

Opportunity name: NERC Pushing the Frontiers of Environmental Research July 2024

Meeting Date: Stage 1 Panels: 14/15, 15/16, 16/17, 21/22
Stage 2 Panels: 9,10,11,12 December

Application ID	Application Title	Organisation Name	Funding Decision	Panel Area
36492	How does particulate matter pollution impact insect pollinators (P3)?	UK Centre for Ecology & Hydrology	Unsuccessful	Panel 3
36515	Plumbing Atlantis: Drivers and Controls on Forming and Reforming the Oceanic Crust	Durham University	Unsuccessful	Panel 1
36529	Food quality and energy in a changing Arctic Ocean. (DIET)	University of Liverpool	Unsuccessful	Panel 3
36660	NERC-NSFGEO Ice on Fire: glacier response to impending volcanic eruptions	University of Aberdeen	Unsuccessful	Panel 1
36738	The importance of mutualisms in a changing world	Newcastle University	Unsuccessful	Panel 3
37067	UNITE – Unifying Theory for Ecological Tipping Points	Rothamsted Research	Unsuccessful	Panel 5
37115	FLAMBÉ: Fire Landscapes Under Anthropogenic Modification in Boreal Forests	University of Aberdeen	Unsuccessful	Panel 4
37351	Fossil evidence for an anatomically complex origin of jaws	Imperial College London	Unsuccessful	Panel 4
37500	BioDARK: Illuminating Nocturnal Ecology through Novel BioSensing	University of Leeds	Unsuccessful	Panel 3
37531	Daily rhythms: drivers of parasite-vector interactions and parasite evolution	University of Edinburgh	Successful	Panel 3
37605	WindFarm Weather: How will taller and larger offshore wind farms change our weather?	University of Manchester	Unsuccessful	Panel 2
37655	NITRO-MET: NITROGEN BEHAVIOUR DURING OROGENIC METAMORPHISM	University of Oxford	Unsuccessful	Panel 1
37678	Understanding how land-use-climate interactions restructure terrestrial biodiversity to develop a new generation of global biodiversity models	University College London	Successful	Panel 3
37796	NERC. HYDRO-RIFT: Observing and modelling hydrofracture across the Antarctic Peninsula	University of Cambridge	Unsuccessful	Panel 2
37838	Volcano2Fork: Understanding the food and nutrition implications of large volcanic eruptions	University of Edinburgh	Unsuccessful	Panel 1
38157	Chems-in-the-Thames: Chemical exposure and apportionment in complex waterways	Imperial College London	Unsuccessful	Panel 5
38220	Drivers of climate metrics for net zero	University of Liverpool	Unsuccessful	Panel 5
38295	Characterising the Atlantic Ocean carbon sink on multi- decadal to centennial timescales	University of Exeter	Unsuccessful	Panel 5
38314	NERC-NSFDEB: Nutrient and microbiome dependence of species range shifts with climate change	University of Manchester	Unsuccessful	Panel 3
38318	Dynamics of the Galápagos Volcanic System	University of Edinburgh	Unsuccessful	Panel 1
38653	Stevens_NERC_24	University of Exeter	Unsuccessful	Panel 3
38656	NERC The Drake Passage and Scotia Sea Gateway – Reconstructing the Jigsaw and its influence on Southern Ocean currents (Scotia-Jig)	British Antarctic Survey	Unsuccessful	Panel 1
38676	Understanding earthworm-enhanced plant growth	University of York	Unsuccessful	Panel 5
39156	BRACHS - Early Jurassic hyperthermal to Middle Jurassic cold snap through the lens of BRACHiopod geoCHEmistry and shell Structures	University of Exeter	Unsuccessful	Panel 4
39195	NERC Pushing the frontiers of environmental research: July 2024	Birkbeck, University of London	Unsuccessful	Panel 1
39849	[NERC-NSFBIO] Revealing how climate shapes cooperation: integrating genomics, morphology and behaviour in social wasps spanning Sub-Saharan Africa	University of Bristol	Successful	Panel 3
40126	When do phages matter? Investigating how abiotic and biotic conditions alter the impact of phage on microbial communities.	University of Exeter	Unsuccessful	Panel 5
40657	Modulated Lateral Dynamics of alluvial rivers constrained by valley side controls	University of Exeter	Unsuccessful	Panel 5
