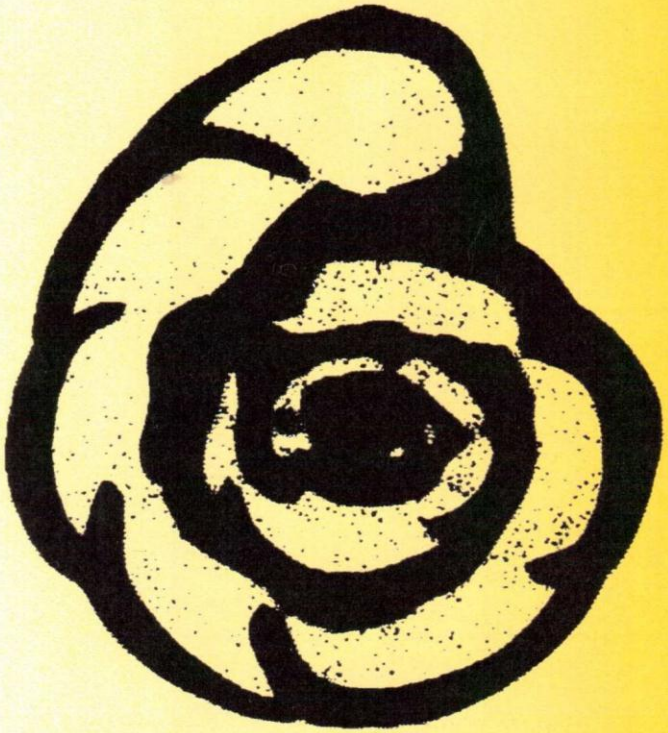
TENTH ROMANIAN SYMPOSIUM ON PALEONTOLOGY

Cluj-Napoca, 16-17 October 2015

ABSTRACTS AND FIELD TRIP GUIDE



Edited by:
Ioan I. Bucur, Iuliana Lazăr and **Emanoil Săsăran**

Presa Universitară Clujeană/
Cluj University Press

Descrierea CIP a Bibliotecii Naţionale a României

ROMANIAN SYMPOSIUM ON PALEONTOLOGY (10; 2015; Cluj-Napoca)

Tenth Romanian Symposium on Paleontology: Cluj-Napoca, 16-17 October 2015: abstracts and field trip guide / ed. by Ioan I. Bucur, Iuliana Lazăr, Emanoil Săsăran. - Cluj-Napoca: Presa Universitară Clujeană, 2015

Bibliogr.

ISBN 978-973-595-875-6

I. Bucur, Ioan I. (ed.)
II. Lazăr, Iuliana (ed.)
III. Săsăran, Emanoil (ed.)

56(063)

Universitatea Babeş-Bolyai
Presa Universitară Clujeană
Director: Codruţa Săcelean
Str. Hasdeu nr. 51
400371 Cluj-Napoca, România
Tel./fax: (+40)-264-597.401
E-mail: editura@editura.ubbcluj.ro
http://www.editura.ubbcluj.ro/

