Wildlife and Countryside LINK

Link position statement on the inclusion of species considerations in developing Local Nature Recovery Strategies

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Purpose

The purpose of this paper is to highlight the critical importance of integrating species recovery considerations into the development of Local Nature Recovery Strategies (LNRSs). While exclusively habitat-focused approaches will deliver benefits for many species, alone they will not be sufficient to meet the statutory target of halting species declines by 2030 (Environment Act, 2021). This paper makes the case for integrating species-led and habitat-led approaches, and identifies key considerations, steps and requirements to achieve this. Most importantly at this stage, we ask Defra and Natural England to include the necessary provisions in its forthcoming LNRS guidance and ensure that species considerations are adequately resourced.

Background

With the continuing trend of decline in species in the UK since the 1970s[1], and the target in the Environment Act (2021)[2] to end the decline of species abundance by 2030, it is essential that the needs of species are effectively considered when Local Nature Recovery Strategies (LNRSs) are developed over the next 18-24 months.

Practically, for many taxa (i.e. taxonomic groups of species), there are enough local data and ecological knowledge available in each LNRS area for this to be undertaken locally. For these, the LNRS development process will provide the opportunity to map where action needs to be taken as part of the overall spatial strategy for the area. However, for more complex and numerous taxonomic groups, such as invertebrates (excluding butterflies), bryophytes (mosses and liverworts), lichens and fungi, there are fewer local experts and significant data gaps. For these groups, a process is needed that makes national expertise readily accessible to each LNRS, assisting with the identification of priority species and the development of species-specific recovery strategies.

Developing a contiguous, connected network of LNRSs across England is our best chance of halting the decline of species abundances by 2030. Indeed, connecting up individual LNRSs into a functioning national Nature Recovery Network will aid species resilience by providing "more, bigger, better and joined up habitat"[3], allowing species to flourish and to move through the landscape to breed, feed, and adapt to climate change.

To achieve success, species must not be a secondary consideration in the process, otherwise LNRSs will fail to halt the decline. Instead, the LNRS process must take species needs into account effectively from the outset. Furthermore, data and evidence on species' changing abundance and distribution will play a key role in measuring and demonstrating success (and failure), both for individual LNRSs and the national Nature Recovery Network. This will require planning and expert guidance.

This paper sets out Link's recommendations for ensuring that species recovery is optimally included in the LNRS process.

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[1] https://jncc.gov.uk/our-work/ukbi-c4a-species-abundance/

[2] https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted

[3] https://webarchive.nationalarchives.gov.uk/ukgwa/20130402154501/http://archive.defra.gov.uk/environment/biodiversity/index.htm

The Environment Act requires inclusion of species in the LNRS process

Species must be embedded in the LNRS process from the start, and an approach and process to do so needs to be identified, agreed on and implemented. This will ensure that LNRSs will then meet Clause 106 (2) of the Environment Act (2021):

'*The statement of biodiversity priorities referred to in subsection (1)(a) is to include—*

(b) a description of the opportunities for recovering or enhancing biodiversity, in terms of ***habitats and species****, in the strategy area,*
(c) the priorities, in terms of ***habitats and species****, for recovering or enhancing biodiversity (taking into account the contribution that recovering or enhancing biodiversity can also make to other environmental benefits)*'.

These clauses require that species are a core aspect of LNRSs. However, to date, there has been far greater emphasis on habitat-related opportunities and measures. For example, the five pilots emphasised habitats and a number of on-the-ground conversations with organisations that will be involved in developing the individual LNRSs suggest that they are expecting LNRSs to be habitat driven. It is essential that this mis-conception is addressed before the roll-out of LNRS guidance and resources.

For viable nature recovery, it is important to go beyond the section 41 list of priority species[4] and to ensure that all major taxon groups are included in LNRS work. The integration of species' needs into LNRSs must also extend to monitoring approaches, to ensure that species data contribute to the measurement and evaluation of LNRSs, including the mandatory five-yearly reports.

Vision

Our vision is that LNRSs, with **species and habitat recovery at their heart**, deliver the actions needed to ensure that LNRSs collectively add up to a national Nature Recovery Network, effectively target spending at the greatest priorities to help secure nature's recovery and contribute to achieving the Environment Act's binding 2030 target.

How

There are 4 aspects that need to be considered to embed species into the LNRS process. The ideas here are, to a large part, based on the experience of the Cumbria pilot (see Appendix for a summary of how species were dealt with in the five pilots):

1. Firstly, there is a need to **identify a list of priority species** for each LNRS area. Doing so will help to ensure that key species are not overlooked. This list should include species that are national priorities as well as those that have a local significance. There are a number of ways to achieve this (see steps below) but for each LNRS area, the list needs to be as comprehensive as possible, whilst still being practical.

