclimate. The predominantly siliciclastic sediments of the Polish Basin were extensively studied during the previous century (see MAREK, 1989, for review), but also more recently new studies were performed (DZIADZIO et al. 2004). Based on well samples parasequences and sequences were distinguished, providing a precise correlation of the studied sedimentary series and a chronostratigraphic framework of the reconstructed events. Sedimentological and geochemical results from the Wąwał section (MORALES et al., 2015) indicate humid and increased chemical weathering in the early Valanginian, with deposition of relatively high amounts of terrestrial organic matter in the Polish Basin. These previous results encouraged to continue the study of climate changes in other sections. Results from the Tithonian/Berriasian boundary and the Valanginian interval from the Kcynia IG 2 borehole located near Bydgoszcz (central Poland) are presented. It shows a gradual change from shallow-water mudstones through carbonates to massive evaporites of about 70-m thickness. The evaporites are overlain by transgressive deposits (mostly mudstones) containing Berriasian ammonites in its upper part. The Jurassic/Cretaceous boundary is located most probably within the evaporites (DZIADZIO et al., 2004). We report results of a detailed magnetic susceptibility and geochemical survey, which documents variations in clastic input and paleoproductivity changes. The correlation with climatic and tectono-eustatic events documented in NW Europe and the Western Tethys will be proposed.

DZIADZIO, P.S. et al., 2004. *Annales Societatis Geologorum Poloniae*, **74**, 125–196.

MAREK, S. 1989. In: WIEDMANN J. (Ed). *Cretaceous of the Western Tethys. Proceedings 3rd International Cretaceous symposium, Tübingen 1987*, 755–770.

MORALES, C. et al., 2015. *Palaeogeogr., Palaeoclimatol., Palaeoecol.*, **426**, 183–198.