

Berkshire Local Nature Recovery Strategy ‘Species Priorities List’

Introduction

Species are the types of animals, plants, fungi, and other living things that exist as part of nature. Local Nature Recovery Strategies (LNRSs) are designed to help to recover populations of species, especially those which are at risk of extinction from the local area. Many species are expected to benefit from the actions (measures) that are already listed on the LNRS's 'List of Priorities and Measures' document, but some species will need measures which are more specific. This document has used available information to identify those species in Berkshire which are believed to need more specific recovery actions to support population increase within Berkshire.

Government asks that all LNRSs incorporate these species priorities list with a manageable number of deliverable species priorities to help target local resources towards halting the loss of biodiversity. They advised that all LNRSs focus on species that the strategy can best support, and which reflect the species issues that are of greatest importance to the strategy area, local people, and local organisations.



Two hedgehogs at Coningsby Close. Credit: Nick Bell

What is the Species Priorities List?

Government guidance advises that all LNRSs follow particular processes to create a written list of local priority species and to propose specific measures (actions) which would help to recover and enhance local populations. The Species Priorities List contains a table of **88 target species**, collected into **43 categories/habitat assemblages** in Berkshire which need particular and specific actions to be taken by people and organisations to support their populations to survive, recover, or spread further. This document is one of four LNRS elements; three written documents and a map tool. The other two documents, together, describe Berkshire and its opportunities, and list specific habitat-based priorities and measures for nature recovery. The interactive map tool displays the mapped locations of strategic significance for delivering potential measures. The species listed below are not mapped in the Local Habitat Map. These species may be reconsidered for mapping for the next publication of the Berkshire Local Nature Recovery Strategy.

How was this list made?

The Berkshire LNRS Species List was produced by refining a longlist of 1,408 species which are all considered to be 'Threatened' or 'Near Threatened' by extinction from Britain, which are also found in Berkshire. The listing process followed a methodology outlined by Natural England and Defra which can be viewed on a summary flow chart image in Figure 1.

In Berkshire, the species listing process was greatly supported by Thames Valley Environmental Records Centre and by species experts including those who record species within the county. Experts helped to add and remove species from the list to help sense-check the process. They also helped during the listing process by informing the LNRS about which actions were needed to support different species, the locations they are found in, and the types of habitats that these species relied on for survival. See the full list of those who contributed in the Acknowledgements at the end of this document.

This support allowed the LNRS to reflect which species needed similar broad habitat actions and which needed something more specific. There are many threatened and near threatened species in Berkshire who are considered to need improvements to habitats or the creation of new areas of habitat in Berkshire. Many of these species are expected to be supported through the habitat-based potential measures listed on the List of Priorities and Measures already. **This is why they are not listed again below.** Species that have much more specific needs are being represented on this list. To prevent the loss of further biodiversity in Berkshire, it is of key importance to support both sets of priorities.

Various species included are also listed as Priority Species in the Countryside Stewardship Statements of Priorities, in the five National Character Areas of Berkshire (NCA110, NCA115, NCA116, NCA129, NCA130). National Character Areas describe the natural borders across our landscape, based on differing landscape character and underlying geological diversity, rather than administrative boundaries. These include many species in the farmland bird assemblage, Bechstein's bat, Desmoulin's whorl snail and juniper. For more information on NCAs and their species see here.

How to navigate this document?
Individual species or groups of species are grouped into taxa, and within these are listed in alphabetic order (A – Z) by a common name (where a common name is known). To the right of each species/assemblage, you will find see a column that tells you the actions (measures) which the LNRS recommends would support the recovery or increase the presence of that species in Berkshire. The third column then tells you any particular locations, where known, where the species is expected to need focused support. Finally, the right column indicates Latin names of species which are expected to particularly benefit from that action (measure) being carried out in Berkshire.

Disclaimer: The hyperlinks within this document are working at the point of publication, but it cannot be ensured that links remain valid and or/point to safe websites.

