

JAMES A. BRADLEY

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EDUCATION

- PhD, Physical Geography, University of Bristol, UK** **2013-2016**
Thesis: Microbial dynamics in High-Arctic proglacial soils: an integrated modelling, field and laboratory approach.
Supervised by: Prof Alexandre Anesio, Prof Sandra Arndt, Prof Joy Singarayer.
Committee: Prof Andy Ridgwell, Prof Martyn Tranter.
- BSc, 1st Class with Honours, Physical Geography, University of Bristol, UK** **2008-2011**
Thesis: Geoengineering the climate with forestation: the albedo effect. Supervised by: Prof Dan Lunt.

PROFESSIONAL ACADEMIC APPOINTMENTS

- Queen Mary University of London, UK.** **2019-Present**
Lecturer (Assistant-Professor).
- GFZ German Research Centre for Geosciences, Germany.** **2018-Present**
Humboldt Fellow, Alexander von Humboldt Foundation.
- University of Southern California, Department of Earth Sciences, USA.** **2018-2019**
Postdoctoral Fellow, Deep Carbon Observatory, Alfred P. Sloan Foundation.
- University of Southern California, Department of Earth Sciences, USA.** **2016-2018**
Postdoctoral Fellow, Centre for Dark Energy Biosphere Investigations, NSF.
- University of Bristol, UK.** **2013-2016**
PhD Student, School of Geographical Sciences.

PUBLICATIONS

Peer-Reviewed Articles

- Bradley J, Arndt S, Amend J, Burwicz E, Dale A, Egger M, LaRowe D.** Widespread energy limitation to life in global subseafloor sediments. *Science Advances*. **In Press**
doi: 10.1126/sciadv.aba0697
- LaRowe D, Arndt S, **Bradley J**, Burwicz E, Dale A, Amend J. Organic carbon and microbial activity in marine sediments on a global scale throughout the Quaternary. *Geochimica et Cosmochimica Acta*. **In Press**
- Stibal M, **Bradley J**, Edwards A, Hotaling S, Zawierucha K, Rosvold J, Lutz S, Cameron K, Mikucki J, Kohler T, Šabacká M, Anesio A. Glacial ecosystems are essential to understanding biodiversity responses to glacier retreat. *Nature Ecology and Evolution*. **2020**
doi: 10.1038/s41559-020-1163-0
- LaRowe D, Arndt S, **Bradley J**, Estes E, Hoarfrost A, Lang S, Lloyd K, Mahmoudi N, Orsi W, Shah Walter S, Steen A, Zhao R. The fate of organic carbon in marine sediments - new insights from recent data and analysis. *Earth Science Reviews*. doi: 10.1016/j.earscirev.2020.103146 **2020**
- Orcutt B, **Bradley J**, Brazelton W, Estes E, Goordial J, Huber J, Jones R, Mahmoudi N, Marlow J, Murdock S, Pachiadaki M. Impacts of Deep-Sea Mining on Microbial Ecosystem Services. *Limnology & Oceanography*. doi: 10.1002/lno.11403 **2020**
- Bradley J**, Amend J, LaRowe D. Survival of the fewest: Microbial dormancy and maintenance in marine sediments through deep time. *Geobiology*. doi: 10.1111/gbi.12313 **2019**
- Bradley J**, Amend J, LaRowe D. Necromass as a limited source of energy for microorganisms in marine sediments. *Journal of Geophysical Research: Biogeosciences*. doi: 10.1002/2017JG004186 **2018**

