



## **NWH Research and Knowledge Exchange**

Institutional development - Regional impact – Global connection

**Quarterly Report: September 2024 – November 2024**

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# INTRODUCTION

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The NWH Research and Knowledge Exchange Quarterly Report provides an update on Research and KE activity across NWH. It is not intended to be comprehensive; but rather give a representative picture of the range and diversity of research and knowledge exchange being undertaken across the institution while highlighting initiatives, outputs and impacts where appropriate.

To ensure consistency and to mitigate excessive reporting burden, the same report is circulated to a number of groups and interested parties i.e., to act as a 'single point of truth' that can be used and shared with confidence.

The report will be circulated to:

- NWH Research and Knowledge Exchange Staff
- NWH Communication team
- NWH Executive
- NWH Highland Board of Management
- UHI Dean of Research and Knowledge Exchange

Certain sections of the report are relevant to particular Committees of the NWH Highland Board of Management. These are as follows:

- Finance and General purposes Committee – Activity Reports and Outputs
- Learning Teaching and Research Committee -

The report is produced on a quarterly basis according to the following schedule:

<b>Period covered</b>	<b>Circulation</b>
September to November	December
December – February	March
March - May	June
June – August	September

## ACTIVITY REPORTS

Theme	<ul style="list-style-type: none"> <li>Energy</li> </ul>
Highlights	<ul style="list-style-type: none"> <li>Caitlin Harris secured funding to present a poster at the <b>Society of Marine Mammalogy Biennial Conference</b> in Australia on 'Harbour porpoise presence and foraging at two floating offshore wind farms in the North Sea'.</li> <li>Christine Anderson organised UHI to join the <b>Scotland Beyond Net Zero (SBNZ)</b> initiative, a coalition of Scotland's universities dedicated to supporting Scotland's goal of achieving net-zero emissions by 2045. The UHI Net Zero Hub website has also launched.</li> <li>Stephanie Strother, Nicholas Petzinna and Benjamin Williamson exhibited at the <b>Floating Offshore Wind conference</b> and met with Ossian representative to discuss the development of UHI/Ossian researcher workshops.</li> <li>Benjamin Williamson hosted a site visit from <b>Thistle Wind Partners</b> to develop collaborative partnerships around offshore wind environmental effects.</li> <li>Lonneke Goddijn-Murphy, Alan Youngson, Jason McIlvenny and Benjamin Williamson published a review of potential <b>exposure of aquatic organisms to dynamic visual cues originating from aerial wind turbine blades</b>.</li> <li>Benjamin Williamson delivered a presentation at the <b>Nova Scotia Offshore Wind R&amp;D Forum</b>, developing international collaborations on ecosystem impacts of offshore wind to guide the Atlantic Canadian offshore wind industry and regulators with UK learnings.</li> <li>Benjamin Williamson submitted a proposal to <b>PEACEPLUS EU funding</b> call developing Sustainable Energised Economies for Coastal Habitats by Advancing New Green Enterprise.</li> <li>Julie Salvetat delivered a presentation at AIM <b>ECOWind 2024</b> in Southampton on her work in the PELAgIO project 'A multifaceted approach to monitoring fish behaviour and predator interactions around offshore wind farm'.</li> </ul>
Current major projects/initiatives (select; with partners + funders) - examples	<ul style="list-style-type: none"> <li>Offshore wind ecosystem effects research has continued, including research from the <b>PREDICT</b> project being used to develop the Offshore Renewable Energy Catapult's report on 'Developing a Regional Ecosystem Monitoring Programme for the UK Offshore Wind Industry'.</li> <li>Three active acoustic and oceanographic landers were recovered from the SSE Seagreen windfarm completing the second year of measurement campaigns as part of research into physics-to-ecosystem level effects of offshore wind in the <b>PELAgIO</b> project. An array of passive acoustic recorders was also recovered from the Hywind Scotland floating windfarm, as part of the <b>IFLOW</b> project investigating effects of floating offshore wind on fish and marine mammals.</li> <li>A pilot marine monitoring platform has completed recording at the <b>Salamander</b> offshore wind farm, as part of the <b>PREDICT 2.0</b> project alongside a fluorometer and metocean campaign.</li> <li>£2.93m funding was allocated to the <b>EQUIFY</b> project 'Establishing a Framework for Quantifiable Evidence and Impact of Ecosystem Change Throughout the Lifecycle of UK Floating Offshore Wind Farms'.</li> <li>The second stage of the <b>Energy Catalyst</b> project with <b>ENGINE Wave Energy Systems</b> has kicked off, providing an open-water demonstration of the wave energy converter in Indonesia.</li> <li>Deliverable D5.7 for the <b>ROBINSON</b> project was completed by Elizabeth Masden, Lucy Mitchell and Lonneke Goddijn-Murphy entitled 'Ecological Impacts of ROBINSON on Eigerøy: Using acoustic monitoring to rapidly assess biodiversity'.</li> </ul>

