

**Personal Details**

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

**Qualifications / Awards / Honours.**

Officer of the Order of the British Empire (OBE) for Services to Soil and Ecosystem Sciences, 2023  
 President Elect, British Ecological Society, 2023  
 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**

2017 - 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.**

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.  
 2021 – date Environment Platform Wales Management Board  
 2019 – 2022 Board Member for the EU Mission: 'A Soil Deal for Europe'  
 2019 - date Ecological Continuity Trust Board of Trustees  
 2019 - date Chair 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

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2016 - date	Learned Society of Wales – Cellular, Molecular, Evolutionary, Organismal and Ecosystem Sciences Scrutiny Committee
2013 - date	UK Land Use, Land Use Change and Forestry Greenhouse Gas Inventory Steering Committee
2020	International peer review for ESFRI (European Strategic Forum on Research Infrastructures)
2020	International peer review panel for Energy, Climate and Environmental Sciences; Danish Roadmap for Research Infrastructure 2020
2020	Member of UKRI BBSRC “Transforming the UK Food System for Healthy People and a Healthy Environment” Assessment Panel
2020	Member of the UKRI EPSRC “Circular Economy” Assessment Panel
2018 - 2021	EU Mission Board for Soil Health and Food
2016 - 2019	NERC Science Programme Advisory Group (SPAG)
2016 - 2016	Specialist Adviser to the UK House of Commons Environment Audit Committee Inquiry on Soil Health
2015 - 2019	Chair of the NERC Soil Security Programme Advisory Board
2014 - 2014	BBSRC Rothamsted Mid Term Review Panel
2014 - 2016	Defra Smarter Environmental Legislation Working Group
2014 - 2018	UK representative for EU COST Action – ClimMani: Climate Change Manipulation experiments in Terrestrial Ecosystems Networks and Outreach.
2014 - 2014	BBSRC SARISA grant review panel
2014 - 2017	Scientific Advisory Board for Department of Geosciences and Natural Resource Management, University of Copenhagen
2014 - 2017	Welsh Water Independent Environment Advisory Panel
2013 - 2014	RCUK UK Energy Research Centre Phase 3 Commissioning Advisory Group
2012 - 2013	NERC <i>ad hoc</i> Sustainable Use of Natural Resources Advisory Committee (covers Theme Leader duties)
2012 - 2012	BBSRC Rothamsted Research Institute Assessment Panel
2012 - 2013	Welsh Government Chief Scientist Bovine-TB Advisory Group
2012 - 2014	UK National Ecosystem Assessment Follow-on Phase Expert Panel
2012 - 2012	BBSRC Institute Strategic Programme Grant Review Panel
2011 - 2013	INRA Environment, Agro-ecosystem, Biogeochemical Cycles and Biodiversity (SOERE-ACBB) Assessment Panel
2010 - 2018	Science Advisory Council for Wales (Advisory group for Welsh Gov. Chief Scientist)
2010 - 2010	NERC Moderating Panel for Network of Sensors RP call
2009 - 2013	Steering Committee of ESF funded ClimMani project (Climate change – Manipulation experiments in terrestrial ecosystems)
2009 - 2016	UK Government Dept for Environment, Food and Rural Affairs Demonstration Catchment Advisory Panel
2009 - 2011	UK Government Dept for Environment, Food and Rural Affairs National Ecosystem Assessment Expert Panel
2009 - 2015	Welsh Assembly Government Land Use and Climate Change Group
2008 - 2016	Management Board of Wales Environment Research Hub
2007 - 2011	US EPA Review Group on N deposition Effects on Ecosystems
2007 - 2011	Steering Committee for the Centre for Integrated Research in the Rural Environment, Research and Enterprise Partnership, Bangor and Aberystwyth University (CIRRE)
2007 - 2009	BBSRC Review of Environmental Change Research Panel
2006 - 2010	Ecological Continuity Trust Steering Committee
2006 - 2009	UK NERC/BBSRC Soils Research Advisory Committee (SRAC)
2006 - 2013	Ecological Continuity Trust Steering Committee
2006 - 2008	UK Government Dept for Environment, Food and Rural Affairs Soils Action Plan Forum / Soils Advisory Forum
2005 - 2015	Steering Committee for Danish Climate Change Centre (CLIMAITE)
2004 - 2018	UN/ECE Working Group on Effects, Joint Expert Group on Dynamic Modelling
2002 - 2005	Vice-President British Ecological Society
2001 - 2002	NERC Randall Report Implementation Group and NERC Corporate Development