Once there is an agreed list of priority species, there are a few ways that they can be embedded in the LNRS development process:

2. Many species' needs can be addressed by **associating the species with a priority habitat**. The habitat acts as a proxy for the species it supports, for example Brown Long-eared Bats/broad-leafed woodland; Smooth Snakes/heathland; Southern Damselfly/springs and

[4] https://jncc.gov.uk/our-work/uk-bap-priority-species/

seepages; Newbery's Rove Beetle/exposed riverine sediment. Identifying and prioritising the opportunities and priorities for the recovery of these habitats through the LNRS process then has a number of benefits for species associated with them.

a. By conserving and enhancing the habitat the scope for the recovery of species associated with the habitat is improved, although **habitat restoration/management will need to be planned with species in mind**.
b. Specific habitats are less likely to be overlooked than individual species in the LNRS process.
c. Referring to charismatic species associated with a given habitat that the LNRS seeks to recover, may engage stakeholders (e.g. land owners and managers) more easily than reference just to recovery of the habitat itself, and so increase the chances of delivering the opportunities for some rare and threatened species in LNRSs.
d. For these species, **good quality habitats that offer the full range of required ecological niches and increasing the connectivity of such habitats** within and between LNRSs should allow resilience with climate change. This applies not only for the priority species selected but also for a whole range of wider species, as well as strengthening ecosystem services and enhancing people's enjoyment and wellbeing.

3. We recommend that **a number of Important Species Areas (ISAs) be identified and included** within an LNRS. Each ISA would be an area of importance for a number of species and should constitute core areas of the Nature Recovery Network. They could be identified both through currently available data sets including, but not exclusively, Important Plant Areas[5], Important Bird Areas[6], Important Invertebrate Areas[7] and Important Freshwater Areas[8], to which can be overlaid records from other taxon groups which will highlight the hotspots with importance for diversity and abundance. With their on-the-ground knowledge, local experts should be able to contribute to identifying ISAs. These will need to be linked up to other opportunities to enhance connectivity through a mosaic of habitats and they can help show where opportunities exist to contribute to the 'bigger' element of the ecological network, in the parlance of the Lawton Report.

The steps to identify habitat association and ISAs will account for the needs of many species, but there will be a number that require bespoke targeted action.

4. It will be necessary to develop **a tailored approach for species with bespoke** requirements, that cannot be catered for by the approaches above. For example Natterjack Toad; Northern Dune Tiger Beetle; Ladybird Spider; Tadpole Shrimp. For such species there will be a need for identification of a separate set of opportunities and tailored management activity. Each species on the "bespoke" list would have its own set of opportunities, outcomes and measures. These species are sometimes well understood in terms of both their distribution and their needs. Indeed some such species already have all the information available to insert into this process and strong links to previous spatial conservation routes such as agri-environment schemes, local planning advice and existing and previous projects.

[5] https://www.plantlife.org.uk/international/important-plant-areas-international
[6] https://opendata-rspb.opendata.arcgis.com/datasets/RSPB::ibas-uk/explore?location=53.965672%2C-3.973271%2C6.82
[7] https://www.buglife.org.uk/our-work/important-invertebrate-areas/
[8] https://freshwaterhabitats.org.uk/research/important-freshwater-areas/

5. **Planning for evidence needs** is another important step, in order that species monitoring can contribute effectively to the evaluation of individual LNRSs and the wider Nature Recovery Network.

Finally, we would like to flag two further species related topics that we advise Defra to give guidance about to LNRSs. From the experience of the pilots, it is likely that **reintroductions** of species historically native to the British Isles such as beavers are likely to be identified as opportunities. This is to be welcomed and encouraged as to achieve nature's recovery, we need to ensure we have healthy, functioning ecosystems. That will require keystone species and ecosystem engineers currently absent across large parts of the country to be present. Although of course, reintroductions will need to follow IUCN guidelines – which require risk assessments to consider the risks and benefits of reintroduction – and adhere to current licensing processes.

There will also be occasions where there is evidence of the **past presence** of species in an area where it is no longer found, but where it might be considered a priority for targeted action to recover or restore the local population. The recency of the evidence, and the local and national significance of the species, will influence the decision-making in such circumstances and there is unlikely to be a 'one size fits all' approach. However, it would be beneficial for Defra's guidance to address such scenarios, including the potential role of an advisory Expert Hub (see below).