Theme	● Pollution
Highlights	
<ul style="list-style-type: none"> <li>• Ilgaz Cakin successfully <b>completed and defended his PhD</b> (on constructed wetlands) and has now moved to his first post-doc position at Exeter: 5 papers published and more expected out in the coming months.</li> <li>• Steph Griffiths has joined the ERI as part of the <b>SUPER DTP-funded PhD</b>, "Seabirds as sentinel species: assessing the risk of nest incorporation of marine plastic debris." Steph is supervised by Neil James, Elizabeth Masden, and supervisors from the University of Aberdeen and Marine Scotland Science.</li> <li>• Lydia Niemi and Mark Taggart are working on the extension to the ALPS funded project <b>"Socio-cultural implications of losing a keystone species (vultures) in Asia"</b> with partners at UHI Centre for Living Sustainability. Additional KE Challenge Fund support has now been secured to undertake a workshop hosted at the Dundreggan Rewilding Centre in spring 2025. This will build partner engagement and look towards a more substantive funding application.</li> <li>• Szabolcs Pap has submitted an application for an ambitious <b>10-year RSE "Green Future Fellowship"</b> and is working on another <b>EPSRC 5-year Fellowship</b> – to continue his work on sewage sludge biochar in the UK and start to build a new team/research line at ERI. Both applications are entitled - "Chasing sustainability and net zero in the water sector: Processing biosolids into biochar (CassioPeia)".</li> <li>• The <b>ECO-WILD CDT PhD</b> project (<i>Impacts of multiple stressors (pollutants and disease) on beavers in England</i>) regarding beavers with Natural England, Lancaster and Herriot Watt is now being advertised, with a closing date in January 2025 (DoS Mark Taggart).</li> <li>• Two <b>UKRI cross-council first stage applications</b> have been submitted – both relevant to Pollution, one with SAMS on <i>"Calanus as vectors of pharmaceuticals and contaminants in the marine environment: PharmaCal"</i>, and one with UHI-LSIC on <i>"PhRESHWater: Pharmaceutical Reduction in our Environment through Sustainable Healthcare?"</i>.</li> <li>• Neil James has been collaborating with researchers at Federation University, Australia, utilizing the long-term <b>Birds &amp; Debris project</b> to gather citizen science data for work investigating terrestrial bird-debris interactions within Australia.</li> <li>• As part of the ongoing <b>SHIFT-PLASTICS project</b>, Neil James participated in a workshop and partner event held in Bodø, Norway. The event focused on co-developing a roadmap to articulate 'best practice' for the future, highlighting radical and incremental innovations to support industry transitions toward more circular plastic material utilization. The workshop engaged Norwegian and international partners.</li> <li>• Szabolcs Pap and Lydia Niemi attended the <b>24<sup>th</sup> European Meeting on Environmental Chemistry (EMEC24)</b> in Alicante, and presented research on resource recovery from wastewater with biochar and environmental risk modelling of pharmaceuticals in the water environment</li> </ul>	
Current major projects initiatives (select; with partners + funders) – examples	
<ul style="list-style-type: none"> <li>• The <b>CO-OP CIF2 project with SAMS and SRUC</b> continues. ERI is currently developing new composite materials using a mix of biochar and shell waste – for use in P adsorption – and then subsequent application on land (as fertiliser).</li> <li>• Additional RSPB funded work continues within the <b>SHOT-SWITCH project</b>. A new paper on Pb in grouse will be published soon – and lots of work is ongoing around various game meats available in the human food marketplace. A new method is being developed to look at residues of flubendazole in grouse also destined for human consumption (an antiparasitic drug).</li> <li>• Lydia Niemi and Szabolcs Pap finished work on the Carnegie funded project <b>"Sewage sludge as biochar"</b> to investigate priority contaminant removal from wastewaters. A new LC-MS/MS method was developed/applied for the analytical work.</li> <li>• The <b>Bad A Cheo</b> contract has now completed/wrapped up (Paul Gaffney and Mark Taggart) which looked at water quality, hydrology and peatland restoration following construction of the Bad A Cheo windfarm.</li> </ul>	