40751	PFAST – rapid transfer of per- and polyfluoroalkyl substances through submarine canyons	University of Manchester	Unsuccessful	Panel 5
40802	NERC - Impact of Aerosol-Cloud-Precipitation Interactions on Greenland Ice-Melting Rates	University of Oxford	Unsuccessful	Panel 2

40803	Aggregation of snowflakes in the atmosphere	University of Reading	Unsuccessful	Panel 2
40973	Microbes and minerals: Tropical soil carbon vulnerability under a warming climate (MITRO)	University of Leeds	Unsuccessful	Panel 5
40988	NERC/NSFGEO Seawater pH: Bridging the Gap Between Free and Total pH Scales From Estuaries to the Deep Ocean, and Application to Current Sensors	University of East Anglia	Successful	Panel 5
41028	Vapes and e-liquids: an emerging contaminant of environmental concern (VapeTOX)	Plymouth Marine Laboratory	Unsuccessful	Panel 5
41135	New field measurements to identify missing chemical reactivity in the remote atmosphere	Cranfield University	Successful	Panel 2
41286	[NERC-NSFGEO] BISTO: Better Ice Sheet forecasts via Transient assimilation and refined Ocean forcing	University of Edinburgh	Successful	Panel 2
41408	Beavers as landscape engineers	University of St Andrews	Unsuccessful	Panel 3
41479	SAVELAND: Savannah Woody Vegetation Species Monitoring and Land Degradation Assessment	Manchester Metropolitan University	Unsuccessful	Panel 3
41485	Genomic basis of sexual dimorphism, sexual conflict and male ornament variation	University of Cambridge	Unsuccessful	Panel 4
41536	Leveraging advances in biomechanics and computer vision to determine whether leaf-cutter ants are optimal foragers	Imperial College London	Unsuccessful	Panel 3
41566	THE ROLE OF VENOM IN CORAL RESILIENCE	University of Bristol	Successful	Panel 4
41789	Developing thermal-physiology informed flower strips to support beneficial insects in a changing climate (PhysFleur)	University of Bristol	Unsuccessful	Panel 3
41912	Lessons in climate change resilience: localised Indigenous community responses to the Medieval Climatic Anomaly from the Californian interior	University of Central Lancashire	Unsuccessful	Panel 4
41939	Climate Feedbacks through reactive gases and aerosols	University of Reading	Unsuccessful	Panel 2
42020	NERC/ Mitonuclear constraints in a fluctuating world	University College London	Unsuccessful	Panel 4
42084	A new paradigm for the geodynamo: data-driven models of core dynamics that explain and predict Earth's magnetic shield	University of Leeds	Successful	Panel 1
42092	The causes and consequences of sex differences in meiotic recombination.	University of Edinburgh	Successful	Panel 4
42177	Influence of complex sOurce and wiNd conditions on Eruptive Plume Height (PHOENIX)	University of Oxford	Successful	Panel 1
42249	Building flying machines from feeding machines: the causes and consequences of body transformations in long distance migrants	University of Exeter	Successful	Panel 3
42315	Unravelling the Micromechanics of Drought-induced Tree Mortality	University of Manchester	Unsuccessful	Panel 3
42534	SeaSafe: Surveillance and predictions for marine macroflora due to climate change	Keele University	Unsuccessful	Panel 5
42558	Friend or foe: A trait-based framework to understand the consequences of lineage interactions for pathogen competition or coexistence	University of Liverpool	Unsuccessful	Panel 3
42599	From global to local: A scalable approach to heatwave vulnerability assessment.	University of Plymouth	Unsuccessful	Panel 3
42606	From the Ground up: Building DNA Metabarcoding Applications for Soil Monitoring and Nature Indices	University of the Highlands and Islands	Unsuccessful	Panel 5
42634	MAgmaTic Lithium DegAssing (MATILDA)	University of Cambridge	Unsuccessful	Panel 1
42687	Towards a unified framework of sex role evolution	University of Exeter	Unsuccessful	Panel 3
42761	RADAR: Risk and impact Assessment using Digital Twin and AI for River Severn	Birmingham City University	Unsuccessful	Panel 5
