

ExCASES Missions

Missions Bank: This represents a 'shop window' of submitted mission ideas, including missions that have been completed, are being scoped, or are underway.

These missions have been submitted to ExCASES by RENEW project partners, external organisations, and individuals. We hope that these mission ideas inspire fresh input and relevant insights, collaborations, and stimulate new ideas and opportunities. The missions in the bank section are presented with a generic title and a brief description.

Submissions are considered by the ExCASES team in relation to their suitability and achievability. During the selection process, ideas are clustered e.g., when there are clear overlaps, complementarity and synergy. These are then discussed with the ExCASES Advisory Board, before some are taken further to a scoping phase.

Our 'what makes a good mission' guidance can be found on our webpage, where you can also submit a mission idea through our online form: [Theme X2: ExCASES - RENEW \(renewbiodiversity.org.uk\)](https://renewbiodiversity.org.uk)

To access more information about missions status and appraisals, and to add your comments, please see our [ExCASES Padlet](#).

Current Missions

- ▶ ****Seeing the forest for the deer:** exploring new pathways for holistic and collaborative management of deer populations at the landscape scale. ExCASES will facilitate a structured, deliberative process to identify the barriers and opportunities for more holistic and collaborative approaches towards landscape scale management of deer in the UK. Outputs will support stakeholders in more effectively framing, coordinating, and developing shared deer management objectives, benefitting the overarching objective of biodiversity renewal.
- ▶ ****Paws for thought:** This mission seeks to help understand and promote best practice in managing dog behaviour to minimise disturbance and negative impacts on priority habitats, wildlife, and livestock. It will collate evidence of impacts (positive and negative) and effective interventions to share with stakeholders in a participatory process, whilst integrating scientific knowledge with the learning from successful, community-based initiatives. It will also explore stakeholder's expectations of how dog walkers and their dogs should behave in nature reserves and protected sites, and work to reconcile where these expectations diverge.





Current Missions

- ▶ ****Cultivating communities that care for urban trees:** An exploratory mission to understand what works well in cultivating community participation in the management and care of urban trees, to create principles of best practice which can inform local authorities and larger landscape scale initiatives. The mission aims to illustrate the power and hope of local community action for biodiversity in urban areas, creating outputs which support the collaboration between large and small projects for greater biodiversity outcomes.
- ▶ ****Who decides for nature? Embedding deliberative democracy:** This mission investigates how we can use learning from the People's Plan for Nature and other 'mini-public' processes (such as citizens' assemblies and juries), to embed more participatory and deliberative cultures within the environment and nature sector to support more democratic decision-making and positive outcomes for biodiversity renewal.

Missions Bank

- ▶ **Who pays the cost of urban trees? Re-appraising the nature of urban trees for insurance policies** Urban trees provide multiple benefits to community health, air quality, habitats, biodiversity, and even national climate targets. However, there is concern that trees in close proximity to buildings may incur additional insurance costs on owners/occupiers, and this could be acting as a major disincentive to planting and retaining trees. Furthermore, the inequitable positioning of trees in neighbourhoods affects who benefits from urban trees. This mission could bring together insurance companies, RENEW's financial & business partners, SMEs, and homeowners alongside people who specialise in community work and social justice to explore what is required to transform this situation and enable more trees, more fairly in urban areas.
- ▶ **Biosecurity and wildlife management at a landscape scale:** biosecurity plays an increasingly key role in wildlife management, where decisions often need to be made at speed and in collaboration with stakeholders and the public (e.g., following a disease outbreak). An evidence base is required to support a decision-making process on when and how to act, in a way that maximises the efficiency and equitability of interventions.






- ▶ **Land for all: A novel model for community land guardianship:** This mission seeks to find out what would it take – from all stakeholder perspectives – to put areas of institutionally-held land into the management hands of people with marginalised identities who currently have little access to land, and how this would support a ‘people-in-nature’ approach to biodiversity renewal. The key output will be a flexible, equitable and holistic land tenure framework for community guardianship of areas of underused NGO, LA and/or privately owned land.
- ▶ **Paying to pollute: A critical evaluation of the evidence for nutrient offsetting.** A mission could critically evaluate the feasibility of nutrient 'offsetting' as a means of successfully achieving changes in land management practices to support biodiversity renewal. Nutrient offsetting is the creation of habitat to mitigate, but often to compensate for, the flow of excess nutrients into water bodies or sensitive habitats.
- ▶ **Horizon scanning - Survival Ecology:** Employing a horizon-scanning approach to explore the practical implications of reconfiguring the worldview, priorities and activities associated with biodiversity conservation towards 'survival ecology', i.e., a more proactive, climate-driven approach to biotic change, and a shift towards maintaining ecological and evolutionary processes.



