

Opportunity name: NERC Pushing the Frontiers of Environmental Research January 2025

Meeting Date: Stage 1 Panels: 31 March, 1, 2, 3, 4 April  
Stage 2 Panels: 23, 24, 25, 26, 27 June

Application ID	Application Title	Organisation Name	Funding Decision	Panel Area
56047	3D and 4D imaging of mid-ocean ridge magma-hydrothermal interactions	University of Southampton	Successful	1
56134	AMR-BEACHH: Antimicrobial Resistance in Bathing Water Environments and the Impact of Climate Change on Pathogen Evolution and Human Health	University of Glasgow	Rejected	5
56156	Q-MASCARA: Quantifying the role of marine sediments in global climate regulation	University of St Andrews	Rejected	2
56313	Thermal ecology of critical plant-insect interactions under climate extremes	University of Oxford	Rejected	3
56614	Tactical toothed whales: Evolution of between-group alliances in a non-human model	University of Bristol	Successful	3
56633	ERICARB: How are Carbon Inputs from the Ericoid Mycorrhizal Symbiosis Stabilised and Protected from Decomposition?	James Hutton Institute	Rejected	5
56700	What determines the virome: ecology and the environment, evolution, or species history?	University of Exeter	Successful	4
56835	Predicting Effects of Anthropogenically Driven Behavioural Shifts on Global Ecosystem Function	Lancaster University	Rejected	3
56914	ANOX: Deciphering the origin of massif-type Anorthosites and associated Oxide deposits	University of East Anglia	Rejected	1
57158	GLACIERMELT – Global-scale glacier vulnerabilities to melt-accelerating feedbacks	Newcastle University	Rejected	2
57448	Creep of peat - how much does it matter?	University of Nottingham	Rejected	5
57485	Small decisions and large consequences: linking behaviour, space use, and demography	University of Glasgow	Rejected	3
57572	Agri-Intense: Using Isotopic Proxies to Decode Past Agricultural Intensification and Resilience.	University College London	Rejected	5
57660	Cool Fronts in a Warming World — Tracking Frontal System Migrations in the Miocene Southern Ocean	University of Leicester	Rejected	2
57664	NERC/NSF-GEO: Constraining the source organism and function of brGMGT lipids to develop a robust terrestrial paleotemperature proxy	University of Bristol	Successful	5
57784	Fjords as natural incubators to understand polar ocean diazotrophy (FIN-POD)	University of Liverpool	Successful	3
57846	NERC/Emerging controls on coral reef growth potential under low coral cover states	University of Exeter	Successful	3
57874	NERC/NSF-DEB - Understanding the role of alternative splicing in the global distribution and adaptation of Arabidopsis thaliana	Canterbury Christ Church University	Rejected	4
57946	NERC: Quantifying the production of environmentally damaging compounds from atmospheric oxidation of hydrofluoroolefins	University of Bristol	Successful	2
57967	NERC-NSF-GEO InSPIRE - Investigating Peatland Initiation in Retreating glacier Environments	Leeds Beckett University	Successful	5
58082	DRYATMOS: Unravelling the impact of atmospheric dryness on plant function in mesic ecosystems	University of Bristol	Rejected	3
58517	The Evolutionary Ecology of Social Ageing	University of Exeter	Successful	3
58805	iPEAT: initiation of Peatland Ecosystems in the AnThropocene	Queen's University Belfast	Rejected	5
58883	DECO-ROSION: Does Erosion of Size Structure Lead to Decoupling of Marine Food-webs?	University of Plymouth	Rejected	3
58946	Collaborative Approach to integrate multidisciplinary Datasets into volcanic Eruption Assessments (CALDERA)	University of Liverpool	Successful	1
59043	NERC - Genetic indicators in populations of fungi and plants with complex life-history traits	Royal Botanic Gardens, Kew	Rejected	4
59065	Zooplankton Response to Climate warming And Marine heatwaves (ZOOCAM)	Plymouth Marine Laboratory	Rejected	3
