

Chris Collins
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EMPLOYMENT HISTORY

2025-present Professor of Soil and Environmental Science
Centre of Research excellence in Intelligent and Sustainable Productive Systems,
University of Plymouth

2012-2025 Professor of Environmental Chemistry
Department of Geography and Environmental Science, University of Reading.

2006-2012 Reader in Soil Science
Department of Geography and Environmental Science, University of Reading.

ACADEMIC QUALIFICATIONS

1988 PhD Agriculture - Wye College, University of London.

1984 BSc (Hons) Agricultural Botany 2i - University College North Wales, Bangor.

LEADERSHIP ROLES

Chair of Chemicals, Health and Climate Change programme (2025-present) This grouping brings together expertise from the regulators and academic community to build consensus and direct future activity on what has been termed the triple crisis by the UN.

Natural Resources Wales Head of Knowledge and Evidence (2021-2025) – leading team of 80 staff with £30 million budget to develop the evidence to underpin the sustainable management of natural resources across Wales.

Coordinator for the NERC Soil Security Programme (SSP) (2015-2020) - the SSP was a £10M research investment. The role also had oversight of the £5M BBSRC Soils and Rhizosphere Interactions for Sustainable Agriculture (SARISA) programme. My team built an active research community which leveraged an additional £1.5m for equipment, workshops, policy and impact activities. The SSP has actively engaged with the Devolved Administrations, Defra and the EU.

Hazardous Substances Advisory Committee (2013 – 2022, Chair 2017 onward). HSAC provides expert advice on how to protect the environment, and human health via the environment, from potentially hazardous substances and articles, including nanomaterials.

Natural Capital Committee (2018 - 2020) Lead on soils. The NCC provided advice to the government on the sustainable use of natural capital, with a primary focus on helping the government develop its 25 year Environment Plan.

Science Media Centre – member of pool of experts responding to news articles

ADMINISTRATIVE AND LEADERSHIP ACTIVITIES

Environmental Audit Committee's Soil Health Enquiry (2016) Collated the response from the SSP and SARISA programme researchers and gave evidence to the Committee.

Director of University of Reading Soil Research Centre (2015 – 2020) provides external stakeholder engagement with soils research across the University.

Director of the University Chemical Analytical Facility (2012-2016)

RESEARCH OVERVIEW

My research focuses on the mechanisms controlling exposure of biota to environmental pollution. This combines collection of experimental data in conjunction with the development of process description models. My group has developed a variety of assessment tools, including an in-vitro gut model to assess the bioaccessibility of pollutants in the human gut,

model systems to determine uptake of soil contaminants by plants and earthworms and biokinetic models for human exposure. These are designed as robust approaches for practical application and have been applied to support the Interdepartmental Group on Health Risks from Chemicals and the Environment Agency's Contaminated Land Exposure Model.

Ongoing research addresses the role of soil organic carbon in modifying pollutant exposure and the parallels between pollutant and carbon cycling in soils, the latter is critical to the delivery of a range of ecosystem services. This work contrasts high-level analytical techniques such as mass spectrometry and nuclear magnetic resonance with rapid spectral methods to study soil responses to environmental perturbations with aim of developing field deployable tools for practitioners. More recent work has adopted a transdisciplinary approach to support low input farming and agriplastic reduction in an international setting.