

PERSONAL INFORMATION



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Male | 10.07.1988 | Romanian

WORK EXPERIENCE

April 2017 - present

Scientific researcher III

Dept. of Geospeleology and Paleontology

Geochronology and Paleoclimate Studies Laboratory

"Emil Racovita" Institute of Speleology (Romanian Academy)

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June 2014 – June 2015

Assistant researcher

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June 2013 – June 2014

Assistant researcher

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<i>January 2012 – June 2013</i>	13 Septembrie Road, No. 13, 050711, Sector 5, Bucharest Phone / Fax: 021 – 318.81.32 E-mail: iser_b@yahoo.com www.iser.ro Assistant researcher (PCCE- IDEI 31/2010) Dept. of Geospeleology and Paleontology Geochronology and Paleoclimate Studies Laboratory "Emil Racovita" Institute of Speleology (Romanian Academy) 13 Septembrie Road, No. 13, 050711, Sector 5, Bucharest Phone / Fax: 021 – 318.81.32 E-mail: iser_b@yahoo.com www.iser.ro	
<i>January 2011 - December 2011</i>	Volunteer in PCCE- IDEI 31/2010 Dept. of Geospeleology and Paleontology Geochronology and Paleoclimate Studies Laboratory "Emil Racovita" Institute of Speleology (Romanian Academy) 13 Septembrie Road, No. 13, 050711, Sector 5, Bucharest Phone / Fax: 021 – 318.81.32 E-mail: iser_b@yahoo.com www.iser.ro	
EDUCATION AND TRAINING		
<i>2013 - 2020</i>	Ph.D. Doctoral School in Geology Faculty of Biology and Geology Babeş-Bolyai University, Cluj-Napoca, Romania Ph.D. coordinator: Prof. dr. Vlad Codrea	EQF - 8i
<i>2010 - 2012</i>	Master's degree Integrated Environmental Assessment Faculty of Geography University of Bucharest 1 Nicolae Balcescu, 010041 Bucharest, Romania. Coordinator: Lector dr. Şandric Ionuţ	EQF - 7i
<i>2007 - 2010</i>	Bachelor's degree Environmental Sciences Faculty of Geography University of Bucharest 1 Nicolae Balcescu 010041 Bucharest, Romania. Coordinator: Conf. Univ. dr. Oprea Răzvan	EQF - 6i
<i>2003 - 2007</i>	“Dimitrie Bolintineanu “ - high school Theoretical program - mathematics and computer programming Bolintin-Vale, Giurgiu	

PERSONAL SKILLS

<i>Native language</i>	Romanian				
European level (*)	Understandings		Spoken		Writing
	Listening	Reading	Spoken interaction	Spoken production	
<i>English</i>	C2 - Proficient user	C2 - Proficient user	C2 - Proficient user	B1- Independent user	B1- Independent user
<i>French</i>	A1- Basic user	B1- Independent user	A1- Basic user	A1- Basic user	A1- Basic user

<i>Computer skills and competences</i>	Licensed in ESRI ArcGIS software analysis. Can work with any ESRI product, including ArcGIS, ArcPad, ArcScene and other. Spatial modelling programs and statistics: Statistica, XL Stat, Past. Remote sensing software, such as ENVI, ENVI EX and other spatial analysis programs, such as IDRISI. Cave surveying with Compass. Frequent user of Grapher, Corel Draw, Microsoft Office or Open Office software packages.
<i>Technical skills and competences</i>	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.
<i>Artistic skills</i>	Photography.
<i>Other skills</i>	Driving license category B (cars). Open Water Diver Certification – NAUI (99211). Advanced Open Water Certification - SDI.

Skills and techniques for caving and fieldwork

Most of my research is based on various data collected in the field, mainly related to karst areas and caves. For many sites where we collect data, a good knowledge of single rope techniques, it is a fundamental part of our work. I am part of several research projects which involves sampling and data collecting on long periods of time (more than 9 years) from Romanian caves. Therefore, good managing skills for handling and processing large databases is also required. Along the years, I joined several multidisciplinary teams from the "Emil Racoviță" Institute of Speleology working on numerous research projects (paleontological excavations, microclimatic monitoring and speleothem research). The paleontological excavations in Romanian caves were extensive and long-lasting projects, the most important excavations being performed at Urșilor, Muierilor and Bisericuța Caves. Also, I participated in different international training stages on karst geomorphology and paleoclimate. The main topics I currently work are past environments, palaeontology, paleoclimate, karst geomorphology and environmental data-based modeling within a GIS. Furthermore, as a member of the Geospeleology and Paleontology working group, I also work on paleoenvironmental changes revealed by multi-proxy records, analyses of stable isotopes and speleothems.

Present research activities

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

Expeditions and karst regions visited:

Work and /or visits in caves and karst regions from Israel, Norway, Spain, Slovenia, Italy, China (Nanning & Xiangxi & Guilin and Xi An) and Bulgaria.