Species for which there is only historical data that are included in LNRS priority lists could then be flagged to Local Environmental Records Centres and/or national schemes as opportunities for boosting recording effort. This would determine whether the lack of records is down to local extinction or a lack of recording in the area.

When

With the roll out of LNRSs expected to be in the summer of this year (August?), there is a need to identify an approach and get the constituent parts of the mechanisms needed to deliver it in place over the next three to four months. Responsible Authorities will need guidance to be in place before they start so that they know what is expected. This will most likely be non-statutory guidance disseminated through the Natural England Senior Advisors involved with each LNRS steering group.

Steps

There are a number of steps that would be required to deliver each of the aspects discussed above:

1. The first step is for **LNRSs to identify local species priorities.** This could be achieved at the local level by using local groups and experts to identify their priorities and is likely to work well for birds, butterflies, mammals (including bats although national input might be needed to assist in some counties), amphibians and reptiles, freshwater species (via the local Rivers Trust and the Environment Agency) and plants. There are a number of regional Biodiversity Audits, such as at Breckland and the Norfolk Broads[9,10], which have generated high quality biodiversity data and these should form part of the evidence base. It is important **at this stage that nationally important/threatened species are taken into consideration**. Due to the patchy nature of available data and local interest, taxon groups such as invertebrates

[9] Dolman, P.M., Panter, C.J., Mossman, H.L. (2010) Securing Biodiversity in Breckland: Guidance for Conservation and Research. First Report of the Breckland Biodiversity Audit. University of East Anglia, Norwich.
[10] Dolman, P.M., Panter, C.J. and Mossman, H.L. (2012), The biodiversity audit approach challenges regional priorities and identifies a mismatch in conservation. J Appl Ecol, 49: 986-997. https://doi.org/10.1111/j.1365-2664.2012.02174.x

(including moths), bryophytes and fungi may need to rely on a national prioritisation approach (step 2).

2. For those taxa for which there is insufficient local knowledge (invertebrates excluding butterflies, plus bryophytes and fungi), **identifying a national priority list for understudied groups** will be required. This will need the input of experts and so could be in the remit of a new 'Expert Hub'. Creating such a hub would deliver efficiencies in the provision of advice to all 50 LNRSs and ensure that the LNRSs have suitable and timely access to the expertise they require. The process would require that:
    a. decisions about which priority lists (for example, section 41 and IUCN red lists are possible sources) species are chosen from and then determining which species from those lists are the priorities for the LNRS process. Experts would be needed at this stage to make decisions on prioritisation.
    b. there may well be species that could be deemed LNRS priorities that are missing from those lists and also species for which experts would deem inclusion on the list unnecessary or not practical in this context. National taxon experts would have an input here and they would also consider the range over which these species are found so that the final list is tailored to individual, or perhaps regional, LNRSs and should also reduce the numbers of species that Responsible Authorities need to consider.
3. Along with identification of priority species for each LNRS, **data will need to be made available to the Responsible Authorities of each LNRS for the relevant species**. For those that can be identified locally (birds, butterflies, mammals, amphibians and reptiles, freshwater species and plants), sufficient local data may already be available via Local Environmental Records Centres and county recorders. In addition, for bats, there are national GIS layers that could be made available to Responsible Authorities, along with guidelines for their use. For the remaining taxon groups, it is likely that national data sets will be required via, for example, national taxon experts (perhaps accessed via the Biological Records Centre or coordinated by the proposed 'Expert Hub') and the National Biological Network (NBN) Atlas. LNRS guidance should refer to the LNRS portal, currently being developed by Natural England, which should list all relevant data sources, taking full account of sources of species data
4. **Assignment of species to habitats** could be done locally along the lines of NERR024[11] or the recent work Natural England have trialled in Hampshire and Cumbria. However, it is unlikely that all the priority species identified will be in NERR024 and so, either way, there will be a need for some expert input at this stage. Again this might be part of the remit of the proposed 'Expert Hub' to either do the work or to facilitate it.
5. For **Important Species Areas**, there is already a body of work available identifying, for example, Important Bird Areas, Important Plant Areas, Important Invertebrate Areas and Important Freshwater Areas. These should be made available as part of the national habitat map, for example via the LNRS data portal, along with guidelines, provided by relevant NGOs, on how best to use them. They could inform local identification of Important Species Areas, alongside knowledge of local experts and the layering of other species data to help identify the areas of greatest diversity and abundance.
6. **Existing species-related initiatives** should be included, wherever possible and practical, in LNRS habitat maps and plans, such as The Wildlife Trusts' National Water Vole Database and Mapping project[12] and B-lines[13].

