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ENVIRONMENTAL RESEARCH
DOCTORAL TRAINING PARTNERSHIP

NERC DTP in Environmental Research

David Marshall – Programme Director
Victoria Forth – Programme Manager

Website: www.environmental-research.ox.ac.uk
Twitter/X: @OxfordEnvRes
Instagram: @oxfordenvres
YouTube ‘DTP in Environmental Research, Oxford’

UKRI Natural Environment Research Council

University of Oxford Doctoral Training Centre

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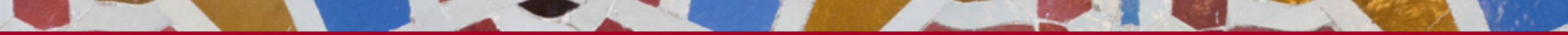
Ambitions

- To provide a supportive research environment to train of the next generation of researchers across the breadth of NERC's remit in environmental research — from the Mathematics and Physics of Climate to Geochemistry to Zoology

- To admit talented students from a diverse range of backgrounds, and enable them to work creatively to advance knowledge, understanding and find solutions to environmental challenges



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20 fully funded 4-year studentships, leading to a DPhil (= PhD)

funding includes: fees, stipend (£18 662 p.a.) and research budget (£8 000)

Studentships open to all qualified applicants: UK and international

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Research Projects

Discovery Science: open-ended, fundamental research in any NERC science area where we can provide supervision

host departments: Archaeology, Biology, Chemistry, Earth Sciences, Engineering, Geography, Mathematics, Physics

Collaborative: external partners, several supporting CASE awards

THE BIODIVERSITY CONSULTANCY
National Oceanography Centre
Met Office
esa
Operation Wallacea
ZSL LET'S WORK FOR WILDLIFE
CEH
RAL Space
NATURAL HISTORY MUSEUM
SYLVA FOUNDATION
EARTHWATCH INSTITUTE
Balfour Beatty
AFRY
IGS 1835
British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL
National Centre for Earth Observation
NATURAL ENVIRONMENT RESEARCH COUNCIL
Kew ROYAL BOTANIC GARDENS
ECMWF
SAVE THE ELEPHANTS
NATURAL ENGLAND
National Centre for Atmospheric Science
NATURAL ENVIRONMENT RESEARCH COUNCIL
ELSEVIER
iied
FONDAZIONE EDMUND MACH

Student led: we encourage students take responsibility for formulating and writing their research proposal from the start, in collaboration with supervisors and project partners

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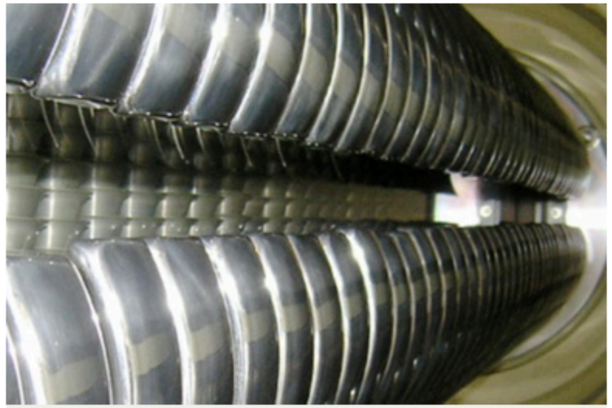
Research Streams

Oxford's DTP supervisors are based across 8 departments

Our **research themes** cut across disciplinary and departmental boundaries

Biodiversity, Ecology and Evolutionary Processes



Dynamic Earth, Surface Processes and Natural Hazards

The Physical Climate System

Cross-Stream Themes

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Biodiversity, Ecology and Evolutionary Processes

Biodiversity Assessment	Biotic Interactions	Conservation and Ecosystem Services
Global Change	Macro- and Micro-evolution	Macroecology and Biogeography
Macronutrient cycling	Organisms	Origins of Life

The biological systems that are the life of the planet face unprecedented challenges from global environmental and societal change. Environmental scientists, working to detect, diagnose and understand the complex processes at work, will help to find the solutions to these challenges,