Theme	<ul style="list-style-type: none"> <li>● Peatlands</li> </ul>
Highlights	<ul style="list-style-type: none"> <li>• Liam Godwin passed his <b>PhD viva</b> subject to major corrections, for his project investigating the effects of peatland restoration on Salmon habitat. Since November, as well as his roles on Mothership and on teaching, he becomes a member the Leverhulme project team until June 2024.</li> <li>• The Peatland team successfully completes the full re-survey of the <b>Fire Blanket vegetation</b> (5 year post fire) and supports <b>Plantlife's Munsary peatland vegetation survey</b> in August and September. Thanks to Heather Johnstone for coordinating the team and organising the complex logistics, and for all the team members and RSPB staff and volunteers who helped with Fire Blanket.</li> <li>• Roxane Andersen with support from Jacqueline Barclay delivers the first <b>"For Peat's sake" contractor course</b> to a cohort of 7 learners in the first week of September.</li> <li>• The Peatland team hosts two <b>international visitors</b> (Marlene Mellwig, Germany and Eleonor Bergeron-de-Pani, Canada) between September and December 2024</li> <li>• A <b>Knowledge Transfer Project</b> with RWE is submitted to develop innovative use of excavated peat in the context of onshore wind development and a NERC Pushing the Frontiers proposal on Mercury advances to the next stage, both led by Roxane Andersen.</li> </ul>
Current major projects initiatives (select; with partners + funders) – examples	<ul style="list-style-type: none"> <li>• Leverhulme Leadership (Leverhulme Trust) enters the final year of the project (end date Nov. 2025). Mascha Bischoff leads a collaboration with Inverness College to look at invertebrate changes following wildfire using eDNA, Praveen works on two peer-reviewed publications on wildfire and weather modelling, all the PhD students are writing up their PhDs and Liam Godwin joins the team to support the final year data collection(s) and analyses.</li> <li>• <b>Knowledge Transfer Project</b> Highland Park is 6 months in (funded by a KTP with UKRI Innovate UK and Edrington group). Lewis Robertson has developed two trials on site and continues to develop the longer-term management strategy and the current monitoring programme at the Hobbister site</li> <li>• <b>MOTHERSHIP project</b> (URKI Large Grant, JHI lead) Roxane attends the 2.5 year meeting virtually and develops publication plans for WP 3 (InSAR and DigiBog)</li> </ul>

Theme	● Tourism
Highlights	
<ul style="list-style-type: none"> <li>• A Student Placement Innovation Voucher has been approved for the <b>Collective Knowledge Project by Interface</b>, working with a MSc Data Analysis student from UHI Inverness. The student has a scholarship with Data Labs, who initially approached us as a potential project for one of their scholarship students. Peter White is the lead.</li> <li>• Steve Taylor is part of a <b>Dutch SIA project</b>, which was recently awarded funding, for a networking project with partners in Finland, Denmark, Sweden and Spain, to a) start up a transdisciplinary research group on alternative systemic approaches to tourism businesses and destinations, b) produce white papers and academic output on the subject of just tourism transitions and c) write two major funding applications.</li> <li>• Kendra Turnbull received funding from <b>UHI's KE Tourism challenge fund</b>, to explore which AI technologies would be suitable for tourism products and services on the Ardnamurchan peninsula, with the intention to develop these through future UHI and industry collaborations.</li> <li>• Steve Taylor secured funding from Inverness City Heritage Trust to work with RGU and UHI Inverness on a project to celebrate the <b>role of Charles Fraser Mackintosh in shaping the Highlands</b>. This will be used as match funding for a Heritage Lottery Fund application recently submitted.</li> <li>• Steve Taylor attends and presents a paper at the <b>International Adventure Conference in Knysna, South Africa</b>.</li> <li>• Steve Taylor attends and presents at a symposium at the University of Edinburgh on 'Heritage and Horizon: Cultivating relationships between cultural heritage and sustainable development', to mark the end of the <b>CULTIVATE JPI-funded project</b> with UHI Perth and overseas partners.</li> </ul>	
Current major projects initiatives (select; with partners + funders) – examples	
<ul style="list-style-type: none"> <li>• Steve Taylor has recently started PhD supervision and fieldwork in a <b>UKRI-funded project</b> exploring the injustices of tourism, led by the University of Glasgow and with partners in Sweden and Spain.</li> </ul>	

Theme	● Education
Highlights	
•	
Current major projects initiatives (select; with partners + funders) – examples	
•	

