

Projects for consideration for Diversifying Talent Scholarship Scheme Applicants 2025-26

On the Diversifying Talent Scholarship Scheme Application Form, you indicate a research area that interests you and you can choose to highlight any projects from the list below that interests you.

If successful, you will not be guaranteed the project(s) you have included on your application, but it will help Iapetus find you appropriate supervisors in the area you want to research.

Disciplinary Themes

[Biogeochemical Cycles](#)

[Evolution-Biodiversity-Ecosystems](#)

[Geodynamics-Geochemistry-Resources](#)

[Global Environmental Change](#)

[Hazards: Processes-Risk-Resilience](#)

Biogeochemical Cycles

Iapetus Project Code	Iapetus Project Title	Host institution
IAP-25-007	<u>The role of ditches in the global carbon cycle: A critical & unrecognised player.</u>	University of Glasgow
IAP-25-031	<u>Source or sink? The roles of glacier melt and sediment transport for the carbon budget of the Greenland Ice Sheet</u>	University of St Andrews
IAP-25-039	<u>Soil sulfur: a source or sink of greenhouse gases in boreal landscapes?</u>	Durham University
IAP-25-052	<u>What happens to millennia of mercury contamination in peatlands under a warming climate?</u>	University of Stirling
IAP-25-070	<u>Isotopic window into past & future of peatland methane emissions (ISOPEAT)</u>	University of Glasgow
IAP-25-116	<u>Investigating the organic matter reactivity continuum in UK Coastal Shelf Seas.</u>	Heriot-Watt University

Evolution-Biodiversity-Ecosystems

Iapetus Project Code	Iapetus Project Title	Host institution
IAP-25-008	<u>Exploring how plasticity and morphology shape life history strategies in ectotherms</u>	Newcastle University
IAP-25-011	<u>Beyond the Target: Integrating microchemistry and morphology to uncover diversity and connectivity in four non-target species from the deep waters of the Southern Ocean</u>	British Antarctic Survey
IAP-25-013	<u>Feathered Witnesses: Unravelling the Impact of Habitat Loss on Neotropical Avifauna with Stable Isotope Analysis</u>	University of Glasgow
IAP-25-022	<u>The origin of animals: Building a precise timeline from the geological record</u>	Durham University
IAP-25-023	<u>Climate change impacts on soil biodiversity and functioning in mountain ecosystems</u>	University of Stirling
IAP-25-025	<u>The evolution of reproductive isolation in rubyspot damselflies</u>	Durham University
IAP-25-026	<u>What drives aggression? Linking Ecology, Evolution, and Genes</u>	Durham University

IAP-25-028	How Age-Dependent Sexual Selection and Parity Mode Shape Fitness Trajectories in Reptile Reproduction	University of Glasgow
IAP-25-029	When nutrients turn toxic: how metals shape microbial coexistence	Durham University
IAP-25-033	Testing Local Adaptation During Ecosystem Restoration in Burying Beetles	University of St Andrews
IAP-25-034	Reproductive isolation in a species group of Drosophila	University of St Andrews
IAP-25-037	Transforming landscapes: the role of large herbivores in Holocene ecosystem dynamics	University of St Andrews
IAP-25-046	Seascape ecology of the Antarctic Peninsula	University of Glasgow
IAP-25-047	Leveraging wild hybrids to map the genomic mechanisms of life-history variation in a primitive vertebrate.	University of Glasgow
IAP-25-048	Using functional genomics to assess population health after a local reintroduction of the field cricket in Cornwall	University of Glasgow
IAP-25-051	Point process methods for mapping wildlife distributions from biased and incomplete data	University of Glasgow
IAP-25-058	Understanding the diverse impacts of human activity on primate behaviour and physiology	Durham University
IAP-25-060	Occupancy, density and the ecology of terrestrial British mammals	Durham University
IAP-25-062	From Sound to Structure: Explainable AI for Multimodal Ecosystem Health Monitoring	Newcastle University
IAP-25-063	From Wandering Albatrosses to Hedgehogs: Using AI and Citizen Science to Improve Biodiversity Monitoring under Ground Truth Uncertainty	University of Glasgow
IAP-25-064	Sounding out the deep: using AI and passive acoustic monitoring to reveal spatial and temporal patterns in deep-sea ecosystems	University of Glasgow
IAP-25-071	Unravelling the Co-evolution of Climate Extremes and Vegetation Dynamics across Global Ecosystems	University of Glasgow
IAP-25-074	From preferences to pollination: do hummingbirds and bees differ in how they choose flowers?	Newcastle University
IAP-25-075	The cognitive ecology of wild bumblebees	Newcastle University
IAP-25-077	Role of Plant Functional Diversity in Modulating Grassland Responses to Grazing and Drought	Newcastle University
IAP-25-079	Modelling effects of climate change on future kelp habitats and associated commercial fisheries	Newcastle University
IAP-25-080	Integrating molecular dietary analysis, nutritional ecology and network inference to assess ecosystem service trade-offs in omnivorous beetles	Newcastle University
IAP-25-083	Scalable early warning and rapid response data systems for invasive species biosecurity.	Newcastle University
IAP-25-085	Listening to Food Webs: Ecoacoustic insights into Bird Predator-Prey Networks in Changing Landscapes	Newcastle University
IAP-25-090	The legacy of lost woods: soil microbial communities and the regeneration of the Caledonian Forest	Newcastle University
IAP-25-091	Mineral entrapment within protocells: key to the origin of life?	Newcastle University
IAP-25-098	Small-scale fisheries' contributions to nutrition and food security under a changing climate	University of St Andrews
IAP-25-100	Of woods and waders: balancing the competing benefits of conservation and restoration	University of St Andrews
IAP-25-103	The history of tropical peatland vegetation in Peruvian Amazonia and implications for conservation and management	University of St Andrews
IAP-25-110	Environmental drivers in archaeology: past, present and future under the lens of geophysics	Durham University