- Bradley J**, Amend J, LaRowe D. Bioenergetic controls on microbial ecophysiology in marine sediments. *Frontiers in Microbiology – Extreme Microbiology*. doi: 10.3389/fmicb.2018.00180 **2018**
- Bradley J**^o, Daille L^o, Trivedi C^o, Bojanowski C, Stamps B, Stevenson B, Nunn H, Johnson H, Loyd S, Berelson W, Corsetti F, Spear J. Carbonate-Rich Dendrolitic Cones: Insights into a Modern Analogue for Incipient Microbialite Formation, Little Hot Creek, Long Valley Caldera, California. *npj Biofilms and Microbiomes*. doi:10.1038/s41522-017-0041-2 (°co-first authors) **2017**
- Stibal M, **Bradley J**, Box J. Ecological modelling of the supraglacial ecosystem: a process-based perspective. *Frontiers in Earth Science – Cryospheric Sciences*. doi: 10.3389/feart.2017.00052 **2017**
- Bradley J**, Anesio, A, Arndt S. Microbial and biogeochemical dynamics in glacier forefields are sensitive to century-scale climate and anthropogenic change. *Frontiers in Earth Science – Biogeoscience*. doi:10.3389/feart.2017.00026 **2017**
- Bradley J**, Arndt S, Sabacka M, Benning L, Barker G, Blacker J, Yallop M, Wright K, Bellas C, Telling J, Tranter M, Anesio A. Microbial dynamics in a High-Arctic glacier forefield: a combined field, laboratory, and modelling approach. *Biogeosciences*. doi:10.5194/bg-13-5677-2016 **2016**
- Bradley J**, Anesio A, Arndt S. Bridging the divide: A model-data approach to Polar & Alpine Microbiology. *FEMS Microbiology Ecology*. doi:10.1093/femsec/fiw015 **2016**
- Pearce D, Irina A, Terauds A, Wilmotte A, Quesada A, Edwards A, Dommergue A, Sattler B, Adams B, Magalhães C, Wan Loy C, Yim M. Lau C, Cary C, Smith D, Wall D, Eguren G, Matcher G, **Bradley J**, Devera J, Elster J, Hughes K, Benning L, Gunde-Cimerman N, Convey P, Gyu Hong S, Pointing S, Pellizari V, Vincent W. Aerobiology over Antarctica – a new initiative for atmospheric ecology. *Frontiers in Microbiology – Terrestrial Microbiology*. 7. doi: 10.3389/fmicb.2016.00016 **2016**
- Bradley J**, Anesio A, Singarayer J, Heath M, Arndt S. SHIMMER (1.0): A novel mathematical model for microbial and biogeochemical dynamics in glacier forefield ecosystems. *Geoscientific Model Development*. 8, 3441-3470. doi:10.5194/gmd-8-3441-2015 **2015**
- Bradley J**, Singarayer J, Anesio A. Microbial community dynamics in the forefield of glaciers. *Proceedings of the Royal Society B*. 281: 20140882. doi:10.1098/rspb.2014.0882 **2014**

White Papers

- Orcutt B, **Bradley J**, Huber J, Jones R, Mahmoudi N, Marlow J, Wheat J. Liliuokalani Ridge Seamounts: Mineral Crusts, Benthic Habitat, and Ecosystem Services in an Un-mapped and Unexplored Region of the US EEZ and International Waters. National Ocean Exploration Priorities in the Pacific, Consortium for Ocean Leadership and NOAA Office of Ocean Exploration and Research. <https://oceanleadership.org/discovery/ocean-exploration/> **2020**
- Orcutt B, **Bradley J**, Goordial J, Huber J, Jones R, Mahmoudi N, Marlow J, Wheat J. The Pacific-Antarctic Rise: An Uncharacterized Mid-Ocean Ridge. National Ocean Exploration Priorities in the Pacific, Consortium for Ocean Leadership and NOAA Office of Ocean Exploration and Research. <https://oceanleadership.org/discovery/ocean-exploration/> **2020**

Book Chapters

- Bradley J**. Microbial dynamics in forefield soils following glacier retreat. *In: Liebner, S (Ed.) Microbial life In the Cryosphere and its feedback on Global change*. de Gruyter, Berlin, Germany. **In press**

Lutz S, **Bradley J.** Glacial surfaces: functions and biogeography. In: Liebner, S (Ed.) *Microbial life In the Cryosphere and its feedback on Global change.* de Gruyter, Berlin, Germany.