42765	CONVINCE: CONvection scale-INteractions for ClimatE	University of Leeds	Unsuccessful	Panel 2
42783	BoOST factor - Boosting Orbital Satellite Tracking	University College London	Unsuccessful	Panel 2
42799	GASPP: The Great Atlantic Sargassum-Plastic-Pathogen Highway	University of Plymouth	Unsuccessful	Panel 5
42820	KRAKEN: Krauklis Wave Analysis for Key Environmental Fracture Networks	National Oceanography Centre	Unsuccessful	Panel 1
42887	A universal calving model for marine terminating glaciers (UCaM)	University of Bristol	Unsuccessful	Panel 2
42899	Stocking the Past: Isotopic and Genomic Approaches to Livestock Keeping in Prehistory	University of Oxford	Unsuccessful	Panel 4
43032	Rock organic carbon oxidation – a universal carbon cycle feedback during transient warming events	University of Southampton	Successful	Panel 2
43039	NERC/RCN: Reconstructing UV-B DYNAMICS over the last 65ka (RUDY65ka)	University of Leeds	Unsuccessful	Panel 2
43054	Will global warming impair trophic transfer efficiency in the ocean's plankton food webs?	University of Exeter	Unsuccessful	Panel 3

43078	Testing the developmental theory of ageing: from genes to populations	University of East Anglia	Successful	Panel 4
43209	The threat of changing rainfall on pollination services	University of Bristol	Unsuccessful	Panel 3
43250	Contaminated Ocean Spume	University of Oxford	Successful	Panel 2
43267	Is the Late Veneer really needed?	University College London	Successful	Panel 1
43321	NERC-NSFGEO Environmental and genetic variation in Antarctic diatom functional traits	University of Edinburgh	Unsuccessful	Panel 4
43347	Understanding the drivers and implications of a more variable North Atlantic jet stream under climate change (JetVar)	University of Lincoln	Successful	Panel 2
43536	Acquisition of beneficial gut microbes and functional trade-offs in wild avian hosts	University of East Anglia	Successful	Panel 4
43573	HABITATS PREDICTING POPULATIONS: THE SCIENCE FOR MANAGING LANDSCAPES FOR NATURE-POSITIVE FUTURES.	University of Glasgow	Unsuccessful	Panel 3
43587	The dynamics of range expansion in a social bird: from individuals to populations	University of Sheffield	Unsuccessful	Panel 3
43812	Reproductive adaptation and population persistence in the global drylands	University of Exeter	Unsuccessful	Panel 3
43874	Pushing the Frontiers of Near-Term Climate Prediction	National Oceanography Centre	Unsuccessful	Panel 2
43895	Environmental, genomic and phenotypic filters of plant domestication	University of Southampton	Unsuccessful	Panel 4
43937	ANIMaLE - ANIMals and Landscape Evolution	Manchester Metropolitan University	Unsuccessful	Panel 3
44099	MPT-ICE: Exploring the Mid-Pleistocene Transition using Antarctica's oldest ice core.	British Antarctic Survey	Successful	Panel 2
44107	NERC Direct simulation of microscale dispersion from the surface to the ocean depths (OCEANS-DNS)	University of Manchester	Unsuccessful	Panel 2
44186	Tropospheric and stratospheric lightning: Its impact on atmospheric chemistry and climate	Cardiff University	Unsuccessful	Panel 2
44193	Deciphering the genetic basis and impact of thermal plasticity on eye morphology and vision among Drosophila populations	Oxford Brookes University	Unsuccessful	Panel 4
44196	Tidally Driven Ocean Mixing During Mass Extinctions (TIMEX)	Bangor University	Unsuccessful	Panel 2
44307	Revealing the origin of the continents' strength	University of Cambridge	Unsuccessful	Panel 1
44313	Tree resilience under climate change: carbon allocation, growth, and memory	University of Cambridge	Unsuccessful	Panel 5
44510	WETWOODS: quantifying the potential of peat-forming wet woodlands as nature-based climate solutions	Royal Holloway, University of London	Unsuccessful	Panel 5
44559	4DGV: Four-dimensional hazard and risk at glacierised volcanoes	University of Cambridge	Unsuccessful	Panel 1
44656	Understanding the turbulent boundary current beneath ice shelves using a novel laboratory analogue	Northumbria University	Unsuccessful	Panel 2