- ▶ **Mapping the funding landscape: Creating a central information hub for land managers** Land managers often signal their interest and willingness to engage in nature renewal activities, but report that information about the available incentives/resources is disparate and inaccessible. An ExCASES mission could map the (changing) funding landscape and create a centralised information hub to help land managers identify relevant funding opportunities.
- ▶ **Forested landscapes/Community forests: Creating a model for active community involvement in woodland management** Popular with multiple RENEW partners, a cluster of related ideas orients around the social aspects of forestry for biodiversity renewal, including community involvement in decision making. There is a need to develop a model for a process that authentically involves communities and stakeholders in the participatory, collaborative planning of new woodlands, in order to realise the societal benefits associated with access and use of woodlands, alongside biodiversity restoration.
- ▶ **Rodent control at mainland sea bird colonies:** A collation and synthesis of existing information on best practice for trapping and the use of poison baits for rodent control, given the known detrimental impacts of secondary rodenticide poisoning/accumulation in the higher trophic levels.



- ▶ **Navigating conflict:** creating a participatory framework for community and stakeholder involvement in the management of environmental conflicts. Outputs will support decision makers, practitioners, and community groups.
- ▶ **Engaging land managers in a landscape approach to biodiversity renewal** Exploring visioning techniques for engaging land managers in taking ambitious, single landscape management approaches to ramp up ecosystem restoration efforts.
- ▶ **Inter-generational justice:** The Wellbeing of Future Generations Act (2015) in Wales is a world leading piece of legislation that embeds the need to consider the impacts of all policy decisions on the wellbeing of future generations and the environment in which they will live. A mission could conceptualise where and how a Wellbeing of Future Generations style approach could be applied to environmental decision making and governance in the wider UK.
- ▶ **Incentivising farmers to increase public access to green space** This mission could take a landscape approach, potentially utilising a participatory mapping methodology (e.g. Open Street Map) to trace the diverse experiences, perceptions and values within the 8 Hills Regional Park area of RENEW partners, land managers, conservationists, farmers and local communities. This map could form one of the mission outputs, alongside recommendations for incentives for farmers to increase public access and create co-stewardship options for the areas of commons.

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- ▶ **Conceptualising the granting of personhood to nature in the UK:** Earth Law encompasses Rights of Nature legislation, which recognises the same rights for nature as are given to humans by law. There are now numerous examples from across the world of nature being given legal rights of personhood – these are mainly rivers, but there are examples of forests and mountains. What would it look like if UK rivers, ancient trees or the highest mountains in the devolved nations (Scafell Pike, Yr Wyddfa, Ben Nevis, and Slieve Donard), were granted personhood, and what would this mean for their conservation?"
 - ▶ **Taking stock:** what supply of biological material (from yellow rattle, to tree saplings, to beavers) is likely to be required to meet expected demand for biodiversity renewal under different renewal strategies? Where are pinch points in supply likely to arise? How can these best be countered?
 - ▶ **Forest to Forest: Integrating terrestrial, freshwater and marine ecosystem management:** terrestrial/freshwater and marine ecosystems get treated almost entirely separately in conservation policy, planning and management. How do we go about a more unified approach to conservation policy, planning and management that spans terrestrial/freshwater and marine ecosystems? What are the data constraints and how could these be overcome?



- ▶ **Red Rivers:** a potential mission to address the challenges of nature recovery in collaboration with communities around a polluted river catchment in Cornwall. Ideas include working with diverse landowners to coordinate management to restore nature; working with the Red River Rescuers in the management of habitat for rare damselflies and dragonflies; and finally working with local schools to create a participatory map for the river corridor that enables visitors of different ages, socio-economic backgrounds and cultures to engage with wildlife ecologies.
- ▶ **Sustainable seafood:** exploring novel methods of fisheries governance and incentives for sustainable fishing. There is potential for a mission to explore new ways of governing local fisheries, drawing on community-based co-management frameworks from the global south, and novel incentives to fish sustainably.



- ▶ **Using environmental DNA (eDNA) to monitor biodiversity:** a literature review of the current state, applications and potential for the use of eDNA in biodiversity monitoring and research. Rather than sampling individual organisms, eDNA techniques take a sample of soil, or water, and uses molecular techniques to catalogue the presence of any organism that has shed DNA in that environment.
- ▶ **Encouraging private finance to fund biodiversity renewal:** Land managers are told by policy makers that they should look to attract private finance in return for concepts such as biodiversity net gain or nutrient neutrality. But what do the structures to facilitate this actually look like?
- ▶ **Embedding systematic conservation planning principles into Local Nature Recovery Strategies:** Local Nature Recovery Strategies (LNRS) have been proposed by the UK Government in the Environment Bill as a key process to reverse the decline of species in England, by mapping where important habitats can be conserved, restored and connected. A mission could provide guidance and decision-support to parties responsible for delivering LNRS.