59084	NERC What's the harm? Exploring the health impacts of plastic pollution ingestion on free-living marine vertebrates	University of Exeter	Rejected	5
59100	CHROME: The composition and heterogeneity of the Earth's mantle	Cardiff University	Rejected	1
59112	Acceleration of Permafrost Thaw in a Rain-dominated Arctic	University of Sheffield	Rejected	5
59135	Source and fate of organic carbon in UK tidal marshes: implications for blue carbon accounting	University of Chester	Rejected	5
59138	A record of environmental instability spanning the full evolutionary history of Homo sapiens at Olduvai Gorge (eastern Africa)	University of Liverpool	Rejected	5
59278	Geomagnetically Induced Currents at Dawn	University of Leicester	Rejected	2
59309	How a sink population becomes a source: eco-evolutionary mechanisms of marine fish range expansion	University of Essex	Rejected	3
59470	ForageScape: How do space, nutrition and functional traits interact to drive pollinator foraging in agricultural landscapes?	Northumbria University	Rejected	3
59503	The rise and fall of biodiversity	University of Reading	Rejected	4
59507	Fast-tracking nature recovery by restoring forest habitat complexity	University of Bristol	Successful	5
59790	Uncovering the Hidden Two-Way Connection between East Antarctica's Shelf Seas and Deep Ocean (2WayXChange)	University of Southampton	Successful	2
59811	Establishing the Geological Controls on Shallow Afterslip	University of Bristol	Rejected	1
59950	MYCOFLUX: MYCOplankton contribution to carbon FLUXes in Freshwater Ecosystems	Centre for Ecology & Hydrology	Rejected	5
60135	Genomic basis of convergent micro-habitat partitioning	University of Bristol	Rejected	5
60284	Ultra MARine heatwaVE Causes, Likelihoods and Impacts (U-MARVEL)	National Oceanography Centre	Rejected	2
60319	DEEP CORAL: Depth-resolved East Equatorial Pacific Carbon-cycling and Ocean temperature Records from Across the Last deglaciation	University of Bristol	Rejected	2
60396	NERC EXPLOCEAN - Defining the multi-hazard conditions generated by volcanic currents entering water	University of Bristol	Rejected	1
60412	Sweepfish: Detecting signals of selection in mimicry rings before and after whole genome duplication	University of East Anglia	Rejected	4
60580	MOVE: Mechanisms and Origins of Vertebrate collective movement	Swansea University	Rejected	3

60681	Temporal predictive genomics linking historic bat responses to environmental change with future consequences	University of Exeter	Rejected	4
60745	Explosively deepening diabatic Rossby waves: an unexplored climate threat	University of Reading	Successful	2
60773	Determining biological responses and ecosystem vulnerability to marine heatwave intensification	Marine Biological Association of the United Kingdom	Rejected	3
60782	The long-term effects of genetic rescue	University of East Anglia	Rejected	4
61125	Repeated adaptation to altitude in Andean butterflies	University of Cambridge	Rejected	4
61169	Reconciling the Ediacaran and Cambrian fossil records of early animal evolution	University of Cambridge	Successful	4
61469	CHEERE:D. Understanding past and future CHalk stream EcosystEm REsilience to: Drought and drying	Nottingham Trent University	Rejected	3
61524	Nitrogen Oxide Isotopes for Soil Emissions (NOISE)	University of York	Successful	5
61581	Microbial Attributes in the Remineralisation of Sinking Oceanic Carbon (MARISCO)	Imperial College London	Rejected	3
61735	NERC-NSFGEO Extreme Weather Accelerates Transport of Particle-based Contaminants in Subsurface Hydrology (EWATCH)	University of Manchester	Rejected	5
62002	Recovering magmatic pressure-temperature-time path from zoned crystals	University of Oxford	Rejected	1
62197	IMP: Indian Monsoon-driven marine Productivity	University of Exeter	Rejected	2
62204	Crowd sourcing climate change: quantifying environmental change from freely-available casual imagery	University of York	Rejected	2