In press

RESEARCH GRANTS

Total: £1.95 million

PI: INTERACT (Horizon 2020). AMBER ICE. €15,694.	2020
PI: Svalbard Integrated Arctic Earth Observing System (SIOS). IN-SPACE: An Integrated Network to measure Seasonal Processes in Arctic habitats via novel Experiments. £20,247.	2020
PI: Svalbard Integrated Arctic Earth Observing System (SIOS). CAP-BIO: Capturing Biogeochemical Processes in Proglacial Soil During the Freezing Period. £12,463.	2020
PI: IHSS Seed-corn Fund (Internal). Micro-AP: Microbial activity in frozen Arctic Permafrost. £2,000.	2020
PI: QMUL Global Engagement (Internal). Research Initiation. 'Developing a modelling framework for sub-seafloor processes'. £1,000.	2020
PI: Natural Environmental Research Council (NERC) and National Science Foundation (NSF) - Signals in the Soil. 'SUN SPEARS: Sensors Under Snow - Seasonal Processes in the Evolution of Arctic Soils'. £1.62 million, £511,023 to JB.	2020-2023
Collaborator: Simons Foundation. 'Modeling emergent microbial communities in marine sediments.' Lead PI: Dominik Huelse, University of California, Riverside.	2019-2022
Collaborator: Department of Energy. 'Using culture-independent methods to link active compound-specific carbon degradation to greenhouse gas production and recycling in natural populations of permafrost microbes.' \$3,320,280. Lead PI: Karen Lloyd, University of Tennessee, Knoxville.	2019-2022
PI: Humboldt Foundation. Humboldt Research Fellowship for Postdoctoral Researchers. Alexander von Humboldt Foundation. €85,680.	2018-2021
PI: Deep Carbon Observatory. DLMV Postdoctoral Fellowship. Modelling the role of dormancy and maintenance of microorganisms on carbon transformations in marine sediments. \$33,375.	2018-2019
PI: Centre for Dark Energy Biosphere Investigations. Postdoctoral Fellowship. Develop a 1D biogeochemical-evolutionary model for deep marine sediments. \$215,429	2016-2018
Co-I: Natural Environmental Research Council. Antarctic Circumnavigation Expedition (ACE). BIOAIR. Lead PI: David Pearce, Northumbria University.	2016
PI: Scott Polar Research Institute. Gino Watkins Memorial Fund. £500.	2015
PI: John Muir Trust. Bill Wallace Grant. £500	2014

PRIZES AND AWARDS

European Association of Geochemistry. Early Career Science Ambassador Award. €1,500.	2019
NASA Travel Award. 12 th International Congress of Extremophiles, 2018, Ischia, Italy. \$2,000.	2018
USC Postdoctoral Research Symposium: Oral Presentation Prize. University of Southern California, Los Angeles, USA. \$250.	2018
Antarctic Service Medal, United States Congress	2018
University of Southern California, Postdoctoral Scholar Training & Travel Award. International workshop on Marine Geomicrobiology, 2017, Sandbjerg, Denmark. \$500.	2017
ABTA Doctoral Research Award: Honourable Mention.	2016

European Association of Geochemistry, Student Sponsorship Award. European Geosciences Union General Assembly 2016, Vienna, Austria. €500.	2016
European Geosciences Union, Early Career Scientist's Travel Award. €275.	2016
University of Bristol, Alumni Foundation Travel Award. Polar & Alpine Microbiology Conference 2015, České Budějovice, Czech Republic. £500.	2015
Agouron Institute, International Geobiology Course. \$4,000.	2015
Natural Environmental Research Council, PhD Studentship	2013-2016
University of Bristol Faculty of Science, Outstanding Academic Success Award.	2011
Royal Geographical Society 'Climate Change Research Group' dissertation award, nomination	2011

SOFTWARE

MicroLow 1.0

Microbial model for growth and maintenance of active and dormant microorganisms in low-energy environments. Open source, executed in R.

https://github.com/jbradley8365/MICROLOW_1.0_SOURCE

SHIMMER 1.0

Microbial-biogeochemical model for Arctic soils. Open source, executed in R.