Training stages and internships:

- **21 August-8 September 2022** - Working visit at Hayonim Cave excavation (Nahal Yitzhar, western Galilee, Israel) at the invitation of Dr. Erella Hovers (The Institute of Archaeology, Hebrew University of Jerusalem).
- **08-18 May 2022** - Training visit at University of Haifa (Haifa, Israel) at the invitation of Dr. Nimrod Marom.
- **06-30 August 2021** - Training stage at the Centro Nacional de Investigación sobre la Evolución Humana (CENIEH, Burgos -Spain) and sampling campaign at the Archaeological site of Atapuerca at the invitation of Dr. Josep M. Parés.
- **01 – 17 August 2020** - Training stage at the Centro Nacional de Investigación sobre la Evolución Humana (CENIEH, Burgos -Spain) at the invitation of Dr. Josep M. Parés.
- **26 – 29 September 2019** – Participation at the 13th EuroSpeleo Forum, organized by the Bulgarian Federation and Cave Rescue Bulgaria on behalf of the European Speleological Federation.
- **24 – 30 September 2019** - Academic exchange at Geological Institute “Strashimir Dimitrov”, Bulgarian Academy of Sciences through the project: Paleoclimate reconstruction using cave deposits from Romania and Bulgaria”.
- **11 - 17 August 2019** – Participation at Summer School on Speleothem Science: S4. Babeş-Bolyai University, Cluj-Napoca, Romania.
- **01 - 15 June 2019** – Participation at the workshop One Belt and One Road: International Workshop on the Sustainable Development of Water Environment, organized by the Institute of Earth Environment, Chinese Academy, Xi An, China.
- **13 - 26 Nov. – 2018** - International Training Course on Karst Ecological and Karst Landform (Nanning & Xiangxi & Guilin, PR China). Organizers: The International Research Centre on Karst, Guilin, China.

- **August – September 2016** – Training stage at the University of Bergen, Department of Earth Science, U-series Laboratory. Coordinators: dr. Silviu Constantin and Professor dr. Stein-Erik Lauritzen. These two months training stage was supported through 17 SEE project.
- **July 2016** – Advanced Open Water Course (advanced full diver certification for scuba diving).
- **May 2016** – Internship on stable isotope of water procedure at Stable Isotope Laboratory, Ștefan cel Mare University, through IFA-CEA C4- 08 project.
- **June 2015** – Open Water Diver Course (entry-level full diver certification for scuba diving).
- **November 2014 - December 2015** - Participation in the "5 licee, 5 institute " project. Promoting research in the field of paleoclimatology and geology in high schools. National College "Tudor VIANU ", Bucharest. Coordinator: dr. Alexandra Hillebrand - Voiculescu.
- **March 2013** – Internship on karst geomorphology. Karst Research Institute, Slovenia. Scientific coordinator: dr. Andrej Mihevc.
- **September 2012** – Participation in organizing the conference: The 18th International Cave Bear Symposium, Baile Herculane. Scientific coordinator: dr. Silviu Constantin.
- **August 2011 - May 2012**- Field work in Bucegi Mountains, vulnerability assessment on karst regions. Professor coordinator: Lect. dr. Șandric Ionuț.
- **May 2011** - Field work in Breaza on natural terrain hazard. Professor coordinator: Lect. dr. Șandric Ionuț.
- **April 2011** - Speleological training stage on Topography and Cartography. Scientific coordinator: dr. Vlaicu Marius.
- **January – February 2011** - Volunteer - Karsthives project (PCCE_ID_31/2010) "Emil Racovita" Institute of Speleology, Department of Geospeleology and Paleontology. Scientific coordinator: Silviu Constantin.
- **July 2010** - Field work in the Piatra Craiului Mountains, Prăpăștiile Zărneștiului, Faculty of Geography, University of Bucharest; Professor coordinator: Lect. dr. Anca Munteanu.
- **January – February 2010** - graduation of: *Integrated environmental management and sustainable development*. Willy Brandt foundation and La Tuscia University. Professor coordinator: Prof. dr. Floarea Grecu.

Peer - reviewed papers

1. Moldovan, A.; Török, A.I.; Kovacs, E.; Cadar, O.; **Mirea, I.C.**; Micle, V. *Metal Contents and Pollution Indices Assessment of Surface Water, Soil, and Sediment from the Arieș River Basin Mining Area, Romania*. Sustainability 2022, 14, 8024. <https://doi.org/10.3390/su14138024>.