62250	Genomic signatures of host resistance to virus infection in birds	University of Kent	Successful	4
62394	FUSED: Forecasting Unusual Supply and Energy Demand for India	University of Reading	Rejected	2
62410	Resolving mechanisms regulating carbon storage in forest soils	Lancaster University	Successful	5
62461	The identification and distribution of plasmid-borne adaptive genes (PAGs) in natural bacterial populations	University of Bath	Rejected	4
62555	Calculating the Recent and future Expansion of Antarctic proglacial habitats and their Nutrient supply to the Southern Ocean (CREAN)	University of Leeds	Rejected	2
62636	Earth terraformed: effects of landscape and critical zone evolution during Palaeozoic terrestrialization	University of Cambridge	Successful	1
62699	Can precipitation of light elements resolve the "New Core Paradox"?	University College London	Rejected	1
62703	Antimicrobial resistance and carbon use efficiency in Arctic soils	University of East Anglia	Rejected	5
62977	Ecosystems Since The Asteroid: The Impacts of Changing Vertebrate Diversity on Past, Present and Future Ecosystems	University of Salford	Rejected	4
62985	NERC/NSF/GEO - HERMES: Linking hyperthermals to volcanic eruptions by modelling mercury and carbon isotopes	University of Exeter	Rejected	1
62994	Animal-habitat relationships in restored ecosystems: a digital twin approach	Bournemouth University	Rejected	3
63240	HYDRO-HAZARD: Hydroclimatic Hazards from Cyclones and Atmospheric River Clusters	Cranfield University	Rejected	2
63270	Water habitats and farming practices in historical and contemporary times in the Madagascar Highlands	University College London	Rejected	5
63753	Southern Ocean Carbon cHanges from Ice Loss and Light (SO-CHILL)	National Oceanography Centre	Rejected	2
63767	TRACE – Tracing the Impact of Rapid Arctic Climate Change	University of Exeter	Rejected	2
63832	The central Apennines as a long-term refugium of beech: combined pollen and ancient environmental DNA analyses from a 130,000-year reference archive	University College London	Rejected	4
64008	Propagation of Risks from emergent contaminants in agricultural systems for insect pollinators (PEC-POL)	University of Leeds	Rejected	5
64121	Multigenerational impacts of insecticides on behaviour, life history and fitness in a wild insect	University of Exeter	Successful	3
64152	Hydro-Ecological Mapping of UK Rivers Under Extreme Climate and Uncertainty (EcoMAP)	Heriot-Watt University	Rejected	5
64223	Twist and Spout: Tectonic controls on high-grade porphyry copper formation	University College London	Rejected	1
64307	Seismic and Tsunami Hazard from Outer Rise Earthquakes	University of Leeds	Rejected	1
64317	Mantle Flow, Evolution and Mixing with Microstructure-Dependent Rheology	University College London	Rejected	1
64355	Ecological Breakdown of an Ancient Symbiosis	Queen Mary University of London	Rejected	3
64358	Plagiarism in the Poaceae: the role of lateral gene transfer in grass evolution	University of Sheffield	Successful	4
64365	Pushing the frontiers of water quality management through the development and application of bacteriophage-based pollution diagnostic tools	University of Brighton	Successful	5
64517	Hazardous and extreme lahar-driven sediment fluxes: Addressing the gap between land and deep-sea (LAHAR2SEA)	National Oceanography Centre	Successful	2
64605	What makes a megafire? Harnessing AI to diagnose extreme fire drivers, forecast near-term danger, and anticipate risk in future climates	University of East Anglia	Successful	5
64622	Conflict within the fortress: the impact of social conflicts on social immunity	University of Sussex	Rejected	3
64681	Sheet Intrusions and Fluid Transport (ShIFT)	University of Leeds	Successful	1
64714	NatureCoLab: Environmentally Integrated Legged Robots for Wildlife-Aware Data Collection	University College London	Rejected	3