https://github.com/jbradley8365/2016_17_SHIMMER_demo

INVITED PRESENTATIONS

Oral*, Poster°

* Bradley, J. SaltGiant Workshop. Paris, France.	06.2020
* Bradley, J. Department of Geological Sciences, Universite Libre de Bruxelles, Belgium (cancelled due to COVID-19).	03.2020
* Bradley, J. Arctic Station Day. British Antarctic Survey, Cambridge, UK.	02.2020
* Bradley, J. School of Earth and Environment, Leeds University, Leeds, UK.	01.2020
* Bradley, J. Department of Environmental Science, Roskilde University, Denmark.	01.2020
* Bradley, J. et al. Polar Night Week 2020. Svalbard Science Centre, Longyearbyen.	01.2020
* Bradley, J. et al. UKRI Signals in the Soil. Birmingham, UK.	12.2020
* Bradley, J. et al. C-DEBI Network Speaker Series. Online webinar.	11.2019
* Bradley, J. et al. Bio-energetics of life in marine sediments on a global scale. 2 nd Geobiology Society Conference, Banff, Canada.	06.2019
* Bradley, J. Bio-energetics of life in marine sediments. GFZ Helmholtz Centre, Potsdam, Germany.	05.2019
* Bradley, J. Widespread energy limitation in global marine sediments, Department of Earth and Planetary Sciences, McGill University, Montreal, Canada.	02.2019
* Bradley, J. et al. Bioenergetics of life in the marine subsurface. Inaugural Symposium for the International Center for Deep Life Investigation (ICDLI) and Deep Life Community Meeting, Shanghai, China.	11.2018
* Bradley, J. Survival of the fewest: Microbial energetics in marine sediments. Department of Earth Sciences, University of Southern California, USA.	10.2018
* Bradley, J. Microbial energetics, dormancy, and maintenance in marine sediments through deep time. California Institute of Technology, USA.	04.2018
* Bradley, J. Modelling the role of dormancy and maintenance of microorganisms on carbon transformations in marine sediments. Deep Carbon Observatory DLMV workshop, Arizona State University, USA.	03.2018
* Bradley, J. Quantifying microbial processes and their role as drivers of biogeochemical cycles, using integrated model-data approaches. Woods Hole Oceanographic Institution	03.2018
° Bradley, J. et al. Necromass as a source of energy for microorganisms in marine sediments. American Geophysical Union Fall Meeting, New Orleans, USA	12.2017

* Bradley, J. et al. Necromass as a limited source of energy for microorganisms in marine sediments. C-DEBI Annual Meeting, Marina, California, USA	11.2017
* Bradley, J. Necromass as a limited source of energy for microorganisms in marine sediments. University of Bristol, Bristol, UK	09.2017
° Bradley, J. et al. Develop a 1D biogeochemical-evolutionary model for deep marine sediments. C-DEBI Annual Meeting, Marina, California, USA	10.2016
* Bradley, J. et al. Modelling microbial processes during soil formation in a High-Arctic glacier forefield. Goldschmidt Conference, Yokohama, Japan	06.2016
* Bradley, J. et al. Characterisation of Arctic Soil Development Using the New Biogeochemical Model: SHIMMER. 22 nd International Symposium on Polar Sciences, Korea Polar Research Institute, Incheon, Republic of Korea	05.2016
° Bradley, J. et al. Characterising the initial stages of soil formation in the High Arctic. NERC GW4 & DTP Launch Event, Natural History Museum, London, UK	01.2014

CONFERENCE PRESENTATIONS

Oral*, Poster° (Presenting author only)