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	Group
1999 - 2002	Member of NERC Promotion Panel III
1999 - 2005	Member of NERC Global Nitrogen Enrichment Thematic Programme Steering Committee
1997 - 2000	Council member of British Ecological Society

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**Current Research Grants and Contracts:**

- 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.
- Natural England funded England Ecosystem Survey – refinement of soil field and laboratory methods, and input to data analysis framework. P.I. **B. Emmett**.(UKCEH) (July 22 – Mar 23). £48k.
- 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:**

- Welsh Government funded Environment and Rural Affairs Monitoring and Evaluation Programme (ERAMMP): PI: **B. Emmett (UKCEH)** (Oct 2017 – Sep 2022) £6,000,000. 18 organisations as subcontractors.
  - BBSRC Newton Fund UK-China Virtual Joint Centre for Improved Nitrogen Agronomy (CINAG), PI T. Misselbrook (Rothamsted), CoIs **B Emmett (CEH)** and 4 others + 5 Chinese CoIs. £2,965,000 total, £500,000 managed by BE.
  - NERC eDNA: LOFRESH Understanding the ecological relevance of eDNA in freshwater lotic ecosystems. PI: Simon Creer (Bangor), CoI **B Emmett (CEH)** and 4 others. £1,000,000 total, £164k to CEH.
  - NERC Turf-2-Surf PI: Macronutrient project. Co-PIs: A. Wade (Reading) **B. Emmett (CEH)**, C. Jago (Bangor). Sept 2012 – Aug 2016. , £3,200,000 total. £2,000,000 to CEH managed by BE.
  - Welsh Government Glastir Monitoring and Environment Evaluation Programme (GMEP). PI: **B Emmett (CEH)** . 6<sup>th</sup> Sept 2012 – 31<sup>st</sup> Aug 2016. £8,490,000 total. 10 organisations as subcontractors
  - Defra funded Integrated Data and Modelling Platform. PI: **B Emmett (CEH)**. £600,000; 4 subcontractors
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**Current Role and Research Areas**

Bridget is UKCEH's Science Area Head for Soils and Land Use (SLU) which involves leadership and management of more than 100 research staff and 40 postgraduate students across three UKCEH sites – Bangor, Lancaster and Wallingford. Research in the Soils and Land Use team covers a wide range of disciplines and expertise including plant ecophysiology, soils, ecology, biodiversity, molecular ecology; catchment science, biogeochemistry and ecosystem science working across many habitats from agricultural land to upland, coastal and urban systems. Our research teams tackle urgent challenges such as the need for cleaner air, more sustainable land management practices, restoring soil health, climate mitigation as well as developing new opportunities for policy and business such as green finance and net zero.

Bridget personally has research expertise concerning: 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 primary research has included exploration of the nitrogen cycle, carbon cycle,

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vegetation composition, water quality and greenhouse gas emissions and their integration at the ecosystem level.

Bridget's current research is often as the 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 teams are responsible for two large national-scale integrated monitoring and modelling programmes – Countryside Survey (GB scale <https://countrysidesurvey.org.uk/>) and ERAMMP (Wales <https://erammp.wales/en>). Income generation 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 a wide range of national and international committees and science advisory panels. These have included: Specialist Adviser for the UK Parliamentary Inquiry into Soil Health in 2016; Member of the EU Mission Board on Soil Health and Food and the UK Land Use, Land Use Change and Forestry Greenhouse Gas Inventory Steering Committee. Currently she is 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. International work has many EU projects as UK lead; work in China funded through the Newton programme and work in the USA, Nigeria, S.Africa and Nepal.