64734	Evolutionary drivers and functional consequences of cranial kinesis	University College London	Rejected	4
64745	Still Waters: using hydrological models to improve malaria transmission estimates	University of Leeds	Successful	4
64779	A new theory of metanetworks: stabilising cross-ecosystem linkages in a warming world	University of Essex	Rejected	3
64879	The evolution and maintenance of group identity in animal societies	University of Exeter	Successful	3
64892	Exposing the drivers and impacts of heavy metal pollution on marine predator health	Zoological Society of London	Rejected	5
64899	Life history events as a driver of gut microbiome instability in a long-lived wild ungulate	University of Edinburgh	Rejected	4
64921	The Southern Ocean DrAwdown of Carbon: biological Uptake, Processing and Storage (SODACUPS)	University of Edinburgh	Rejected	3
64968	What drives large-scale changes in species' abundances?	Durham University	Rejected	3
64984	Development of cross-species biomarkers for predicting the transgenerational health of wild populations.	University of Leicester	Rejected	4

65000	NERC-NSFGEO The impact of cohesive material on critical shear stress in gravel bed rivers	Durham University	Successful	5
65042	GBLink: Building an Integrative Model of Landscape and Species Evolution to Quantify the Geo-Biological Linkages in a Changing Environment	University of Glasgow	Rejected	3
65062	Extinction debts and colonisation credits in no-analogue communities under climate change	University of Leeds	Rejected	3
65182	Zircon Under Pressure (ZUP)	University of Portsmouth	Rejected	1
65196	Missing Atmospheric Heating from Small-Scale Ionospheric Plasma Variations (MAHSSIV).	British Antarctic Survey	Successful	2
65276	Viral Evolution and Spillover Dynamics in UK Deer Populations: A Study of Zoonotic Reservoirs at the Human-Wildlife Interface	University of Cambridge	Rejected	4
65360	Vol-Au-Vent: Volatile-mediated processing of chalcophile elements along and across a volcanic arc	University of Cambridge	Rejected	1
65491	NERC-NSFGEO Delving deep into the mountain block for future water security	British Geological Survey	Successful	5
65566	Efficient AI eco-acoustic compression for scalable and actionable species monitoring	Imperial College London	Rejected	3
65694	Measuring River Health by Monitoring Invertebrate Movement with Citizen Scientists	University of St Andrews	Rejected	3
65702	Carbon-Negative Waste Treatment Through Smouldering with Ultramafic Rocks	University of Nottingham	Successful	1
65910	vO2: Understanding ocean ventilation to decipher past and future oxygen change	University of St Andrews	Rejected	2
65925	AI to detect Marine Hypoxia in the European shelf seas (AIM Hy)	University of Reading	Rejected	2
66066	Revisiting the hosing paradigm of past abrupt change via direct freshwater forcing estimates (REHOSE)	University of Cambridge	Rejected	2
66089	Are huge landslide-tsunami more frequent, larger and less predictably linked to glacial cycles?	Durham University	Successful	2
66476	NERC/FAPESP: Regional food web assembly in response to environmental change (RE-ASSEMBLE)	Brunel University London	Rejected	3
66507	Assessing and Integrating Drivers of Rhodolith Bed Associated Biodiversity into Marine Ecosystem Enhancement Innovation (RhodoScape)	Edinburgh Napier University	Rejected	3
66538	NERC/Revealing a century of 'hidden functional diversity loss' to understand insect community vulnerability	Imperial College London	Rejected	4
66662	Gyres, Salinity, and Climate: From Coral archives to insights into the Southwest Pacific's Past and Future"	University of Leicester	Rejected	2
66692	Realigning Flood Defences (Re-Flood): Unravelling the long-term eco-geomorphological evolution and coastal protection function of Managed Realignments	University of Lincoln	Rejected	5
66712	Monthly to seasonal weather prediction using an explainable Bayesian machine learning approach	University of Lincoln	Rejected	2