2. Brad, T.; Bizic, M.; Ionescu, D.; Chiriac, C.M.; Kenesz, M.; Roba, C.; Ionescu, A.; Fekete, A.; **Mirea, I.C.**; Moldovan, O.T. *Potential for Natural Attenuation of Domestic and Agricultural Pollution in Karst Groundwater Environments*. *Water* 2022, 14, 1597. <https://doi.org/10.3390/w14101597>.
3. Haidău C, Năstase-Bucur R, Bulzu P, Levei E, Cadar O, **Mirea I.C.**, Faur L, Fruth V, Atkinson I, Constantin S and Moldovan OT (2022). *A 16S rRNA Gene-Based Metabarcoding of Phosphate-Rich Deposits in Muierilor Cave, South-Western Carpathians*. *Front. Microbiol.* 13:877481. doi: 10.3389/fmicb.2022.877481.
4. Moldovan OT, Miko L, Panaiotu C, Roban R-D, Gășiorowski M, Hercman H, Orza R, Kenesz M, **Mirea I.C.**, Petculescu A, Robu M and Constantin S (2022). *Small Human Population Drastic Impact, as Inferred from Multi-Proxies of a Temporary Carpathian Lake*. *Front. Earth Sci.* 10:856685. doi: 10.3389/feart.2022.856685
5. Năstase-Bucur R, Allegrucci G, Ketmaier V, **Mirea I.C.**, Moldovan OT (2022). *Comparative phylogeography of two troglobitic Coleoptera (Leiodidae, Leptodirini) species from Romania based on mitochondrial DNA*. *Subterranean Biology* 42: 61-78. <https://doi.org/10.3897/subtbiol.42.73524>
6. Moldovan, A.; Török, A.I.; **Mirea, I.C.**; Micle, V.; Moldovan, O.T.; Levei, E.A. *Health Risk Assessment in Southern Carpathians Small Rural Communities Using Karst Springs as a Drinking Water Source*. *Int. J. Environ. Res. Public Health* 2022, 19, 234. <https://doi.org/10.3390/ijerph19010234>.
7. Drăgușin V., Tîrlă L., Covaliov S., Cruceru N., **Mirea I.-C.** (2020). *The peculiar topography from Obantul Mare (SE Romania) as a result of a former maze cave collapse*. *Geomorphology: Relief, Processus, Environnement*, vol. 27 - n° 3 | 2021, 221-229.
8. Faur, L.; Drăgușin, V.; Dimofte, D.; Forray, F.L.; Ilie, M.; Marin, C.; Mănăilescu, C.; **Mirea, I.C.**; Panaiotu, C.G.; Soare, B.; Timar-Gabor, A.; Tîrlă, M.L. *Multi-Proxy Study of a Holocene Soil Profile from Romania and Its Relevance for Speleothem Based Paleoenvironmental Reconstructions*. *Minerals* 2021, 11, 873. <https://doi.org/10.3390/min11080873>.
9. Moldovan, A.; Hoaghia, M.-A.; Török, A.I.; Roman, M.; **Mirea, I.C.**; Barabas, R.; Micle, V.;

Cadar, O. *Spatial Variation of Water Chemistry in Aries River Catchment, Western Romania*. Appl. Sci. 2021, 11, 6592. <https://doi.org/10.3390/app11146592>.

10. Moldovan, A.; Hoaghia, M.-A.; Török, A.I.; Roman, M.; **Mirea, I.C.**; Barabas, R.; Micle, V.; Cadar, O. *Spatial Variation of Water Chemistry in Aries River Catchment, Western Romania*. Appl. Sci. 2021, 11, 6592. <https://doi.org/10.3390/app11146592>.

11. Hoaghia, M.-A.; Moldovan, A.; Kovacs, E.; **Mirea, I.C.**; Kenesz, M.; Brad, T.; Cadar, O.; Micle, V.; Levei, E.A.; Moldovan, O.T. *Water Quality and Hydrogeochemical Characteristics of Some Karst Water Sources in Apuseni Mountains, Romania*. Water 2021, 13, 857. <https://doi.org/10.3390/w13060857>.

12. Constantin, S.; **Mirea, I.C.**; Petculescu, A.; Arghir, R.A.; Măntoiu, D.Ş.; Kenesz, M.; Robu, M.; Moldovan, O.T. *Monitoring Human Impact in Show Caves. A Study of Four Romanian Caves*. Sustainability 2021, 13, 1619. <https://doi.org/10.3390/su13041619>.

13. Moldovan, A.; Hoaghia, M.-A.; Kovacs, E.; **Mirea, I.C.**; Kenesz, M.; Arghir, R.A.; Petculescu, A.; Levei, E.A.; Moldovan, O.T. *Quality and Health Risk Assessment Associated with Water Consumption—A Case Study on Karstic Springs*. Water 2020, 12, 3510. <https://doi.org/10.3390/w12123510>.

14. Moldovan, O.T.; Baricz, A.; Szekeres, E.; Kenesz, M.; Hoaghia, M.A.; Levei, E.A.; **Mirea, I.C.**; Năstase-Bucur, R.; Brad, T.; Chiciudean, I.; Banciu, H.L. *Testing Different Membrane Filters for 16S rRNA Gene-Based Metabarcoding in Karstic Springs*. Water 2020, 12, 3400. <https://doi.org/10.3390/w12123400>.