- ▶ **Bayesian Belief Networks (BBN):** BBNs are decision pathways based on probabilistic variables, which are modelled at each point of decision making. Trialling BBNs as a tool for biodiversity restoration problems that require knowledge integration (e.g. social and ecological) and trade-offs in decision making, could be a useful methodology to incorporate into a future mission.
- ▶ **Access to nature for disadvantaged people in urban areas:** access to greenspace is not equitable across the UK, with people living in urban areas and from lower socio-economic backgrounds less likely to have access to greenspace within easy walking distance. How do we identify priority audiences and create route maps for helping them connect with nature, climate change and urban greening?
- ▶ **Legal constraints on landowners undertaking biodiversity renewal activities:** there is a need to understand the extent to which, and responses to, inheritance tax constraints on landowners giving over areas to biodiversity renewal (especially where this involves taking those areas out of food production).



- ▶ **Are you listening? Navigating mistrust between groups:** How does the source of information (evidence) about biodiversity loss influence whether a message is listened to, and action taken? How can we overcome sectoral and organisational differences to foster more consensus-based collaboration?
- ▶ **To graze, or not to graze? That is the question:** What happens if landowners move away from, or significantly change their grazing regime, and set a trajectory of land use towards non-deterministic outcomes (letting habitats develop without a pre-determined idea of how they will develop over time)? A mission could review and synthesise the evidence around the biodiversity outcomes of using various densities of grazers, different species of grazers, and whether allowing for non-deterministic outcomes leads to positive biodiversity outcomes.



- ▶ **Land management guidelines for controversial interventions**: How do organisations identify the best interventions to tackle problems (such as silt removal in a historic lake) without adversely affecting existing ecosystems or disturbing the natural beauty and aesthetics of the site, while at the same time, fostering positive community engagement and meeting statutory obligations?
- ▶ **Mole patrol**: Existing mole control methods are unregulated and, evidence suggests, inhumane. Can we derive an evidence base to support the non-lethal control of moles in areas of high horticultural value and archaeological settings?
- ▶ **Soil and soul**: Soil health and ecology are the foundation of ecosystems, as well as being fundamental for food production, and the health of nature and human communities. How can we better incorporate these considerations into biodiversity thinking and decision making?

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- ▶ **Stemming the flow: Addressing the tragedy of UK rivers** Although there are catchment-based frameworks in place for many rivers (such as the Axe and Wye, their environmental outcomes remain poor. Could introducing novel, deliberative methods support the brokering of evidence and collaborations already in place?
 - ▶ **Citizen science:** How can the voluntary sector's burgeoning data production meet the private sector's data needs? Can we create an improved understanding of the key challenges and opportunities surrounding private data needs (associated with Nature-Related Financial Disclosures, ESG and nature finance), as well as greater awareness by the business/finance sector of the biodiversity data sector's operational and governance challenges (how data is collected and managed, how to access it responsibly)?
 - ▶ **Restoring contaminated land:** How can biodiversity be restored on contaminated land at historic sites (such as the National Trust's Morden Hall Park)? A mission could assess current best practice for land remediation and provide recommendations for future management to support enhancing biodiversity whilst maintaining access.



- ▶ **Modelling hydrological and hydro-chemical impacts in the Oxfordshire fens:** There is a lack of data on the impacts of existing land use and land use changes (such as afforestation, urbanisation, etc.) on the (groundwater-dependent) fens catchments in Oxfordshire. A mission could model the hydrological and hydro-chemical impacts on small, freshwater bodies, such as Colthill Fen, which would help build an evidence base to support management decisions, and allow lessons to be drawn for other fens.
- ▶ **'Beacons of Hope': Reintroducing glow worms to the Fowey Valley** How can land managers be supported to introduce and sustain glow worm populations? A collaborative project, designed to engage land managers, ecologists, community groups and school children in reintroducing glow worms, could widen participation in nature recovery activities and generate educational and guidance material for land managers and outreach more broadly.
- ▶ **Managing grey squirrels:** How can ever-growing grey squirrel populations be sustainably managed? Facilitating public engagement and coordinating land managing partners to undertake landscape-scale squirrel management, and promote best practice, within the River Fowey Valley.

Anything catch your eye?

Feel free to input into our interactive [ExCASES Padlet](#) if any of these missions have inspired new ideas, insights, thoughts on potential collaborations, or if they are being effectively covered elsewhere.

You can also reach David, Michelle and Clare directly at:
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