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/>. 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. Co-author and 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.

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## PUBLICATIONS

H-index = 57 (Web of Science)

Total ISI publications = 171 (Web of Science Core Collections)

Citations = 10,945

ORCID identifier: <http://orcid.org/0000-0002-2713-4389>

Researcher id: D-6199-2011; <https://publons.com/researcher/2793788/bridget-a-emmett/>

<http://www.ceh.ac.uk/staff/bridget-emmett>

## Refereed ISI Journal Papers

1. Qiao, L., Wang, X., Smith, P., Fan, J., Lu, Y., Emmett, B., Li, R., Dorling, S., Chen, H., Liu, S., Benton, T.G., Wang, Y., Ma, Y., Jiang, R., Zhang, F., Piao, S., Müller, C., Yang, H., Hao, Y., Li, W., Fan, M. (2022) Soil quality both increases crop production and improves resilience to climate change. *Nature Climate Change*, 12 (6), pp. 574-580. DOI: 10.1038/s41558-022-01376-8
2. Robinson, D.A., Thomas, A., Reinsch, S., Lebron, I., Feeney, C.J., Maskell, L.C., Wood, C.M., Seaton, F.M., Emmett, B.A., Cosby, B.J. (2022) Analytical modelling of soil porosity and bulk density across the soil organic matter and land-use continuum. *Scientific Reports*, 12 (1), art. no. 7085. DOI: 10.1038/s41598-022-11099-7
3. Feeney, C.J., Cosby, B.J., Robinson, D.A., Thomas, A., Emmett, B.A., Henrys, P. (2022) Multiple soil map comparison highlights challenges for predicting topsoil organic carbon concentration at national scale. *Scientific Reports*, 12 (1), art. no. 1379. DOI: 10.1038/s41598-022-05476-5
4. Seaton, F.M., Reinsch, S., Goodall, T., White, N., Jones, D.L., Griffiths, R.I., Creer, S., Smith, A., Emmett, B.A., Robinson, D.A. (2022) Long-Term Drought and Warming Alter Soil Bacterial and Fungal Communities in an Upland Heathland. *Ecosystems*, 25 (6), pp.

