

## Aurel Perşoiu

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### Education

PhD	Geology (palaeoclimatology)	2011	University of South Florida, Tampa, USA
MSc	Dynamic and Experimental Geomorphology	2002	Babeş - Bolyai University, Cluj Napoca, Romania
BSc	Geography (major in geomorphology)	2000	Babeş - Bolyai University, Cluj Napoca, Romania

### Positions

11.2015-03.2011-	Senior research fellow, Emil Racoviță Institute of Speleology, Cluj Napoca, Romania
01.2012-12.2018	Senior research fellow and Director of the Stable Isotope Laboratory, University of Suceava, Romania
08.2006-05.2011	Research fellow (0.25 FTE), Institute of Biology, Romanian Academy, Bucharest, Romania
07.2005-10.2005	Teaching and research assistant, Department of Geology, University of South Florida, Tampa, USA
01.2005-06.2005	GIS analyst (0.5 FTE), WWF, Vienna, Austria
10.2003-10.2007	Lecturer (0.5 FTE), Faculty of Sciences, Lucian Blaga University, Sibiu, Romania
06.2002-09.2003	Research assistant, Emil Racoviță Institute of Speleology, Cluj Napoca, Romania
09.2000-08.2002	Research Fellow, 'Project Apuseni', University of Freiburg, Germany
	Science teacher (Geography, Biology and Ecology), Căşeiu Middle School, Romania

### Honors and Awards

2010	Richard A. Davis jr. Fellowship for best PhD student, Dept of Geology, University of South Florida, USA
2008	Ralph W. Stone Graduate Fellowship, National Speleological Society, USA
2008, 2009	Fred L. & Helen M. Tharp Endowed Fellow, University of South Florida, USA
2007	Samuel Y. Fustukjian Memorial Scholarship, University of South Florida Library, Tampa, USA
2006, 2007	Dean's Excellency Award, College of Arts and Science, University of South Florida, USA
2006	Best Poster Award, HOLIVAR 2006 Open Science Meeting, London, UK
2001	Best Paper Award, 8 <sup>th</sup> National Congress of Student Geographers, Bucharest, Romania
2000	Best Paper Award, 7 <sup>th</sup> National Congress of Student Geographers, Bucharest, Romania
1999	Best Paper Award, National Congress of Student Geographers, Târgoviște, Romania
1998-1999	Babeş-Bolyai University Performance Fellowship for Outstanding Research (BSc student)

### Research grants awarded (as PI or co-PI)

09.2019-08.2022	<i>Imprint of large-scale atmospheric circulation patterns on the stable isotope composition of precipitation in Eastern Europe (PI, International Atomic Energy Agency, CRP on Isotope variability of rain for assessing climate change impacts)</i>
10.2018-12.2018	<i>Mining activities in Eastern Europe during the last 2500 years, reconstructed using Hg measurements in cave ice deposits (PI, Romanian Ministry of Research and Innovation)</i>
09.2018-08.2021	<i>Preserving the climate memory of vanishing Eastern Mediterranean subterranean glaciers (PI, International Union of Speleology)</i>
06.2018-04.2022	<i>Isotope hydrology of the drinking water supply system of Cluj-Napoca, NW Romania (International Atomic Energy Agency, CRP on Isotope Techniques for the Evaluation of Water Sources for Domestic Supply in Urban Areas, co-PI with Traian Brad, Emil Racoviță Institute of Speleology)</i>
06.2018-06.2021	<i>Isotope-based investigation of water resources for irrigation systems in the East-European Plain (PI, International Atomic Energy Agency, CRP on Isotope techniques for the evaluation of water sources in irrigation systems)</i>
05.2018-04.2020	<i>Reconstruction and analysis of patterns of winter temperature and North Atlantic Oscillation variability in Europe during the past millennium: an underground glaciers perspective (PI, Romanian Ministry of Research and Innovation)</i>
10.2017-03.2018	<i>Assessment of the palaeoclimatic potential of the stable isotope composition of Pinus Mugo tree ring cellulose (PI, Romanian Ministry of Research and Innovation)</i>
10.2015-09.2017	<i>Crossing the Carpathians: environmental and cultural controls of the expansion of Neolithic cultures in SE Europe (PI, Romanian Ministry of Education)</i>
01.2015-12.2016	<i>Quantification of the climate – speleothem stable isotopes relationships on a W-E European transect (CNRS France and Romanian Ministry of Education, co-PI with Dominique Genty, LSCE)</i>
07.2014-10.2017	<i>Water stable isotope study of the climate-river discharge relationship(s) in the Lower Danube Watershed (PI, International Atomic Energy Agency, CRP on Stable Isotopes in Large Rivers)</i>
01.2013-12.2014	<i><math>\delta^{18}O</math> in precipitation, tree rings, climate relationship in Hungary and Romania along a West-East humidity gradient (Romanian Ministry of Education, co-PI with Zoltán Kern, Hungarian Academy)</i>
10.2011-09.2014	<i>Rolsoscapes - understanding the link between climate and stable isotopes in precipitation, drip water and newly precipitated cave calcite, in Romania (PI, Romanian University Research Council)</i>

