

IONUȚ - CORNEL MIREA

R E S E A R C H E R

PERSONAL SUMMARY

My main interests are past environments, paleontology, paleoclimate, karst geomorphology and environmental data-based modeling with GIS. My research focuses mostly on paleoenvironmental changes revealed by multi-proxy records from cave deposits, analyses of stable isotopes and speleothems analysis.



PERSONAL INFORMATION

Residence: street Principala no.48,
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AREAS OF STUDY

- Paleoclimate
- Paleontology
- Karst geomorphology
- Geostatistics

COMPUTER SKILLS AND COMPETENCES

Licensed in ESRI ArcGIS software analysis. Can work with any ESRI product, including ArcGIS, ArcPad, ArcScene and other. Spatial modelling programs and statistics. Cave surveying with Compass. Frequent user of Grapher, Corel Draw, Microsoft Office or Open Office software packages.

TECHNICAL SKILLS AND COMPETENCES

Cave surveying, excavations in caves, cave microclimatic monitoring, operation with climatic collection devices in the field, operation with spatial mapping devices in the field, surveys with a total station. Can use alpine speleological techniques.

PUBLICATIONS

Attached to Annex I

WORK SUMMARY

Scientific researcher III

"Emil Racovita" Institute of Speleology | April 2017 - present

- Dept. of Geospeleology and Paleontology
- Geochronology and Paleoclimate Studies Laboratory

Scientific researcher

"Emil Racovita" Institute of Speleology | June 2015 - April 2017

- Dept. of Geospeleology and Paleontology
- Geochronology and Paleoclimate Studies Laboratory

Assistant researcher

"Emil Racovita" Institute of Speleology | June 2014 - June 2015

- Dept. of Biospeleology and Karst Edaphobiology

Assistant researcher (PCCE-IDEI 31/2010)

"Emil Racovita" Institute of Speleology | January 2011 - June 2013

- Dept. of Geospeleology and Paleontology
- Geochronology and Paleoclimate Studies Laboratory

EDUCATION BACKGROUND

Babeș-Bolyai University, Cluj-Napoca, Romania

PhD in Geology | Graduated July 2020

• Doctoral Thesis: Late Quaternary environmental changes as revealed by the sedimentary archives from Muierilor Cave, Romania

University of Bucharest, Romania

Master's degree | Graduated September 2012

- Faculty of Geography
- Specialized in Environmental Sciences
- Integrated Environmental Assessment

University of Bucharest, Romania

Bachelor's degree | Graduated September 2010

- Faculty of Geography
- Specialized in Environmental Sciences
- Environmental Sciences





Annex I

Publications

Peer - reviewed papers

1. Măntoiu D., Kravchenko K., Lehnert L.-S., Vlashchchenko A., Molodvan O., **Mirea I.-C.**, Stanciu R., Mirceni P.-R., Nistorescu M., Voigt C., (2020). *Wildlife and infrastructure: Impact of wind turbines on bats in the Black Sea Coast region*. European Journal of Wildlife Research. DOI: 10.1007/s10344-020-01378-x
2. Moldovan, O.T., Bercea, S., Năstase-Bucur, R., Constantin, S., Kenesz, M., **Mirea, I.-C.**, Petculescu, A., Robu, M., Arghir, R.A., (2020). *Management of water bodies in show caves – A microbial approach*. Tour. Manag. 78, 104037. <https://doi.org/10.1016/j.tourman.2019.104037>
3. Tîrlă, L., Drăgușin, V., Bajo, P., Covaliov, S., Cruceru, N., Ersek, V., Hanganu, D., Hellstrom, J., Hoffmann, D., **Mirea, I.-C.**, Sava, T., Sava, G., Șandric, I., (2020). *Quaternary environmental evolution in the South Carpathians reconstructed from glaciokarst geomorphology and sedimentary archives*. Geomorphology 354, 107038. <https://doi.org/10.1016/j.geomorph.2020.107038>
4. Moldovan O., Bercea S., Nastase-Bucur R., **Mirea I.-C.**, Măntoiu D., Kenesz M., Petculescu A., Baricz A., Andrei S., Banciu H., Constantin S. *Novel approach to microbiological air monitoring in show caves*. Aerobiologia (AERO) Journal, 1- 24. <https://doi.org/10.1007/s10453-018-9523-9>
5. Burghele B.D., Cucos A., Papp B., **Mirea I.-C.**, Constantin S. (2018). Distribution of radon gas in sites of economic importance. *Radiation Protection Dosimetry* Volume 181, Issue 1, 1, pp. 1–5. <https://doi.org/10.1093/rpd/ncy091>
6. Drăgușin, V., Tîrlă, L., Cadicheanu, N., Ersek, V., & **Mirea I.-C.** (2018). Caves as observatories of atmospheric thermal tides: an example from Ascunsă Cave, Romania. *International Journal of Speleology*, Vol. 47, Issue 1. <https://doi.org/10.5038/1827-806X.47.1.2180>
7. Robu, M., **Mirea, I.- C.**, Petculescu, A., and Constantin, S. (2018). *Palaeoichnology of an MIS 3 cave bear settlement – Urșilor Cave (Western Carpathians, Romania)*. *Palaeogeography, Palaeoclimatology, Palaeoecology*. <https://doi.org/10.1016/j.palaeo.2018.01.009>
8. Drăgușin, V., Balan, S., Blamart, D., Forray, F.L., Marin, C., **Mirea, I.-C.**, Nagavciuc, V., Orășeanu, I., Perșoiu, A., Tîrlă, L., Tudorache, A. & Vlaicu, M., 2017. *Transfer of environmental signals from the surface to the underground at Ascunsă Cave, Romania*. *Hydrol. Earth Syst. Sci.*, 21, 5357-5373. Doi: 10.5194/hess-21-5357-2017 <https://www.hydrol-earth-syst-sci.net/21/5357/2017/%20hess-21-5357-2017.html>
9. Robu, M., Wynn, J. G., **Mirea, I.- C.**, Petculescu, A., Kenesz, M., Pușcaș, C. M., Vlaicu, M., Trinkaus, E. and Constantin, S. (2017). *The diverse dietary profiles of MIS 3 cave bears from the Romanian Carpathians: insights from stable isotope ($\delta^{13}C$ and $\delta^{15}N$) analysis*. *Palaeontology*. doi:10.1111/pala.12338. <http://onlinelibrary.wiley.com/doi/10.1111/pala.12338/full>