* Bradley, J. SaltGiant Workshop. Paris, France.	06.2020
* Bradley, J. Arctic Station Day. British Antarctic Survey, Cambridge, UK.	02.2020
* Bradley, J. Polar Night Week 2020. Svalbard Science Centre, Longyearbyen.	01.2020
° Bradley, J. et al. The power of life in marine sediments. American Geophysical Union Fall Meeting, San Francisco, USA.	12.2019
* Bradley, J. et al. UKRI Signals in the Soil. Birmingham, UK.	12.2020
° Bradley, J. et al. C-DEBI Annual Meeting, Marina, California, USA.	11.2019
* Bradley, J. et al. C-DEBI Network Speaker Series. Online webinar.	11.2019
° Bradley, J. et al. DeepCarbon 2019: Launching the Next Decade of Deep Carbon Science. Washington, DC, USA.	10.2019
* Bradley, J. et al. Bio-energetics and the power of microbial life in marine sediments. Shackleton: Marine Geoscience and Carbon – from ancient storage to future challenges. Geological Society of London, UK.	09.2019
* Bradley, J. et al. Bio-energetics of microbial life in marine sediments. Goldschmidt, Barcelona, Spain.	08.2019
* Bradley, J. et al. Bioenergetics of life in marine sediments on a global scale. 2 nd Geobiology Society Conference, Banff, Canada.	06.2019
° Bradley, J. et al. Bioenergetics of life in marine sediments on a global scale. C-DEBI Annual Meeting, Marina, California, USA.	11.2018
° Bradley, J. et al. Survival of the fewest: Microbial energetics in oligotrophic marine sediments. C-DEBI Annual Meeting, Marina, California, USA.	11.2018
* Bradley, J. et al. Bioenergetics of life in the marine subsurface. Inaugural Symposium for the International Center for Deep Life Investigation (ICDLI) and Deep Life Community Meeting, Shanghai, China.	11.2018
° Bradley, J. et al. Microbial energetics in oligotrophic marine sediments. 12 th International Congress of Extremophiles, Ischia, Italy.	09.2018
* Bradley, J. et al. Energetics of life in the deep biosphere. 3rd Annual Postdoctoral Research Symposium, University of Southern California, Los Angeles, USA.	05.2018
° Bradley, J. et al. Necromass as a source of energy for microorganisms in marine sediments. American Geophysical Union Fall Meeting, New Orleans, USA.	12.2017
* Bradley, J. et al. Necromass as a limited source of energy for microorganisms in marine sediments. C-DEBI Annual Meeting, Marina, California, USA.	11.2017
° Bradley, J. et al. Necromass as a source of energy for microorganisms in marine sediments. International workshop on Marine Geomicrobiology – A Matter of Energy, Sandbjerg, Denmark	08.2017
* Bradley, J. et al. Utilization of microbial necromass in marine sediments. 14th Annual Southern California Geobiology Symposium, Los Angeles, USA	04.2017
* Bradley, J. et al. Modelling microbial processes during soil formation in a High-Arctic glacier forefield. Goldschmidt, Yokohama, Japan	06.2016

°Bradley, J. et al. Investigating the initial stages of soil formation in glacier forefields using the new biogeochemical model: SHIMMER. European Geosciences Union General Assembly, Vienna, Austria	04.2016
°Bradley, J. et al. Vertical Microbial Community Variability Of Carbonate-based Cones May Provide Insight Into Ancient Conical Stromatolite Formation. European Geosciences Union General Assembly, Vienna, Austria	04.2016
*Bradley, J. et al. Microbial community dynamics in the forefield of glaciers – a modelling perspective. UK Arctic Science Conference, Sheffield	09.2015
*Bradley, J. et al. Microbial community dynamics in the forefield of glaciers – a modelling perspective. 6th International Conference on Polar and Alpine Microbiology, České Budějovice, Czech Republic	09.2015
*Bradley, J. et al. Polar Ecosystems and Marine Implications. Marine Science and Technology, British Council Researcher Links Workshop, Santa Marta, Colombia	11.2014
°Bradley, J. et al. Microbial community dynamics in the forefield of glaciers. International Glaciological Society British Branch Meeting, Bristol	09.2014
°Bradley, J. et al. Microbial community dynamics in the forefield of glaciers. UK Antarctic Research Symposium, Bristol, UK	09.2014
°Bradley, J. et al. Modelling microbial community development in deglaciated forefield soils. Natural Systems and Processes, Bristol, UK	03.2014
°Bradley, J. et al. Characterising the initial stages of soil formation in the High Arctic. Understanding Uncertainty in Environmental Modelling, CATS/LSE, London, UK	01.2014
°Bradley, J. et al. Characterising the initial stages of soil formation in the High Arctic. Life In The Cold, Leeds, UK	11.2013