Theme	• Society
Highlights	
<ul style="list-style-type: none"> <li>The Flow Country Partnership wins the <b>Nature of Scotland Award</b> in the category “Nature and Climate Action” in recognition for the work on the Flow Country World Heritage Site and the Green Finance Project. Roxane Andersen represented the ERI ( a member of the FCP) at the award ceremony.</li> <li>Stuart Gibb has joined the <b>Leadership Council to the Sustainable Development Solutions Network (SDSN)</b>, a United Nations (UN) initiative which aims to mobilise the world’s knowledge community for science-based solutions for sustainable development.</li> <li>Christine Anderson is facilitating a series of talks with external experts for the <b>Net Zero Hub</b>, the first of these took place with Prof Mike Berners-Lee on 8<sup>th</sup> October. Mike discussed how we can each play a meaningful role in a sustainable future.</li> </ul>	
Current major projects initiatives (select; with partners + funders) – examples	
<ul style="list-style-type: none"> <li>Funding has been secured through the <b>Scottish Government’s Test &amp; Learn Programme</b>: The “Bridging Waters” project involving Lydia Niemi and Stuart Gibb with collaborators at the University of Uppsala aims to continue driving Scottish-Swedish engagement in One Health, pharmaceutical pollution, and sustainable medicines use. Two visits will be organised – one in Sweden in Feb 2025, and one in Scotland (likely Inverness) in Mar 2025. UHI staff and external collaborators will be invited.</li> <li>Stuart Gibb, Lydia Niemi, and Neil James continued work with the <b>One Health Breakthrough Partnership</b>, funded by the Scottish Government’s Water Industry Division team. The OHBP will undertake business planning meeting in Jan 2025 to develop workplans and proposal for the next financial year, engaging with the Scottish Government representatives.</li> <li>Lydia Niemi and Stuart Gibb submitted a <b>COST-Action proposal</b> “<i>EcoMeds4U: Improving healthcare practices for eco-directed use of human medicines across Europe</i>” (£600k, 4yr project) with 59 collaborators from 22 countries across Europe representing expertise in pharmaceutical pollution, pharmacy, sustainable healthcare, public health, qualitative science, and drug utilisation research. The proposal aims to promote policy alignment regarding priority substances in the water environment and facilitate research harmonisation across Europe in developing sustainable healthcare interventions reducing pharmaceutical pollution. Decision expected May 2025.</li> </ul>	

Theme	• Other
Highlights	
<ul style="list-style-type: none"> <li>Expansion of Atmospheric and Astronomical Science research – two concurrent projects now running.</li> </ul>	
Current major projects initiatives (select; with partners + funders) – examples	
<ul style="list-style-type: none"> <li>DARA (Development of Radio Astronomy in Africa): A £6.5m astronomy project, introducing skills and expertise to countries across Sub-Saharan Africa, led by the University of Leeds, with partners University of the Highlands and Islands (UHI) and the Universities of Manchester, Edinburgh, Hertfordshire, Bristol, Oxford, Durham, Stirling, Cape Town, Pretoria, Rhodes, North West, UNISA and the Inter-university Institute for Data Intensive Astronomy. (started April 2024, continues until 2027).</li> <li>UK DSIT (Department of Science, Innovation and Technology) Tactical Fund grant for £100k - successful (starting 1<sup>st</sup> December 2024).</li> </ul>	



## OUTPUTS

### All themes

<ul style="list-style-type: none"> <li>Peer-reviewed publications</li> </ul> Citation with NWH authors in bold	Journal Impact Factor
<b>Hughes, R.</b> , Hancock, M.H., Anderson, R., Gullett, P.R., Littlewood, N., Pravia, A., <b>Andersen, R.</b> (2024) Bird assemblage changes on peatland affected by large-scale non-native afforestation in the Flow Country (Scotland). <i>Mires and Peat</i> , 31, 14, 22pp.	
Sloan, T.J., Ratcliffe, J., Anderson, R., Gehrels, W.R., Gilbert, P., Mauquoy, D., Newton, A.J., Payne, R.J., Serafin, J. and <b>Andersen, R.</b> , 2024. Potential for large losses of carbon from non-native conifer plantations on deep peat over decadal timescales. <i>Science of The Total Environment</i> , p.175964.	
<b>Hughes, R.</b> , Klein, D., <b>Andersen, R.</b> , Anderson, R., Gullett, P. R., Littlewood, N., ... Hancock, M. H. (2024). Breeding Common Scoters <i>Melanitta nigra</i> in Scotland's Flow Country: a population in decline despite productivity being stable. <i>Bird Study</i> , 1–14.	
Cook, Aonghais S. C. P., Eldina Salkanovic, <b>Elizabeth Masden</b> , Hsiu Eik Lee, and Alexander Holm Kiilerich. 'A Critical Appraisal of 40 Years of Avian Collision Risk Modelling: How Have We Got Here and Where Do We Go Next?' <i>Environmental Impact Assessment Review</i> 110 (1 January 2025): 107717. <a href="https://doi.org/10.1016/j.eiar.2024.107717">https://doi.org/10.1016/j.eiar.2024.107717</a> .	
<b>Cakin, I., Pap, S., Gaffney, P.P.J., Taggart, M.A.</b> , 2024. Designing a biochar-based pretreatment method for distillery effluents entering constructed wetlands. <i>Journal of Cleaner Production</i> 476, 143790.	9.8
Blanz, M., Balasse, M., Card, N., Ascough, P., Fiorillo, D., <b>Taggart, M.A.</b> , Feldmann, J., Mainland, I., 2024. Life, death and teeth of Late Neolithic sheep and red deer excavated at Ness of Brodgar, Orkney Islands (UK). <i>Environmental Archaeology</i> 29, 465-477.	1.2
B.J. Williamson, L. Goddijn-Murphy, J. McIlvenny, A. Youngson (2024). Potential Exposure of Aquatic Organisms to Dynamic Visual Cues Originating from Aerial Wind Turbine Blades. <i>Fishes</i> . <a href="http://doi.org/10.3390/fishes9120482">http://doi.org/10.3390/fishes9120482</a>	2.1
J. Slingsby, B.E. Scott, L. Kregting, J. McIlvenny, J. Wilson, F. Helleux, B.J. Williamson (2024). An Experimental Methodology for Automated Detection of Surface Turbulence Features in Tidal Stream Environments. <i>Sensors</i> . <a href="http://doi.org/10.3390/s24196170">http://doi.org/10.3390/s24196170</a>	3.4
<b>Niemi, L.</b> , Arakawa, N., Glendell, M., Gagkas, Z., <b>Gibb, S.</b> , Anderson, C. and Pflieger, S., 2024. Co-developing frameworks towards environmentally directed pharmaceutical prescribing in Scotland—A mixed methods study. <i>Science of the Total Environment</i> , 955, p.176929. <a href="https://doi.org/10.1016/j.scitotenv.2024.176929">https://doi.org/10.1016/j.scitotenv.2024.176929</a>	8.2
Tosetto, E. G., Lett, C., Neumann-Leitão, S., Koch-Larrouy, A., Barrier, N., Da Silva, A. C., <b>Salvetat, J</b> and Bertrand, A. (2024). Diel vertical migration and seamount stepping stones promote species connectivity from coastal to offshore insular systems in the Tropical Southwestern Atlantic. <i>Limnology and Oceanography</i> , 69(9), 2071-2084. <a href="https://doi.org/10.1002/lno.12648">https://doi.org/10.1002/lno.12648</a>	8.5
Da Silva, C. L., <b>Salvetat, J.</b> , Pelage, L., Pereira, C. A., Travassos, P., & Bertrand, A. (2024). Distribution of pelagic and demersal fish assemblages by video prospection in the archipelago of Fernando de Noronha. <i>Regional Studies in Marine Science</i> , 78, 103761. <a href="https://doi.org/10.1016/j.rsma.2024.103761">https://doi.org/10.1016/j.rsma.2024.103761</a>	2.1