10. Tîrlă, L., **Mirea, I.-C.**, Vijulie, I. (2016). Geomorphological and structural patterns of the scarp-related steep dry valleys in limestone ridges: A case study from South Carpathians, Romania. *Géomorphologie: relief, processus, environnement*, vol. 22 - n°4, p. 399-408. <https://doi.org/10.4000/geomorphologie.11528>
11. Robu, M., Petculescu, A., **Mirea, I.-C.**, Kenesz, M., Vlaicu, M., Constantin S. (2016b). *Carnivore impact and dispersal analysis of the cave bear assemblage from Urşilor Cave, north-western Romania*. Acta Carsologica, Vol. 45, no. 3. DOI: 10.3986/ac.v45i3.332
12. Constantin, S., Robu, M., Munteanu, C.-M., Petculescu, A., Vlaicu, M., **Mirea, I.-C.**, Kenesz, M., Dragusin, V., Hoffman, D., Anechitei, V., Timar-Gabor, A., Roban, R., Panaiotu, C.-G. (2014). *Reconstructing the evolution of cave systems as a key to understanding the taphonomy of fossil accumulations: The case of Urşilor Cave (Western Carpathians, Romania)*. Quaternary International, Volumes 339–340, p. 25-40. <https://doi.org/10.1016/j.quaint.2013.10.012>

Chapters in books

1. Munteanu, C.M., Petculescu, A., Arghir, R., Faur, L., **Mirea, I.-C.** & Vlaicu, M., 2019: Caracteristici petrografice și microtectonice ale gresiilor din aria siturilor rupestre. În: Angheluță, L., Chelmuș, A.I., Ratoiu, L.C., Giurginca, A., Munteanu, C.M. & Petculescu, A.: *Cercetări multidisciplinare pentru evaluarea stării de conservare a unor situri rupestre din zona Aluniș-Bozioru (Munții Buzău) incluse în patrimoniul cultural național*. Editura Univers Științific, 277 p., Vol. IV, ISBN: 978-606-8550-69-5, București.
2. Drăgușin V., Tîrlă L., **Mirea I.-C.** (2018) - Caves of the Făgăraș Mountains, in *Caves and Karst Systems of Romania*, 79-82 pp., Ed: Onac B. P. and Ponta G., Springer. DOI: 10.1007/978-3-319-90747-5_11
3. Drăgușin V., Dimofte D., **Mirea I.-C.** (2018) – Dobrogea Plateau. Limanu Cave, in *Caves and Karst Systems of Romania*, 437 - 441 pp., Ed: Onac B. P. and Ponta G., Springer. DOI: 10.1007/978-3-319-90747-5_49
4. Povară I., Drăgușin V., **Mirea I.-C.** (2018) - Mehedinți Mountains, Cioaca cu Brebenei and Cloșani Caves, in *Caves and Karst Systems of Romania*, 149 -156 pp., Ed: Onac B. P. and Ponta G., Springer. DOI: 10.1007/978-3-319-90747-5_18
5. Măntoiu D.S., Nistorescu M., Șandric I., **Mirea I.-C.**, Hăgătiș A., Erika Stanciu (2016), *Wilderness Areas in Romania: A case study on the South Western Carpathians. Mapping Wilderness: Concepts, Techniques and Applications* (Stephen J. Carver and Steffen Fritz Eds.). Springer Netherlands, 204 p., ISBN: 940 -177- 397-1; pp: 145 – 156.