

Aritina Haliuc

Environnements et Paléoenvironnements Océaniques et Continentaux (EPOC)

Unité Mixte de Recherche (UMR) 5805

Centre National de la Recherche Scientifique (CNRS)

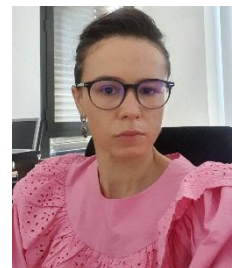
Université de Bordeaux, 33615 Pessac, France

Phone: +40 740225763

E-mail: aritinahaliuc@gmail.com

aritina.haliuc@u-bordeaux.fr

Orcid iD: <https://orcid.org/0000-0002-5681-8210>



Personal Data: Born on 31.12.1987, Suceava (Romania). Nationality: Romanian

Present position

Post-doctoral researcher

University of Bordeaux, France

Post-doctoral researcher in the project *Reconstructing regional burnt areas from microcharcoal preserved in marine sediments (BRAISE)*

Research interests:

Past climate dynamics, sediments as climate and environmental change archives, geological/geochemical and biological proxies, fire history reconstructions based on macro- and micro-charcoal analysis from peat, lake and marine sediment sequences, sediments with seasonal cycles of deposition (varves), volcanic ash (tephra) as important chronostratigraphic markers

Studies

2012 – 2016 - PhD

University of Suceava, Romania

Geography, Department of Geography, Ștefan cel Mare University of Suceava

Investigating the response of two lacustrine systems (Lake Haemelsee – Germany and Lake Ighiel - Romania) to the abrupt climatic changes over the Late Glacial and Holocene periods and infer past teleconnections and leads/lags within the climatic system

2010 - 2012 - MSc

University of Suceava, Romania

GIS and Territorial Planning, Department of Geography, Ștefan cel Mare University of Suceava

Methods of analysis of experimental data, Spatial Planning Systems, Geodetic and Cadastral Systems in GIS

2011- 2012 Erasmus Training period

University of Salford, UK

Faculty of Life Sciences, University of Salford

Assessing sediment properties in a range of depositional environment by applying different analytical methods (physical, geochemical and biological)

2010 – 2011 Erasmus Study Period

University of Durham, UK

Department of Geography, University of Durham

Acquiring abilities to recognize and understand the structural components of natural system

2010 - BSc

University of Suceava, Romania

Environmental Sciences, Ștefan cel Mare University of Suceava

Perceived valuable knowledge to understand and use concepts specific to environment protection and management

Research Experience

2021-present

Research assistant

Inferring spatio-temporal palaeodynamics: from ancient biomolecules to organismal (overviews on cave sediment sequences) (PN-III-P4-ID-PCE-2020-0518 - PI I. Meleg)

Romanian Academy, Institute of Speology "Emil Racovita", Bucharest, Romania, CNCS Grant

Participating at fieldwork campaigns in underground environments, collecting field and laboratory data, applying routine sedimentological analyses, field and laboratory database generation, support the team in data interpretation and publication, create content for publication on different platforms (Twitter, Facebook, website)

2021-present

Research assistant

Unravelling the legacy of 7000 years of metal pollution in central-eastern Europe (PN-III-P4-ID-PCE-2020-0914 - PI D. Veres)

Academy, Institute of Speology "Emil Racovita", Cluj, Romania, CNCS Grant

Participating at field campaigns, collecting field and laboratory data, sedimentological description, applying routine analyses, database generation, interpreting data, publication, create website, create and publish content on different platforms (Twitter, Facebook, website)

2020-present

Post-doctoral researcher

Reconstructing regional burnt areas from microcharcoal preserved in marine sediments (BRAISE)(P.I. A-L Daniau)

Université de Bordeaux, Bordeaux, France, ANR Grant

Sample collection, micro-charcoal preparation and slides counting, spatial data processing, database generation and applying statistical treatments, data interpretation and publication

2019

Post-doctoral researcher

Sustainable use of ecosystem services - research for mitigating the negative effect of climate change, land use change and biological invasion (GINOP-2.3.2.-15-2016-00019), EU grant

Centre for Ecological Research, Hungary

Literature survey, geochemical data interpretation, climatological data preparation, manuscript drafting

2018-2019

Post-doctoral researcher

Extreme climatic events in Romania and links with teleconnection patterns over the past two centuries (ExRoTe – PI. A. Haliuc)

Department of Atmospheric Physics, Faculty of Mathematics and Physics, Prague, Czech Republic