- 09.2009-08.2010 *Late Holocene climate changes recorded in perennial ice accumulation in caves* (PI, Cave Conservancy Foundation)
- 01.2008-12.2008 *Assessment of the palaeoclimatic records preserved in perennial ice accumulations in caves* (PI, National Speleological Society)
- 03.2007-02.2008 *Testing and validating the palaeoclimatic significance of perennial ice accumulations in caves* (PI, Geological Society of America)
- 01.2007-12.2007 *Reconstruction of past climate changes using ice in caves as source of palaeoclimatic data* (PI, Sigma XI - Grant-in-aid of research)
- 01.2006-12.2007 *Establishment of relations between stable isotopes - palaeoclimatic information in ice from caves* (PI, Romanian University Research Council).

#### **Member of research projects**

- 05.2019-04.2023 *Monitoring and risk assessment for groundwater sources in rural communities of Romania* (senior research fellow, PI Oana Moldovan, Emil Racoviță Institute of Speleology, Cluj Napoca, Romania, financed by EEA Grants)
- 05.2019-04.2023 *Cave deposits as archives of climate and environmental changes. A Center of Excellence in speleological research* (senior research fellow, PI Silvu Constantin, Emil Racoviță Institute of Speleology, București, Romania financed by EEA Grants)
- 11.2018-10.2022 *Food chains in the dark: diversity and evolutionary processes in caves* (senior research fellow, PI Oana Moldovan, Romanian Institute of Science and Technology, Cluj Napoca, Romania, financed by the Romanian Ministry of Education)
- 03.2016-12.2018 *Cave ice microbiom: metabolic diversity and activity in response to climate dynamics and anthropogenic pollution* (co-I, PI Cristina Purcărea, Institute of Biology, Romanian Academy, financed by the EU ERANET-LAC program)
- 06.2014-04.2017 *Forest response to climate change predicted from multicentury climate proxy-records in the Carpathian region* (co-I, PI Cătălin Roibu, Ștefan cel Mare University, Suceava, Romania, financed by EEA Grants)
- 01.2012-09.2016 *Biodiversity and chronological distribution of microorganisms in perennial ice deposits from Scărișoara Ice Cave* (senior research fellow, PI Cristina Purcărea, Institute of Biology, Romanian Academy, financed by the Romanian Ministry of Education)
- 10.2011-09.2016 *Reconstruction of Romanian river channel changes in the last 11,700 years: the role of climatic conditions and of human impact* (senior research fellow, PI Maria Rădoane, Ștefan cel Mare University, Suceava, Romania, financed by the Romanian Ministry of Education)
- 10.2008-09.2011 *Northern Annular Mode (NAM) Variability during the Little Ice Age and Medieval Warm Period in a Cave Ice Core Record from Northwestern Romania* (PhD student, PI Bogdan Onac, University of South Florida, Tampa, USA, financed by the NSF USA)
- 01.2006-12.2008 *Palaeoclimate reconstructions based on the multidisciplinary study of ice caves* (research assistant, PI Bogdan Onac, UBB Cluj Napoca, Romania, financed by the Romanian Ministry of Education)
- 01.2006-12.2007 *Investigation of spatial and temporal variability of environmental change of the Carpathian Region during the past five centuries* (researcher, co-PIs Nagy Balazs, Eotvos Lorand University Budapest, Hungary and Ionel Popa, ICAS Câmpulung Moldovenesc, Romania, financed by the Romanian and Hungarian Ministry of Education)
- 01.2003-12.2005 *Trasformazioni in atto nei ghiacciai delle Alpi Italiane, nell'ambito dell'evoluzione climatica dalla Piccola età glaciale ad oggi: banca dati e modelli* (research assistant, PI Valter Maggi, Università Milano Bicocca, Italy, financed by the Italian Ministry of Education)
- 01.2004-12.2004 *Development of a guide for the management of the protected caves and the protocol for the tourists caves in Romania* (research assistant, PI Oana Moldovan, Emil Racoviță Institute of Speleology, Cluj Napoca, Romania, financed by the European Environmental Association,)
- 06.2002-09.2003 *Proiect Apuseni – identification of the social, economic and ecologic potential for sustainable development of a traditional region in Eastern Europe* (research associate, PIs Werner Konold and Albert Reif, Freiburg University, Germany, financed by the German Ministry for Education).

