Accepted Manuscript

Magneto-biostratigraphy and paleoenvironments of the Miocene freshwater sediments of the Sarajevo-Zenica Basin

K. Sant, N. Andrić, O. Mandic, V. Demir, D. Pavelić, Lj. Rundić, H. Hrvatović, L. Matenco, W. Krijgsman

PII: S0031-0182(18)30144-5

DOI: doi:10.1016/j.palaeo.2018.06.009

Reference: PALAEO 8813

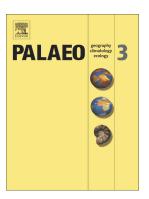
To appear in: Palaeogeography, Palaeoclimatology, Palaeoecology

Received date: 16 February 2018

Revised date: 4 June 2018 Accepted date: 5 June 2018

Please cite this article as: K. Sant, N. Andrić, O. Mandic, V. Demir, D. Pavelić, Lj. Rundić, H. Hrvatović, L. Matenco, W. Krijgsman , Magneto-biostratigraphy and paleoenvironments of the Miocene freshwater sediments of the Sarajevo-Zenica Basin. Palaeo (2017), doi:10.1016/j.palaeo.2018.06.009

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

Magneto-biostratigraphy and paleoenvironments of the Miocene freshwater sediments of the Sarajevo-Zenica Basin

<u>Sant</u>, K^{1*}., Andrić, N^{1,2}., Mandic, O.³, Demir, V.^{5,1}, Pavelić, D.⁴, Rundić, Lj.², Hrvatović, H.⁵, Matenco, L.¹, Krijgsman, W¹.

¹Utrecht University, Paleomagnetic Laboratory 'Fort Hoofddijk', Utrecht University, Budapestlaan 17, 3584 CD Utrecht, The Netherlands

²University of Belgrade, Faculty of Mining and Geology, Serbia

³Natural History Museum Vienna, Geological-Paleontological Department, Austria

⁴University of Zagreb, Faculty of Mining, Geology & Petroleum Engineering, Croatia

⁵Geological Survey of the Federation of Bosnia and Herzegovina, Bosnia and Herzegovina

* Corresponding author: k.sant@uu.nl (Karin Sant).

Abstract

The Sarajevo-Zenica Basin of Bosnia-Herzegovina was part of the Dinaride Lake System, a large network of Miocene long-lived freshwater basins in southeastern Europe. The basin contains a thick sedimentary succession of carbonates, coals and mixed siliciclastic deposits that reflects the paleoclimatic and tectonic evolution of the region. In this study, we present novel integrated (magneto-bio)stratigraphic and sedimentological data and reconstruct the paleoenvironmental evolution of the Sarajevo-Zenica Basin during its two main evolutionary phases (thrusting and extension). The basal "Oligo-Miocene" freshwater paleoenvironments are characterized by alternating palustrine, shallow lacustrine and distal fluvial phases. The base level fluctuations are largely controlled by syn-sedimentary pulses of tectonic loading during the final phase of thrusting in the Internal Dinarides. The majority of this succession is considered early Miocene in age, which contrasts with previous Oligocene age estimates. The subsequent extensional phase initiated not later than "18.4 Ma. This coarsening upward sequence of lacustrine carbonates, silts, sands and conglomerates is correlated between 17.2 and 15 Ma (C5Cr-C5Br) by means of integrated biomagnetostratigraphy. During this upper extensional phase, subsidence and sediment influx was

Download English Version:

https://daneshyari.com/en/article/8868096

Download Persian Version:

https://daneshyari.com/article/8868096

<u>Daneshyari.com</u>