Organizing field campaigns, collating field and laboratory data, applying routine sedimentological analyses, data interpretation and publication (Postdoctoral project of 32000 €)

2014-2017

Research assistant

Millennial-scale geochemical records of anthropogenic impact and natural climate change in the Romanian Carpathians (PN-III-P4-ID-PCE2020-0914 - PI D. Vereş)

Romanian Academy, Institute of Speology "Emil Racovita", Cluj, Romania, CNCS Grant

Participating in field campaigns, collecting field and laboratory data, applying geochemical and sedimentological analyses, data interpretation and publication

2013

Research assistant

Climate variability recorded by glacial deposits and lake sediments (PN-II-RU-TE-2012-3-0386 - PI M. Mîndrescu)

Ştefan cel Mare University, Suceava, Romania, CNCS Grant

Participating at lake coring campaigns, collecting field and laboratory data, sedimentological description, applying geochemical and magnetic analyses and interpreting data

2011-2014

Member of research team

Altitudinal variation in the biotic response to recurrent climate fluctuations and human impact during the past 15,000 years in the Carpathian region (PI A. Feurdean, coPI T. Hickler and V. Mosbrugger)

Senckenberg Research Institute and Natural History Museum & LOEWE Biodiversity and Climate Research Centre Frankfurt am Main, Germany, DFG Grant

Stratigraphical description of peat and lake sequences, micro- and macro-charcoal counting, applying CHAR analysis, interpreting data, publication

2011-2014

Member of research team

Holocene tree line and timberline changes in Northern Carpathians – a key approach for understanding the sensitivity of upper mountain environment (PI A. Feurdean)

Babeş-Bolyai University, Cluj-Napoca, Romania, CNCS Grant

Micro- and macro-charcoal counting, applying CHAR analysis, sedimentological, geochemical and magnetic data interpretation, publication

Grants

July 2020-July 2021

ICUB-RYA, Bucharest

Romanian Young Academy (RYA)

RYA award for the project *Climate extremes (droughts) and their impacts: lessons from the past to close the gap between science and action*

Use reconstructions from natural archives as an example to draw robust conclusions about drivers, frequency and impacts of silent hazards (drought) and use this information to raise public awareness and support civic actions and public policies (6000 €)

October-November 2018

GFZ Potsdam, Germany

DBU (Deutsche Bundesstiftung Umwelt) Alumni Fellowship for the project *Short-term climatic changes during the late Allerød and early Younger Dryas recorded in a partially varved record from N-Germany*

Reconstructing sediment proxy responses to the abrupt climatic changes during the Allerød-Younger Dryas, using advanced high-resolution methods (varve micro-facies and micro-XRF element scanning) (2400 €)

January – December 2018

ICUB, University of Bucharest, Romania

ICUB postdoctoral fellowship for the project *Erosional activity in Western Carpathians: frequencies, mechanisms, climate forcing and possible links with large-scale atmospheric circulation patterns over the last 2,500 years*

Reconstructing the frequencies of erosional activity, identify the potential climatic mechanisms and test possible teleconnections with large-scale atmospheric circulation patterns over the last 2,500 years using different statistical approach (10000 €)

November-December 2015

Debrecen, Hungary

Hertelendi Laboratory of Environmental Studies Institute of Nuclear Research, Hungarian Academy of Sciences

Short-term IAEA fellowship training program for providing hands-on laboratory experience in the application of Accelerator Mass Spectrometry (AMS), including sample preparation, to support the characterization of cultural heritage artifacts and sedimentary deposits (2500 €)

June 2014 – June 2015

Suceava, Romania

Ştefan cel Mare University of Suceava

POSDRU scholarship for doctoral studies

Reconstructing climate and environment variability in Western Romania using high-resolution sedimentological and geochemical analyses (4400 €)

September 2014 – September 2015

GFZ Potsdam, Germany

German Research Centre for Geosciences - GFZ

DBU (Deutsche Bundesstiftung Umwelt) Scholarship for project *Climate variability during the last 14 ka recorded by lake geochemical proxies*

Reconstructing climate and environment variability in Northern Germany and Western Romania over the last 14 ka by applying high-resolution lithostratigraphical, geochemical and micro-facies analyses (13200 €)

July 2014 - August 2014

GFZ Potsdam, Germany

German Research Centre for Geosciences - GFZ

DAAD Scholarship for project *Short-term climate variability recorded in annually laminated lake sediments during the warm Allerød interstadial and the transition to the Younger Dryas*