#### **Teaching activities**

- 2017 Stable isotope geochemistry and palaeoclimatology (MSc invited course) - Babeș-Bolyai University, Cluj Napoca, Romania
- 2010 Principles of stable isotope geochemistry (GLY 6739) – Lecturer and teaching assistant, PhD course (600-level), Department of Geology, USF Tampa, USA
- 2006-2011 Dynamic Earth - Introduction to Physical Geology (GLY 2010), Earth and Environmental System (GLY 2000), Introduction to Oceanography (OCE 2001), Geology of National Parks (GLY 2160) – Teaching Assistant, USF Tampa, USA
- 2005 Geomorphology and climatology – Lecturer, MSc Course, Department of Environmental Protection, University of Sibiu, Romania

## Mentoring

### University of Suceava

Carmen Bădăluță, PhD, co-adviser (2014-2019)  
Viorica Nagavciuc, PhD, co-adviser (2014-2019)  
Carmen Bădăluță, MSc, major adviser (2012-2014)  
Viorica Nagavciuc, MSc, major adviser (2012-2014)

### West University of Timișoara

Renata Feher, PhD, co-adviser (2017-2020)  
Renata Feher, MSc, co-adviser (2015-2017)

### Babeș-Bolyai University, Cluj Napoca

Anisia Domide, MSc, co-adviser (2016-2018)  
Andreea Filip, BSc, co-adviser (2017-2018)