<p><b>Edward Graham</b>, Richard Vaughan, David Buckley, Acacia Leakey, Colin Snodgrass, Cyrielle Opitom, Paul Baki, Susan Murbana, Chu Owens and Dan Hillier (2024). An overview of site testing and site characterisation, as applied in the search for an astronomical site in Kenya. <i>Proceedings of the International Astronomical Union, General Assembly IAU-GA 2024: Focus Meeting 1: Harnessing ground-based optical telescopes: an opportunity for emerging astronomy in Africa</i>. Cambridge University Press (CUP).</p>	
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<ul style="list-style-type: none"> <li>• Book chapters</li> </ul>
<p><b>S. Pap</b>, M. Ross, P. Kumari, R. Boyko, and <b>M. A. Taggart</b>, (2024). The Use of Marine Biomass in Biofertiliser and Biostimulant Production: Current Status and Future Perspectives. In <i>Blue Bioeconomy Value-added Products from Marine Algae and Microorganisms</i>, eds. R. T. Kapoor, M. Sillanpää, and M. Rafatullah, Royal Society of Chemistry, 2024, CH5, pp. 84-105.</p>

<ul style="list-style-type: none"> <li>• Conference/event presentations</li> </ul>	Poster / podium / invited
Elizabeth Masden presented at the BOU ASM Birds and Net Zero - "Renewable energy in an uncertain world: understanding uncertainty to enable the energy transition"	Invited keynote
Peter White co-hosted two workshops titled 'Proactive Safety Management' on 21 <sup>st</sup> November at the Hollowford Centre, Derbyshire, for the Institute for Outdoor Learning's 'Strategic Thinking Day'.	Invited
Steve Taylor presented to the International Adventure Conference in Knysna, South Africa on Sept 9 <sup>th</sup> on 'Exploring a regenerative tourism approach to rural community development in Scotland and Ireland'	Podium
Szabolcs Pap participated in a SAGES podcast series for the episode surrounding Innovation, the initiative was funded through the Scottish Government Climate Engagement Fund. The podcast will be available in January 2025.	Podcast recording/invited
Szabolcs Pap participated in the EBNET ECR Autumn CPD Event "The Next Wave - Skills Development for Emerging Professionals", in Coventry, UK.	Invited
Szabolcs Pap and Mark Taggart participated in the Hydro Nation Chair Crucible event "Circular Economy in the Water Sector" at the University of Strathclyde in Glasgow.	Invited
Szabolcs Pap gave an invited guest lecture at the University of Strathclyde entitled "Phosphorus recovery from wastewater with biosolids biochar" on the 6 <sup>th</sup> of November.	Invited
Szabolcs Pap attended the European Biosolids & Bioresources Conference & Exhibition, 11-12 November 2025, The Point at Emirates Old Trafford, Manchester, UK ( <a href="https://european-biosolids.com/">https://european-biosolids.com/</a> ).	Invited
24th European Meeting on Environmental Chemistry (EMEC24) in Alicante (Spain) Szabolcs Pap a presentation entitled "Resource recovery from wastewater with biochar: phosphorus fractionation and quality assessment". Stuart Gibb participated in the Board of the Association of Chemistry and the Environment	Podium
Anna McWilliam attended 3 events, and presented work on Phosphorus Export and Peatland Restoration: 17/09/24 IUCN UK Peatland Programme Conference; 25/09/24 Aarhus Biodiversity Symposium, Denmark; 20/11/24 HydroNation Welcome event	All Poster
Mark Taggart attended an EU COST action Workshop in Denmark in September – looking at game meat contamination by ammunition in the EU.	Invited
Benjamin Williamson presented at the Nova Scotia Offshore Wind R&D Forum in November, developing international collaborations on physics-to-ecosystem level impacts of offshore wind to guide the Atlantic Canadian offshore wind industry and regulators with UK learnings.	Podium