Applying high-resolution sedimentological and geochemical analyses for lake Haemelsee varved sequence to reconstruct and understand Late Glacial abrupt climatic changes in NE Germany (3600 €)

October 2013 - December 2013

GFZ Potsdam, Germany

Short Term Scientific Mission (STSM) granted by INTIMATE for project *Varve dating of the Allerød interstadial and the Allerød /YD transition from Lake Hämelsee sediment record, Northern Germany*

Learning and applying cutting-edge methodologies (Bartington MS2E sensor, Itrax Corescanner, thin section preparation and analyze) enhancing the analytical competencies in the field of modern paleolimnological investigations (2000 euro)

Five financial supports for participation at conferences and summer schools: INQUA ECR (University of Reading, UK), summer school on Dates and Rates of Change in the Quaternary (University of Cologne, Germany), European Geoscience Union (EGU, Vienna, Austria), 1st and 2nd “An Intimate Example” Summer School (Romania, Germany)

Skills

Technical

X-ray fluorescence, mineral magnetic characterisation (MS, ARM and SIRM), thin-section analyse, organic content via loss-on-ignition (LOI), laser diffraction for particle size determination, ICP OES based analysis of background level geochemistry, gamma-ray detector analysis, micro and macro charcoal counting

Computer

MSoftware, Affinity Designer, Corel, ArcGIS, QGIS, RStudio, Grapher, PAST, Strater, OriginLab, CharAnalyses

Other activities

2020 Member of Infoclima network aiming to bring to the large public scientific arguments about climatic changes <https://www.infoclima.ro>

2020 Member of Romanian Young Academy (RYA) hosted by The Research Institute of the University of Bucharest (ICUB)

2018 Member and Regional Representative of the Early Career Network (ECN), Past Global Changes(PAGES): <http://pastglobalchanges.org/ecn/regional-reps>

2018 Blog article publication for The Early Pages:

<https://theearlypages.blogspot.com/2018/06/newspaper-reports-in-romania-what-do.html>

2018 Member of the Asociatia Romana de Meteorologie Aplicata si Educatie (ARMAE) and

2013 Vice-president at the Asociația de Geografie Aplicată (Geoconcept)

2013 Training for social education and related activities organized through EU support in Aksaray (Turkey) and Suceava (Romania)

2013 Member in the organization committee of the “*Workshop on interdisciplinarity in geosciences in the Carpathian Basin*”, Suceava

2008 “Work and Travel” student in hotelier services, Salt Lake City (USA)

Publications

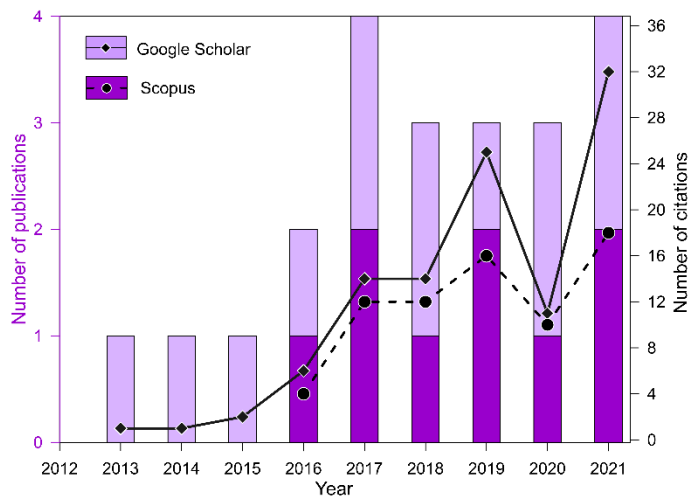
Peer-reviewed publications:

1. Longman, J., Veres, D., **Haliuc, A.**, Finsinger, W., Ersek, V., Pascal, D., Sava, T., Begy, R., **2021**, *Carbon accumulation rates of Holocene peatlands in central-eastern Europe document the driving role of human impact for the past 4000 years*, Clim. Past Discuss. [preprint], DOI: <https://doi.org/10.5194/cp-2021-65>, accepted. (IF: 4.295)