- 1279-1294. DOI: 10.1007/s10021-021-00715-8
5. McGuire, R., Williams, P.N., Smith, P., McGrath, S.P., Curry, D., Donnison, I., Emmet, B., Scollan, N. (2022) Potential Co-benefits and trade-offs between improved soil management, climate change mitigation and agri-food productivity. *Food and Energy Security*, 11 (2), art. no. e352. DOI: 10.1002/fes3.352
  6. Proesmans, W., Andrews, C., Gray, A., Griffiths, R., Keith, A., Nielsen, U.N., Spurgeon, D., Pywell, R., Emmett, B., Vanbergen, A.J. (2022) Long-term cattle grazing shifts the ecological state of forest soils. *Ecology and Evolution*, 12 (4), art. no. e8786. DOI: 10.1002/ece3.8786
  7. Seaton, F.M., Robinson, D.A., Monteith, D., Lebron, I., Bürkner, P., Tomlinson, S., Emmett, B.A., Smart, S.M. (2022) Fifty years of reduction in sulphur deposition drives recovery in soil pH and plant communities. *Journal of Ecology*. DOI: 10.1111/1365-2745.14039
  8. Misselbrook, T., Bai, Z., Cai, Z., Cao, W., Carswell, A., Cowan, N., Cui, Z., Chadwick, D.R., Emmett, B., Goulding, K., Jiang, R., Jones, D.L., Ju, X., Liu, H., Lu, Y., Ma, L., Powlson, D., Rees, R.M., Skiba, U., Smith, P., Sylvester-Bradley, R., Williams, J., Wu, L., Xu, M., Xu, W., Zhang, F., Zhang, J., Zhou, J., Liu, X. (2022) Progress on improving agricultural nitrogen use efficiency: UK-China virtual joint centers on nitrogen economy. *Frontiers of Agricultural Science and Engineering*, 9 (3), pp. 475-489. DOI: 10.15302/J-FASE-2022459
  9. Alison, J., Botham, M., Maskell, L.C., Garbutt, A., Seaton, F.M., Skates, J., Smart, S.M., Thomas, A.R.C., Tordoff, G., Williams, B.L., Wood, C.M., Emmett, B.A. (2022) Woodland, cropland and hedgerows promote pollinator abundance in intensive grassland landscapes, with saturating benefits of flower cover. *Journal of Applied Ecology*, 59 (1), pp. 342-354. DOI: 10.1111/1365-2664.14058
  10. Alison, Jamie; Botham, Marc ... **Emmett, Bridget A.** (2022) Woodland, cropland and hedgerows promote pollinator abundance in intensive grassland landscapes, with saturating benefits of flower cover. *Journal of Applied Ecology*. DOI: 10.1111/1365-2664.14058
  11. Thomas, A.; Cosby, B. J. ... **Emmett, B. A.** (2021) Rapid adaptive modelling for policy support towards achieving Sustainable Development Goals: Brexit and the livestock sector in Wales. *Environmental Science & Policy*. DOI: 10.1016/J.ENVSCI.2021.08.009
  12. Seaton, Fiona M.; Reinsch, Sabine ... **Emmett, B.A.**, Robinson, David A. (2021) Ecosystems Long-Term Drought and Warming Alter Soil Bacterial and Fungal Communities in an Upland Heathland DOI: 10.1007/S10021-021-00715-8
  13. Wood, Claire M.; Alison, Jamie ... **Emmett, Bridget A.** (2021) Integrated ecological monitoring in Wales: the Glastir Monitoring and Evaluation Programme field survey Earth System Science Data DOI: 10.5194/ESSD-13-4155-2021
  14. Jones, Briony; Goodall, Tim ... , **Emmett, B.A.**, Griffiths, Robert, I (2021) Beyond Taxonomic Identification: Integration of Ecological Responses to a Soil Bacterial 16S rRNA Gene Database. *Frontiers in Microbiology*. DOI: 10.3389/FMICB.2021.682886
  15. Simfukwe, Paul; Hill, Paul W; **Emmett, B.A.**, Jones, Davey L. (2021) Identification and predictability of soil quality indicators from conventional soil and vegetation classifications Plos One. DOI: 10.1371/JOURNAL.PONE.0248665
  16. Thomas, A., Cosby, B.J., Henrys, P. and **Emmett B.** 2020. Patterns and trends of topsoil carbon in the UK: Complex interactions of land use change, climate and pollution. *Science of the Total Environment* 729 138330.
  17. Thomas, Amy; Masante, Dario; Jackson, Bethanna; Cosby, Bernard; **Emmett, Bridget**; Jones, Laurence. 2020. Fragmentation and thresholds in hydrological flow-based ecosystem Services. *Ecological Applications* 30:
  18. De Boeck, Hans J.; Bloor, Juliette M. G.; Aerts, Rien; Bahn, Michael; Beier, Claus; **Emmett, Bridget A.**; Estiarte, Marc; Gruenzweig, Jose M.; Halbritter, Aud H.; Holub, Petr; Jentsch, Anke; Klem, Karel; Kreyling, Juergen; Kroel-Dulay, Gyoergy; Larsen, Klaus Steenberg; Milcu, Alexandru; Roy, Jacques; Sigurdsson, Bjarni D.; Smith, Melinda D.; Sternberg, Marcelo; Vandvik, Vigdis; Wohlgemuth, Thomas; Nijs, Ivan; Knapp, Alan K. 2020. Understanding ecosystems of the future will require more realistic climate change experiments – A response to Korell et al. 2020. *Global Change Biology* 26:E6-E7.
  19. Seaton, Fiona M.; Barrett, Gaynor; Burden, Annette; Creer, Simon; Fitos, Eleonora; Garbutt, Angus; Griffiths, Rob I.; Henrys, Pete; Jones, Davey L.; Keenan, Patrick; Keith, Aidan; Lebron, Inma; Maskell, Lindsay; Pereira, M. Gloria; Reinsch, Sabine; Smart, Simon M.; Williams, Bronwen; **Emmett, Bridget A.**; Robinson, David A.