EXTERNAL MEETINGS AND WORKSHOPS

Invited Participant*

* SaltGiant Workshop. Paris, France.	06.2020
* UKRI Signals in the Soil. Birmingham, UK.	12.2020
* C-DEBI Annual Meeting, Marina, California, USA.	11.2019
* C-DEBI NextGen, Monterrey, California, USA.	11.2019
* DeepCarbon 2019: Launching the Next Decade of Deep Carbon Science. Washington, DC, USA.	10.2019
* The Biotic Fringe: A Deep Life Modeling and Visualization Workshop, LUMCON, Louisiana, USA.	09.2019
The Origin and Rise of Complex Life, The Royal Society, London, UK.	09.2019
* C-DEBI Annual Meeting, Marina, California, USA.	11.2018
* Inaugural Symposium for the International Center for Deep Life Investigation (ICDLI) and Deep Life Community Meeting, Shanghai, China.	11.2018
Deep Sea Mining Impacts on Microbial Ecosystem Services, Bigelow Laboratory for Ocean Sciences, Maine, USA.	04.2018
* Deep life modelling and visualization. Deep Carbon Observatory sponsored workshop, Arizona State University, USA	03.2018
* Microorganisms and organic carbon in the marine subsurface. C-DEBI sponsored workshop, University of Tennessee, Knoxville, USA	03.2018
* C-DEBI Annual Meeting, Marina, California, USA.	11.2017
International workshop on Marine Geomicrobiology – A matter of energy. Sandbjerg, Denmark.	09.2017
* C-DEBI Annual Meeting, Marina, California, USA.	10.2018
Marine Science and Technology, British Council Researcher Links and Newton Fund sponsored workshop, Santa Marta, Colombia.	11.2014
Quantifying albedo feedbacks and their role in mass balance of the Arctic terrestrial cryosphere, IASC/ICARP III workshop, University of Bristol, UK.	09.2014
Understanding uncertainty in environmental modelling, NERC sponsored workshop. London School of Economics, UK.	01.2014
Life in the cold workshop, University of Leeds, UK.	11.2013
Glacial Biogeochemistry workshop, University of Bristol, UK.	03.2013

TEACHING AND MENTORING

Queen Mary University of London <i>Classes taught:</i> Earth Surface Science, Environmental Research Methods, Advanced Environmental Research Methods, Research Design, Independent Geographical Study/Project in Environmental Science, Progress in Physical Geography and Environmental Science, Ideas and Practice in Geography and Environmental Science.	2019-Present
University of Bristol <i>Classes taught:</i> Environmental Change, Earth System Modelling, Cryosphere, Research Methods in Physical Geography, Ice & Oceans, Big Ideas in Science.	2013-2016
Student supervision Dorothee Kinkel, PhD. (<i>Committee, QMUL</i>) Undergraduate and graduate research project advisor, numerous students	2019-Present 2014-Present
Mentor for students with disabilities, University of Bristol. 5 students. Working with disabled students for one to one support meetings and academic assistance.	2013-2016

FIELD EXPERIENCE

Iceland. Biological and chemical sampling of Langjökul and Snaefellsjökull glaciers.	2019
E. Greenland. Biological and chemical sampling of Mittivakkat glacier and the Greenland Ice Sheet. Based out of Sermilik Research Station, eastern Greenland. INTERACT-funded project: AirMiMic.	2019
McMurdo Sound, Antarctica Sea-ice based fieldwork investigating biological adaptation of Polar organisms to environmental change.	2018
Long Valley Caldera, USA Fieldwork in California and Nevada on modern (hot springs, lakes) and ancient outcrop settings.	2015
Svalbard SNOW WAKE winter/spring sampling campaign. Geochemical and biological sampling of snow, lake ice, cryoconite, soils.	2015
Russel Glacier, Greenland Arctic Soils summer campaign. Geochemical and biological sampling of soils and cryoconite.	2014
Svalbard Arctic soils summer sampling campaign. Geochemical and biological sampling of soils and cryoconite.	2013
Haut d'Arolla, Switzerland Field training in geochemical, biological and hydrological analyses.	2010