2. Rosengren E., Acatrinei A., Cruceru N., Dehasque M., **Haliuc A.**, Lord E., Mircea C.I., Rusu I., Mármol-Sánchez E., Kelemen B.S., Meleg I.N., **2021**, *Ancient Faunal History Revealed by Interdisciplinary Biomolecular Approaches*. *Diversity*. 13(8):370. DOI: <https://doi.org/10.3390/d13080370> (IF: 2.047)
3. **Haliuc A.**, Buczko, K., Hutchinson, S.M., Acs, E., Magyari, E., Korponai, J., Begy, R.-C., Vasilache, D., Zak, M., Veres, D., 2020, *Climate and land-use as the main drivers of recent environmental change in a mid-altitude mountain lake, Romanian Carpathians*, *PlosOne*, DOI: <https://doi.org/10.1371/journal.pone.0239209> (IF: 2.740)
4. Szabo, Z., Buczko, K., **Haliuc, A.**, Pál, I., Korponai, J.L., Begy, R.-C., Veres, D., Tomi P. Luoto, T.P., Zsigmond, A.R., Magyari, E.K., **2020**, *Ecosystem shift of a mountain lake under climate and human pressure: A move out from the safe operating space*, *Science of the Total Environment*, 743:140584 DOI: [10.1016/j.scitotenv.2020.140584](https://doi.org/10.1016/j.scitotenv.2020.140584) (IF: 6.551)
5. Cheval, S., **Haliuc, A.**, Antonescu, B., Tişcovschi, A., Dobre, M., Tatui, F., Dumitrescu, A., Manea, A., Tudorache, G., Irimescu, A., Birsan, M-V, Mock, C, **2020**, *Enriching the historical meteorological information using Romanian language newspaper reports: a database from 1880 to 1900*, *International Journal of Climatology*, <https://doi.org/10.1002/joc.6709> (IF: 3.609)
6. Longman, J., Veres, D., Ersek, V., **Haliuc, A.**, Wennrich, V., **2019**, *Runoff events and related rainfall variability in the Southern Carpathians during the last 2000 years*, *Scientific Reports*, 9:5334 <https://doi.org/10.1038/s41598-019-41855-1> (IF: 4.609)
7. **Haliuc, A.**, Feurdean, A., Mindrescu, M., Frantiuc, A., Hutchinson, S.M., **2018**, *Impacts of forest loss in the Eastern Carpathian Mountains: linking remote sensing and sediment changes in a mid-altitude catchment (Red Lake)*, *Regional Environmental Change*: 19 (2), 461-475 <https://doi.org/10.1007/s10113-018-1416-5> (IF: 2.872)
8. Jones, G., Lane, C. S., Brauer, A., Davies, S. M., de Bruijn, R., Engels, S., **Haliuc, A.**, Hoek, W. Z., Merkt, J., Sachse, D., Turner, F. and Wagner-Cremer, F., **2018**, *The Lateglacial to early Holocene tephrochronological record from Lake Hämelsee, Germany: a key site within the European tephra framework*, *Boreas*, <https://doi.org/10.1111/bor.12250> (IF: 2.638)
9. **Haliuc, A.**, Veres, D., Hubay, K., Braun, M., Begy, R., Brauer, A., Hutchinson, S.M., **2017**, *Palaeohydrological changes during mid and late Holocene in the Carpathian area, central eastern Europe*, *Global and Planetary Change*, 152, 99-114 <http://doi.org/10.1016/j.gloplacha.2017.02.010> (IF: 3.982)
10. **Haliuc A.**, Feurdean, A., Hutchinson, S., Florescu, G., Feurdean, A., **2016**, *The role of fire in landscape dynamics: An example of two sediment records from the Rodna Mountains, northern Romanian Carpathians*, *Catena*, Vol. 137, 432–440 <https://doi.org/10.1016/j.catena.2015.10.021> (IF: 3.636)
11. **Haliuc, A.**, Frantiuc, A., **2012**, *A study case of Baranca drainage basin flash-floods using the hydrological model of Hec-Ras*, *Georeview – Geography Series. Scientific Annals of Ştefan cel Mare University of Suceava*, 21: 118-133 <http://georeview.ro/ojs/index.php/revista/article/view/61/52>

Book chapters

1. Mîndrescu, M., Florescu, G., Grădinaru, I., **Haliuc, A.**, **2017**, *Lakes, Lacustrine Sediments and Palaeoenvironmental Reconstructions*, in Radoane, M., Vespremeanu-Stroe, A. (Ed.), *Landform dynamics and evolution in Romania*, Springer <https://www.springer.com/gp/book/9783319325873>



Number of publications and citations per year from Google Scholar and Scopus

Conference presentation and posters

Delivered 15 oral presentation and 11 poster presentations as main author and co-authored other 7 oral and poster presentations and was a co-convener at Forum Carpaticum 2021.