## Professional activities

- 2011-2019 Reviewer for *National Science Foundation (US)*; *FONDECYT (Chile)*, *Global and Planetary Change*; *Earth and Planetary Science Letters*; *Scientific Reports*; *The Holocene*; *Climate of the Past*; *The Cryosphere*; *Hydrology and Earth System Sciences*; *Hydrological Processes*; *Progress in Physical Geography*; *Science of the Total Environment*; *Theoretical and Applied Climatology*; *Isotopes in Environmental and Health Studies*; *Water*; *Arctic, Antarctic, and Alpine Research*; *Water Science and Technology*; *International Journal of Speleology*; *Geochronometria*, *Geografia Fisica e Dinamica Quaternaria*; *Annales Societatis Geologorum Poloniae*.
- 2018- National representative for Geosciences at SCAR (Scientific Committee on Antarctic Research).
- 2018 Member of the scientific committee, 8<sup>th</sup> International Workshop On Ice Caves, Potes, Spain, June 11-16, 2018.
- 2018 Co-convenor *Isotopic and multi-proxy continental, atmospheric and marine records*, EGU, Vienna, Austria
- 2017 Member of the Romanian National Research Council (CNCS), Earth Science Commission
- 2017 Convener, *Stable isotopes in the atmosphere – from vapor to precipitation*, EGU, Vienna, Austria
- 2016 Member of the 2<sup>nd</sup> Romanian expedition in Antarctica
- 2016 Convener, *Stable isotopes in the atmosphere – from vapor to precipitation*, EGU, Vienna, Austria
- 2016- Member of the editorial board, *Romanian Journal of Geomorphology*
- 2013-2015 Guest Editor, *Quaternary International* (Climate change and impacts between 8 and 60 ka in Central and Eastern Europe)
- 2014- Member of the steering group of the INTEgrating Ice core, MARine and TERrestrial records (INTIMATE) network
- 2015 Convener, *Stable isotopes in the atmosphere – from vapor to precipitation*, EGU, Vienna, Austria
- 2014 Co-convenor, *Past and present climate: the continental isotopic record*, EGU, Vienna, Austria
- 2013- Vice-president, *Glacier, Firn and Ice Caves Commission, International Speleological Union*
- 2012-2014 Romanian coordinator, EU-COST action INTIMATE (INTEgrating Ice core, MARine and TERrestrial records - 60,000 to 8000 years ago)
- 2012- Member of the National Commission for Antarctic Research, Romanian Academy
- 2012-2013 Member of the Romanian National Research Council (CNCS), Earth Science Commission
- 2012 Member of the Scientific Committee, 5<sup>th</sup> International Workshop on Ice Caves, Barzio, Italy
- 2012 Co-convenor, *IG5/CL5.8/SSP5.3 Stable isotopes as a tool in (palaeo-)climate studies in different environments and by multi-proxy approaches*, EGU General Assembly, Vienna, Austria
- 2011 Program committee member, 19<sup>th</sup> International Karstological School, Postojna, Slovenia.
- 2011 Co-convenor, *Ice deposits in caves: formation, evolution and climate-environment assessment*, EGU, Vienna, Austria
- 2010 Program committee member, 18<sup>th</sup> International Karstological School, Postojna, Slovenia
- 2007-2009 President, Working Group on Ice Caves, International Speleological Union
- 2006-2010 Co-organizer, “Best of Karst” Events, University of South Florida, Tampa, USA
- 2006-2007 Romanian coordinator, Agreement of Scientific Cooperation in the field of karstology, palaeokarstology, speleology and cave environment, between the Emil Racoviță Institute of Speleology (Romania) and the Institute of Geology - Czech Academy of Science
- 2006 Co-organizer, 18<sup>th</sup> International Symposium of Biospeleology Cluj Napoca, Romania
- 2006 Co-organizer, 4<sup>th</sup> Climate Change: the Karst Record Conference, Băile Herculane, Romania
- 2004 Co-organizer, 10<sup>th</sup> European meeting of Environmental Science Students, Sibiu, Romania
- 2004 Co-organizer, 1<sup>st</sup> International Workshop on Ice Caves, Căpuș, Romania

## Public outreach

Interviewed/featured: Science, BBC, American Scientist, Climatefeedback.org, Radio France International, Seeker, Romanian National Radio, Romanian National TV, Earth Magazine, Magyar Tudomány, various Romanian media outlets (ProTV, Antena1 TV, Unirea de Alba, Ziarul Financiar, Monitorul de Suceava, Mediafax, Ecoromania etc).

Scientific advisor to National Geographic Romania on glaciology

## List of publications

### A. Peer-reviewed articles (\* denotes graduate students)

#### In preparation

43. \* Bădăluță, C.-A., **Perșoiu, A.**, Ionita, M., Piotrowska, N., *in prep. (September 2019)* Reduced summer temperature differences between the LIA and MWP in East-Central Europe, *Climate of the Past*.
42. Vystavna Y., Schmidt S., Hejzlar, J., Kopacek J., Holko L., **Perșoiu A.**, \*Bădăluță C.-A., Huneau F., *in prep. (September 2019)* Small scale variability of water and material inputs to a mountain lake provided by hydrological pathways, *Journal of Hydrology*.
41. **Perșoiu A.**, Słowiński M., Słowińska S., Marcisz K., Lamentowicz M., Ionita M., *in prep. (December 2019)*, Heat waves and jet stream relations - nature of dry and wet shifts around the 2.8 kyr BP event in Central Europe. *Journal TBD*
40. **Perșoiu A.**, \*Nagavciuc V., \*Bădăluță C.-A., Birsan M., Onaca A., Boengiu S., *in prep. (October 2019)* Shifts in moisture sources in the Western Carpathians, East-Central Europe, indicated by the isotopic composition of precipitation. *JGR Atmospheres*.
39. **Perșoiu A.**, Ionita M., *in prep. (October 2019)*, Major reorganization of ocean-atmosphere coupling during a grand solar minima. *Nature Geoscience*.