44750	V-CRAFT: Volcanic CRystal Archive of Forecasting Timescales	University of Cambridge	Unsuccessful	Panel 1
44918	NERC Determining extinction correlates on geological timescales	University of Oxford	Successful	Panel 4
44951	IceDice: Predicting the stochastic behaviour of West Antarctica's Marine Ice Sheet	British Antarctic Survey	Successful	Panel 2
45039	Degrading European Glaciers and the role of Rapid Debris Evolution (DEGRaDE)	Aberystwyth University	Unsuccessful	Panel 2
45210	NERC - Imaging the Radio Sky with the Antarctic Low Frequency Array (ALFA)	University of Bath	Unsuccessful	Panel 2
45302	Southern Ocean Subsurface heating, Ice Melt MEchanisms and Responses (SO-SIMMER)	British Antarctic Survey	Successful	Panel 2
45323	FOX-UK: Fossil-fuel CO2 emissions from OXYgen measurements in the UK	University of East Anglia	Successful	Panel 2
45344	UnBlInDS - Unravelling the Biodegradation and Impact of Anthropogenic Fibre and Dye Systems in Soil	Northumbria University	Unsuccessful	Panel 5
45506	Bioindicator species and environmental interactions for ecosystem benefits (BIOME)	University of Surrey	Unsuccessful	Panel 3
45508	Predicting opening mode fracture patterns from diagenesis (OpenFrac)	University of Leeds	Successful	Panel 1
45691	Genetic load – the missing piece of an evolutionary puzzle (G-LOAD)	University of East Anglia	Unsuccessful	Panel 4
45859	Horizontal gene transfer in flowering plants	University of Edinburgh	Successful	Panel 4
45868	Reducing uncertainties on East Antarctic Ice Sheet loss using subglacial cosmogenic nuclides	Durham University	Unsuccessful	Panel 2
45936	SANIP - South Asia Nitrogen Indicator Project	Royal Botanic Garden Edinburgh	Unsuccessful	Panel 5
45982	Testing Models of Active Extension (TMAX)	University of Southampton	Successful	Panel 1
46018	How does historical exposure to different environmental change scenarios modify responses to multiple stressors?	University of Leeds	Unsuccessful	Panel 3

46047	NERC/NSF Mind the Gap: Tackling the Molecule–Fossil Divide in Angiosperm Evolution Using Fossil Pollen, Superresolution Microscopy, and Deep Learning	The Open University	Successful	Panel 4
46054	CRUCIAL: Climate-Resilient Upland Communities through improved Land use and management	Royal Society for the Protection of Birds	Unsuccessful	Panel 3
46113	What happens to millennia of mercury pollution in peatlands under global warming?	University of Glasgow	Successful	Panel 5
46226	Evolutionary morphometric analysis: an all-in-one phylogenetic comparative framework for high-dimensional morphometrics	University of Reading	Unsuccessful	Panel 4
46243	LaserObs: Determining ocean deoxygenation drivers of shark habitat shifts and exposure to anthropic threats via novel biologging plankton-imaging tags	Marine Biological Association of the United Kingdom	Successful	Panel 3
46271	R. I. B.S: Rivers, Integrated and Bound (morphology, ecology, water quality) Sensing System	University of Brighton	Unsuccessful	Panel 5
46293	Organosulfur cycling and methane production in anoxic coastal sediments: Organisms, pathways and process modelling	University of East Anglia	Unsuccessful	Panel 4
46304	Resolving the MIS11c-interglacial conundrum	University College London	Unsuccessful	Panel 2
46324	Sea Ice Aerosol and Clouds in Antarctica (SAICA)	British Antarctic Survey	Unsuccessful	Panel 2
46398	CO-oxidising bacteria as drivers of soil formation	University of East Anglia	Unsuccessful	Panel 5
46464	Revealing Active and Inactive Nitrifiers in Intertidal Coastal Sediments – a single cell approach	University of Glasgow	Unsuccessful	Panel 4
46536	DEEPHEAT: Determining the importance of geothermal energy for Himalayan glacier melt	University of Leeds	Unsuccessful	Panel 2
46547	Extinction debts and colonisation credits in no-analogue communities under climate change	University of Leeds	Unsuccessful	Panel 3