IAP-25-114	Understanding how a threatened seabird moves across complex ocean energyscapes	United Kingdom Centre for Ecology & Hydrology
IAP-25-120	Sustainability in creel fisheries	Heriot-Watt University
IAP-25-129	Evolutionary Trade-offs in Edible Insect Breeding: When Sexual and Artificial Selection Collide	University of Stirling
IAP-25-130	Trade-offs between wildness and wellbeing in restored landscapes: blue health, beavers and rewilding	University of Stirling
IAP-25-132	Rewired ecosystems: connecting structure, function and biodiversity in beaver-engineered landscapes	University of Stirling
IAP-25-133	Modelling landscape-level approaches for mitigating the evolution of pesticide resistance	University of Stirling
IAP-25-136	From Forests to Fevers: Network Models of Disease Emergence in Human-Modified Landscapes	University of Stirling
IAP-25-139	A beneficial plant-microbial interaction: the ecology of flax retting.	Durham University
IAP-25-140	Mathematical modelling of Ecosystem Resilience in a Changing Climate	Durham University

Geodynamics-Geochemistry-Resources

Iapetus Project Code	Iapetus Project Title	Host institution
IAP-24-124	Passive Seismic Imaging of Under-explored Central Iceland	Durham University
IAP-25-001	Volatile happenings on the igneous side of metamorphism	University of St Andrews
IAP-25-010	Heavy metal insights into the formation of planet Earth	University of Glasgow
IAP-25-021	Diffusion Clocks: Decoding Magma Ascent Speed Beneath Volcanoes	University of Glasgow
IAP-25-030	Formation of rare metal (Li-Ta-Sn) melts on the Precambrian Earth	University of St Andrews
IAP-25-038	Powering Net Zero from Below: The Future of Mine Water Geothermal Energy	Durham University
IAP-25-050	Assessing the geothermal potential of Scottish granites by establishing their long-term thermal history	University of Glasgow
IAP-25-061	Critical Metal insights from historic mines around Loch Tay: An atomistic approach to understanding critical metal enrichment pathways in mineral and mine wastes	University of Glasgow
IAP-25-066	Getting to the core of the Great Glen Fault	University of Glasgow
IAP-25-094	Tectonics, Topography, and Transport: Sediment routing systems and sinks of the Strathclyde Group, Midland Valley Scotland.	University of St Andrews
IAP-25-101	Investigating records of terrestrial precursors in the early Solar System using Cr, Ni and Zn isotope compositions of meteorites	University of St Andrews
IAP-25-102	Carbonatite exsolution from Nepheline Syenite: The Lillebukt Nepheline Syenite-Carbonatite Complex, Northern Norway	University of St Andrews
IAP-25-106	Eruptive Brines and Active Ice: Modelling Subduction, Brine Dynamics and Cryovolcanism on Jupiter's Icy Moon Europa	University of Glasgow
IAP-25-107	Fluid transport of heat and metals: understanding the formation of highly permeable fracture systems in granite	Durham University
IAP-25-109	Automated Continuous In-situ Dissolved Metal Monitoring & Modelling (ACID M3)	Durham University
IAP-25-111	A metallogenic model for lithium and rare metal resources in the Glen Gairn granite	Durham University

