

Overview of signals from local and national monitoring will guide us to nature recovery (JNCC Report 804)

This is a summary of the report "Local Change Monitoring is Essential for Complementing National Monitoring" for more information about this work please refer to the <u>full report</u>.

We have a broad understanding of how and why biodiversity is declining in the UK. However, to effectively inform decision-making and intervention, we need to be able to predict how biodiversity will change depending on a set of actions, including policy outcomes.

Established national monitoring schemes using citizen science currently provide broad-scale insights into species trends across the UK, but they often fall short of capturing the finer-scale changes needed to inform interventions at a local level. The need for monitoring and data collection at regional and local levels is increasing (e.g. for Protected Landscapes, and Local Nature Recovery Strategies in England). Many organisations are investing in nature recovery and need to be able to evaluate effectiveness and track progress. These data are also required to support financial investment in nature. There is an opportunity to support standardised monitoring at the local level which would simultaneously directly support national and regional decision-making. This approach enables local data collection to meet the specific evidence needs of communities and land managers, while also contributing meaningfully to broader environmental assessments.

In this work, we have defined the advantages of local monitoring approaches and how they can help fulfil evidence needs. Specifically, we have shown that a consistent monitoring approach across scales can help with broader evidence needs and can help contribute to:

- Decision-making: Guiding and assessing policy, informing interventions and
 investments by providing early indicators of change. Analysing how investment and
 interventions impact biodiversity and nature across multiple local areas can help build
 a broader understanding of key drivers by combining individual findings. Effectiveness
 can be assessed more rapidly due to shorter time lags between implementation and
 measurement.
- **Supporting tools**: Supporting tools are tools that enable decision making such modelling or analytical tools. Those tools such as modelling and projection require evidence on the impact of multiple interventions on specific species, and an understanding of the effect sizes of interventions across different species.
- Assessing and reporting change: National monitoring programs are often taxonspecific, whereas local-scale monitoring enables a more holistic approach by capturing
 data on multiple species. This broader scope increases the sampling size across
 species within a given area and supports comparisons between local and national
 trends. By aggregating evidence from multiple local monitoring sites, it also enhances
 the ability to detect early indicators of change.

This complementary approach aims to enable local monitoring initiatives to benefit from the experience of national monitoring schemes in sampling design, data collection, and stakeholder engagement. In turn, local-scale monitoring can support national efforts by providing early indicators of change, insights into the cumulative impacts of drivers and pressures, more holistic monitoring, and targeted observations.

Here, this report identifies the evidence needs that the complementary approach could help fulfil. The next step is to enable data collection by:

- (i) Identifying evidence needs where data gaps exist.
- (ii) Aligning local and national monitoring efforts.
- (iii) Supporting monitoring methods alignment across scales to facilitate efficiencies, coordination and consistency among local stakeholders, researchers, and policymakers.
- (iv) Improving data integration and multi-scale monitoring.

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