#### Submitted/under review/revised

38. Kern, Z., Demény, A., Perșoiu, A., Hatvani, I.G., *accepted*, Speleothem records from the Eastern part of Europe and Turkey - discussion on stable oxygen and carbon isotopes, *Quaternary*.
37. \*Bădăluță, C.-A., Dima, D., Ionita, M., Rădoane, M., **Perșoiu, A.**, Bădăluță, G., *under review*, Hydroclimate extremes and social vulnerability in the Eastern Carpathian Mountains over the last 500 years, *Nature Communications*.
36. **Perșoiu A.**, Bădăluță C.A., Lee, J., *under review*, Surface water stable isotope geochemistry in King George Island, Antarctica, *Journal of Geophysical Research – Atmospheres*.
35. Kern Z., Kele S., **Perșoiu A.**, Főrizs I., Bernasconi S., *revised*, Clumped isotope analysis of fine-grained cryogenic cave carbonates (Scărișoara Ice Cave, Romania). *Acta Carsologica*.

#### Published

34. \*Păun V.I., Icaza G., Lavin P., Marin C., Tudorache A., **Perșoiu A.**, Dorador C., Purcărea C., 2019, Total and potentially active bacterial communities entrapped in a Late Glacial through Holocene ice core from Scărișoara Ice Cave, Romania. *Frontiers in Microbiology*, 10: 1193, <https://doi.org/10.3389/fmicb.2019.01193>.
33. \*Nagavciuc V., Ioniță M., **Perșoiu A.**, Popa I., Loader N., McCarroll D., 2019, Stable oxygen isotopes in Romanian oak tree rings record summer droughts and associated large-scale circulation patterns over Europe. *Climate Dynamics*, 52 (11): 6557-6568, <https://doi.org/10.1007/s00382-018-4530-7>.
32. **Perșoiu A.**, Ioniță M., Weiss H., 2019, Atmospheric blocking induced by the strengthened Siberian High led to drying in the Middle East during the 4.2 ka event – a hypothesis, *Climate of the Past*, 15 (2): 781-793, <https://doi.org/10.5194/cp-2018-161>.
31. Bini M., Zanchetta G., **Perșoiu A.**, Cartier, R., Català A., Cacho I., Dean J.R., Di Rita F., Drysdale R.N., Finnè M., Isola I., Jalali B., Lirer F., Magri D., Masi A., Marks L., Mercuri A.M., Peyron O., Sadori L., Sicre M.-A., Welc F., Zielhofer C., Brisset, E., 2019, The 4.2 ka BP event in the Mediterranean region: an overview. *Climate of the Past*. 15 (2): 555-577, <https://doi.org/10.5194/cp-2018-147>.
30. \*Bădăluță C.-A., **Perșoiu A.**, Ionita M., \*Nagavciuc V., \*Bistricean P.-I., 2019, Stable H and O isotope-based investigation of moisture sources and their role in river and groundwater recharge in the NE Carpathian Mountains, East - Central Europe. *Isotopes in Health and Environmental Studies*. 55 (2): 161-178, <https://doi.org/10.1080/10256016.2019.1588895>.
29. Perșoiu I., **Perșoiu A.**, 2019, Flood events in Transylvania during the Medieval Warm Period and the Little Ice Age. *The Holocene*, 29 (1): 85-96. <https://doi.org/10.1177/095968361804632>.
28. \*Mondini A., Donhauser J., \*Ițcuș C., Marin C., **Perșoiu A.**, Frey B., Purcărea C., 2018, High-throughput sequencing of fungal communities across the perennial ice block of Scărișoara Ice Cave. *Annals of Glaciology*, 59 (77): 134-146, <https://doi.org/10.1017/aog.2019.6>.
27. \*Ițcuș C., \*Pascu M.-D., **Perșoiu A.**, Iancu L., Lavin P., Purcărea C., 2018, Bacterial and archaeal community structures in perennial cave ice. *Scientific Reports*, 8, 15671, <https://doi.org/10.1038/s41598-018-34106-2>.
26. Vystavna Y., Holko L., Hejzlar J., **Perșoiu A.**, Graham N.D., Juras R., Huneau F., Gibson J., 2018, Isotopic response of runoff to forest disturbance in small mountain catchments, *Hydrological Processes*, 32 (24): 3650-3661, <https://doi.org/10.1002/hyp.1328>.
25. Ersek V., Onac B.P., **Perșoiu A.**, 2018, Kinetic processes and stable isotopes in cave dripwaters as indicators of winter severity. *Hydrological Processes*, 32(18): 2856-2862. <https://doi.org/10.1002/hyp.13231>.
24. Brad T., \*Ițcuș C., \*Pascu M.-D., **Perșoiu A.**, Hillebrand-Voiculescu A., Purcărea C., 2018, Fungi in perennial ice from Scărișoara Ice Cave (Romania). *Scientific Reports*, 8, 10096. <https://doi.org/10.1038/s41598-018-28401-1>.
23. \*Nagavciuc V., Kern Z., **Perșoiu A.**, Kesjár D., Popa I., 2018, Brown-rot decay influence on the stable isotope composition of tree ring cellulose. *Dendrochronologia*, 49: 110-117. <https://doi.org/10.1016/j.dendro.2018.03.007>.
22. **Perșoiu A.**, Onac B.P., Wynn J.G., Blaauw M., Ioniță M., Hansson M., 2017, Holocene winter climate variability in Central and Eastern Europe. *Scientific Reports*, 7, 1196. <https://doi.org/10.1038/s41598-017-01397-w>.