SELECTED COURSES AND TRAINING

NSF Advanced Training Program in Antarctica Biological Adaptations to Environmental Change, McMurdo Station, Antarctica.	2018
International Geobiology Course, University of Southern California Intensive 5 week course combining lectures, modelling, fieldwork and laboratory analyses (University of Southern California and California State University, Fullerton). Carbonate, organic, and sulphur geochemistry, genomics (16S rRNA and metagenomics), petrography, microscopy, isotope geochemistry.	2015
Nonlinear Dynamics: Mathematical and Computational Approaches Online Complexity Explorer course, Santa Fe Institute and Portland State University.	2015
Earth System Modelling with GENIE	2015

University of Bristol, UK	
Freshwater Taxonomic and Field Technique Course	2015
Natural History Museum, UK.	
Introduction to Mathematical Modelling for the Environmental and Biological Sciences	2015
University of Stirling, UK.	
Marine Science and Technology Researcher Links workshop, British Council	2014
Santa Marta, Colombia.	
Introduction to Ecological Modelling	2014
UCL, UK	
Building your own ODE ecological models in R	2014
University of Strathclyde, UK.	
Molecular Techniques for Taxonomy	2014
Introduction to molecular ecology, laboratory training including DNA extraction, PCR and gene sequencing. Natural History Museum, UK.	
Understanding Uncertainty in environmental modelling	2014
London School of Economics, UK	

ACADEMIC & PROFESSIONAL SERVICE

SaltGiant ETN , Partner.	2020-Present
Queen Mary University of London	2019-Present
Academic lead, QMUL Sustainability Committee	
Academic Lead for Marketing and Communications	
Taught Programs Recruitment and Admissions Committee	
Masters Program Scoping Committee	
Journal Editor	2019-Present
Geoscientific Model Development – Topical Editor.	
Reviewer for internationally peer-reviewed journals	2017-Present
<i>Nature Communications, ISME Journal, Environmental Microbiology, Geobiology, FEMS Microbiology Ecology, Geoderma, Astrobiology.</i>	
Reviewer for NSF Research Proposals	2017-Present
Session convenor	
Chair: Microbial Metabolisms and Biogeochemical Processes in Earth's Subsurface. AGU, San Francisco, USA.	2019
Chair: DCO Field Studies. DeepCarbon 2019: Launching the Next Decade of Deep Carbon Science. Washington, DC, USA.	2019
Liaison & Judge. Outstanding Student Presentation Award, AGU Fall Meeting.	2019
European Association of Geochemistry Communications Committee	2017-Present
Chair of Bristol Glaciology Centre weekly seminar seminars	2014-2016
Conference Organization	
International Glaciological Society British Branch Meeting, Bristol, UK	2014
UK Antarctic Research Symposium, Bristol, UK	2014

COMMUNITY ENGAGEMENT AND OUTREACH

The Impossible Network Podcast , Guest interviewee.	2020
London Borough of Tower Hamlets Annual Conference.	2020
Keynote Speaker on climate change. Cancelled due to COVID-19.	
QMUL Climate Action Group , Speaker.	2020
Newham Citizen's Assembly on Climate Change	2020
Expert witness, Speaker & Panellist.	
Skype a Scientist.	2019-Present
Regularly participating in 'Skype a Scientist' program: Q&A sessions with school classrooms across the world, covering research topics, experiences from the field, citizen science, career information/guidance, what it's like to be a scientist etc.	
Tower Hamlets Climate Strike group: Global Warming: a climate crisis.	2019

