Local Nature Recovery Strategies: a guide to help bumblebees thrive

This guidance has been prepared to inform the responsible authorities developing Local Nature Recovery Strategies in England about how they can help bumblebees thrive.

Key points

Bumblebees are crucial pollinators in Britain, but many species have experienced significant declines. Local Nature Recovery Strategies (LNRS) in England offer opportunities to address threats to bumblebee populations and help ensure their recovery.

How can this be achieved?

- Prioritising bumblebee species listed under Section 41 of the Natural Environment and Rural Communities Act (2006), along with two further scarce species, within LNRS.
- Integrating bumblebee monitoring into LNRS plans using established schemes like BeeWalk and UKPoMS to evaluate conservation effectiveness.
- Mapping, protecting, restoring, and connecting critical bumblebee habitats, including species-rich grasslands, to safeguard their role in supporting bumblebee populations. This involves addressing the important challenge of accurately mapping species-rich grasslands to ensure their proper protection and restoration within LNRS.
- Collaborating with conservation organisations to address specific habitat needs of priority bumblebee species, enhancing conservation efforts.
- Coordinating actions with other government initiatives such as Environmental Land Management Schemes and Biodiversity Net Gain to maximise impact on nature recovery and bumblebee conservation, aligning with commitments outlined in relevant legislation.

Introduction

Bumblebees are key pollinators of wildflowers, fruits, and vegetables in Britain. Of the 24 British species, 23 are resident in England. In the last hundred years, a third of these species have seen dramatic declines in their distributions and several are listed as Section 41 Species of Conservation Concern. Reasons for individual species declines can be complex, but the most important driver is habitat loss, degradation and fragmentation, driven by agricultural intensification, pesticide-use, development, pathogens, and climate change. Local Nature Recovery Strategies provide an opportunity to help our most threatened species recover and bolster the populations of those which are more common, helping to conserve bumblebees, meet the species abundance target set out in the Environment Act (2021) and achieve the ambitions of the National Pollinator Strategy. Bumblebee (and pollinator) abundance and diversity also offers a way to measure the success of habitat interventions aimed at recovering nature. In this short guidance document, we set out how LNRSs can contribute to the recovery of our bumblebee species and the ecosystems they provide key services for.

Priority bumblebees

As a first step, we recommend each responsible authority checks for records of Section 41 (NERC Act, 2006) bumblebee species when deciding which species to prioritise as part of their LNRS. We would also recommend the inclusion of two scarce species which can be locally important in England in particular. Understanding neighbouring LNRS's priority bumblebee species is also important as we expect to see some species shift in range in the future, particularly in response to climate change.

Section 41 Species:

- Shrill carder bumblebee *(Bombus sylvarum)*
- Ruderal bumblebee *(Bombus ruderatus)*
- Red-shanked carder bumblebee *(Bombus ruderarius)*
- Moss carder bumblebee *(Bombus muscorum)*
- Brown-banded carder bumblebee *(Bombus humilis)*

Scarce Species:

- Bilberry bumblebee *(Bombus monticola)*
- Broken-belted bumblebee *(Bombus soroeensis)*

As well as information from Local Environmental Record Centres (LERCs), we recommend searching the NBN Atlas for verified bumblebee records, considering records post-2000 as current. Local natural history societies and county recorders are also likely to hold data but are likely to be affiliated with the relevant LERC. All Bumblebee Conservation Trust-collected data are uploaded to the NBN Atlas annually.

Monitoring bumblebees and other pollinators

We encourage every LNRS to incorporate bumblebee monitoring and general pollinator monitoring into their plans. Monitoring bumblebees and pollinators offers advantages such as making use of existing recording schemes, their relative ease of monitoring, and their potential to indicate successful nature recovery within an LNRS. The health of our bumblebee populations is of national importance with specific measures on bumblebee abundance in the Environment Act (2021) species abundance target and actions to monitor and recover pollinators laid out in the National Pollinator Strategy (2014).