15. **Mirea I.-C.**, Robu M., Petculescu A., Kenesz M., Faur L., Arghir R., Tecsa V., Timar - Gabor A., Roban R.-D., Panaiotu C.-G., Sharifi A., Pourmand A., Codrea V. A., Constantin S. (2020). *Last deglaciation flooding events in the South Carpathians as revealed by the study of cave deposits from Muierilor Cave, Romania*. Palaeogeography, Palaeoclimatology, Palaeoecology, 110084. <https://doi.org/10.1016/j.palaeo.2020.110084>

16. Drăgușin V., **Mirea I.-C.**, Cruceru N., Ersek V., Tîrlă L. (2020). *Farmed calcite $\delta^{13}C$ at Ascunsă Cave, Romania, and its relation with CO₂ outgassing and drip rate*. Quaternaire, 31/2 | 165-174.
17. Moldovan O., Iepure S., Brad T., Kenesz M., Mirea I.-C., Năstase-Bucur R., (2020). *Database of cave biodiversity in Romania with a Red List of cave species and list of hotspot/coldspot caves*. Biodiversity Data Journal 8: e53571. <https://doi.org/10.3897/BDJ.8.e53571>
18. 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
19. 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>
20. 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>
21. 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>
22. Burghiele 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>
23. 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>
24. 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>

25. 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>

26. 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 ($\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) analysis*. Palaeontology. doi:10.1111/pala.12338. <http://onlinelibrary.wiley.com/doi/10.1111/pala.12338/full>

27. 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>

28. 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 Urșilor Cave, north-western Romania*. Acta Carsologica, Vol. 45, no. 3. DOI: 10.3986/ac. v45i3.332

29. 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 Urșilor 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. Tîrlă, M.-L., **Mirea, I.-C.**, Faur, L., Cruceru, N. *Karst landforms of Banat, Mehedinți, and Northern Oltenia*. In: Micu, M., Tătui, F. (Eds), *Landscapes and Landforms of Romania*. Springer (accepted, in press).

2. 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.
3. 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](https://doi.org/10.1007/978-3-319-90747-5_11)
4. 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](https://doi.org/10.1007/978-3-319-90747-5_49)
5. 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](https://doi.org/10.1007/978-3-319-90747-5_18)
6. 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.

Proceedings papers, extended abstracts and abstract

2019

1. Tîrlă M.-L., Lazăr I., Stoica M., Grădinaru M., **Mirea I.-C.** *Preliminary microfacies analyses on the Middle–Upper Jurassic transition in the Buila-Vânturarița Massif (Southern Carpathians, Romania)*. Oral presentation. The 12th Romanian Symposium of Palaeontology, 19th – 21st September 2019, Cluj-Napoca, Romania.
2. Tîrlă M.-L., Drăgușin V., Ersek V., Hoffmann D.L., Hellstrom J., Bajo P., **Mirea I.-C.** *Past environmental signals recorded in the alpine speleothems from the Făgăraș Mountains, Romania*. Oral presentation. 2nd Int. Conference” Environment at Crossroads: SMART approaches for a sustainable future”, 5th–8th September 2019, Bucharest, Romania.
3. Tîrlă M.-L., Drăgușin V., Ersek V., Hoffmann D.L., Hellstrom J., Bajo P., **Mirea I.-C.** *Speleothems from the alpine caves of the Făgăraș Mountains (South Carpathians, Romania)*. Poster

presentation. S4 Summer School of Speleothem Science, 11th–17th August 2019, Cluj-Napoca, Romania.

4. Faur L., **Mirea I.-C.**, Robu M., Petculescu A., Kenesz M., Răzvan Arghir R., Roban R., Panaiotu C., Constantin S. *Genesis of sediments in Muierilor Cave, Southern Carpathians, Romania; facies identification and hydrodynamics*. 27th International Karstological School "Classical karst" in perioada 17-21.06.2019, Postojna, Slovenia. (poster).

5. Faur L., **Mirea I.-C.**, Panaiotu C., Soare B., Dăgușin V. *Clay mineralogy and magnetic susceptibility of a possible sedimentary record of Bronze Age deforestation practices in a karst area of SW Romania*. Man and Karst - 2019 International Scientific Conference June 24th - 26th (poster).

6. Burghel B.D., Cucos A., Constantin S., Drăgușin V., **Mirea I.**, Papp B. *Radon measurements in Romanian caves to assess the radiation safety for underground workers*, International Symposium on Natural Radiation Sources – Challenges, Approaches and Opportunities. National Library Building (Mircea Eliade room), 21-24 May 2019, Bucharest.

7. Kostov K., Constantin S., Yaneva M., Moldovan O., Petulancy A., **Mirea I.-C.**, Konyovska R. *Age determination of speleothems from Mishin Kamik Cave, NW Bulgaria*, the 13th EuroSpeleo Forum, National Education Centre of the Red Cross Dolni, 26-29 september 2019, Lozen, Sofia, Bulgaria.

8. Drăgușin V., Burghel B., Cruceru N., Ersek V., **Mirea I.-C.**, Tîrlă L. *Farmed calcite $\delta^{13}C$ and $\delta^{18}O$ at Ascunsă Cave (Romania) and its relation with cave ventilation and drip rate*. 25-31.07.2019, 20th INQUA Congress in Dublin, Ireland.

2018

1. **Mirea I.-C.**, Drăgușin V., Burghel B., Tîrlă L. *Drip water dissolved CO_2 and radon measurements in four Romanian caves*. Biospeleology and Theoretical and Applied Karstology Symposium, Băile Herculane, Romania, 27-30 September 2018.