66851	Pushing the Limits of Atmospheric Reaction Modeling with Machine-Learned Atomistic Potentials	University College London	Rejected	2
67057	Quantifying the impact of extreme climate events on pollinator health	University of Bristol	Rejected	3
67095	Physical and observational constraints on 21st-century global warming	University of Reading	Successful	2
67126	UKRI-Norway: The Long Rains of East Africa: Breaking the deadlock in seasonal Prediction ("LEAP")	University of Leeds	Rejected	2
67159	Reconnecting Seascapes: Advancing marine ecological connectivity science to meet global restoration targets	University of Oxford	Rejected	3
67160	The past, present and future of pelagic animal larvae	University of Oxford	Rejected	4
67175	Can rocks palaeomagnetically record palaeo-stress?	Imperial College London	Successful	1
67229	AURORA Tower: A Deployable Measurement System for Advancing Climate and Nuclear Monitoring	National Physical Laboratory	Rejected	5
67282	Revealing the mechanisms driving species responses to climate change (RESPONSE)	University of Exeter	Rejected	3
67398	STEPS: Human evolutionary adaptations to navigating complex terrains and uneven substrates	University College London	Rejected	4
67437	Orogenic Transience: from Low to High-relief landscapes in Bhutan	Scottish Universities Environmental Research Centre	Rejected	1
67540	Understanding the threat posed by nanoplastic pollution in shallow freshwaters	University of Liverpool	Rejected	5
67561	Acquisition and maintenance of habitat preference	University of Bristol	Rejected	3
67572	Using past archives to constrain baselines in avian biodiversity	University College London	Rejected	4
67616	Sources, Sinks and Snow (S3): winter carbon emissions from future Arctic landscapes	Northumbria University	Successful	5
67624	Structural properties and human cell effects of natural and man-made particulate matter	Kingston University	Rejected	5
67642	Computational Insights into Dynamics of Arc Magma Ascent and Differentiation In Continental settings (CIDAMADIC)	University of Glasgow	Rejected	1
67655	NERC-FAPESP: Coralporosis of cold-water coral ecosystems - in silico reefs to model habitat loss	University of Edinburgh	Successful	3
67669	The composition and fate of the continental crust	University College London	Rejected	1
67676	The Bucket Correction and the magnitude of historic climate change from the geochemistry of tropical corals	University of Southampton	Rejected	2
67681	Causes and Consequences of Plastic Additives Accumulation: Exposure Routes, Toxicology and Reproductive Effects in a Seabird Model	University of Exeter	Rejected	5
67692	SUNWISE	University College London	Rejected	2
67695	Tracing CaSiO3 Perovskite in Earth's Deep Mantle: Seismic Signature and Geodynamic Impact	University of Oxford	Successful	1
67771	Jets to Hazards (J2H)	University of Birmingham	Rejected	2
67800	Defining the natural stability and distribution of green rust, for economic and environmental gain	Royal Holloway University of London	Rejected	5
67802	Canaries for Coral	University of Nottingham	Rejected	4
67910	Forecasting the causes of geomagnetic induced currents	University of Sheffield	Rejected	2
67915	Evolving Habitable Oceans – Testing The Drivers of Early Animal Evolution Using Lessons From Climate Modelling and Global Change Biology	University of Southampton	Rejected	4
67921	Rooted resistance: Predicting ecosystem responses to environmental stress using comparative rhizosphere functional ecology	University of Liverpool	Rejected	5
67935	The Environmental Language Project	University of St Andrews	Rejected	3
68003	Re-evaluating microbial emissions, risk and regulatory processes around composting sites	University of Manchester	Rejected	5

68046	Jet stream dynamics over Eurasia in a warmer world reconstructed with speleothems	Northumbria University	Rejected	2