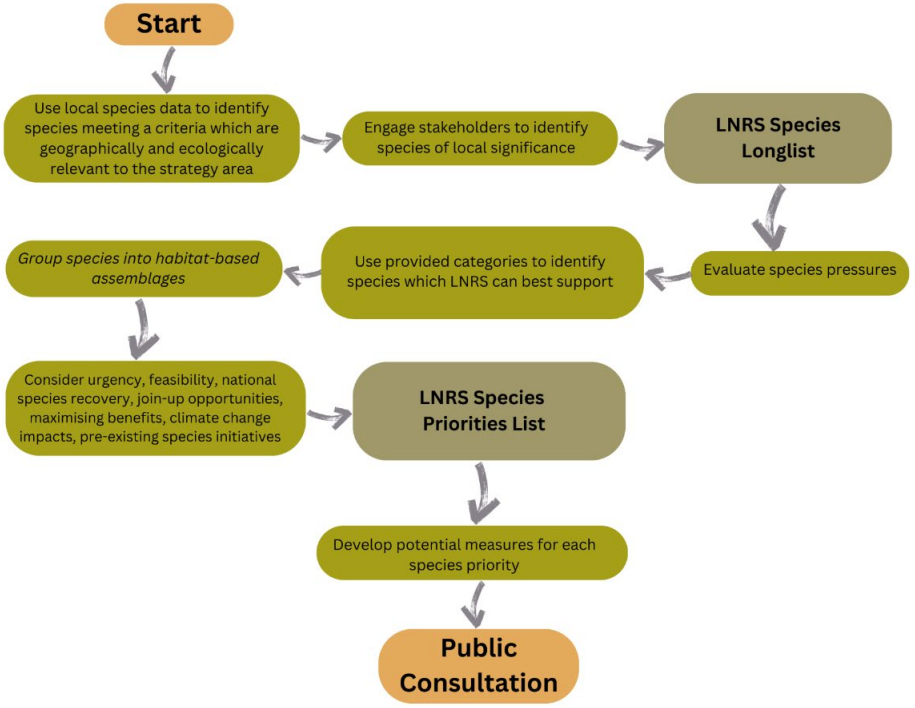


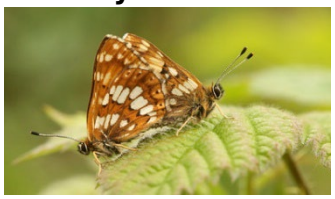
Figure 1: Summary flow chart of process of LNRS Species Priorities List creation.

Species or assemblage name	Species specific measures and further guidance	Locations present within Berkshire (notes from species recorders)	Species binomial name(s)
Reptiles and Amphibians (Herpetofauna)			
Adder 	• Create new areas that include a mosaic of heathland, scrub, and woodland habitat or manage and improve existing mosaic habitats to reintroduce adders. Manage these areas to create and retain structural diversity like rides and glades. • Vary ground topography to create topographical features for basking (e.g. bare ground, tree stumps or exposed banks) and hibernation sites (e.g. fallen trees, abandoned burrows, bracken banks, piles of brash, etc). • Limit the presence of game birds within core adder habitats (locations in the right-hand column of this table and locations with 10+ counts of adders in any one day). • Undertake education on human disturbance in adder habitat sites. • Link habitats via suitable habitat corridors to prevent fragmentation of populations. *Further guidance* *Saving species: Adders | Amphibian and Reptile Conservation* *Volunteering opportunities*	Thames Basin Heaths SPA, California Country Park, Gorick Plantation, The Kennet terrace heaths, Greenham Common, Crookham Common, Bucklebury Common, Snelsmore Common, Padworth Common, Mortimer Common	Adder (*Vipera berus*)

Rare amphibians 	• Create or maintain large, fish free ponds, which ideally are within 1km of other ponds that could support great crested newts and other rare amphibians. Aim to have diversity within pond structure, depth, shape, and edge vegetation. Include gently sloping margins. • Within suitable range of breeding ponds, ensure the existence of foraging habitats and undisturbed areas of deadwood or stones for hibernation which can include creating hibernacula. • Maintain a 100m disturbance buffer around ponds supporting rare amphibians, where machinery and chemical activity are restricted. • New development/infrastructure should include required amphibian friendly landscaping e.g. dropped kerbs, wildlife-friendly gully pots and SuDS ponds. • New development/infrastructure covering short distances should include amphibian tunnels/culverts. *Further guidance* *Great Crested Newts have suffered significant declines and as a result are listed as species of principle importance under legislation offering them a high degree of protection as a European protected species. Creating ponds to support this species would also support a wide range of species. Support Great Crested Newts by managing habitats to meet relevant requirements with organisations who can support this or following habitat guidance.*	NatureSpace pond creation priority locations	Great crested newt (*Triturus cristatus*), Common toad (*Bufo Bufo*), Palmate newt *(Lissotriton helveticus)*