21. Feurdean A., Munteanu C., Kuemmerle T., Nielsen A.B., Hutchinson S.M., Ruprecht E., Parr C.L., **Perşoiu A.**, Hickler T., 2017, Long-term land-cover/use change in a traditional farming landscape in Romania inferred from pollen data, historical maps, and satellite images. *Regional Environmental Change*, 17 (8): 2193–2207. <https://doi.org/10.1007/s10113-016-1063-7>.
20. Drăguşin, V., Balan, S., Blamart, D., Forray, F.L., Marin, C., Mirea, I., Nagavciuc, V., **Perşoiu, A.**, Tîrlă, L., Tudorache, A., Vlaicu, M., 2017, Transfer of environmental signals from surface to the underground at Ascunsă Cave, Romania. *Hydrology and Earth System Sciences*, 21: 5357-5373. <https://doi.org/10.5194/hess-2016-625>.
19. Iepure, S., Feurdean, A., Bădăluţă, C., Nagavciuc, V., **Perşoiu, A.**, 2016, Groundwater copepods and ostracods in the Eastern Carpathians, Romania: a distributional pattern and palaeoenvironmental perspective. *Biological Journal of the Linnean Society*. 119: 593-608, <https://doi.org/10.1111/bij.12686>.
18. \*Îţcuş, C., \*Pascu, M.-D., Brad, T., **Perşoiu, A.**, Purcărea, C., 2016, Diversity of cultured bacteria from the perennial ice block of Scărişoara Ice Cave, Romania. *International Journal of Speleology*, 45 (1): 89-100. <https://doi.org/10.5038/1827-806X.45.1.1948>.
17. **Perşoiu, A.**, Feurdean, A., Wim, H.Z., 2015, Closing and exposing the gaps in knowledge: INTIMATE workshop on terrestrial records from Central and Eastern Europe for the Last Glacial–Interglacial transition. *Quaternary International*, 388: 1-3. <https://doi.org/10.1016/j.quaint.2015.09.003>.
16. Mulec, J., Oarga, A., Schiller, E., **Perşoiu, A.**, Holko, L., Šebela, S., 2015, Assessment of the physical environment of epigeal invertebrates in a unique habitat according to water temperature, chemistry and isotopic composition: the case of a karst sulphidic spring, Slovenia. *Ecohydrology*, 8 (7): 1326-1334. <https://doi.org/10.1002/eco.1585>.
15. Feurdean, A.<sup>1</sup>, **Perşoiu, A.**<sup>1</sup>, Tanţău, I., Stevens, T., Markovic, Magyari, E.K., Onac, B.P., Andric, M., Connor, S. Galka, M., Hoek, W.Z., Lamentowicz, M., Sümegi, P., Perşoiu, I., Kolaczek, P., Kunes, P., Marinova, E., Slowinski, M., Michczynska, D., Stancikaite, M., Svensson, A., Veski, S., Fărcaş, S., Tămaş, T., Zernitskaya, V., Timar, A., Tonkov, S., Toth, M., Willis, K.J., Plóciennik, M., Gaudeny, T., 2014, Climate variability and associated vegetation response throughout Central and Eastern Europe (CEE) between 8 and 60 kyrs ago. *Quaternary Science Reviews*, 106: 206-224. <https://doi.org/10.1016/j.quascirev.2014.06.003>, <sup>1</sup>Authors with equal contribution
14. Moreno, A., Svensson, A., Brooks, S.J., Connors, S., Engels, S., Fletcher, W., Genty, D. Heiri, O., Labuhn, I., **Perşoiu, A.**, Peyron, O., Sadori, L., Valero-Garcés, B., Wulf, S., Zanchetta, G. and data contributors, 2014, A compilation of Western European terrestrial records 60-8 ka BP: towards an understanding of latitudinal climatic gradients. *Quaternary Science Reviews*, 106: 167-185. <https://doi.org/10.1016/j.quascirev.2014.06.030>.