[11] http://publications.naturalengland.org.uk/publication/30025
[12] https://www.wildlifetrusts.org/national-water-vole-database-mapping-project
[13] https://www.buglife.org.uk/our-work/b-lines/

Assigning species to specific habitats would be an approach to incorporating rare and threatened species into both the map and the biodiversity statement. In addition this approach, based on species and their varying fine-scale needs within a specific habitat, should ensure that a balanced and holistic approach to habitat management is supportive of the greatest range of species and ecosystem services. There is the added bonus that if species are mentioned, then they might become hooks for delivering the opportunities.

Important Species Areas could be identified and mapped in their own right as opportunity areas, which may well cover a mosaic of habitats. Alternatively, they could be used as a GIS layer to help steer and identify opportunities in the stakeholder engagement phase of the LNRS process as could all species hotspots and species for which the LNRS area is of particular importance.

Consideration will also need to be given to the collection of data to monitor, manage and evaluate the progress of LNRSs and the Nature Recovery Network. All species data collected should adhere to the FAIR Data Principles (that it should be Findable, Accessible, Interoperable and Reusable) and should be shared, wherever possible, via the NBN Atlas, the UK's largest repository of publicly accessible biodiversity data. The proposed Expert Hub could advise on species monitoring, supported by advice on data standards from the National Biodiversity Network (NBN) Trust. The NBN Trust could also enhance the resources and tools available via the NBN Atlas to streamline the advisory process.

There are a number of steps, outlined above, where there could be a role for an 'Expert Hub'. Initial work would ensure that the first round of individual LNRSs are put together as well as possible. LNRSs will be an ongoing iterative process, and data gaps will be identified and filled over time, so there will be a long term role for the 'Expert Hub'. Natural England would be the obvious entity to host/coordinate such a hub.

Finally, how all this is incorporated into the final LNRS outputs of a Habitat Map and Statement of Biodiversity Priorities needs to be considered. The production of each LNRS – whilst being led by a Responsible Authority – will also need to engage stakeholders to identify opportunities and priorities. Species experts are a stakeholder group in themselves and so it is important to draw on their expertise during the LNRS process to identify opportunities for species recovery. This is particularly necessary for those species that need bespoke management and so will need opportunities, outcomes and measures that are specific to their management needs.

Potential remit of 'Expert Hub'

As outlined above, there are a number of places in the process where an 'Expert Hub' could play a role in:

- Identifying a national priority list for understudied species groups, which will involve liaising with national experts and relevant species NGOs. This would require that decisions as to which lists and other sources to draw from and expert input to determine which species should be prioritised for LNRSs. The 'Expert Hub' could also be the point of contact for LNRSs that need advice on these groups to help support identifying local priorities.
- Supporting some LNRSs that lack local input for taxa such as bats. This means that the 'Expert Hub' would need representation in some form from experts on all taxon groups.
- Helping/facilitating assignation of species to habitats.

Resources

To make sure that the work required is done to get everything in place by the roll out, there will need to be a commitment of resources. This will be an initial commitment for this round of LNRSs (see below) but as LNRSs will be an ongoing iterative process and data gaps will be identified and filled, there will be a need to commit some resource more long term. Natural England would be the obvious body to host/coordinate the work:

- **Expert Hub** (actions: which lists; prioritise; habitat assignment)
    - Restricted to invertebrates (excluding butterflies), bryophytes and fungi?
    - Determining which lists to use (actors: NE, some species NGOs, NBN Trust)
        - A discussion workshop?
    - Prioritise (NE, some species NGOs, national taxon experts, coordinator)
        - Will need some thought about maximum numbers of LNRS priority species for each group, along with some guidelines for inclusion/exclusion – 2 or 3 discussion workshops?
        - **1(?)xFTE coordinator** – 3 months initially, may be needed at **0.2xFTE** whilst LNRSs being put together (a further 15 months)?
        - **0.1xFTE NE** for duration of LNRSs development (@18 months?)
        - **0.1xFTE species NGOs** (1 for invertebrates, one for bryophytes, 1 for fungi?) – 3 months initially then less but sporadic time whilst LNRSs being put together?
        - **5-10(?) days work for each taxon expert** at beginning, then **a few days** more whilst LNRSs being put together?
        - **15-20 days' work** to develop enhanced tools on the NBN Atlas for screening species against priority lists and species reviews.
    - Habitat assignement (NE, some species NGOs, national taxon experts, coordinator)
        - Could be done as part of prioritisation process? If so, more time needed beyond that suggested above? Or not?
- **Data**
    - Nationally available. May need to get some from taxon experts (via coordinator) through to RAs via LNRS portal? Staff resource to deliver this?
- **Local work**
    - Should be part of resourcing allocation to RAs

Appendix

Species in the LNRS pilots

Much of our thinking on how to embed species in LNRSs comes out of discussions with Paul Evans (Cumbria LNP Manager) who was particularly proactive and did further work investigating categorisation species to habitats and other approaches. It is worth reflecting on how the five pilots approached incorporating species into their processes. Some applied aspects of our suggested approach. It is not really clear from the final documents how much effort was put into integrating species but at least two (Cumbria and Greater Manchester) involved county recorders at some stage.

