

100th Anniversary of the Carpathian-Balkan Geological Association

**XXII International Congress of the
Carpathian-Balkan Geological Association
(CBGA)**

ABSTRACTS

Geologica Balcanica

**Irena Peytcheva, Anna Lazarova, Georgi Granchovski,
Rositsa Ivanova, Iskra Lakova, Lubomir Metodiev
(Editors)**

**7–11 September 2022
Plovdiv, Bulgaria**

Bulgarian Academy of Sciences

**ISBN 978-619-91305-4-4
e-ISBN 978-619-91305-5-1**



**XXII International Congress
Carpathian-Balkan Geological Association
CBGA2022 – Plovdiv, Bulgaria, 7–11 September 2022**



**100th Anniversary of the Carpathian-Balkan Geological
Association**

**XXII International Congress of the Carpathian-
Balkan Geological Association (CBGA)**

ABSTRACTS

**Irena Peytcheva, Anna Lazarova, Georgi Grančovski,
Rositsa Ivanova, Iskra Lakova, Lubomir Metodiev
(Editors)**

September 7–11, 2022
Plovdiv, Bulgaria

<i>Eliza Anton, Vlad Apotrosoaei, Gabriel Ion, Andrei Briceag, Iulian Pojar, Constantin Lazăr, Mihaela Melinte-Dobrinescu</i> : Middle Miocene (Badenian) calcareous nannofossils and geochemical fluctuations in the Romanian Carpathian Bend Zone	49
<i>Silviya Petrova, Daniela Reháková, Elisabetta Erba, Jacek Grabowski, Helmut Weissert</i> : Calpionellid revision and microfacies of the Torre de' Busi section (Lombardy Basin, J/K boundary)	50
<i>Lubomir Metodiev, Autumn Pugh, Crispin Little, Ivan Savov, Robert Newton, Paul Wignall, James Riding, Milena Georgieva, Tanya Stoylkova, Docho Dochev, Iliya Dimitrov</i> : Palaeoenvironmental changes and macroevolutionary trends during the early Toarcian mass extinction in Bulgaria	51
<i>Lubomir Metodiev, Silviya Petrova, Docho Dochev, Louiza Dimova</i> : Interfluvial waterlogged paleosols preserved within offshore shales? Preliminary data from the Aalenian of West Bulgaria	52
<i>Dejan Radivojević, Meri Ganić, Miloš Radonjić</i> : Bukovo delta sediments as witness of climate and tectonic changes (SE Serbia, Dacian Basin)	53
<i>Andrei Briceag, Mihaela Melinte-Dobrinescu, Antoneta Seghedi, Andrei Gabriel Dragoş</i> : The geological and paleontological heritage of the Southern Dobrogea (Romania)	54
<i>Silviya Petrova, Daniela Reháková, Lubomir Metodiev</i> : New data on the stratigraphy of the Oxfordian–lower Tithonian strata from the Central Balkan Mts (Bulgaria)	55
<i>Ljupko Rundić</i> : Ostracods (Crustacea) as indicators of the middle Miocene Badenian marine transgression (Central Paratethys, Bosnia and Serbia)	56
<i>Ştefan Vasile, Oleksandr Kovalchuk, Vicente Daniel Crespo, Bogdan-Alexandru Torcărescu, Valentin Dumitraşcu, Alina Floroiu</i> : The fossil assemblage from Măru: a new window into the late Pliocene continental faunas of the Dacian Basin (southern Romania)	57
<i>Miroslav Bubík, Tiiu Elbra, Juraj Franců, Petr Schnabl, Lilian Švábenická</i> : Biostratigraphy, paleoenvironmental and magnetic signatures across the Maastrichtian–Paleocene slumps and slides of the Subsilesian Unit (Outer Flysch Carpathians, Czech Republic)	58
<i>Lilian Švábenická, Andrea Svobodová, Daniela Reháková, Miroslav Bubík, Lucie Vaňková, Martin Košťák, Petr Skupien, Tiiu Elbra, Petr Pruner, Petr Schnabl</i> : Biostratigraphy, stable isotopes and paleomagnetism across the Jurassic–Cretaceous boundary at the Ropice Section (Western Carpathians, Silesian Unit)	59
<i>Bogdan-Stelian Haiduc, Bogdan-Alexandru Torcărescu, Ştefan Vasile, Vicente Daniel Crespo, Daniel Ţăbără, Sergiu Loghin</i> : The fossil vertebrate site of Stăuceni (Moldavian Platform, northeastern Romania) – new data on age and depositional setting	60
<i>Marian Bordeianu, Vlad A. Codrea, Alexandru A. Solomon</i> : A Turolian (MN 11-12) ochotonid from the Moldavian and Scythian platforms (Romania): biostratigraphy and palaeobiogeography	61
<i>Ioan I. Bucur, Iuliana Lazăr</i> : Upper Jurassic–lowermost Cretaceous microfossils from Hăghimaş Mountains (Eastern Carpathians, Romania)	62
<i>Vlad A. Codrea, Márton Venczel, Alexandru A. Solomon, Marian Bordeianu, Cristina Fărcaş, László Veress</i> : Paleogene terrestrial vertebrates of Transylvania – key for better understanding the ‘Grande Coupure’ Event	63
<i>Vlad A. Codrea, Alexandru A. Solomon, Marian Bordeianu, Cristina Fărcaş</i> : Eocene–Oligocene <i>Perissodactyls</i> of Romania: a short overview	64
<i>Josep Sanjuan Girbau, Marian Bordeianu, Vlad A. Codrea</i> : Charophyte flora (aquatic plants) from the Suceag Oligocene fossil site (western Transylvanian Basin, Romania): biostratigraphy, paleoecology and paleobiogeography	65