13. Hillebrand-Voiculescu, A., Îţcuş, C., Ardelean, I., Pascu, M.D., **Perşoiu, A.**, Rusu, A., Brad, T., Popa, E., Onac, B.P., Purcărea, C., 2014, Searching for cold-adapted microorganisms in the underground glacier of Scărişoara Ice Cave, Romania. *Acta carsologica*, 43 (2-3): 117-127. <https://doi.org/10.3986/ac.v43i2-3.604>.
12. Hillebrand-Voiculescu, A., Rusu, A., Îţcuş, C., **Perşoiu, A.**, Brad, T., Pascu, M.-D., Ardelean, I., Onac, B. P., Purcărea, C., 2013, Bacterial 16S-rRNA gene clone library from recent ice stalagmites of Scărişoara Cave. *Romanian Journal of Biochemistry*, 50 (2): 109-118.
11. Žák, K., Orvošová, M., Filippi, M., Vlček, L., Onac, B.P., **Perşoiu, A.**, Rohovec, J., Světlík, I., 2013, Cryogenic cave pearls in the periglacial zones of ice caves. *Journal of Sedimentary Research*, 83: 207-220. <https://doi.org/10.2110/jsr.2013.16>.
10. Kern, Z., **Perşoiu, A.**, 2013, Cave ice - the imminent loss of untapped mid-latitude cryospheric palaeoenvironmental archives. *Quaternary Science Reviews*, 67: 1-7. <https://doi.org/10.1016/j.quascirev.2013.01.008>.
9. Moldovan, O., Meleg, I., **Perşoiu, A.**, 2012, Habitat fragmentation and its effects on groundwater populations, *Ecohydrology*, 5 (4): 445-452. <https://doi.org/10.1002/eco.237>.
8. **Perşoiu, A.**, Onac, B.P., Perşoiu, I., 2011, The interplay between air temperature and ice dynamics in Scărişoara Ice Cave, Romania. *Acta Carsologica*, 40 (3): 445-456. <http://dx.doi.org/10.3986/ac.v40i3.4>.
7. Feurdean A., **Perşoiu, A.**, Pazdur, A., Onac, B.P., 2011, Evaluating the palaeoecological potential of pollen recovered from ice in caves: a case study from Scărişoara Ice Cave, Romania. *Review of Palaeobotany and Palynology*, 165 (1-2): 1-10. <https://doi.org/10.1016/j.revpalbo.2011.01.007>.
6. **Perşoiu, A.**, Pazdur, A., 2011, Ice genesis and its long-term mass balance and dynamics in Scărişoara Ice Cave, Romania. *The Cryosphere*, 5 (1): 45-53. <https://doi.org/10.5194/tc-5-45-2011>.
5. **Perşoiu, A.**, Onac, B.P., Wynn, J., Bojar, A.-V., Holmgren, K., 2011, Stable isotopes behavior during cave ice formation by water freezing in Scărişoara Ice Cave. *Journal of Geophysical Research - Atmospheres*, 116, D02111. <https://doi.org/10.1029/2010JD014477>.
4. Bojar, A.-V., Ottner, F., Bojar, H.-P., Grigorescu, D., **Perşoiu, A.**, 2009, Stable isotope and mineralogical investigations on clays from the Late Cretaceous sequences, Haţeg Basin, Romania. *Applied Clay Science*, 45 (3): 155-163. <https://doi.org/10.1016/j.clay.2009.04.005>.
3. Kern, Z., Molnár, M., Svingor, É., **Perşoiu, A.**, Nagy, B., 2009, High resolution, well preserved tritium record in the ice of Borţig Ice Cave (Bihor Mts., Romania). *The Holocene*, 19 (5): 729-736. <https://doi.org/10.1177/0959683609105296>.
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## B. Book and chapters in books