Tenth Romanian Symposium on Paleontology

Cluj-Napoca, 16-17 October 2015

Abstracts and Field trip guide

Edited by Ioan I. Bucur, Iuliana Lazăr & Emanoil Săsăran

Presa Universitară Clujeană, 2015

The 10th Romanian Symposium on Paleontology

Cluj-Napoca, 16-17 October 2015

Organizing Committee

- **Honorary President**: Acad. **Theodor Neagu**, University of Bucharest
- **Executive President**: Prof. **Ioan I. Bucur**
- **Vice-Presidents**: Prof. **Vlad Codrea**, Babeş-Bolyai University Cluj-Napoca; Prof. **Mihai Brânzilă**, Al.I. Cuza University Iaşi (president of RSP); Reader **Iuliana Lazăr**, University of Bucharest; Reader **Ioan Tanţău,** Babeş-Bolyai University Cluj-Napoca; Lect. **Daniel Ţabără**, Al. I. Cuza University Iaşi (webmaster);
- **Members**: Prof. **Sorin Filipescu**, Babeş-Bolyai University Cluj-Napoca; Prof. **Ovidiu Dragastan**, University of Bucharest; Prof. **Eugen Grădinaru**, University of Bucharest; Prof. **Dan Grigorescu**, University of Bucharest; Prof. **Marius Stoica**, University of Bucharest; Reader **Carmen Chira**, Babeş-Bolyai University Cluj-Napoca; Reader **Mihai Popa**, University of Bucharest; Reader **Paul Ţibuleac**, Al. I. Cuza University Iaşi; Dr. **Titus Brustur**, NIRD for Marine Geology and Geoecology (GEOECOMAR Bucharest); Dr. **Mihaela C. Melinte-Dobrinescu**, NIRD for Marine Geology and Geoecology (GEOECOMAR Bucharest); Dr. **Stănilă Iamandei**, IGR Bucharest; Lrct. **Ovidiu Barbu**, Babeş-Bolyai University Cluj-Napoca; Lect. **Mirela Popa**, Babeş-Bolyai University Cluj-Napoca; Lect. **Emanoil Săsăran**, Babeş-Bolyai University Cluj-Napoca; Lect. **Lorand Silye**, Babeş-Bolyai University, Cluj-Napoca; Dr. **Liana Săsăran**, Babeş-Bolyai University Cluj-Napoca.

Secretariat: Dr. Raluca Bindiu; Dr. George Pleş; Mara Câmpeanu, Ramona Chelaru; Rodica Filipescu; Cristian Victor Mircescu; Alexandru Solomon; Ciprian Gheorghiţă Ungur; Răzvan Ungureanu.

The tenth Romanian Symposium on Paleontology was organized by the Romanian Society of Paleontologists and Babeş-Bolyai University

With support from
S.N.G.N. ROMGAZ S.A.
S.C. HOLCIM (România) S.A.
The Grzybowski Foundation

Their help is gratefully acknowledged by the Organizing Committee

Contents

Abstracts

Crețești-Dobrina 1: a new Early Vallesian locality in Moldova

Ursachi, L.[1,2,4] , Codrea, V.[1], Venczel, M..[3], Solomon, A.[1,3] & Rățoi, B.[4]

[1]*Babeş-Bolyai University, Department of Geology, 1 Mihail Kogălniceanu Street, 400084 Cluj-Napoca, Romania, e-mail: alex_solomon@yahoo.com ; codrea_vlad@yahoo.fr*
[2]*Vasile Pârvan Museum, Natural Sciences Branch,235 Republicii Str., Bârlad, Romania, e-mail: ursachi_laur@yahoo.com*
[3]*Ţării Crişurilor Museum, Department of Natural History, 1-3 Dacia Av., 410464, Oradea, Romania, e-mail: mvenczel@gmail.com*
[4]*University Al.I.Cuza, Department of Geology, 20B Carol I Avenue, Iaşi, Romania, e-mail: bog21rat@gmail.com*

Keywords: early Late Miocene, terrestrial vertebrates, environments, Eastern Romania.

In Eastern Romania, the Late Miocene formations of the Moldavian Platform are part of the last sedimentary megasequence (3rd sedimentary cycle), which started in the Middle Miocene (Badenian). In the Sarmatian *s.l.* (BARBOT DE MARNY, 1869), the waters of the Eastern Paratethys that once covered this area of the Dacic Basin regressed and the evolution of the terrestrial environments started on these new emerged lands.

Until now, very scarce data were available on the Late Vallesian terrestrial vertebrates. The majority of data are based on scattered, fortuitous finds. But in the last couple of years, due to regular geological surveys in Vaslui District, new Vallesian localities were found. Among them, the most illustrative is by far a locality that we name now Crețeşti-Dobrina 1. It was discovered due to the works carried for renewing the national road 24B, linking Crasna and Huşi.