2. Tîrlă L., Costin G., Drăgușin V., Ersek V., **Mirea I.-C.**, Roban R., Dimofte D. *Carbon and oxygen isotopic composition across marbles in the central Făgăraș Mountains (South Carpathians) and relationships to speleothem calcite*. Biospeleology and Theoretical and Applied Karstology Symposium, Băile Herculane, Romania, 27-30 September 2018.

3. Drăgușin V., Faur L., Dimofte D., Forray F., Fülöp R., Maghiar L., **Mirea I.-C.**, Panaiotu C., Răducan L., Rethemeyer J., Roban D.-R., Soare B. *Paleoenvironmental proxies in a soil-*

stalagmite couple from SW Romania, Biospeleology and Theoretical and Applied Karstology Symposium, Băile Herculane, Romania, 27-30 September 2018.

4. Haidău C., Drăgușin v., **Mirea I.-C.**, Gomoiu I., Hillebrand - Voiculescu A. *Unravelling the microbial community of Ascunsă Cave (Romania)*, Biospeleology and Theoretical and Applied Karstology Symposium, Băile Herculane, Romania, 27-30 September 2018.

5. Ciocănaș A., **Mirea I. – C.**, Petculescu A., Daneș D. *Microbiology of bite-related injuries associated with predatory attempts on bats*. Biospeleology and Theoretical and Applied Karstology Symposium, Băile Herculane, Romania, 27-30 September 2018.

6. Moldovan O. T., **Mirea I.**, Kenesz M. *Can the subterranean fauna be used as proxy for past environmental changes? – the example of the Carpathians cave fauna*. 25th International Conference on Subterranean Biology, ARPHA Conference Abstracts 1: e29437. September 2018. <https://doi.org/10.3897/aca.1.e29437>

7. Irimia R., Drăgușin V., Șandric I., **Mirea I.-C.** *Landslide Inventory Mapping with Ultra-High Aerial Images for Paleoanthropological Studies*, 1st UAS Workshop “UAS for mapping and monitoring”, Sep. 05-07 2018, Warsaw, Poland.

8. Haidău C., Drăgușin v., **Mirea I.-C.**, Gomoiu I., Hillebrand - Voiculescu A. *Fungal Biodiversity in Ascunsă Cave – preliminary data*, 17th International Symposium on Microbial Ecology, Leipzig, 12-17 August, 2018.

9. Baba S., Giurgincă A., Petculescu A., **Mirea I.-C.**, Murariu D. *Centipede Communities as an Integrated Part of a Specific Cultural Landscape*, 2nd Annual International Symposium on Animal Science & Zoology, July 2018, Athens, Greece.

10. Tîrlă L., Șandric I., Drăgușin V., **Mirea I.-C.**, Covaliov S., Cruceru N. *Terrain analysis of glaciated karst based on high-resolution DEM fom UAV imagery*, 34th Romanian National Symposium on Geomorphology, Buzău, 16-20 May, 2018.

11. Faur L., **Mirea I.-C.**, Robu M., Petculescu A., Kenesz M., Arghir R., Constantin S., Soare B. *Clay mineral assemblages from Muierilor Cave, Southern Carpathians, Romania*, 9th International Symposium on Eastern Mediterranean Geology, Antalya, Turkey, 07th – 11th, May 2018.

2017

1. Moldovan O. T., Năstase-Bucur R., Kenesz M., **Mirea I.-C.**, Constantin S. *Patterns of distribution in Carpathian endemic subterranean species: diversity or uniformity?* 8th Biennial Conference of the International Biogeography Society, 8-18 ianuarie 2017, Tucson, SUA.
2. Moldovan O. T., Măntoiu D., **Mirea I.-C.**, Petculescu A., Năstase-Bucur R., Bercea S., Kenesz M., Mirea I., Constantin S. *Microbiological vulnerability maps. 3rd International Cave Monitoring Workshop*, 19-25 aprilie 2017, Matienzo, Spania.
3. Bercea S., Năstase-Bucur R., Măntoiu D., **Mirea I.-C.**, Petculescu A., Arghir R., Kenesz M., Constantin S., Moldovan O. T. *Microbial monitoring in an underground environment – aspects from Romanian show caves. 6th International Conference on Microbial Communication for Young Scientists*, 20-30 martie 2017, Jena, Germania.
4. Măntoiu D., **Mirea, I.-C.**, Gherghel I. *Liliecii și schimbările climatice: metode de reducere a impactului antropic în ariile naturale protejate. 24-26 mai, 2017, Ziua europeană a parcurilor, Stațiunea Durău, Parcul Național Ceahlău.*
5. Tîrlă, L., Drăgușin, V., Vlaicu M., **Mirea, I.-C.**, Dimofte D., Roban, R.-D. *Cave morphology provides evidence of polyphase tectonics – an example from the Isverna karst system, South Carpathians. Simpozionul Național de Geomorfologie, Ediția a XXXIII-a, 11-14 Mai 2017, Iași.*
6. **Mirea I.-C.** *Peșterile – arhive ale geodiversității.* Workshop-ul: “Geodiversitatea și Biodiversitatea din Țara Hațegului”, în cadrul proiectului: Casa Pietrelor –punct de vizitare și educație non-formală în Geoparcul Dinozaurilor Țara Hațegului, Iulie 2017, Hațeg.
7. **Mirea I.-C.**, Robu M., Kenesz M., Faur L., Arghir R, Codrea V., Petculescu A. & Constantin S. *Taphonomic assessment of MIS 3 cave bear bone assemblages using GIS techniques. Case studies: Muierilor and Urșilor Caves, Romania.*The 11th Romanian Symposium of Palaeontology, September 25-30, 2017, Bucharest.
8. Faur L., **Mirea I.-C.**, Robu M., Kenesz M., Arghir R., Dimofte D., Codrea V., Petculescu A., Constantin S. & Soare B. *The mineralogical composition of MIS 3 cave bear bones from Muierilor Cave, Southern Carpathians, Romania.* The 11th Romanian Symposium of Palaeontology, September 25-30, 2017, Bucharest.