IAP-25-117	Reactive Fracturing and Carbonation Dynamics in Mafic and Ultramafic Rocks under CO₂ Storage Conditions	Heriot-Watt University
IAP-25-122	Sundaland Reimagined: The Reconstruction of a Lost Cenozoic Continent	Heriot-Watt University
IAP-25-124	MINELOOP: Investigating MINEwater systems using closed-LOOP geothermal technologies	British Geological Survey
IAP-25-142	Intelligent Geothermal Energy Development: AI-Enhanced Modelling and Decision-Making Under Uncertainty	Heriot-Watt University

Global Environmental Change

Iapetus Project Code	Iapetus Project Title	Host institution
IAP-25-002	Quantifying the frequency and causes of extreme wet and dry periods in the Himalayas	British Antarctic Survey
IAP-25-003	Changing freshwater inputs to the Southern Ocean due to rapid climatic change	British Antarctic Survey
IAP-25-005	Modelling internal tsunamis generated by glacial calving	Newcastle University
IAP-25-006	Reconstructing glacier histories and investigating glacial geomorphology in the Sor Rondane Mountains, East Antarctica.	University of Glasgow
IAP-25-009	Ecological Colonisation of New Anthropogenic Rocks	University of Glasgow
IAP-25-012	Stratosphere-Troposphere Coupling and Its Role in Antarctic Coastal Melt Events and Supraglacial Lake Formation	British Antarctic Survey
IAP-25-015	Reservoirs of Bacterial Pathogens in Captive Animal Enclosures: Evolutionary Drivers in a Changing Climate	University of Glasgow
IAP-25-016	Antarctic sea ice, circulation and ice sheet interactions in the Southeastern Weddell Sea	Durham University
IAP-25-017	From ice to ecosystem: assessing the risk of glacier melt and legacy contamination for reindeer in Sapmi (Lapland)	Durham University
IAP-25-018	Holocene ice sheet-ocean interaction and glacialmarine sedimentation in Greenland fjords	Durham University
IAP-25-019	Investigating interactions between subglacial landscape evolution and Antarctic Ice Sheet behaviour	Durham University
IAP-25-027	Understanding Biological Responses to Arctic Sea-Ice Geoengineering climate intervention	British Antarctic Survey
IAP-25-032	Linking persistence, predictability and extremes in a changing climate	University of St Andrews
IAP-25-040	Landslide-flood interactions in the Himalayan mountain range in a warming climate	Durham University
IAP-25-041	Physical and chemical drivers of bedrock river channel erosion	Durham University
IAP-25-042	Pleistocene to present-day sea level puzzles in Patagonia: disentangling the sea-level budget to improve regional ice history.	Durham University
IAP-25-044	Characterising methane productivity during the Late Holocene in Arctic Sweden	Durham University
IAP-25-049	Sediment release from glacial valleys in a changing climate: Interactions between valley morphology, sediment dynamics, and climate variations	University of Glasgow
IAP-25-067	Understanding grounding line dynamics in response to ice stream uncoupling	Durham University
IAP-25-068	Din in the dark: the effects of anthropogenic noise on hibernation behaviour and physiology in hedgehogs	University of Glasgow
IAP-25-072	The glaciers of South Georgia from the 1950s to 2100 CE	Newcastle University
IAP-25-076	Reconstructing past ice-sheet retreat and ice-ocean interactions from marine sediment cores.	Newcastle University