2020. Soil health cluster analysis based on national monitoring of soil indicators. *European Journal of Soil Science*. 10.1111/ejss.12958
20. Head, Josephine S.; Crockatt, Martha E.; Didarali, Zahra; Woodward, Mary-Jane; **Emmett, Bridget A.** 2020. The role of citizen science in meeting SDG targets around soil health. *Sustainability* 12: 10.3390/su12241025.
21. Cagnarini, Claudia; Blyth, Eleanor; **Emmett, Bridget A.**; Evans, Chris D.; Griffiths, Robert, I; Keith, Aidan; Jones, Laurence; Lebron, Inma; McNamara, Niall P.; Puissant, Jeremy; Reinsch, Sabine; Robinson, David A.; Rowe, Edwin C.; Thomas, Amy R. C.; Smart, Simon M.; Whitaker, Jeanette; Cosby, Bernard J. 2019. Zones of influence for soil organic matter dynamics: A conceptual framework for data and models. *Global Change Biology* 25:3996 – 4007.
22. Seaton, Fiona M.; Jones, Davey L.; Creer, Simon; George, Paul B. L.; Smart, Simon M.; Lebron, Inma; Barrett, Gaynor; **Emmett, Bridget A.**; Robinson, David A. 2019. Plant and soil communities are associated with the response of soil water repellency to environmental stress. *Science of the Total Environment* 687:929-938.
23. L.C. Maskell; M. Botham; P. Henrys; S. Jarvis; D. Maxwell; D.A. Robinson; C.S. Rowland; G. Siriwardena; S. Smart; J. Skates; E.J. Tebbs; G.M. Tordoff; **B.A. Emmett.** 2019. Exploring relationships between land use intensity, habitat heterogeneity and biodiversity to identify and monitor areas of High Nature Value farming. *Biological Conservation* 231:30-38.
24. George, Paul B. L.; Creer, Simon; Ths, Robert I. Grif Fi; **Emmett, Bridget A.**; Robinson, David A.; Jones, Davey L. 2019. Primer and database choice affect fungal functional but not biological diversity findings in a national soil survey. *Frontiers in Environmental Science* 01.
25. Nundloll, Vatsala; Porter, Barry; Blair, Gordon S.; **Emmett, Bridget**; Cosby, Jack; Jones, Davey L.; Chadwick, Dave; Winterbourn, Ben; Beattie, Philip; Dean, Graham; Shaw, Rory; Shelley, Wayne; Brown, Mike; Ullah, Izhar. 2019 The design and deployment of an end-to-end IoT infrastructure for the natural environment [in special issue: Cloud computing and internet of things] *Future Internet*, 11 (6), 129. 27, pp. <https://doi.org/10.3390/fi11060129> <http://nora.nerc.ac.uk/id/eprint/524468>
26. Peguero, Guille; Sol, Daniel; Arnedo, Miquel; Petersen, Henning; Salmon, Sandrine; Ponge, Jean-François; Maspons, Joan; **Emmett, Bridget**; Beier, Claus; Schmidt, Inger K.; Tietema, Albert; De Angelis, Paolo; Kovács-Láng, Edit; Kröel-Dulay, György; Estiarte, Marc; Bartrons, Mireia; Holmstrup, Martin; Janssens, Ivan A.; Peñuelas, Josep. 2019. Fast attrition of springtail communities by experimental drought and richness-decomposition relationships across Europe. *Global Change Biology*, 25 (8). 2727-2738. <https://doi.org/10.1111/gcb.14685> <http://nora.nerc.ac.uk/id/eprint/524428>
27. George, P.B., Lallias, D., Creer, S., Seaton, F., Kenny, J.G., Eccles, R.M., Griffiths, R.I., Lebron, I., **Emmett, B.A.**, Robinson, D.A., Jones, D.L. (2019). Divergent national-scale trends of microbial and animal biodiversity revealed across diverse temperate soil ecosystems. *Nature Communications* 10:
28. Maskell, L., G. Tordoff, D. Maxwell, P. Henrys, S. Smart, **B.A. Emmett**, J. Skates, M. Botham, G.M. Siriwardena, E. Tebbs, S. Jarvis, C. Rowland, D. Robinson. 2019. Exploring relationships between land use intensity, habitat heterogeneity and biodiversity to identify and monitor areas of High Nature Value farming (2019) *Biological Conservation*.231
29. Seymour, M, Durance, I, Cosby, BJ, Ransom-Jones, E, Deiner, K, Ormerod, SJ, Colbourne, JK, Wilgar, G, Carvalho, G, De Bruyn, M, Edwards, F, **Emmett, BA**, Bik, HM & Creer, S 2018, Acidity promotes degradation of multi-species environmental DNA in lotic mesocosms. *Communications Biology*, vol. 1, 4. <https://doi.org/10.1038/s42003-017-0005-3>
30. Norton L.R., Smart S.M., Maskell L.C., Henrys P.A., Wood C.M., Keith A.M., **Emmett B.A.**, Cosby B.J., Thomas A., Scholefield P.A., Greene S., Morton R.D., Rowland C.S.(2018). Identifying effective approaches for monitoring national natural capital for policy use. *Ecosystem Services* 30
31. Andresen L.C., Dominguez M.T., Reinsch S., Smith A.R., Schmidt I.K., Ambus P., Beier C., Boeckx P., Bol R., de Dato G., **Emmett B.A.**, Estiarte M., Garnett M.H., Kroel-Dulay G., Mason S.L., Nielsen C.S., Penuelas J., Tietema A. (2018). Isotopic methods for non-destructive assessment of carbon dynamics in shrublands under long-term climate change manipulation. *Methods in Ecology and Evolution*. 9
32. Bussi G., Whitehead P.G., Thomas A.R.C., Masante D., Jones L., Jack Cosby **B.**, **Emmett B.A.**, Malham S.K., Prudhomme C., Prosser H. (2017). Climate and land-use change