At Crețeşti-Dobrina 1, the Late Sarmatian (Khersonian) deposits are cropping out on a rather small area, on the roadside. The thickness of the sedimentary succession exposed is about two meters only. In dominance there is greenish mudstone, interleaving with thin (few centimeters only) silty sand. These rocks are rich in vertebrate remains, but apart from vertebrates it worth to notice the presence of freshwater gastropods (e.g. *Planorbis* sp.). The sedimentary structure of this heterolithic deposit is the horizontal lamination. Based on sedimentology these rocks may be considered as belonging to an ancient floodplain. There, the sedimentation progressed by fallout from suspension, during periodic floods.

Unearthed from these rocks, the following vertebrate taxa can be reported so far from this locality: Anura – *Pelobates* sp.; Reptilia – "*Protestudo"* sp. (extremely frequent), various lizards [*Chalcides* sp., *Lacerta* sp., *Ophisaurus* (s.l.) sp.] and snakes [*Coronella* sp., *Macrovipera* sp.(frequent)]; Aves indet.; Mammalia – Erinaceomorpha: *Schizogaleryx* sp.; Sciuridae: *Spermophilinus bredai*; Lagomorpha: ?*Proochotona* sp.; Carnivora – *Adcrocuta eximia* (ROTH & WAGNER, 1848), *Metailurus* sp.; Proboscidea: *Choerolophodon pentelici* (Gaudry & Lartet, 1856)*;* Perissodactyla - "*Hipparion*" sp. (very frequent), *Acerorhinus* sp.; Artiodactyla – *Hippopotamodon* sp., *Tragoportax leskewitschi* (BORISSIAK, 1914), *Paleotragus* sp.

This fauna is typical for the Vallesian in this region of Europe, showing similarities with the ones already reported from Republic of Moldova. There, two Khersonian levels were coined: Katerlezskii (lower, part of the "Keinar complex") and Mitridatskii (upper, in the "Poleshetskii complex"), the last one dominated by fluvial-lacustrine deposits. Crețeşti-Dobrina 1 could be related to this upper level. In Republic of Moldova, this level is considered as "Late Vallesian, MN 10" (Lungu & Rzebik-Kowalska, 2011). However, according to Vangengeim & Tesakov (2013), it could belong rather to the Early Vallesian (MN9).

Based on these vertebrates, the Khersonian environment in this locality could be interpreted as a savannah-like one, with open grassy areas, but rare trees could be also present. The forested areas were probably common on the fluvial banks. There is no evidence of swamp areas. The climate was warm temperate, but compared to the Middle Sarmatian (Bessarabian) the rainfall decreased.

The bones were accumulated probably by floods, but they were not carried on too long distances. The anatomical connections are rare and refer only to partial skeletons, excepting turtles, where the limb bones and skulls are often preserved. Large mammal remains occur together with medium and even with small vertebrates, indicating that there was no grading process due to the water streams.

Before the definitive burial, at least part of these bones and teeth were exposed to weathering long enough to suffer damages (numerous teeth enamel fragments were detached and buried at small distance of their initial origin, in skulls and mandibles).

Crețești-Dobrina 1 is a very illustrative, outstanding Khersonian locality in Romania and its richness in terrestrial fossils could be compared only to Reghiu and Bacău (both localities with vertebrate assemblages specific to the Khersonian/Meotian boundary time span).

References

Lungu Al., Rzebik-Kowalska B., 2011. *Faunal assemblages, stratigraphy and taphonomy of the Late Miocene localities in the Republic of Moldova*. Institute of Systematics and Evolution of Animals, Polish Academy of Sciences. Krakow, pp. 62.

Vangengeim E., Tesakov Al.S. 2013. Late Miocene Mammal Localities of Eastern Europe and Western Asia. Toward Biostratigraphic Synthesis. In: Wang X., Flynn L.J., Fortelius M. (Eds.), *Fossil Mammals of Asia, Neogene Biostratigraphy and Chronology*, Columbia University Press. New York, pp. 519-535.