9. Moldovan O., **Mirea I.-C.**, Kenesz M. & Năstase-Bucur R. *Diversity and distribution of Carpathian subterranean fauna*. The Second Interdisciplinary Symposium: Ecological and Evolutionary Facets of Biodiversity, 28-30 September 2017, Cluj-Napoca, Romania.

10. Măntoiu D., **Mirea I.-C.**, Șandric I., Gherghel I., Gazaryan S. *Predicting range shifts for European Community Interest bat species based on future climatic predictions: Will the Natura 2000 Network provide adequate coverage?* The Ninth International Zoological Congress of “Grigore Antipa” Museum, 22 – 25 November 2017, Bucharest.

11. Dragoș Ș. Măntoiu D., **Mirea I.-C.**, Miu I. V., Apostol P., Domoziță A., Popescu R., Kevorchian A., Vasile F., Văcărescu M., C. Iscriu G., Vasiliu O., Vultur A., Tudosăreche A., Raicu A., Mîndru I., Obretin C., Popa M., Corbu I., Roșu O. *Activity patterns of Nyctalus noctula in response to climatic variations during winter: a case study based on a rehabilitated colony*. The Ninth International Zoological Congress of “Grigore Antipa” Museum, 22 – 25 November 2017, Bucharest.

2016

1. **Mirea I.-C.**, Robu M., Petculescu A., Kenesz M., Faur L., Arghir R., Constantin S., Codrea V., (2016). *The spatial orientation analysis of Ursus spelaeus bones from Muierilor and Urșilor caves (Romania)*. The Eighth International Zoological Congress of “Grigore Antipa” Museum, 16 – 20 November 2016, Bucharest.

2. Ciocănașu M., Petculescu A., Robu M., **Mirea I.-C.**, Kenesz M., Gurau R., Danes D., Constantin S., Vlad Codrea V. *Detection and quantification of ancient DNA from cave bears Ursus spelaeus samples excavated at the Muierilor Cave (Romania)*. The Eighth International Zoological Congress of “Grigore Antipa” Museum, 16 – 20 November 2016, Bucharest.

3. Petculescu A., **Mirea I.-C.**, Robu M., Kenesz M., Faur L., Arghir R., Silviu Constantin S., Codrea V. *Paleoclimatic reconstructions on the basis of rodent's associations from caves during Upper Pleistocene*. The Eighth International Zoological Congress of “Grigore Antipa” Museum, 16 – 20 November 2016, Bucharest.

4. Măntoiu D., Kravchenko K., Lehnert L. S., Kramer-Schadt S., Vlashchenko A., Moldovan O., **Mirea I.-C.**, Răzvan C. Stanciu R.C., Popescu-Mirceni R., Zaharia R., Nistorescu M., Voigt C. *Bat migration in the western Black Sea area: stable isotopes analysis ($\delta^{2}H_f$)*.

ultrasound monitoring and wind farm mortality events. The Eighth International Zoological Congress of “Grigore Antipa” Museum, 16 – 20 November 2016, Bucharest.

5. Măntoiu D., **Mirea I.-C.**, Borda D., Năstase-Bucur R., Oana T. Moldovan O. *Cave tourism and the impact on bats: microclimatic models of roost selection*. The Eighth International Zoological Congress of “Grigore Antipa” Museum, 16 – 20 November 2016, Bucharest.

6. Măntoiu D., **Mirea I.-C.**, Năstase-Bucur R., Borda-Cociuba D., Moldovan O. *Liliecii din peșterile turistice: modele spațiale de selecție a habitatelor optime în funcție de microclimat*. A II-a Conferință Națională de Chiropterologie din România, 28-30 October, 2016, Brașov, Romania.

7. **Mirea I.-C.**, Petculescu A., Arghir R., Robu M., Constantin S. *An estimation model for determining the hourly mean temperature and heat transfer using ArcGIS in Vale Cetății Cave (Romania)*. The CAVEMONITOR International Workshop. Microclimatic, biologic and radiation monitoring of caves, 17-20 October, Urșilor Cave, Romania.