- impact on faecal indicator bacteria in a temperate maritime catchment (the River Conwy, Wales). *J. Hydrol.* 553.
33. Rowe E.C., Jones L., Dise N.B., Evans C.D., Mills G., Hall J., Stevens C.J., Mitchell R.J., Field C., Caporn S.J.M., Helliwell R.C., Britton A.J., Sutton M.A., Payne R.J., Vieno M., Dore A.J., **Emmett B.A.** (2017). Metrics for evaluating the ecological benefits of decreased nitrogen deposition. *Biol. Cons.* 212.
  34. George, P.B., Keith, A.M., Creer, S., Barrett, G.L., Lebron, I., **Emmett, B.A.**, Robinson, D.A. and Jones, D.L., 2017. Evaluation of mesofauna communities as soil quality indicators in a national-level monitoring programme. *Soil Biology and Biochemistry*, 115, pp.537-546.
  35. Maxwell, D. D.A. Robinson, A. Thomas, B. Jackson, L. Maskell, D.L. Jones, **B.A. Emmett**, 2017. Potential contribution of soil diversity and abundance metrics to identifying high nature value farmland (HNV) *Geoderma* 305: 417–432.
  36. Reinsch S, Koller E, Sowerby A, deDato G, Estiarte M, Guidolotti G, Kovacs-Lang E, Larsen KS, Liberati D, Penuelas J, Ransijn J, Robinson DA, Schmidt IK, Smith AR, Tietema A, Dukes JS, Beier C, **Emmett BA** (2017) Shrubland primary production and soil respiration diverge along European climate gradient. *Scientific Reports* 7: srep43952. DOI: 10.1038/srep43952.
  37. Smart SM, Glanville HC, Blanes MC, Mercado LM, **Emmett BA**, Jones DL, Cosby BJ, Marrs RH, Butler A, Marshall MR, Reinsch S, Herrero-Jauregui C, Hodgson JG (2017) Leaf dry matter content is better at predicting above-ground net primary production than specific leaf area. *Functional Ecology*. DOI: 10.1111/1365-2435.142832.
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