Researchers across the **Biodiversity, Ecology and Evolutionary Processes stream** are carrying out world-leading research into biological processes, systems and their interactions, at scales ranging from the organism to the population, and in spheres ranging from human health to natural ecosystems, over all timescales.
projects.

key departments: Biology, Geography, Earth Sciences, Chemistry, Archaeology, Engineering

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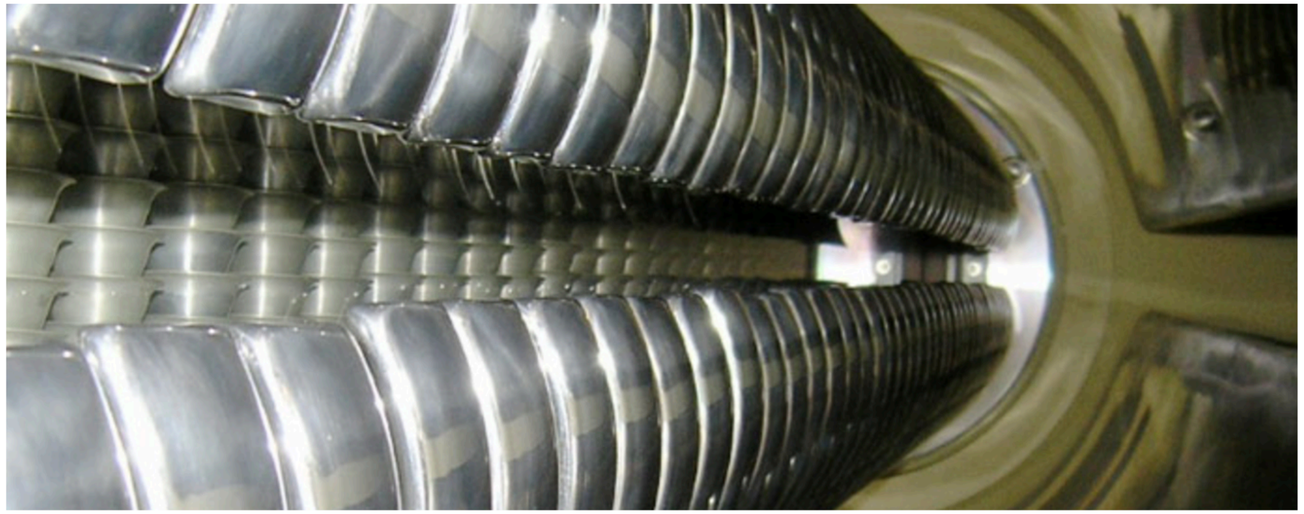
Dynamic Earth, Surface Processes and Natural Hazards



Chronology	Continental Tectonics	Critical Natural Resources
Deep Earth, Geodynamics and Geochemistry	Earth Surface Processes	Geomorphology and Landscape Dynamics
Low Temperature Geochemistry	Materials Characterisation	Volcanology, Seismology and Active Tectonics

Earth's dynamic surface provides the platform for life on the planet, and the resources needed to support and sustain society. Critical challenges today demand solutions, which study of the Earth can help to provide: from the discovery and sustainable use of critical natural resources, the disposal of waste (including carbon dioxide), to understanding the processes that drive the Earth today.

Researchers across the **Dynamic Earth, Surface Processes and Natural Hazards stream** are working at the frontiers of science, from computational geodynamics, theoretical seismology and isotope geochemistry to the quantification of surface processes over all timescales, natural resource discovery, and analysis, detection and mitigation of geophysical hazards and risk.

key departments: Earth Sciences, Physics, Geography, Mathematics, Engineering

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The Physical Climate System

Atmosphere	Climate Modelling	Climates of the Past
Clouds and Aerosols	Cryosphere	Geophysical Fluid Dynamics
Global Biogeochemical Cycles	Oceans and Freshwater	Predictability of Weather and Climate

How does the Climate System work? How has it worked in the past, and what is happening to it now? Understanding the science of the climate system is one of the most pressing challenges today.