8. Petculescu A., **Mirea I.-C.**, Arghir R., Robu M., Constantin S. *Preliminary data on microclimate variability in Urșilor Cave (Chișcău, Bihor, România)*. The CAVEMONITOR International Workshop. Microclimatic, biologic and radiation monitoring of caves, 17-20 October, Urșilor Cave, Romania.

9. Măntoiu D., **Mirea I.-C.**, Năstase-Bucur R., Borda D., Moldovan O. *Bats and cave tourism: a climatic perspective*. The CAVEMONITOR International Workshop. Microclimatic, biologic and radiation monitoring of caves, 17-20 October, Urșilor Cave, Romania.

10. Tîrlă L., Drăgușin V., **Mirea I.-C.**, Cojocaru T., *Peștera M3-R2 din Vf. Mușeteica, Munții Făgăraș*. Congresul Național de Speologie, Ediția a 44-a, 8-11 Septembrie 2016, Oravița.

11. Robu M., **Mirea I.-C.**, Petculescu A., Kenesz M., Munteanu C.-M., Arghir R., Faur L., Constantin S. *Cave sediments and fossils as karst archives: the Urșilor and Muierilor caves, Romania*. Past Global Changes. Central and Eastern Europe Paleoscience Symposium: From Local to Global. 23-26 May 2016, Cluj-Napoca.

12. Drăgușin, V., Hoffmann, D.L., Ersek, V., Vereș, D., Perșoiu, A., Nagavciuc, V., Bădăluță, C., Tîrlă, L., **Mirea, I.-C.**, *A MIS 5e high-altitude speleothem $\delta^{13}\text{C}$ - $\delta^{18}\text{O}$ record from the*

Romanian Carpathians (oral presentation). Past Global Changes. Central and Eastern Europe Paleoscience Symposium: From Local to Global. 23-26 May 2016, Cluj-Napoca.

13. Tîrlă, L., **Mirea, I.-C.**, Roban, R.-D., Cojocaru, T., Drăgușin, V. *Controlul tectonic și structural asupra dezvoltării endocarstului în rocile metacarbonatice din Munții Făgăraș* (prezentare orală). Simpozionul Național de Geomorfologie, Ediția a XXXII-a, 19-22 Mai 2016, Piatra Neamț.

2015

1. Mirea I.-C., Petculescu A., Robu M., Kenesz M., Constantin S., Codrea V. *New data regarding the paleontological research from Muierilor Cave, Romania*. International Zoological Congress of “Grigore Antipa” Museum, 18-21 November 2015, Bucharest – Romania.

2014

1. Robu M., Petculescu A., **Mirea I.-C.** *Approaching caves and fossils as karst archives: Urșilor Cave, Ciur-Izbuc Cave and Muierilor Cave*. EuroSpeleo Forum, 9th Edition “Where the Carpathians meet the Danube”, 22-24 August 2014, Băile Herculane, România.

2. Borda D., Câmpean M., Constantin S., Drăgușin V., Jarda L., Kenesz M., **Mirea I.-C.**, Moldovan O., Munteanu C.-M., Năstase Bucur R., Petculescu A., Povară I., Robu M., Tomuș B., Vlaicu M., 2014. *Study on the foundation of the management plan of the site of community importance and protected area of national interest “Peștera de la Izvorul Tăușoarelor”*. EuroSpeleo Forum, 9th Edition “Where the Carpathians meet the Danube”, 22-24 August 2014, Băile Herculane, România.

3. Mirea I.-C., Petculescu A., Robu M., Kenesz M., Munteanu M. *Date preliminare privind fauna de mamifere din Peștera Muierilor, Galeria Urșilor (Pleistocen Superior)*. Simpozionul “120 de ani de la întemeierea Muzeului Gorjului”, Târgu – Jiu, 15-18 iulie 2014.

2013

1. Plăiașu R., Băncilă R., **Mirea I.-C.** *Factors influencing habitat use by harvestmen (Opiliones) in Mehedinti Plateau Geopark*. The Fifth Annual Zoological Congress of “Grigore Antipa” Museum, 20 – 23 November 2013, Bucharest.

2. Măntoiu D., **Mirea I.-C.**, Șandric I., Nistorescu M., Hăgătiș A., Stanciu E. *Identification and mapping of wilderness areas in the South Western Carpathians*. WILD10, 10th World Wilderness Congress, 4-10 October 2013, Salamanca, Spain.

2011

1. Măntoiu D., **Mirea I.-C.**, Varariu G., Mihai A., Șandric I. *Mapping WCA (Wilderness Core Areas) in the southern Carpathians Mountains*. International Conference Environment-Landscape-European Identity, 4-6 November 2011, Bucharest, Romania.

Projects / grants participation

1. Volunteer in Grant 146 / 2010. ***Mapping cave habitats and evaluating the conservation status of the Chiroptera species from the most important caves in the Buila Vânturarița National Park***. From 2010 to 2011. Principal investigator: dr. Alexandru Petculescu.

