UK Terrestrial Evidence Partnership of Partnerships

The UK Terrestrial Evidence Partnership of Partnerships (UKTEPoP) has been created to bring together a key set of partners working in the field of terrestrial biodiversity surveillance and monitoring. It is intended to be a mechanism to share guidance and facilitate communication across the terrestrial surveillance and monitoring funded or co-funded by JNCC. The underlying principle is one of collaboration and knowledge exchange with the anticipated benefits of enhancing and developing efficient and effective joint working.

Organisations in the UK Terrestrial Evidence Partnership of Partnerships (UKTEPoP) have signed the following Declaration of Intent, setting out the main purposes and commitments of the Partnership. The UKTEPoP works to clearly defined Terms of Reference as set out below.

Declaration of Intent

1. We, the undersigned, have agreed, on behalf of our respective Partnerships, to work co-operatively together, through the UK Terrestrial Evidence Partnership of Partnerships, in order to:
    1.1. Sustain targeted biodiversity surveillance and monitoring that delivers high quality data for policy development and conservation gain.
    1.2. Share best practice around working with volunteers, including engagement with national and local schemes and societies.
    1.3. Consider potential new approaches to surveillance and monitoring.
    1.4. Analyse surveillance and monitoring data to better understand the status, and where possible the associated underlying processes, of biodiversity and other natural capital assets.
    1.5. Deliver accessible metrics that further the understanding of species condition, site condition and ecosystem function for conservation practitioners and more widely, including for assessment and development of policy areas that affect biodiversity.
    1.6. Disseminate surveillance results and information across the Partnership and more widely.
2. We are committed to:
    2.1. Maintaining and developing co-ordinated, nationwide networks of volunteers to carry out long-term surveillance and monitoring, enabling us to deliver distribution and population trend information.
    2.2. Developing, where possible, standardised survey designs and methods to facilitate information exchange and opportunities for co-analysis and reporting of data and information.

2.3. Working towards open data1 delivered through existing and emerging networks including the NBN Atlas.

2.4. Establishing an annual science based meeting to exchange ideas and ways of working with the aim of informing the work planning of each member of the UKTEPoP.

2.5. Sharing best practice, and providing advice on priorities for scheme development and analysis.

2.6. Working collaboratively beyond the Partnership to share our collective experience and to learn from others as we develop new analytical techniques and potentially set-up new monitoring/surveillance protocols.

2.7. Investigating the potential for co-funding of activities that further the aims of the Partners whether collectively or as smaller project led consortia.

The Partnerships in alphabetical order

Biological Records Centre (covering multiple schemes and societies)
Avian Demographic Scheme
Breeding Bird Survey
Goose and Swan Monitoring Programme
National Bat Monitoring Programme
National Plant Monitoring Scheme
National Pollinator Monitoring Scheme
UK Butterfly Monitoring Scheme
Wetland Bird Survey

Organisations that make up the Partnerships

Botanical Society of Britain and Ireland
Bat Conservation Trust
British Trust for Ornithology
Butterfly Conservation
Centre for Ecology and Hydrology
Department of Agriculture, Environment and Rural Affairs
Department for Environment Food & Rural Affairs
Forestry Commission
Joint Nature Conservation Committee
Natural England
Northern Ireland Environment Agency
Natural Resources Wales
Plantlife
Royal Society for the Protection of Birds
Scottish Government
Scottish Natural Heritage
Welsh Government
Wildfowl and Wetlands Trust

[1] whilst having regard to any legal implications (e.g. around the Data Protection Act), as well as any conservation concerns, particularly around sensitive species.

3. Terms of Reference

3.1. An annual science meeting will be held ideally in October each year and may involve invited speakers and guests.

3.2. JNCC will act as secretariat for the UKTEPoP and will produce agendas and records of meetings and disseminate results and information across the whole Partnership.

3.3. The Partnership will, where required and appropriate, interact with work undertaken as part of the Terrestrial Surveillance Development and Analysis MoA2 and any other similarly established areas of work.