Researchers across the **Physical Climate System stream** use cutting edge approaches to study all aspects of the climate system, present, past and future, with strong links to climate modelling, climate impacts and mitigation.

key departments: Physics, Geography, Earth Sciences, Mathematics, Engineering

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Cross-Stream Themes

Artificial Intelligence and Machine Learning	Data Science	Decarbonising the Economy
Engineering Solutions	Citizen Science	Greening Chemistry
Novel Sensors	Policy and Practice	Transforming Waste
Water Security	Clean Energy	Geoengineering

→ Intelligent Earth CDT ?

There are a number of cross-cutting areas which are applied within some or all of the streams, often in radically different ways and to a variety of problems. Many of these play an increasing role in our grand challenges today as we try to tackle some of the most sweeping problems human-kind has faced. More and more we look to technology and engineering solutions to help us investigate causes of, and find solutions to these problems. We also find that by interdisciplinary collaborations we can use these methods in inventive ways that would otherwise not be considered.

key departments: all!

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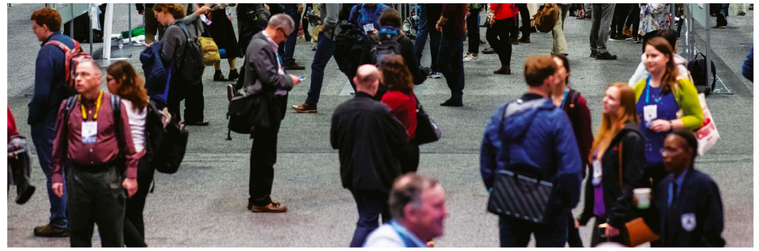
The costs of removing the unsanctioned import of marine plastic litter to small island states

April J. Burt, Jeremy Raguain, Cheryl Sanchez, Jude Brice, Frauke Fleischer-Dogley, Rebecca Goldberg, Sheena Talma, Martyna Syposz, Josephine Mahony, Jake Letori, Christina Quanz, Sam Ramkalawan, Craig Francourt, Ivan Capricieuse, Ash Antao, Kalsey Belle, Thomas Zillhardt, Jessica Moumou, Marvin Roseline, Joel Bonne, Ronny Marie, Edward Constance, Jilani Suleman & Lindsay A. Turnbull

April Burt: Plastic pollution in the Seychelles



Some 28,000 people travelled to the American Geophysical Union's 2019 Fall Meeting, resulting in 80,000 tonnes of carbon emissions.

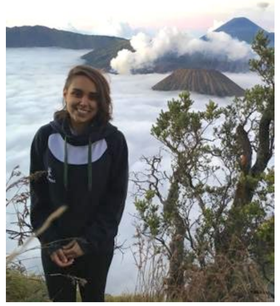
An analysis of ways to decarbonize conference travel after COVID-19

Milan Klöwer, Debbie Hopkins, Myles Allen & James Higham

Milan Klöwer: Decarbonising conference travel

Overcoming racism in the twin spheres of conservation science and practice

Lauren F. Rudd[1,2,†], Shorna Allred[4,5], Julius G. Bright Ross[1,2], Darragh Hare[1,2,4], Merlyn Nomusa Nkomo[6], Kartik Shanker[7,8], Tanesha Allen[1], Duan Biggs[9], Amy Dickman[1,2,10], Michael Dunaway[11], Ritwick Ghosh[12], Nicole Thompson González[13], Thembela Kepe[14,15], Moreangels M. Mbizah[16,17,18], Sara L. Middleton[1,3], Meera Anna Oommen[8], Kumar Paudel[19,20], Claudio Sillero-Zubiri[1,2,21] and Andrea Dávalos[22]



Lauren Rudd: Overcoming racism in conservation science and practice

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Cohort

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Training

(equivalent to 6 months throughout the 4 years of the degree)

- Core research skills: statistics, software engineering, numerical modelling, …
- Planning your research, writing, presenting, …
- Cohort activities, e.g., Grand Challenge seminars
- Wider engagement: public engagement, science into policy, working with partners, entrepreneurship, …
- Advanced research techniques — specialist training
- Focused in first 6 months (especially first term) but should continue throughout the four years

the training programme is flexible and can be adapted to your experience and needs

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Doctoral Training Centre
Interdisciplinary Science DPhil Courses at the University of Oxford