Invertebrates			
Adonis and Chalkhill Blue butterflies  	• Implement close grazing to maintain horseshoe vetch and bare ground. *Further guidance* *Volunteering opportunities* *Chalk Hill Blue | Butterfly Conservation*	Lardon Chase, Lough Down, the Holies, along Ridgeway verges	Adonis blue (*Lysandra bellargus/ Polyommatus bellargus*), Chalkhill blue *(Polyommatus coridon)*
Beetles of Deadwood 	• Plan future generations of veteran trees by supporting select existing trees to reach veteran status or undertaking veteranistion management (creating damage to produce canopy deadwood/rotholes. • Provide a matrix of flower resource in spring and summer. • Provide future continuity of dead wood (both standing and stumps) through a programme of planting. Leave dead wood (particularly standing dead wood) in situ. • Burn felled live conifers in areas of historic records of *Melanophila acuminata*. Retain scorched fragments and ash from fire sites to create burnt wood niches.	Windsor Great Park, surviving fragments of the former Windsor Forest elsewhere in Berkshire that may support veteran trees	*Scraptia fuscula,* *Phyllodrepa nigra,* *Gnorimus variablis,* *Sericoda quadripuncata,* Violet click beetle (*Limoniscus violaceus*)

Beetles of Deadwood (continued)	• Consider other management options such as pollarding and opening up the canopy (by removing young trees adjacent to veteran trees) to avoid over-shading to increase longevity. *Further guidance*		
Black Darter 	• Maintain heathlands, preventing shrub encroachment by light grazing or active management and exclude Rhododendron. • Create ponds in heathlands to a minimum depth of 500mm and limit dog access (especially those treated by tick insecticides) by fencing or being out of sight of paths. • Maintain stable water levels to permit development of sphagnum, which should not be excessively trampled on. *Further guidance* *The absence of fish is beneficial. Low pH (below 6.0) is usual but not necessary.*	Swinley Forest (Buttersteep, Bush Fields, Crowthorne Forest) Padworth (50 Acre Piece and Burnt Common), Decoy Heath	Black darter (*Sympetrum danae)*
Desmoulins' whorl snail 	• Create fen areas with a long, rotational cut. • Create areas of swampy, unshaded ground with tall waterside plants. *Further guidance*	The Kennet and Lambourn Valleys, Boxford, Bagnor 'The Wilderness' near Kintbury, Thatcham reedbeds	Desmoulin's whorl snail (*Vertigo moulinsina*)

Drab Looper 	• Ensure foodplant wood spurge is present in recently coppiced woodland. • Transplant Wood Spurge from shaded woodland areas into newly cleared areas if it doesn't appear naturally after woodland clearance. *Further guidance* *Drab looper* *Volunteer with The Berkshire Moth Group*	Moor copse, Central belt of Berkshire between Newbury and Reading, specifically Frilsham, Rushalls Farm, Kings Copse, Greyfield Wood Declining from its historical areas north of the M4, (Ashampton Common, Hampstead Norreys, Leys Field)	Drab looper *(Minoa murinata)*
Duke of Burgundy butterfly 	• Retain some scrub on grasslands sites to provide shelter and encourage lush, upright cowslip leaves. • Maintain >10% scrub cover with a range of ages in clearings/edges. Cut on rotation to minimise overshade. • Cut/bruise dense bracken areas. • Initiate light grazing (avoiding sheep) in open areas to create open, grassy, sunny conditions. Further guidance	Dry grassland – all current Berkshire sites are on scrubby grassland feeding on cowslips	Duke of burgundy (*Hamearis lucina*)