<p>Panellist and Speaker, London Muslim Centre/East London Mosque.</p> <p>NDR 90.3 German national radio broadcast and podcast.</p> <p>Matthias Steiner talks with Liane Benning, Mattias Winkel and Laura Halbach about our INTERACT-funded AirMiMic project, live from Sermilik Research Station in E. Greenland.</p> <p>International Polar Foundation</p> <p>Design a flag for Antarctica</p> <p>Antarctica Expedition: Student Questions & Answers</p> <p>https://antarcticatrainees2018.weebly.com/</p> <p>Life in Extremes</p> <p>Exhibit at the Science Museum, London, UK, with the Royal Society.</p> <p>Digital Explorer "Arctic Live" event</p> <p>Direct classroom interaction (via Skype interviews) with schools worldwide from the UK Arctic Research Station, Svalbard.</p> <p>Sircome collaboration</p> <p>Photographs and motivational piece, integrating Arctic soils research.</p> <p>Sutton Trust Summer School</p> <p>Bristol Ice Explorers</p> <p>Room 13 Hareclive Academy for a polar science education and exploration day and ongoing art project with 8-11 year olds.</p> <p>Access To Bristol</p>	<p>2019</p> <p>2018</p> <p>2018</p> <p>2015</p> <p>2015</p> <p>2015</p> <p>2015</p> <p>2013-2014</p> <p>2014</p> <p>2013</p>
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MEDIA

<p>The Impossible Network Podcast.</p> <p>https://theimpossiblenetwork.com/podcast/dr-james-bradley/</p> <p>Forbes. How Your Smartphone May Be Destroying The Deep Ocean - And Its Valuable Microbes.</p> <p>https://www.forbes.com/sites/allenelizabeth/2020/02/03/how-your-smartphone-may-be-destroying-the-deep-oceanand-its-valuable-microbes/#225781814405</p> <p>The Daily Mail. <i>Mining the sea floor for precious metals needed for electric car batteries could lead to 'irreversible damage' to marine ecosystems, scientists warn.</i></p> <p>https://www.dailymail.co.uk/sciencetech/article-7885867/Mining-sea-floor-precious-metals-lead-irreversible-damage.html</p> <p>Science&Vie. <i>Voici le seul endroit sans vie sur Terre!</i></p> <p>https://www.science-et-vie.com/nature-et-enviro/voici-le-seul-endroit-sans-vie-sur-terre-54905</p> <p>Preventing the Inevitable: snowsports in a warming world.</p> <p>https://juliagdownka.wixsite.com/project?fbclid=IwAR2eiaXN5L15d6wdD2uIPrkykdfiYbFQoZ3N-0WTfFJoXHct4kkXNfAIAAnA</p> <p>The Guardian. <i>The age of extinction: The tiny algae at ground zero of Greenland's melting glaciers.</i></p> <p>The Guardian long-format article covering INTERACT-funded AirMiMic project, reporting from Sermilik Research Station in E. Greenland.</p> <p>https://www.theguardian.com/environment/2019/sep/18/tiny-algae-ground-zero-greenland-melting-glaciers</p> <p>NDR 90.3</p> <p>German national radio and podcast interview on INTERACT-funded project AirMiMic, live from Sermilik Research Station in E. Greenland.</p> <p>https://www.ndr.de/903/sendungen/hamburger_hafenkonzert/Unterwegs-mit-Arved-Fuchs-auf-Groenland,sendung935784.html#</p> <p>SuperScience: 120 Recent Scientific Discoveries</p> <p>Illustrated book documenting the most surprising or interesting studies in the world.</p> <p><i>Le Courier du Livre/Guy Tredaniel Publisher.</i></p> <p>Scientific American: Inside Earth, Microbes Approach Immortality: Mostly dead is slightly alive.</p> <p>https://blogs.scientificamerican.com/artful-amoeba/inside-earth-microbes-approach-immortality/</p> <p>New Scientist: 75-million-year old ocean microbes live forever on almost zero energy.</p>	<p>2020</p> <p>2020</p> <p>2020</p> <p>2020</p> <p>2020</p> <p>2020</p> <p>2019</p> <p>2019</p> <p>2019</p> <p>2019</p> <p>2018</p>
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PROFESSIONAL AFFILIATIONS

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 International Geological Society
 British Society of Soil Science
 European Geosciences Union
 European Association of Geochemistry
 Deep Carbon Observatory
 Centre for Dark Energy Biosphere Investigations
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 Astrobiology Society of Britain
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