- Media coverage

#### **Overtourism in the Highlands**

- Steve Taylor interviewed by *The National* for an article on overtourism in the Highlands: [NC500: Tourists must be tempted away from 'bucket list' Highlands spots, say experts | The National](#)
- Likewise, Steve interviewed for a similar article in the *i* newspaper: [I live in a beautiful Scottish village - Instagram tourists are ruining it](#)
- Kendra Turnbull wrote an article for World Tourism Day entitled 'From Overtourism to Regeneration: Rethinking the Impact of Tourism on Communities', shared on social media and through UHI and NWH: [News - Blog | From Overtourism to Regeneration: Rethinking the Impact of Tourism on Communities](#)

#### **Innovative Water Treatment**

- [Scientists filter out opportunity to combat algal blooms with sewage waste - Water Magazine](#)

#### **Woodburning Stove Research**

- [SNP u-turns on wood-burning stove ban | The Herald](#)
- [Forestry: Wood-burning stove ban paused in Scotland | Forestry Journal](#)

#### **Stuart Gibb UN Role**

- [Thurso environmental science expert 'immensely privileged' to take on UN role](#)
- [News - UHI professor joins United Nations Leadership Council on sustainable development](#)

#### **Flow Country**

- [Investing in The First Peatland UNESCO World Heritage Site in The World - The Highland Times](#)
- [News - Flow Country Partnership shortlisted for RSPB Nature of Scotland Award](#)

#### **PhD Student Research**

- [News - PhD Researcher Spotlight: Anna McWilliam](#)

## STAFF AND PGR STUDENTS

### • Staffing

Staffing section will be completed from 1 January 2025

- Number of staff on research contracts
- No of research active staff (assessment methodology under development)
- Number of staff in last Research Excellence Framework

### • Postgraduate Students

(to be updated by Directors of Studies)

	31 May 2024	31 August 2024	30 November 2024
Postgraduate Research Student numbers (PGR, at time of report)	14	14	12
PGR completed in 24-25			2

Degree	Funder	Start date	End Date	Status	DoS	Additional NWH Supervisors
PhD	SSER/RS PB	01/09/2022	31/08/2025	Ongoing	Roxane Andersen	Lucy Mitchell, Chris Marshall
PhD	MASTS SUPER DTP	01/10/2019	31/03/2024	complete	Roxane Andersen	Paul Gaffney
PhD	Hydro- Nation	01/10/2020	31/09/2024	complete	Mark Taggart	Paul Gaffney
PhD	MASTS SUPER DTP	01/10/2020	31/03/2024	Ongoing	Benjamin Williamson	
PhD	MASTS SUPER DTP	01/10/2020	31/09/2024	Ongoing	Peter Gilbert	Roxane Andersen
PhD	Lever- hulme	06/09/2021	05/03/2025	Ongoing	Roxane Andersen	Mascha Bischoff
PhD	Lever- hulme	06/09/2022	05/03/2025	Ongoing	Roxane Andersen	
PhD	Lever- hulme	13/09/2021	12/03/2025	Ongoing	Chris Marhsall	Roxane Andersen
PhD	Hydro- Nation	01/10/2021	30/09/2025	Ongoing	Mark Taggart	Paul Gaffney
PhD	RSPB	02/02/2022	01/09/2026	Ongoing	Roxane Andersen	

PhD	MASTS SUPER DTP	01/09/2022	31/03/2026	ongoing	Benjamin Williamson	
PhD	Self- funded	01/11/2021	31/10/2024	Ongoing	Steve Taylor	Michelle Smith
PhD	UHI	01/02/2024	31/07/2028	ongoing	Benjamin Williamson	Jason McIlvenny, Lucy Mitchell
PhD	ETP/UHI	01/03/2024	31/07/2027	ongoing	Benjamin Williamson	
ADD others						