OXFORD Interdisciplinary Bioscience DTP

DOCTORAL TRAINING PARTNERSHIP
ENVIRONMENTAL RESEARCH

SABS R³

Sustainable Approaches to Biomedical Science: Responsible and Reproducible Research

Chemistry in Cells

New Technologies to Probe Complex Biology and Medicine

Intelligent Earth

Grand Challenge Seminars

UNIVERSITY OF OXFORD

GRAND CHALLENGES

Register for free

Panel discussion

CLIMATE CRISIS: BRIDGING THE GAP BETWEEN SCIENCE AND POLICY

In this panel discussion, we will be joined by leading experts to explore how researchers, policymakers and businesses can work together to tackle climate change, what the current barriers are, and how we might overcome them.

28 APRIL 2023

4pm - 5:30pm
Doors open 3:30pm
Drinks reception 5:30pm
Merton College, Oxford
& Online

Other sessions in the 2023 series:

5 MAY
The plastic crisis

12 MAY
Global shortages in a changing climate

19 MAY
Science inequality across the globe

26 MAY
Equality in AI-driven drug discovery

2 JUNE
From Deepfakes to deadly viruses

9 JUNE
Bridging the gap between our oceans and humankind

16 JUNE
At what price do we publish?

RACHEL COXCOON
Director of Climate Guide, Councillor and Cabinet Member for Climate Change & Forward Planning, Doctoral Researcher at Lancaster University

SIMON CLARK
Videomaker and Science Communicator with over 470,000 YouTube subscribers, PhD in theoretical atmospheric physics from the University of Exeter

FIONA HARVEY
Award-winning journalist writing extensively on every environmental issue, from air pollution and biodiversity to ocean plastic and climate change.

SESSION CHAIR: NICK EYRE
Professor of Energy and Climate Policy, Environmental Change Institute (ECI), University of Oxford

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GRAND CHALLENGES

Register for FREE

Panel discussion

BRIDGING THE DIVIDE BETWEEN OUR OCEANS & SOCIETY: WHY SHOULD WE CARE?

Despite seeming remote, the oceans are increasingly threatened by and of growing importance to humanity. Unfortunately, physical and emotional divides make creating effective marine policies difficult. Join us as we talk to scientists, policy-makers, and the media to ask why and how we can bridge the divide between our oceans and society to better care for our marine environments.

09 JUNE 2023

4pm - 5:30pm
Doors open 3:30pm
Trinity College, Oxford
& Online

Other sessions in the 2023 series:

12 MAY
Global shortages in a changing world

19 MAY
Science inequality across the globe

26 MAY
Equality in AI- driven drug discovery pipelines

2 JUNE
From deepfakes to deadly viruses

9 JUNE
Bridging the divide between our oceans & humans

16 JUNE
At what price do we publish?

SESSION CHAIR - DAVID MARSHALL
Professor of Physical Oceanography
Department of Physics, University of Oxford

JAMES HONEYBORNE
Executive Producer for Blue Planet II and Big Blue Live; Wildlife film-maker; Founder and Creative Director of Freeborne Media.

SELINA STEAD
Marine biologist and tropical scientist; UK Government's Chief Scientific Advisor for the Marine Management Organisation; Professor of Environmental Science, University of Leeds.

KATRINA DAVIS
Conservation Biologist; Associate Professor in Conservation Biology, University of Oxford; Marine Conservation Ecology & Management Group PI.

CLAIRE MOODIE
Sea-E-O of Plastic Free North Devon; Regional Coordinator for Surfers Against Sewage; Community Engagement Coordinator for the Biosphere Foundation.

UNIVERSITY OF OXFORD

GRAND CHALLENGES

Register for FREE

Panel discussion

GLOBAL SHORTAGES IN A CHANGING CLIMATE

Climate change is pressuring global food systems and water supplies.

What can we do about it?

Come to this seminar to learn about how science, economics, and policy are working together to tackle the issue, and find out what you can do to live sustainably.