3.4. The Partnership is not time limited but may be reviewed periodically.

4. The Annual Science Meeting

4.1. The annual science meeting will be organised by JNCC

4.2. JNCC will seek to make provision for NGO partnership organisations to attend and contribute to the annual meeting.

4.3. Each Partnership will contribute to the successful running of the annual meeting which may include preparing papers or presentations.

4.4. The meeting will have two key parts:

4.1.1. A showcase for Partnership work underway and proposed.

4.1.2. A discussion forum to enable a range of interactions from simple knowledge exchange through to co-design and operation of new monitoring protocols.

[2] Detail given at Appendix 1

Appendix 1 – extract from MoA for Terrestrial Surveillance Development and Analysis 2017 to 2022

SCHEDULE

1. Project description

1.1 This collaborative research project aims to provide development and analysis functions across a wide range of current and future terrestrial biodiversity surveillance schemes in the UK. This is in recognition that most schemes face common problems, such as ensuring adequate geographic coverage, developing effective data management systems and data interpretation. Importantly, cross-scheme analytical products are required in order to provide coherent advice to policy-makers regarding the impacts of pressures and interventions on biodiversity. In addition to providing developmental advice and analytical products, the project should aim to facilitate an increase in volunteer participation in biodiversity monitoring.

1.2 The project will consider the following long-standing biodiversity surveillance partnership schemes supported by JNCC:

- Biological Records Centre (covering multiple schemes and societies)
- Avian Demographic Scheme
- Breeding Bird Survey
- Goose and Swan Monitoring Programme
- National Bat Monitoring Programme
- National Plant Monitoring Scheme
- UK Butterfly Monitoring Scheme
- Wetland Bird Survey

1.3 This Schedule sets out the work to be carried out by the Parties from the commencement of this agreement to 31 March 2022. Objectives of the Project are set out in Section 3 and a detailed work programme for the first year is provided in Annex 1.

2. General principles

2.1 **Robust research:** Partners are committed to carrying out research to meet the project objectives around exploring and proposing new scheme developments and analyses (see Section 3). The specific tasks to be carried out in year 1 are set out in the work programme in Annex 1, and work programmes for later years will be agreed during the Agreement. Work should be carried out in a scientifically robust manner, making use of the latest advances in the field where these are relevant, and being ready to develop, use and evaluate novel approaches to address the objectives. Quality assurance procedures should be followed, for example ensuring an appropriate level of peer review.

2.2 **Collaboration:** Partners agree to deliver this Project in a collaborative manner. The roles of the different partners are set out in section 5 of this schedule. In addition, the project approach will aim to encourage and to develop collaborative partnerships with country nature conservation bodies, Defra, scheme organisations and other stakeholders so that they will have the potential to influence the work undertaken to ensure that it is maximally fit for purpose. Initial work will help to shape the direction of the subsequent work programme, and ensure that it is co-developed with funders, scheme organisations and stakeholders. In particular, the project will undertake a number of activities early on to assess stakeholder data and information needs and how those compare with the current JNCC Terrestrial Surveillance programme, scheme outputs and related research initiatives. A key means of achieving this will be through engagement with the JNCC Terrestrial Evidence Partnership of Partnerships (TEPoP), including participation at an annual science meeting.

2.3 **Free and open access to products arising from this project**: Where possible the Partners agree to the principle of free and open access to the data and products newly created through this project, whilst having regard to any legal implications (e.g. around the Data Protection Act), as well any conservation concerns, particularly around sensitive species. See also the Memorandum Section 13. Outputs from this project will be licensed under an Open Government Licence (OGL) to facilitate maximum use being made of them and outputs of the project being accessible for the public good.