- Visiting staff and placement students

Name	Staff / student	Home country/ organisation  (Programme if applicable)	Dates  (Length of visit/ placement)	Project title	NWH Theme
<b>Recently completed /current</b>					
Marlene Mellwig	student	Germany	4 months	Working with Mascha Bischoff on eDNA techniques for identifying microorganisms in peat	Peatlands
Elisabeth Werling	Student	Germany	6 weeks	Worked with Anna McWilliam on her PhD on the impacts of forestry felling on water quality.	Pollution
Grace Beaumont	Student	Iceland	4 months	Master thesis: 'How Tik Tok has Connected and Disconnected Gaelic Culture in an Age of Tourism in Northwest Scotland' supervised by Steve Taylor	Tourism
Eleonor Bergeron-de-Pani,	Student	Canada	4 months	Working with Roxane Andersen	Peatlands

# RESEARCH AND KE FUNDING APPLICATIONS

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A summary of the applications contributing to the NWH Research and KE 'pipeline' is provided in the table below.

**Please note:**

- New proposals submitted within this reporting period (September to November 2024) are shown in lines 446 onwards
- The status of pending proposals is 'dynamic', but the table reflected the position as of 30/11/2024
- Proposals under negotiation, or subject to resubmission, may be subject to changes in value
- Proposals submitted of value less than £5k are not included
- Intervention rates vary per project, as does the monthly euro conversion rate used by EU Projects

In the meantime, we continue to explore new funding opportunities, including those in partnership with external universities, research institutions, businesses, and stakeholders.

**General comments**

- Outline proposals which are under development or at stage one (expression of interest) are shown on the pipeline where the Advanced Notification Forms (ANF) have been submitted to ELT for approval based on estimated income. The pipeline will be updated should applicants be invited to submit full proposals.
- Where projects are of short duration and/ or all funding received in 23\_24 Financial Year these are shown on the pipeline as complete.