46582	Measuring the variability in ice-nucleating particles over the Southern Ocean to reduce uncertainty in cloud-climate feedbacks (IceSO)	University of Leeds	Successful	Panel 2
46628	A RADICAL SOURCE REVEALED IN SOIL: Biogenic Nitrous Acid Production and Effects on Carbon and Nitrogen Cycling	University of Warwick	Successful	Panel 5
46795	Reconstructing the nitrogen cycle in Earth's earliest biosphere	University of St Andrews	Unsuccessful	Panel 1
46807	Linking sociality and demography in the wild: Do social interactions promote population resilience?	University of Edinburgh	Unsuccessful	Panel 3
46903	Tracing the life cycle of natural hydrogen associated with Large Igneous Provinces using isotope signatures preserved in geologic history	Lancaster University	Unsuccessful	Panel 5
47015	NERC-NSFGEO: Constraining Longwave Energy Flows in Cold Climates (CLEFCC)	Imperial College London	Successful	Panel 2
47084	Arctic Butterflies: Testing a new paradigm for polar atmospheric dynamics	University of Oxford	Successful	Panel 2
47191	Integrated 13C isotope tracing and effect directed analysis to identify priority species in the lifecycle of secondary air pollution from combustion.	University College London	Unsuccessful	Panel 2
47194	Rare Event Simulation Of UNseen Droughts (RESOUND)	University of Reading	Unsuccessful	Panel 2
47283	Forests of the Ancients: Understanding Historical Impacts on Amazonian Forests and Soils for Contemporary Management and Restoration	University of Exeter	Unsuccessful	Panel 5
47325	INTERACT: Understanding warm-season interacting hazards for climate resilience	University of Strathclyde	Unsuccessful	Panel 2
47339	UNSTEADY: Is Unsteadiness In Granular Currents A Fundamental Driver Of Pyroclastic Density Current Mobility And Destructiveness?	University of Hull	Unsuccessful	Panel 1
47353	STABIL-NICHE: leveraging niche theory to quantifying changing global patterns of stability	University of Bristol	Successful	Panel 3
47355	ABC: Abyssal Burial of Carbon – Are turbidity currents important sources of organic carbon to abyssal plains?	National Oceanography Centre	Unsuccessful	Panel 2
47387	NERC-NSF-GEO Unveiling the link between space and terrestrial weather: The cause and effect of enhanced electron precipitation into Earth's atmosphere	Northumbria University	Unsuccessful	Panel 2
47408	Unpacking the evolutionary and genetic roles of floral scent in an incipient pollinator shift in wild monkeyflowers (Mimulus)	John Innes Centre	Unsuccessful	Panel 4
47621	Insular Gigantism: The Evolution of Large Body Size in an Isolated Environment	University College London	Unsuccessful	Panel 4

47662	UV-PEAT: Unlocking the archive of past UV-B radiation in ombrotrophic PEATbogs	University of Manchester	Unsuccessful	Panel 4
47729	Life after death: elucidating the microbial communities responsible for decomposition and fossilisation	University of Manchester	Unsuccessful	Panel 4
47775	NERC - Life-insurance in an unpredictable world: Function and mechanisms of reproductive plasticity and post-reproductive lifespan in a wild insect	University of Glasgow	Unsuccessful	Panel 3
48020	NERC/Ecomorphological diversification and its evolutionary role in crocodile extinction resilience	University College London	Unsuccessful	Panel 4
48034	Are we missing a complete aerobic route through the nitrogen cycle?	Queen Mary University of London	Successful	Panel 5
48106	ASCENT- secondAry emiSsion of natural and anthropogeniC aErosols from blowiNg snow in the ArcTic	British Antarctic Survey	Unsuccessful	Panel 2
48152	Superdeep Melting: The Chemical and Dynamic Implications of a Hydrous Earth	University of Bristol	Unsuccessful	Panel 1
48211	Understanding the impact of a warming climate on UK urban air quality	University of York	Unsuccessful	Panel 2
48456	Expanding the Digital Ecosystem for Terrestrial Passive Acoustic Monitoring – Gibbons, Kiwi and TRex	University of St Andrews	Unsuccessful	Panel 5