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11. **Perşoiu, A.**, Onac, B.P., 2019, *Ice caves in Romania*. In Ponta, G.M.L., Onac, B.P. (eds.), *Cave and Karst Systems of Romania*, Springer, . 455-465. [https://doi.org/10.1007/978-3-319-90747-5\\_52](https://doi.org/10.1007/978-3-319-90747-5_52).
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7. **Perşoiu, A.**, 2018, *Ice dynamics in caves*. In Perşoiu, A., Lauritzen, S.-E. (eds.), *Ice caves*, Elsevier, p. 97-108. <https://doi.org/10.1016/B978-0-12-811739-2.00034-6>.
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2. Onac, B.P., **Perşoiu, A.**, Racoviță, G., Tămaș, T., Viehmann, I., 2007, *Scărișoara Ice Cave and its surroundings*. *Studia*, Cluj Napoca, 88 p.
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## C. Invited lectures

11. *Holocene winter climate variability in Eastern Europe and the need for both summer and winter climate reconstructions*, University of Thessaloniki, Greece, September 1, 2017.
10. *Climate, atmospheric circulation and stable isotopes: the present is the key to the past*. Natural versus anthropogenic causes of climate variability and feedback from bio-geo-chemical processes Conference, Bucharest, Romania, October 18-22, 2016.
9. *Stable isotopes in sedimentary archives as proxies of past climate changes*. Natural versus anthropogenic causes of climate variability and feedback from bio-geo-chemical processes, Bucharest, Romania, October 18-22, 2016.
8. *Paleoclimate reconstruction from Central and Eastern Europe*. INTIMATE Workshop on Western Europe Terrestrial Records, Zaragoza, Spain, November 30, 2012.
7. *Dinosaurs, Milankovitch and coal: a history of climate change*. University of Suceava, Romania, May 16, 2012.
6. *Ice in caves: a novel paleoclimatic archive*. Laboratoire de Glaciologie et Géophysique de l'Environnement, Université Joseph Fourier, Grenoble, France, July 5, 2011.
5. *Protection and management of ice caves in Romania from the side of caving clubs*. 19<sup>th</sup> International Karstological School, Postojna, Slovenia, June 21, 2011.
4. *Reconstruction of Holocene climate history in central Europe using ice cores of caves in Romania*. University of Freiburg, Germany, June 2, 2010.
3. *Holocene climate history recorded in a Central European cave ice deposit*. Bert Bolin Climate Centre Annual Meeting, Stockholm, Sweden, September 16-17, 2009.
2. *Accumulation of ice in Scărișoara Ice Cave, in relation with past and present climatic conditions*. Workshop on Absolute ages and their applications in archeology, geology and environmental science, Alba Iulia, Romania, August 29-30, 2008.
1. *Apuseni Mountains, Romania - Climate, paleoclimate and climate change*. Impact of climate changes on subterranean life: challenge for protection Workshop, Gârda de Sus, Romania, May 20-22, 2008.