12 MAY 2023

4pm - 5:30pm
Doors open 3:30pm
Trinity College, Oxford
& Online

Other sessions in the 2023 series:

28 APRIL
Climate Crisis: Bridging the gap between science and policy

5 MAY
The plastic crisis

19 MAY
Science inequality across the globe

26 MAY
Equality in AI-driven drug discovery

2 JUNE
From deepfakes to deadly viruses

9 JUNE
Bridging the gap between our oceans and humankind

16 JUNE
At what price do we publish?

SESSION CHAIR - OSCAR TOVEY GARCIA
DPhil Student in Atmopsheric, Oceanic and Planetary Physics
University of Oxford

SAEED MOGHAYER
Senior Researcher
International Policy Subdivision
Wageningen Economic Research

BETTINA LANGE
Associate Professor
Centre for Socio-Legal Studies
University of Oxford

TOM THIRKELL
Field Trial Manager
Crop Science Centre
University of Cambridge

ELEANOR HAMMOND
Research Assistant
Interdisciplinary Centre for Conservation Science
University of Oxford

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Transfer to Department in Summer Term, year 1

- Admit to Programme, not Department
- Write a short research proposal (2 pages) plus research budget
- 30 minute meeting with two academics to present and discuss proposal
- All students require two (or more) supervisors (primary supervisor must be based in Oxford)
- Obtain your DPhil from the Department in which you are registered
- Possible to change supervisor and/or department after joining the DTP

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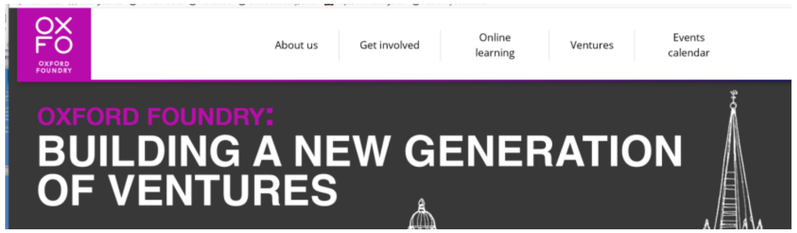
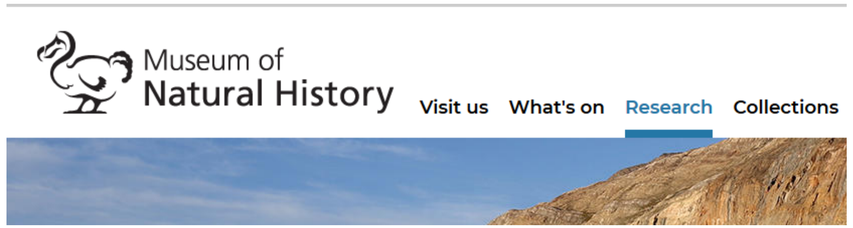
Oxford's Research Ecosystem

Oxford Sparks
Bringing Oxford Science to Life





OXFORD MARTIN SCHOOL

Bodleian Libraries
UNIVERSITY OF OXFORD
SUBJECTS & LIBRARIES
FINDING RESOURCES
USING OUR LIBRARIES

Enterprising Oxford
Supporting entrepreneurial connectivity
Entrepreneurship 101
Explore & Build
Support

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Colleges

Trinity College

The Queen's College

Jesus College

Reuben College

Brasenose College

- can apply to other colleges
- those highlighted here contribute something substantial to the programme, e.g., space for teaching or events, reserved accommodation for DTP students, contributions to course fees, etc

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How to Apply?

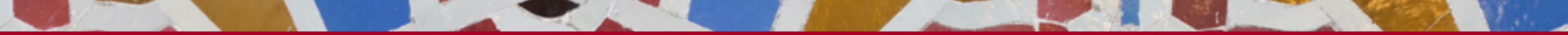
full details on our website: www.environmental-research.ox.ac.uk/how-apply

Deadline for applications: 1200, Friday 5 January

you may apply for more than one programme

Pre-interview online, drop-in briefing session: February 2024 (tbc)

Interviews: 19-20 February (online)



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Equality, diversity and inclusion

DTP studentships are open to all candidates who will achieve, or have achieved,
a final degree of a 2.1 or higher in a relevant discipline

aim to prioritise 2-3 studentships for candidates who meet at least one of the following criteria:

- first generation of your family to go to university;
- have been in care for at least three months, or have been a young carer;
- come from a neighbourhood classed as ACORN 4 or 5 or POLAR (4) Quintile 1 or 2 in your final year of school

Black Academic Futures Scholarships: 20 full scholarships available across the University
— the DTC has 4 of these (1 per programme) in collaboration with Linacre College

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Equality, diversity and inclusion

Applications process is:

- anonymised
- uses a standard CV template
- encourages applicants to give a narrative of challenges they have overcome

If you are eligible for internal scholarship competitions (Black Academic Futures, Clarendon, etc), you will automatically be considered when you apply

12:45pm (1 hr), 14-19 Aug
Greenside @ Riddles Court

GEOLOGISE THEATRE

CHRISSIE
& THE SKIDDLE WITCH

"the story is sure to reassure concerned young audiences that everyone has their part to play in the climate crisis movement, and this public engagement effort has to be applauded."
Broadway World

The Oxford Interdisciplinary Bioscience DTP

- **Research areas:** Fundamental and applied biosciences (*including* Animal and Plant Biology, Molecular and Cellular Bioscience, Bioscience for Food, Industry and Health, Transformative Technologies)
- **Organisations:** **University of Oxford**, Oxford Brookes University, Pirbright Institute, Diamond Light Source, ISIS Neutron and Muon Source, Central Laser Facility, Research Complex at Harwell, Rosalind Franklin Institute, NNRCO
- **Core training:** Programming, Mathematics, Statistics and Data Science, Bioscience
- **Advanced training:** Bioinformatics, Bioimaging, Synthetic Biology, Modelling…
- **Studentships:** 4 years, Rotation studentships, Industrial CASE (iCASE) studentships
- **Deadline:** 5 January
- **www.biodtp.ox.ac.uk**; **www.ox.ac.uk/admissions/graduate/courses/interdisciplinary-bioscience**
- **Contact:** dtpenquiries@biodtp.ox.ac.uk

Biotechnology and Biological Sciences Research Council

Intelligent Earth

UKRI AI Centre for Doctoral Training in AI for the Environment

Interdisciplinary 4-year PhD training programme with **two entry streams**: for numerate environmental science backgrounds and for AI/ML, maths, statistics, physics backgrounds.

Five closely connected themes:

1) Climate
2) Biodiversity
3) Natural hazards
4) Environmental solutions (e.g., nature recovery, carbon stock taking, agriculture & food, energy)
5) Core AI/ML research on complex environmental data

Intrinsically interdisciplinary for each PhD project:

- Joint supervision between environmental and AI academics from the CDT departments
- Additional non-academic advisor from partners, who also serves as host for a non-academic secondment
- Primary department and supervisor will be assigned based on the focus of the project and the background of the student

Virtual open day:
30 November 2023

Questions

- What makes a good candidate for a DTP?
- Is the DTC the only “department” to take part in the admission process or do the departments have a say?
- Are the courses in the first 2 semesters mandatory across biology, climate physics etc?
- Does applying too early or right near the deadline affect the application decision?
- Is it possible to do short internships or academic placements at other universities during the course?
- What PhD program/s stand a higher chance of getting this DTP scholarship?
- Do we need to contact potential supervisors before applying?
- I have already found a supervisor and written a proposal. Can I apply to the DTP with this?
- If you already know the project you want to work on do you apply through the stream or project supervisor?
- Are applicants required to submit a research proposal to the application portal or just statement of purpose?
- How would you describe DTP students (in general) compared to traditional DPhil students?
- Are research streams split evenly or does that depend on the cohort?
- What is the rate of acceptance?
- Are peer-reviewed publications required? Is a paper under review useful when applying?
- is there any minimum for GPA? For both bachelors and masters
- Are there connections with other NERC DTPs around the UK?
- I’m applying to an advertised project with a specific supervisor, how do i determine which stream to apply to?
- If your bachelor’s is first class and your masters is just a pass, would this affect your chances?
- Do we propose our own topic in the application stage or later (once we get in)?
- Are DTP students generally younger/less experienced than traditional DPhil students?