2. Special contribution (GIS specialist) - GIS analysis and model development for the pre-feasibility study of the wilderness areas from the South Western Carpathians, linked to the project „***South-Western Carpathian Wilderness***”, financed by the European Commission to EPC Environmental Consultancy. From July 2011 to February 2012.

3. Volunteer in Karsthives project (PCCE_ID_31 / 2010): ***Climate archives in karst – an integrated approach to the study and modeling of abrupt climate oscillations***. "Emil Racovita" Institute of Speleology, Department of Geospeleology and Paleontology, Bucharest, Romania. From February 2011 to December 2011. Principal investigator: dr. Silviu Constantin.

4. Scientific Research Assistant in PCCE-IDEI 31 / 2010: ***Climate archives in karst - an integrated approach to the study and modeling of abrupt climate oscillations***. From January 2012 to October 2013. Principal investigator: dr. Silviu Constantin.

5. GIS specialist in Project 2718 / 2013 CJB-N: ***Efficient management in national protected area and community importance Tăușoare Cave***. From April 2013 to July 2014. Principal investigator: dr. Alexandru Petculescu.

6. Microclimate monitoring and fossil remains restauration in EEA-JRP-RO-NO-2013-1-0259, Contract nr. 17_SEE/30.06.2014: Cavemonitor. ***Monitoring human impact in show caves – a pilot project on monitoring protocols and remediation techniques to be implemented in Romanian show caves***. From June 2014 to April 2017. Principal investigator: dr. Silviu Constantin.

7. Microclimate monitoring in IFA - CEA C4 - 08: ***Climate change teleconnections between Western and Eastern Europe based on speleothems records of the Last Interglacial in France and Romania (FREem)***. From June 2014 to June 2016. Principal investigator: Silviu Constantin.

8. Mapping, large mammal studies, paleoecology, geomorphology, speleothems studies and data base management in PN –II – RU- TE-2014-4-2301: ***Multidisciplinary research of Muierilor Cave fossil deposit aiming at reconstruction of abrupt climate changes in the Upper Pleistocene of SW Romania.*** From June 2015 to June 2017. Principal investigator: dr. Alexandru Petculescu.
9. Large mammal studies, paleoecology, and geomorphology in National Geographic Society grant: ***Environment of the Southern Carpathians during the Last Ice Age - exploring an exceptional new fossil deposit in Peștera Muierilor, Romania.*** From May 2015 to July 2016. Principal investigator: Silviu Constantin.
10. Volunteer in ICUB Young Researchers Grant (UB)13055 /14/06.2017: ***Lithologic and structural controls on marble karst development in the central Făgăraș Mountains (South Carpathians).*** From 1 July 2017 to 30 June 2020. Principal investigator: dr. Laura Tîrlă.
11. Microclimate monitoring in habitat 8310 in SMIS 2014+12009: ***“Completarea nivelului de cunoaștere a biodiversității prin implementarea sistemului de monitorizare a stării de conservare a speciilor și habitatelor de interes comunitar din România și raportarea în baza articolului 17 al Directivei Habitate 92/43/CEE”.*** From April 2019 to June 2019. Principal investigator: dr. Vlaicu Marius
12. Interdisciplinary evaluation of groundwater used as sources of drinking water in rural communities in EEA-RO-NO-2018-0138: ***Monitoring and risk assessment for groundwater sources in rural communities of Romania.*** From June 2019 to June 2023. Principal investigator: dr. Oana Moldovan.
13. Research on the climate changes and extreme natural phenomenon impact on natural and anthropogenic system in EEA-RO-NO-2018-0126: ***Cave deposits as archives of climate and environmental changes. A Center of Excellence in speleological research.*** From June 2019 to June 2023. Principal investigator: dr. Silviu Constantin.
14. Interdisciplinary studies on food chains in caves in PN-III-P4-ID-PCCF-2016-0016: ***Food chains in the dark: diversity and evolutionary processes in caves (DARKFOOD).*** From November 2018 to November 2022. Principal investigator: dr. Oana Moldovan.
15. Interdisciplinary studies on speleothems, fossil remains and cave sediments in PCE 197/2016: ***The role of the Carpathian range in controlling past climate changes during Quaternary – a multi-proxy, speleothem-based approach.*** From July 2017 to December 2019. Principal investigator: dr. Silviu Constantin.
16. Interdisciplinary studies on speleothems, fossil remains and cave sediments in PCE 83/2021: ***Environmental change over the past 5 million years in south-east Europe: testing the reliability of the Pliocene as a model for future climate warming.*** 2020-2023. Principal investigator: dr. Virgil Drăgușin.

17. Interdisciplinary studies on fossil remains speleothems, and cave sediments in TE 09/2022: ***Decoding the palaeoecology and the extinction of MIS 3 – 1 large mammals of the Romanian Carpathians: an integrative approach.*** June 2022- June 2024. Principal investigator: dr. Robu Marius.

18. Interdisciplinary studies on fossil remains speleothems, and cave sediments in PD 95/2022: ***Dietary shift of Late Pleistocene bears from the Romanian Carpathians as a response to climate variability.*** May 2022- May 2024. Principal investigator: dr. Mirea Ionuț-Cornel.