48479	NERC Glimpsing our ecological future: using recent extremes to determine where and when populations and ecosystems will reach their climate limits	University College London	Unsuccessful	Panel 3
48482	NERC - Mutation in the Shadow of Chernobyl – does ionising radiation increase the mutation rate in a natural mammal population?	University of Sussex	Unsuccessful	Panel 4
48558	MapRad: Mapping the radiation of land plants to establish their impact on the Earth System	University of Edinburgh	Successful	Panel 4
48567	The ecological and evolutionary effects of quaternary ammonium compounds in aquatic environments on free-living amoeba-bacteria relationships	University of the West of Scotland	Unsuccessful	Panel 5
48618	Rise of flowering plants	University of Bristol	Unsuccessful	Panel 4
48764	Towards a holistic understanding of carbonate mineralisation using high-throughput mineralogy and machine learning	University of Oxford	Unsuccessful	Panel 1
48788	IMPROVing prediction and adaptation strategies for climate Extremes affecting developing countries (IMPROVE)	University of Hertfordshire	Unsuccessful	Panel 2
48807	Living in another world: when, where and how can plasticity evolve to cope with novel and more variable environments?	University College London	Unsuccessful	Panel 4
48855	A century of genome diversity in UK insect pollinators	Natural History Museum	Successful	Panel 4
48896	NERC: QS-IMPRESS: Quantification of Secondary Ice Mechanisms in Mixed-Phase clouds using laboRatory, modElling and obServationS	University of Manchester	Unsuccessful	Panel 2
48902	Can Restoring River-Floodplain Connectivity Build Resilience in an Uncertain Future?	University of Nottingham	Unsuccessful	Panel 5
48959	Global-scale modelling of urban climate projection and adaptation based on local climate zones	University of Manchester	Successful	Panel 2
49059	Understanding the spatio-temporal variability of soil moisture and its feedbacks across scales	University of Southampton	Successful	Panel 5
49116	Understanding current and future drivers of methane emissions from the world's largest wetland, the Pantanal	University of Nottingham	Unsuccessful	Panel 3
49158	FORever Chemicals: Analyzing Negative Global Estuarine Effects (ForChange)	University of St Andrews	Unsuccessful	Panel 5
49196	Explaining the evolution of eusociality and superorganisms	University of Oxford	Unsuccessful	Panel 3
49204	Clinopyroxene thermobarometry: the next generation (CpxTNG)	University of Manchester	Unsuccessful	Panel 1
49225	Lithium pegmatites from Melting Enriched Sources - LiMES	British Geological Survey	Unsuccessful	Panel 1
49291	Establishing drivers of the heritable symbiont 'pandemic'	University of Liverpool	Successful	Panel 3
49313	Re-evaluating microbial emissions, risk and regulatory processes around composting sites	University of Manchester	Unsuccessful	Panel 4
49339	Rewilding Analytica: Enhancing Rewilding Efforts with Advanced Data Science	University of Kent	Unsuccessful	Panel 3
49408	INTER-ACT: Phasing out barriers for estimating fluxes of heat and material in the mantle	University of Oxford	Unsuccessful	Panel 1
49480	Tracking evolution in a changing ocean	University of Oxford	Unsuccessful	Panel 4
49567	Whale and Vessel Densities from Distributed Acoustic Sensing (WAVE-DAS)	Scottish Association For Marine Science	Unsuccessful	Panel 5
49631	Babbling bats: exploring the origins of vocal learning and language	University of St Andrews	Unsuccessful	Panel 3
50003	VolcRedox	University of Manchester	Unsuccessful	Panel 1
50110	INFORMATION-INDUCED NETWORK DYNAMICS IN ANIMAL SOCIETIES	University of Exeter	Successful	Panel 3

50154	Combining biomolecular, stable isotopic and genomic approaches to enhance sustainability of nitrogen fertiliser use in agricultural soils	University of Bristol	Unsuccessful	Panel 5
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