68071	From Past Hybrids to Future Diversity: Uncovering the Evolutionary Legacy of Hybrid Speciation	University of Aberdeen	Rejected	4
68095	Englacial Microbiota Emergence and Roles in Glacier Ecosystems	Aberystwyth University	Successful	4
68135	Novel Mapping Solutions to Support Sustainable Tropical Commodity Supply Chains	Royal Botanic Garden Edinburgh	Rejected	5
68142	Solving an evolutionary paradox: addressing the environmental covariance problem	University of St Andrews	Rejected	4
68146	Hydrological Implications of Permafrost in High Mountain Asia (Hi-Perma)	University of Edinburgh	Rejected	5
68151	Lions on the edge: Understanding and mitigating human lion conflict using smart multi-sensor technology	University of Oxford	Rejected	3
68154	MagNetZero: Developing an approach for magnetic detection of natural hydrogen production for a net-zero future	University of Oxford	Rejected	1
68248	Advancing Mechanistic Understanding Of Climatic And Hydrological Vulnerability In Amazonian Wetland Forests	University of Stirling	Rejected	3
68266	Avian Watch: An ecosystems approach to characterising avian influenza virus in a diverse wetland environment	University of Bristol	Rejected	3
68305	NERC-NSF-GEO SustainAbility in Varying and unpredictable Ecosystems (SAVE)	University College London	Rejected	3
68310	The Effects of Climate Change on Amazonian Fishes	University of Glasgow	Rejected	3
68341	Understanding the role of magnetospheric energy input and Joule heating in the dynamics of storm-time atmospheric neutral densities	Northumbria University	Rejected	2
68357	Traits to rates: Can microbial traits predict biogeochemical functioning in soils?	James Hutton Institute	Rejected	5
68397	PPLANTS – Plasticity Predicts Local Adaptation to Novel environmenTS	Bangor University	Rejected	4
68415	NERC/FNR - Advancing underground hydrogen storage by harmonizing microbial dynamics and active transport (HARMONY)	Heriot-Watt University	Rejected	1
68426	POND-FLUX: Magnitude and drivers of pond greenhouse gas fluxes, from local to national scales	University of Liverpool	Rejected	5
68470	NERC-NSFGEO A Weddell Sea and Ice Shelf State Estimate for understanding rapid changes of the Southern Ocean's coupled ice-ocean system (WeSSE)	British Antarctic Survey	Rejected	2
68495	Airborne PFAS Emissions from Wastewater Treatment: An Investigation of Exposure, Toxicity, and Public Health Risks in Bystander Areas	Coventry University	Rejected	5
68533	Mechanochemical reactions Effect the Transport and Availability of metaLs in the Subsurface (METALS)	University of Strathclyde	Rejected	1
68558	Beyond the toolkit: a systems approach towards understanding the genomic signatures of sociality.	University College London	Rejected	4
68561	A worm biosensor toolkit for endocrine-disrupting chemicals	MRC Laboratory of Medical Sciences (LMS)	Rejected	5
68563	Impacts of potential bovine tuberculosis resurgence on environmental land strategies.	University of Edinburgh	Rejected	4
68601	SARFARPoq: Subglacial Access to Rink's Floating ice Assessing Realtime Plume dynamics	Northumbria University	Rejected	2
68661	Adaptive introgression and the genomic aftermath of colliding expansion waves	University of Edinburgh	Rejected	4
68833	Uncovering the impact of the gut microbiota on superspreader emergence in the natural environment	University of Surrey	Rejected	4
68838	Earth's dynamic outer core: seismic constraints on structure and composition	University of Bristol	Rejected	1
68852	WISDDAM: Water Integration Simulator with Data-Driven Atmosphere Modelling	Imperial College London	Rejected	2
68881	Aerosol-ML	University of Leeds	Rejected	2
68909	ELECTRIC: Exploring Liquid Evolution and Conductivity To Revolutionize Imaging of the Crust	University of Bristol	Rejected	1
68953	MOUNTAINWISE: Community-Led Strategies for Mountain Flood Hazard Adaptation in the Andes	University of Exeter	Rejected	5