3. Project Objectives

3.1 The Project Objectives are to:

- Improve geographical representation in volunteer surveys through providing advice on additional stratification, targeting and incorporation of additional surveys
- Identify best practice for online recording, data management, streamlining analytical methods and volunteer recruitment and retention
- Assess the need for new parameters within schemes, and consider implementation issues, including suitability for volunteer recording, training needs and mode of analysis
- Consider how new techniques (e.g. DNA methods, automated sound recognition) can be integrated with current methods
- Improve models and statistical techniques to link species presence and abundance with habitats, condition, management and landscape parameters
- Link species trends to pressures and drivers
- Provide metrics of change in community structure and function

4. Roles and Responsibilities of the Partners

4.1 All Parties agree to work within the spirit of the principles outlined in Section 2 of this Schedule to achieve the objectives of this project set out in Section 3. Specific tasks for the first year are set out in the work programme (Annex 1). Future work programmes will be agreed by the Management Group throughout the course of the Project (See Section 6). Partners agree to provide the resources identified in Section 5.

4.2 Each Party shall maintain proper records relating to the Project. All Parties shall reserve the right to request reasonable access to such documentation for the purposes of examining all records relating to the Project.

4.3 Partners in the project also have distinct roles and responsibilities which are set out below.

Table 1. Roles and responsibilities of Partners

Partner	Role
JNCC	• Participate in Management Group providing intellectual input on work programmes, deliverables and project direction. • Ensure partnership is kept informed on JNCC work areas relevant to tasks within the work programme • Participate in cross-cutting TEPoP. • Provide funding (on behalf of the Statutory Nature Conservation Bodies).
CEH	• Carry out tasks specified in work programme. • Responsible for administrative, financial and project management functions. • Participate in Management Group providing intellectual input on workplans, deliverables and project direction. • Participate in cross-cutting TEPoP. • Provide funding.
BTO	• Carry out tasks specified in work programme • Responsible for administrative, financial and project management functions. • Participate in Management Group, providing intellectual input on workplans, deliverables and project direction. • Participate in cross-cutting TEPoP. • Provide funding.

Annex 1. Work Programme for 2017/18

Task	Approach	Deliverables
D1: Gap filling: *Respond to the need of CNCBs for additional recording in particular geographic regions or habitat types*	• A rapid review of the information requirements of stakeholders (e.g. CNCBs) using structured interviews	• D1.1 A summary report describing and ranking monitoring priorities, along with full documentation of the interviews.

and assess how this may be achieved. This assessment should take into account the full range of terrestrial biodiversity survey that is ongoing.	• mapping of data availability across taxa, habitats and regions, with respect to policy priorities and the data quality required for effective inference •	• D1.2 A summary report allowing ready identification of monitoring coverage across different taxa, regions and habitats. •
A1: Models for prediction: *Improve models and statistical techniques to link species presence and abundance with habitats, condition, management and landscape parameters. The intention should be to derive relationships that are sufficient for use within predictive models of land use change.*	• A scoping exercise with two parallel aims: 1) to critically assess the shortcomings of existing models in the context of prediction, and 2) to evaluate the needs of stakeholders for predictive models, with reference to data and method availability.	• A1.1 A roadmap for scenario-based modelling using UK biodiversity data, linking existing models with policy requirements.
A2: Trends and Drivers: *Link species trends to pressures and drivers. This work should be done across multiple taxonomic schemes in order to provide a more comprehensive understanding of how pressures impact biodiversity.*	• Construct statistical models linking the arrival of invasive aliens with changes in the distribution and abundance of native species. Work will consider the broadest possible taxonomic scope, from rapidly expanding invertebrates to more established alien bird and mammal species, and consideration of their effects upon a range of taxa. Thus, analyses will consider the potential for impacts to occur both within a taxon, and across taxa and trophic levels.	• A2.1 One or more policy-relevant scientific papers on the impacts of increasing non-native species upon native biodiversity.
Project Management	• Ensure all aspects of good project management (governance, planning, risk, quality and controls) and is applied at a scale relevant to the proposed work, using established protocols and corporate systems. • Ensure good engagement with the Project SG and the Terrestrial Evidence Partnership of Partnerships.	• Project risk register and issues log. • Papers for Steering Group meetings. • Steering Group minutes • Input to TEPoP science meeting.