BeeWalk (Bumblebee Conservation Trust)

BeeWalk is the standardised bumblebee-monitoring scheme active across Great Britain, initiated in 2008 and opened to the public in 2010. Volunteer BeeWalkers survey fixed-route transects once a month between March and October, recording the abundance of each bumblebee species seen. This data is submitted via the BeeWalk website, hosted by the Biological Records Centre, facilitating population trend analysis. The outputs of BeeWalk are extensively used to inform policy and conservation interventions, making it a vital tool in understanding, and protecting bumblebee populations across the UK.

UK Pollinator Monitoring Scheme (UKPoMS)

The UK Pollinator Monitoring Scheme (UKPoMS) is a collaborative effort aimed at assessing and tracking pollinator populations across the UK. Since 2017, it has collected systematic data on bees, hoverflies, and other flower-visiting insects at a national scale. This initiative, funded by the UK Centre for Ecology & Hydrology (UKCEH) and the Joint Nature Conservation Committee (JNCC), involves partnerships with various government agencies and organisations. Through citizen science activities like the Flower-Insect Timed Count (FIT Count) and systematic surveys, UKPoMS engages volunteers to monitor pollinator health and contribute to evidence-based conservation efforts.

Important habitats to map, protect and restore

Bumblebees in the UK thrive best in a mosaic of diverse habitat types, including meadows, grasslands, gardens, urban areas, woodlands, hedgerows, farmlands, heathlands, moorlands, and coastal habitats. Meadows and grasslands rich in diverse wildflowers provide abundant foraging opportunities, while gardens and urban areas offer a mix of flowering plants and suitable nesting sites. Well-managed hedgerows and flower-rich woodlands provide essential shelter and additional foraging resources. Nature-friendly farming can also support healthy bumblebee populations. Heathlands, moorlands, and coastal habitats such as well managed saltmarsh and sea-defences contribute to the overall habitat mosaic, offering varied vegetation and nesting opportunities across different landscapes. Collectively, these habitat types play a crucial role in maintaining bumblebee diversity and abundance throughout the UK.

Connectivity through and between these diverse habitat types is vital for sustaining healthy bumblebee populations in the UK. It allows bumblebees to move between foraging sites and nesting locations when foraging, as well as longer-distance dispersal for mating, overwintering, and establishing new colonies. Preserving corridors of suitable habitat and reducing fragmentation through conservation efforts helps bumblebees thrive across landscapes and makes them more resilient to threats like climate change. Tiny, standalone populations are

doomed in the medium to long-term if there is no way for them to disperse as the environment changes.

Special attention must be given to species-rich grasslands, which are essential for pollinating insects, yet have declined by more than 97% in the UK since the 1930s. There is a major challenge associated with mapping species-rich grassland habitats as they are not currently well-accounted for in existing datasets that LNRS' are likely to use, potentially leaving unmapped areas vulnerable to development or other land-use change, including other types of habitat restoration such as woodland creation. This means LNRS' may need to utilise other techniques, including field surveys, satellite imagery, and geographic information systems (GIS) to properly account for their species-rich grasslands and deliver effective nature recovery. Local knowledge – eg from LERCs or natural history groups – is likely to be key here.

For more detailed information on species-rich grasslands, we recommend LNRS's explore Plantlife's LNRS guidance document.

Priority species – additional considerations

If your LNRS has a priority bumblebee species present, we recommend additional steps to identify their specific needs and habitat requirements. For these species, general habitat considerations are unlikely to go far enough and opportunities for targeted conservation, including linking up with species-focused conservation NGOs such as the Trust should be explored.

Conclusion

In summary, the adoption of Local Nature Recovery Strategies offers a crucial avenue to counter the alarming decline of bumblebee populations in Britain. By prioritising key species, integrating effective monitoring schemes, mapping and safeguarding critical habitats, and fostering collaboration, we can chart a path towards their recovery and secure the essential ecosystem services they provide.