The fossil vertebrate site of Stăuceni (Moldavian Platform, northeastern Romania) – new data on age and depositional setting

Bogdan-Stelian Haiduc¹, Bogdan-Alexandru Torcărescu², Ștefan Vasile^{1,3},
Vicente Daniel Crespo⁴, Daniel Țabără⁵, Sergiu Loghin⁵

¹ Lythos Research Center, University of Bucharest, 1 Nicolae Bălcescu Avenue, 010041 Bucharest, Romania; e-mail: haiduc.bogdan91@gmail.com

² Faculty of Geology and Geophysics, Doctoral School of Geology, University of Bucharest, 6 Traian Vuia Street, 020956 Bucharest Romania, e-mail: bogdan.torcarescu@drd.unibuc.ro

³ „Emil Racoviță” Institute of Speleology, Romanian Academy, 13-15 Calea 13 Septembrie, 050711 Bucharest, Romania; e-mail: yokozuna_uz@yahoo.com

⁴ Departamento de Ciências da Terra, FCT-UNL Faculdade de Ciências E Tecnologia, GeoBioTec, Universidade Nova de Lisboa, 2829-516 Caparica, Portugal; e-mail: vidacres@gmail.com

⁵ Department of Geology, Faculty of Geography and Geology, “Alexandru Ioan Cuza” University of Iași, 20B Carol I Avenue, 700505 Iași, Romania; e-mails: dan.tabara@yahoo.com; sergiu.loghin@uaic.ro

Sarmatian marine deposits are extensively present in the Moldavian Platform. A new fossil site has recently been described from the Stăuceni open pit (Botoșani County) that, since 2017, yielded numerous marine vertebrate fossils. The fossiliferous deposits were considered to be of Volhynian (late middle Miocene) age, based on the marine mammal fossil content, *i.e.*, Phocinae indet., *Kentriodon fuchsii*, *Kentriodontidae* indet., *Cetotheriidae* indet. (Gol'din *et al.*, 2020). However, subsequent excavations led to the discovery, in the same gravelly bed from the top of the analyzed succession, of terrestrial vertebrate remains belonging to Plio-Pleistocene ungulates (indeterminate equids and bovids). The two sets of fossil remains (*i.e.*, marine Miocene and terrestrial Plio-Pleistocene vertebrates) recovered from the same bed found at the top of the succession, show different taphonomy and support the scenario of Miocene fossils being redeposited in the younger Plio-Pleistocene deposits in a fluvial or lacustrine depositional setting.

Additional investigations have been carried out, for better understanding the depositional setting and the age of the fossiliferous deposits. Screen-washing of silty sandstones, overlain by the fossil beds that yielded the large vertebrates, also produced a few small mammal remains, tentatively assigned to the arvicolid *Borsodia* sp. and to the sciurid *Spermophilus nogaici*, supporting a late Pliocene–early Pleistocene age for the containing deposits. Silty layers, underlying the small-mammal-bearing deposits, yielded a microfossil assemblage consisting of *Elphidium*, *Nonion*, and *Porosonion* foraminifer genera, suggesting that upper middle Miocene–lower upper Miocene deposits are also present at the bottom of the succession.

Preliminary palynological investigations allowed us to identify a poor assemblage of freshwater algae (*Sigmopollis laevigatoides*) and some angiosperm taxa. According to Casas-Gallego *et al.* (2020), *S. laevigatoides* is very abundant in the Pliocene deposits from the central part of the Dacian Basin, and this finding also supports the age indicated by the terrestrial mammal remains.

Acknowledgements. Work supported by grants of the Ministry of Research, Innovation and Digitization, CNCS – UEFISCDI, Project Nos. PN-III-P1-1.1-TE-2021-0664 (B.H., Ș.V.) and PN-III-P4-ID-PCE-2020-2282 (Ș.V.), within PNCDI III, as well as by Stimulus of Scientific Employment, Individual Support – 2021 Call grant by the Fundação para a Ciência e a Tecnologia (Portugal, 2021.03080.CEEC-IND) and GeoBioTec (V.D.C.).

REFERENCES

- Casas-Gallego, M., Pérez-Rodríguez, I., Fenton, J.P.G., Gold, D.P., Marza, A., Tudor, E. 2020. Integrated biostratigraphic, palaeoenvironmental and wireline log characterization of upper Miocene to lower Pliocene successions of the eastern Dacian Basin (SE Romania). *Newsletters on Stratigraphy* 53 (1), 71–92.
- Gol'din, P., Haiduc, B.S., Kovalchuk, O., Górká, M., Otryazhyi, P., Brânzilă, M., Păun, E.I., Barkaszi, Z., Țibuleac, P., Rățoi, B.G. 2020. The Volhynian (late Middle Miocene) marine fishes and mammals as proxies for the onset of the Eastern Paratethys re-colonisation by vertebrate fauna. *Palaeontologia Electronica* 23 (3), a43.