JAMES A. BRADLEY

School of Geography
Queen Mary University of London
London, UK

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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.

BSc, 1st Class with Honours, Physical Geography, University of Bristol, UK **2008-2011**
Thesis: Geoengineering the climate with forestation: the albedo effect.

PROFESSIONAL ACADEMIC APPOINTMENTS

Queen Mary University of London, UK. **2019-Present**
Lecturer (Assistant-Professor).

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***

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*****.** doi: 10.1038/s41559-020-1163-0 **2020**

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°, Daille L°, Trivedi C°, 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. 12th 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. 2nd 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. 22nd 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. 2nd 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. 12th 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 **2019-Present**

Classes taught: 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.

University of Bristol **2013-2016**

Classes taught: Environmental Change, Earth System Modelling, Cryosphere, Research Methods in Physical Geography, Ice & Oceans, Big Ideas in Science.

Student supervision

Dorothee Kinkel, PhD. *(Committee, QMUL)* **2019-Present**

Undergraduate and graduate research project advisor for numerous students **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. **2019**
Biological and chemical sampling of Langjökul and Snaefellsjökull glaciers.

E. Greenland. **2019**
Biological and chemical sampling of Mittivakkat glacier and the Greenland Ice Sheet. Based out of Sermilik Research Station, eastern Greenland. INTERACT-funded project: AirMiMic.

McMurdo Sound, Antarctica **2018**
Sea-ice based fieldwork investigating biological adaptation of Polar organisms to environmental change.

Long Valley Caldera, USA **2015**
Fieldwork in California and Nevada on modern (hot springs, lakes) and ancient outcrop settings.

Svalbard **2015**
SNOW WAKE winter/spring sampling campaign. Geochemical and biological sampling of snow, lake ice, cryoconite, soils.

Russel Glacier, Greenland **2014**
Arctic Soils summer campaign. Geochemical and biological sampling of soils and cryoconite.

Svalbard **2013**
Arctic soils summer sampling campaign. Geochemical and biological sampling of soils and cryoconite.

Haut d'Arolla, Switzerland **2010**
Field training in geochemical, biological and hydrological analyses.

SELECTED COURSES AND TRAINING

NSF Advanced Training Program in Antarctica **2018**
Biological Adaptations to Environmental Change, McMurdo Station, Antarctica.

International Geobiology Course, University of Southern California **2015**
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.

Nonlinear Dynamics: Mathematical and Computational Approaches **2015**
Online Complexity Explorer course, Santa Fe Institute and Portland State University.

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**
Nature Communications, ISME Journal, Environmental Microbiology, Geobiology, FEMS Microbiology Ecology, Geoderma, Astrobiology.
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**
Panellist and Speaker, London Muslim Centre/East London Mosque.
NDR 90.3 German national radio broadcast and podcast. **2019**
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.
International Polar Foundation **2018**
Design a flag for Antarctica
Antarctica Expedition: Student Questions & Answers **2018**
https://antarcticatrainees2018.weebly.com/
Life in Extremes **2015**
Exhibit at the Science Museum, London, UK, with the Royal Society.
Digital Explorer "Arctic Live" event **2015**
Direct classroom interaction (via Skype interviews) with schools worldwide from the UK Arctic Research Station, Svalbard.

Sircome collaboration **2015**
Photographs and motivational piece, integrating Arctic soils research.
Sutton Trust Summer School **2013-2014**
Bristol Ice Explorers **2014**
Room 13 Hareclive Academy for a polar science education and exploration day and ongoing art project with 8-11 year olds.
Access To Bristol **2013**

MEDIA

The Impossible Network Podcast. **2020**
https://theimpossiblenetwork.com/podcast/dr-james-bradley/
Forbes. How Your Smartphone May Be Destroying The Deep Ocean - And Its Valuable Microbes. **2020**
https://www.forbes.com/sites/allenelizabeth/2020/02/03/how-your-smartphone-may-be-destroying-the-deep-oceanand-its-valuable-microbes/#225781814405
The Daily Mail. *Mining the sea floor for precious metals needed for electric car batteries could lead to 'irreversible damage' to marine ecosystems, scientists warn.* **2020**
https://www.dailymail.co.uk/sciencetech/article-7885867/Mining-sea-floor-precious-metals-lead-irreversible-damage.html
Science&Vie. *Voici le seul endroit sans vie sur Terre!* **2020**
https://www.science-et-vie.com/nature-et-enviro/voici-le-seul-endroit-sans-vie-sur-terre-54905
Preventing the Inevitable: snowsports in a warming world. **2020**
https://juliagdowka.wixsite.com/project?fbclid=IwAR2eiaXN5L15d6wdD2uIPrkykdfiYbFQoZ3N-0WTfFJoXHct4kkXNfAIAnA
The Guardian. *The age of extinction: The tiny algae at ground zero of Greenland's melting glaciers.* **2019**
The Guardian long-format article covering INTERACT-funded AirMiMic project, reporting from Sermilik Research Station in E. Greenland.
https://www.theguardian.com/environment/2019/sep/18/tiny-algae-ground-zero-greenland-melting-glaciers
NDR 90.3 **2019**
German national radio and podcast interview on INTERACT-funded project AirMiMic, live from Sermilik Research Station in E. Greenland.
https://www.ndr.de/903/sendungen/hamburger_hafenkonzert/Unterwegs-mit-Arved-Fuchs-auf-Groenland,sendung935784.html#
SuperScience: 120 Recent Scientific Discoveries **2019**
Illustrated book documenting the most surprising or interesting studies in the world.
Le Courrier du Livre/Guy Tredaniel Publisher.
Scientific American: Inside Earth, Microbes Approach Immortality: Mostly dead is slightly alive. **2019**
https://blogs.scientificamerican.com/artful-amoeba/inside-earth-microbes-approach-immortality/
New Scientist: 75-million-year old ocean microbes live forever on almost zero energy. **2018**
https://www.newscientist.com/article/2182271-75-million-year-old-ocean-microbes-live-forever-on-almost-zero-energy/
DCO Research News: How microbes survive when buried alive. **2018**
https://deepcarbon.net/how-microbes-survive-when-buried-alive
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PROFESSIONAL AFFILIATIONS

American Geophysical Union
International Geological Society
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