IAP-25-078	<u>AI-Driven Satellite Embeddings for Fine-resolution Mapping and Tracking Global Coastal Vegetated Ecosystem Change (2017-2024)</u>	University of Glasgow
IAP-25-084	<u>Machine Learning for Innovative Slope Design to Radically Decarbonise Open Pit Mining</u>	Newcastle University
IAP-25-087	<u>What controls ice flow across Palmer and Ellsworth Lands, Antarctica?</u>	Newcastle University
IAP-25-088	<u>Under Pressure: comparative assessment of the effects of hydrostatic pressure, and oxygen availability on marine and freshwater animal physiology</u>	Newcastle University
IAP-25-089	<u>Advancing ultra-high resolution palaeoenvironmental records from lake sediment cores through integrated laser-induced breakdown spectroscopy and hyperspectral imaging</u>	Newcastle University
IAP-25-092	<u>Greenhouse gas balance in an agricultural grassland system with enhanced rock weathering of basalt as a carbon dioxide removal strategy</u>	Newcastle University
IAP-25-093	<u>Measuring the isotopic fingerprint of Greenland Ice Sheet melt</u>	University of St Andrews
IAP-25-096	<u>Investigating the oceanic impacts of Greenland's meltwater</u>	University of St Andrews
IAP-25-097	<u>The coral biomineralisation response to temperature and pH change in the Central Pacific over the last 500ka</u>	University of St Andrews
IAP-25-099	<u>Earth's Deep Time CO2 and Mass Extinctions</u>	University of St Andrews
IAP-25-104	<u>How does ice flow enhancement and rearrangement impact the West Antarctic Ice Sheet?</u>	University of St Andrews
IAP-25-105	<u>Quantifying Past Variations in Southern Ocean Primary Productivity from Sulfur Isotopes in Antarctic Ice Cores</u>	University of St Andrews
IAP-25-112	<u>Assessing Magmatic Dead Carbon Effects on Radiocarbon Dates: A Multi-Method Investigation of Volcanic CO₂ Degassing at Laacher See, Germany</u>	Durham University
IAP-25-126	<u>Adapting to the Urban Night: Behavioural and Genomic Responses in Nocturnal Predators</u>	Durham University
IAP-25-127	<u>Can microclimate refugia save an iconic floral assemblage under climate change?</u>	Durham University
IAP-25-128	<u>Monitoring Scotland's fresh waters from space: re-engineering the state-of-art using artificial intelligence</u>	University of Stirling
IAP-25-131	<u>Cracks in the ice: Disentangling the threats to Arctic ice shelves</u>	University of Stirling
IAP-25-134	<u>The role of tree-based landscapes in improving food security and nutrition across West Africa</u>	University of Stirling
IAP-25-135	<u>Healing and Harm: invasive species, medicinal plant use, and community-based conservation in South Africa</u>	University of Stirling
IAP-25-137	<u>Peat soil crusts: formation, desiccation and modelling of transport by wind</u>	Durham University
IAP-25-138	<u>Reconstructing the South Orkney Ice Cap - a sentinel of Antarctic Ice Sheet change</u>	British Antarctic Survey
IAP-25-141	<u>Light for Life: Optical Sensing Platforms for Environmental Water Quality Monitoring</u>	Newcastle University
IAP-25-143	<u>Computational innovation for the energy transition: Bayesian stratigraphic correlation of subsurface data</u>	Durham University

Hazards: Processes-Risk-Resilience

Iapetus Project Code	Iapetus Project Title	Host institution
IAP-25-014	Time-evolving hazard and risk from Glacial Lake Outburst Floods in Bhutan.	Newcastle University
IAP-25-020	Quantifying indoor and outdoor air pollution in central Scotland to support actions to improve health (Forth-ERA)	University of Stirling
IAP-25-024	Environmental and "One Health" ecology of clinically pathogenic fungi	University of Stirling
IAP-25-043	Tracking and tracing contaminated sediment in historic mining headwater catchments	Durham University
IAP-25-045	Characterisation and analysis of anthropogenically influenced fluvial catchments and geomorphology in the Philippines	University of Glasgow
IAP-25-054	Determining the Impacts of Wildfires, from a local to global scale, using Satellite-based Observations.	University of Stirling
IAP-25-055	Rockfall detection and modelling in the rapidly deglaciating Mont Blanc massif	Newcastle University
IAP-25-056	Mathematical models for treescape resilience in a changing climate	Newcastle University
IAP-25-065	Physics, biology and ecology of toxic plankton blooms	Newcastle University
IAP-25-069	Drivers of changing geohazard exposure and risk in the Hindu-Kush Himalaya	Durham University
IAP-25-081	Coastal Hydrodynamic Water Quality Modelling using Machine Learning Techniques	Newcastle University
IAP-25-082	Secure and Decentralized Federated Learning for Environmental Forecasting	Newcastle University
IAP-25-086	Modelling urban infrastructure interdependencies under flood conditions via dynamic graph learning	Newcastle University
IAP-25-108	Probabilistic flood prediction and modelling using machine learning	Durham University
IAP-25-113	Modelling vector control for Aedes-borne arboviruses	United Kingdom Centre for Ecology & Hydrology
IAP-25-118	How Earthquakes Become Tsunamis: Investigating Rupture Propagation into Subduction Zone Accretionary Prisms	Heriot-Watt University
IAP-25-119	Resilient Coastal Communities: Nature-based Solutions to Mitigate Compound Flood Risks	Heriot-Watt University
IAP-25-121	Designing Resilient Landscapes: Integrating Nature-based Solutions and Flood Defences into Catchments	Heriot-Watt University
IAP-25-123	The vulnerability of tourists to volcanic hazards in Indonesia	British Geological Survey
IAP-25-125	Hidden Risks of Saline Intrusion: Climate-Driven Sea-Level Rise and Geotechnical Implications for Coastal Stability	British Geological Survey
IAP-25-144	Developing a landslide dynamic hazard model	University of Glasgow