EOI Number	proposal/theme		overall project value	NWH component	% likelihood of success	Duration (months)	Funder	% FY 24_25	%FY25_26	Status
<b>applications submitted June to Aug 2023</b>										
392	EuropeWave3	ENERGY	6,000,000	120,000	10	33	Horizon/ Energy Wave Scotland			awaiting outcome
399	Metocean monitoring_PHD	ENERGY	105,000	105,000	25	42	ETP +company	30	30	secured
400	Offshore Env. Measurements	ENERGY	48,384	48,385	50	6	Orsted_Salamader		100	secured
403	Nest incorporation of plastic_PhD	POLLUTION	75,000	75,000	10	42	SUPER DTP	33	33	secured
<b>applications submitted Sep to Nov 2023</b>										
404	HNSP dentistry	SOCIETY	102000	102000			Hydro Nation			unsuccessful
406	Offshore Ocean Wind Demonstrator	ENERGY	250000	250000	50	24	industry			under development
407	Mountain Epistemes and Justice	TOURISM	600000	45000	10	36	AHRC	33	33	secured
408	Healthy Young minds	TOURISM	80000	5000	25	18	public health intervention	25	50	secured
<b>applications submitted Dec 2023 to Feb 2024</b>										
413	review of wildfire risk	PEATLANDS	16,000	16,000		6	SSER			complete
414	EU_Be_SMART	PEATLANDS	7,500,000	560,000			Horizon Europe_biodiversity			unsuccessful
415	Corpach Marina	TOURISM	14,000	10,000		3	innovation voucher			complete
<b>applications submitted March to May 2024</b>										
422	Multiple stressors on wildfowl_PhD	ENERGY	110,000	91,700	10	44	ECOWILD CDT	33	33	secured
423	Biochar and AMR_Fellowship	POLLUTION	279,000	230,000			Newton Fellowship			unsuccessful
424	Serbian Scientific Diaspora_Pollution	POLLUTION	150,000	15,000			Serbia_exchange			unsuccessful
425	adventure activities Glencoe_Tourism	TOURISM	14,000	7,000			UIF/UHI			complete
426	Nutrient effects on sphagnum_PhD	PEATLANDS	110,000	91,700			ECOWILD CDT			unsuccessful
427	Impact of pollutants on Beavers	POLLUTION	110,000	91,700			ECOWILD CDT			unsuccessful
428	Future workforce for Climate Resilience	SOCIETY	240,000	90,000			ACCESS network			unsuccessful
429	OHBP phase 3	SOCIETY	74,000	74,000	50	11	Scottish Government	100		secured
430	remote tracking of seabirds phase 2	ENERGY	3,000,000	30,000	50	18	OWEC/crown estate	20	80	secured
431	Western Edge	TOURISM	17,460	8,900			3 Innovation voucher			complete
432	Phosphorus speciation_biochar	POLLUTION	19,000	12,500			3 IBiolC			complete
433	tourism in Glenurquhart	TOURISM	18,000	5,700	50	5	Innovation voucher	100		secured
434	Learning from Island Communities	EDUCATION	300,000	25,000			AHRC			unsuccessful
435	Resilient Tourism in Europe	TOURISM	180,000	13,500	25	24	Dutch SIA	25	50	secured
436	Anti microbial resistance in rural waters	SOCIETY	4,000,000	400,000			Peaceplus			unsuccessful
437	Connect4Flow	ENERGY	2,000,000	218,000	25	48	UKRI ECOFLOW		25	awaiting outcome
438	Ecosystem change	ENERGY	2,950,000	550,000	25	48	UKRI ECOFLOW		25	awaiting outcome
<b>Applications submitted June to August 2024</b>										
439	Monitoring healthy ecosystems	PEATLANDS	72,000	30,000			CREW			unsuccessful
440	Adapting outer Hebrides_climate	ENERGY	2,000,000	400,000	10	30	UKRI/DEFRA	20	40	awaiting outcome
441	KTP EMEC	ENERGY	305,250	255,000	50	36	Innovate UK		40	awaiting outcome
442	Mercury, Peatlands and Climate change	PEATLANDS	1,000,000	250,000	10	48	NERC Pushing Frontiers		25	awaiting outcome
443	Co Pyrolysis for Sewage Sludge_network	POLLUTION	5,000	5,000	50	2	Royal Society of Chemistry	100		awaiting outcome
444	tracking top predators_SUPER PhD	ENERGY	80,000	80,000	10	42	MASTS SUPER 2		33	awaiting outcome
445	LOCII NH Innovation centre scoping	SOCIETY	100,000	97,000	25	12	NDA group	50	50	secured
<b>Applications submitted September to November 2024</b>										
446	Bridging Waters_Scotland -Sweden	SOCIETY	31,130	18,428	25	4	Scottish Government	100		secured
447	Clean CHAR_fellowship	POLLUTION	2,000,000	1,500,000	10	60	EPSRC Open Fellowship		20	awaiting outcome
448	Bryden 2 Marine Sensing PhD	ENERGY	165,000	165,000	25	42	Peaceplus		25	awaiting outcome
449	Dyke river salmon	PEATLANDS	30,000	30,000	50	12	NatureScot Peatland Action	30	70	awaiting outcome
450	Sustainable Medicine Use	POLLUTION	600,000	48,000	10	48	COST EU		25	awaiting outcome
451	Validating monitoring systems	ENERGY	125,000	97,000	25	12	SUPERGEN Flexfund	25	75	awaiting outcome
452	Virtual Connections	TOURISM	20,000	20,000	10	12	National Lottery	50	50	awaiting outcome
453	Sustainable Tourism_GURCA	TOURISM	18,000	9,000	50	6	Interface IV	100		awaiting outcome
454	PhRESHwater_pharma reduction	SOCIETY	960,000	560,000	10	24	UKRI cross council		25	first stage
455	Explore Lochaber	TOURISM	95,590	70,590			SSE			unsuccessful
456	CO_IMPACT climate resilience	SOCIETY	70,000	65,000			SSE			unsuccessful
457	On the map_NLCA	TOURISM	14,000	7,000	50	6	Interface IV	100		awaiting outcome
458	Value of marine structures	ENERGY	5,600,000	475,000	10	48	UKRI_Artificial Structures		25	awaiting outcome
459	Geophysics in mapping peatlands	PEATLANDS	400,000	400,000	50	36	TOTAL		33	awaiting outcome
460	Biochar chasing sustainability	POLLUTION	3,000,000	2,000,000	10	120	RAENG Green Futures		10	awaiting outcome
461	PharmaCal	POLLUTION	1,200,000	250,000	10	24	UKRI cross council		25	first stage
462	ROBINSv2	ENERGY	500,000	50,000	10	24	UKRI cross council		25	first stage
463	Plastic flow_peatland	PEATLANDS	950,000	300,000	25	36	NERC Pushing Frontiers		33	awaiting outcome
464	Astronomy in Kenya	OTHER	100,000	16,000	50	5	DSIT	100		secured
465	GenMed	POLLUTION	2,000,000	13,000	10	48	UKRI applied global health		25	first stage
466	KTP_RWE_peatlands	PEATLANDS	264,180	209,782	50	24	UKRI Innovate UK		50	awaiting outcome
467	Russwood water quality	POLLUTION	9,500	9,500	50	4	Interface IV	100		awaiting outcome
NB* Intervention rates vary e.g. NERC 80% . The budget shown is the total for the project										
NB**gaps in sequence indicate where unsuccessful proposals were shown on previous update										
Projects completed/ income received in FY23_24 are marked as complete										