There was a range of ways that species were dealt with in the different documents. Three pilots (Buckinghamshire, Greater Manchester and Northumberland) addressed species mainly through the description of their LNRS area.

More specifically for outcomes and measures:

- **Buckinghamshire** devoted a whole theme to '*Species and Connectivity*'. In that theme, there was one outcome specific to Black Poplar and one measure that mentioned water voles and otters. More generally, the outcome "*Favourable condition of invertebrate assemblages"* had the single measure "*Planting for pollinators*" and wetland birds and owls were mentioned . There was one outcome specific to invasive non-native species (INNS). Appendix 7 considered a number of potential species data sets but didn't use them, either because they lacked data and capacity (birds, butterflies and moths, mammals and invertebrates) or were a '*questionable reflection of stakeholder priorities*' (B-lines, Greater Crested Newts and Important Plant Areas).
- **Cornwall** also had a theme devoted to 'species' in which the outcome and specific measures were quite broad and no individual species was mentioned. However, they gave some example actions that referred to seals, bats and choughs, recommended introducing water voles and beavers and some measures against INNS. Each theme also had a panel that gave six (generally) broad groups of species that will benefit. The 'species' section stated that there would be a map that '*shows the species richness of places for 133 species of principal importance only*'. This was not available but was an intended output. Important Plant Areas were used.
- **Cumbria** addressed species in the most comprehensive way of the five pilots. One theme is '*Species*' and they had a whole section on '*Developing nature recovery outcomes for species in the LNRS'*, in which they set out a proposed approach in an appendix to:
    - *"Check accuracy of the rare/threatened Cumbria Species lists provided by CBDC (e.g. identifying extinct species, misidentifications, or 'unusual 'visitors') through consultation with Cumbria Species recorders/leads and where possible with both national and local species/conservation organisations*
    - *Agree a list of Cumbria Priority Species which reflect both national and local species issues*
    - *Assess species status/requirements against the LNRS Habitat Outcomes and Measures (noting there may still be a need for more detailed habitat niche/feature/management on particular sites) and where possible link species (or groups/assemblages of species) within the Cumbria list directly to the Habitat (Outcomes and Measures)*
    - *Suggest new (or revised) Outcomes where these could address specific species needs*

    - *Confirm list of Cumbria Priority Species which need 'Bespoke' management/measures beyond those outlined in the Habitat Outcomes/Measures"*
- **Greater Manchester** had five outcomes, along with six measures, for specific species, or groups (upland bees and hoverflies, mountain hares, otter, kingfisher, trout, salmon, sparrow, yellowhammer, corn bunting and bats). There were also four further outcomes and three measures devoted to more general groups of species. They also had a number of measures against INNS. Underlying the process, they chose a number of indicator species for each habitat.
- **Northumberland** had a column '*Associated species interest*' in tables summarising the key features and pressures for each habitat. It is difficult to know from their output how much work went into identifying the species associated with the different broad habitats. Two of their outcomes concerned groups of species (woodland-dependent species, and coastal waders and shorebirds), along with four measures (habitat for waxcap fungi, beaver reintroduction, native woodland wildlife corridors and roost sites for coastal waders). Again there were a few measures for controlling INNS.

Species and species groups that are currently in the public consciousness as a result of media coverage (beavers and pollinators) or are charismatic (birds, otters) tended to be mentioned most and invertebrates tended to be lumped together, often as pollinators.

LNRS Pilot outputs

Buckinghamshire:
https://bucksmknep.co.uk/nature-strategy/outputs/

Cornwall:
https://naturecios.org.uk/blog/uncategorized/nature-recovery-pilot/

Cumbria:
https://www.cumbria.gov.uk/planning-environment/lnrs/default.asp

Greater Manchester:
https://democracy.greatermanchester-ca.gov.uk/documents/s15769/ITEM%2010%20Annex%20B%20Local%20Nature%20Recovery%20Strategy.pdf