

Personal Details

Name of Organisation: UK Centre for Ecology & Hydrology
 Name of Person: Prof Bridget Anne EMMETT
 Nationality: British
 Profession/specialisation: Soil and Ecosystem Scientist
 Position in organisation: Principal Scientist
 Specialisation in organisation: Ecosystem science, soil health; climate change, air pollution, land use, national and agri-environment monitoring; natural capital.

Qualifications / Awards / Honours.

ENDS 100 most influential environmental professional scientists 2024
 Officer of the Order of the British Empire (OBE) for Services to Soil and Ecosystem Sciences, 2023
 President, British Ecological Society, 2024 - 2026
 Marsh Award for Climate Change Research, British Ecological Society, 2016
 Fellow of the Learned Society of Wales, 2015
 Fellow of the British Society of Soil Science, 2015
 AGI Award for Geospatial Excellence (team award) 2014
 Fellow of the Royal Society of Biology, 2010
 Honorary Professorship, Bangor University, 2009
 PhD (Soil Ecology) University of Exeter 1990.
 Bachelor of Science (First Class Honours, Plant Science) University of Aberdeen 1985.

Career Outline

2024 - Principal Scientist (Band 3[S])
 2023 - NERC Innovation in Environment Monitoring Assessment Panel
 2017 - 2023 UKCEH Head of Soils and Land Use (Band 3[S])
 2009 - 2017 CEH Science Area Lead for Soil & Head of 'Emmett' Section (Band 3[S])
 2008 - 2008 CEH Acting Director Biogeochemistry (Band 2 [S]) (6 months)
 2004 - 2008 CEH Deputy Director of Biogeochemistry Head of 'Emmett' Section (Band 3[S])
 2001 - 2022 Director of CEH-Bangor – change of title to Head of Site from 2004 (Band 3[S])
 2001 - 2004 Leader of the CEH Pollution Programme
 1998 - 2001 Principal Scientific Officer (Band 4 [S]O, Centre for Ecology and Hydrology (CEH - a organisation formed from 4 NERC Institutes: ITE, IFE, IH and IVEM)
 1994 - 1998 Senior Scientific Officer Band 5 [S], ITE Bangor
 1988 - 1994 Higher Scientific Officer Band 6 [S], Institute of Terrestrial Ecology (ITE), Bangor

Selection of Membership of committees, boards etc.

2024 – date Scientific Advisory Board, EU Integrated Research Infrastructure Services for Climate Change Risks (IRISCC)
 2024 - date EU Mission Board Member for the EU Mission: 'A Soil Deal for Europe'
 2022 – date Defra E.L.M Ecology and Ecosystems Services Expert Panel
 2022 – date British Ecological Society 'The Future of Ecological Research in the UK' Panel
 2022 - date British Ecological Society Welsh Policy Group
 2022 – date EU Soil Observatory Monitoring Working Group
 2022 - date Leibniz Centre for Agricultural Landscape Research (ZALF), Germany Scientific Advisory Board
 2021 - date The Royal Society's University Research Fellowship Scheme - Appointment Panel B
 2021 - date Rothamsted Research - Board of Trustee-Directors and Science Advisory Group Board.
 2021 - date Biological Diversity and Ecosystem Service in a Changing Climate (BECC) Scientific Advisory Panel. Swedish Government Strategic Research Initiative.
 2019 - date Ecological Continuity Trust Board of Trustees
 2019 - date Co-founder and Management Board of uksoils
 2017 - date CREAM (Centre for Research on Ecology and Forestry Applications) International Scientific Committee, Spain.

2017 - date	Sustainable Soils Alliance Scientific Advisory Board
2013 - date	UK Land Use, Land Use Change and Forestry Greenhouse Gas Inventory Steering Committee

Current Research Grants and Contracts:

- UKRI Land Use for Net Zero, People and Nature. PIs: L. Sutherland (JHI) and H Baltzer U Leicester). Lead Co-I for UKCEH and LUNZ Wales National Team. £638k to UKCEH. (Nov 23 – Mar27)
- UKRI Greenhouse Gas Removal with UK agriculture via enhanced rock weathering. PI: David Beerling (Sheffield). One of several Co-Is: **B.Emmett (UKCEH)** (May 2021 – Oct 2025) £910k to UKCEH.
- Welsh Government funded Environment and Rural Affairs Monitoring and Evaluation Programme (ERAMMP): PI: **B. Emmett (UKCEH)** (Oct 2022 – Sep 2032) £15,000,000. 24 organisations as subcontractors.

Other notable grants and contracts recently completed:

- Defra E.L.M Quality Impact Assessment of Land Management Interventions on Ecosystem Services. P.I.: **B. Emmett**. 8 other organisations as subcontractors. (UKCEH) (Sep 21 – Mar 23) £500k total for all partners.
-

Current Role and Research Areas

Bridget is a Principal Scientist at UK Centre for Ecology and Hydrology recently stepping down after 22 years on the UKCEH Management Board. Most recently this was as UKCEH's Science Area Head for Soils and Land Use (SLU). This involved leadership and management of more than 120 research staff and 40 postgraduate students across three UKCEH sites – Bangor, Lancaster and Wallingford. Bridget's personal policy-orientated research is wide ranging including: the impact of land management on natural capital and ecosystem services; drivers of change in soil structure, function and soil health; impacts of air pollution and climate change; and new knowledge and modelling systems to support policy development. Her fundamental research expertise has included exploration of the nitrogen cycle, carbon cycle, vegetation composition, water quality and greenhouse gas emissions and their integration at the ecosystem level. She has published over 190 papers and has an H index of 77/i10-index of 180 (Google scholar).

Bridget's current role is as PI/lead for projects involving a large number of partners to improve integration across different disciplines and sectors from catchment/landscape to national scale to improve the evidence base and support national policy development and outcome reporting in the areas of e.g. soil health, ecosystem services, agri-environment schemes and natural capital. Her research team is responsible for a large national-scale integrated monitoring and modelling programmes –ERAMMP (Wales <https://erammp.wales/en>) and she recently coordinated a large inter-disciplinary team of 46 experts from 11 organisations to review over 700 agri-environment actions being considered for inclusion in the England ELM agri-environment scheme across 33 ecosystem services and 53 outcomes indicators ([Evidence Assessment | UK Centre for Ecology & Hydrology \(ceh.ac.uk\)](#)). Income generation for her research has come from a wide range of funders including UKRI (NERC, BBSRC, EPSRC), DEFRA, Welsh Government, Environment Agency, SEPA, and the EU.

Bridget is a member of many national and international committees and science advisory panels. These include membership of the EU Mission Board on 'A Soil Deal for Europe' and the UK Land Use, Land Use Change and Forestry Greenhouse Gas Inventory Steering Committee. She is also a Trustee and Board member of Rothamsted Research and the Ecological Continuity Trust and serves on the Scientific Advisory Boards for research organisations in Germany, Spain and Sweden. Outreach activities include a founding member and Chair of the community initiative 'uksoils' which aims to create a community hub to inspire us all to learn more about soil and help build communities to take action to improve soil health <https://uksoils.org/>. She was also a member of the award winning team who developed the online community soil digital platform - the UK Soil Observatory <http://www.ukso.org/> to improve community access to soil data and maps. Bridget co-authored and was the narrator of BBC Ideas/Royal Society animation film on "The wonders of Soil" <https://www.bbc.co.uk/ideas/videos/why-soil-is-one-of-the-most-amazing-things-on-earth/p090cf64> and contributions to podcast and regular contribution to media articles and interviews regarding the importance of soil health.