Glow-worm 	• Encourage a mosaic of vegetation and open areas. • Encourage damp hedgerow habitats at the edge of unimproved grassland to support prey species (snails). • Create new habitats adjacent to known glow worm areas (females cannot fly). • Reduce light pollution near to habitats. • Carry out surveys of existing and possible sites to improve understanding of the species. Further Guidance	Very localised sitings mainly reported around: Aldermaston; Bucklebury; Burghfield Common; Cookham; The Goring Gap; Greenham Common; Hermitage; Kennet and Avon Canal; Lower Basildon; Lambourn; Sandhurst and Windsor Great Park Sometimes also found near railway lines	Glow-worm *(Lampyris noctiluca)*
Moths of birch and alder heathland 	• Coppice birch and alder in lowland deciduous wet woodland. *Further guidance: Both very rare in Berks. Greater effort is needed to find these species using pheromone lures* Large Red-belted Clearwing White Barred Clearwing *Volunteer with* The Berkshire Moth Group *Volunteer with* Butterfly Conservation Upper Thames Branch	Berkshire heaths Particularly some BBOWT sites, e.g. Snelsmore Common	Large red-belted clearwing (*Synanthedon culciformis*), White-barred clearwing (*Synanthedon spheciformis*)
Moths/butterflies with specific foodplants 	• Generally: encourage food plants kidney vetch, bindweed, butterbur, dark mullein and hemp agrimony. • Generally: record areas that still have food plants present, then survey for the associated moth. • Generally: instigate plug plants into new potential areas for particular food plants. • Butterbur moth: Ensure marshy places and river-side habitat is present. Ensure foodplant butterbur is present.	South facing slopes in North Wessex Downs Marshland at Kennet and Avon canal near Thatcham Butterbur- Thatcham Reedbeds Scarce Burnished brass – Thatcham Reedbeds	Butterbur (*Hydraecia petastitis),* Scarce burnished brass *(Diachrysia chryson),* Four spotted moth *(Tyta luctuosa),* Striped lychnis

Moths/butterflies with specific foodplants (continued)	• Striped lychnis: Ensure foodplant dark mullein is present in chalk grassland. *Further guidance* -Scarce burnished brass , Four spotted moth, Striped lychnis, Small blue *Volunteer with* The Berkshire Moth Group *Volunteer with* Butterfly Conservation Upper Thames Branch	Striped Lychnis- the Maidenhead area and the Goring Gap Recorded at Westridge Green and close by on the Ridgeway in 2024	*(Cucullia lychnitis),* Small blue (*Cupido minimus*)
Scarce blue-tailed damselfly 	• Maintain sites at an early successional stage, with open conditions. • Maintain water levels and flow at artificial and natural sites. • Avoid implementing drainage on occupied sites and appraise planned abstractions in relation to the likely effects on the species. • Use livestock to graze vegetation and poach ground near to runnels and other suitable habitat. (Disturbance is a key factor in managing for the species, preventing succession and maintaining bare areas). • Where possible, undertake periodic creation and clearance of a series of open ponds to help to retain the species in an area. • Create new ponds close to existing sites to encourage colonisation. *Further guidance: The Scarce Blue-tailed Damselfly needs to be carefully considered in any management plan for suitable sites. It should be a conservation priority to retain colonies where they currently exist, with a focus on trying to provide on-going management for the species.* *See British Dragonfly Society Management Advice*	Fifty Acre Piece in Padworth, Buckler's Forest	Scarce blue-tailed damselfly (*Ischnura pumilio*)

Silver studded blue butterfly 	• Manage heather and encourage presence of specific ants (*Lasius niger and Lasius platythorax*). • Manage site to produce a succession of pioneer heather and plentiful bell heather. • Investigate potential for translocation to restored heathlands. *Further guidance*	Crowthorne, Aldermaston Soke	Silver studded blue (*Plebejus argus*)
Silvery Arches 	• Maintain birch woodland and foodplants like birches, sallows or bog-myrtle. • Closely monitor population. • Work closely with the Crown Estate to ensure habitat is maintained. • Survey on other Berks heaths with historical records. *Further guidance* *Silvery arches* *Volunteer with The Berkshire Moth Group* *Volunteer with Butterfly Conservation Upper Thames Branch*	Woodland between Easthampstead and South Ascot, Swinley.	Silvery arches (*Polia hepatica*)
Variable chafer beetle 	• Conserve traditionally managed orchards containing old trees with hollow trunks for the larvae. • Ensure that flowering plants including umbellifers, hawthorn, rose and elder are available to provide resources for the adults. • Ascertain whether tree recruitment rates have been sufficient to prevent an age gap in availability of red-rotten oak trees, and that recruitment is occurring. • Study the potential of fungal inoculation to start the development of suitable red-rotten wood. This requires trees to be of sufficient age to have developed a core of heartwood.	Windsor Great Park (one of only two sites in the UK)	Variable chafer beetle *(Gnorimus variabilis)*

Variable chafer beetle (continued)	• Allow natural regeneration or plant oak and beech trees in places where they can be allowed to persist for hundreds of years. • Avoid tidying away pieces of fallen decaying wood or removing old standing dead trees. • Continue/reintroduce traditional practices such as pollarding and coppicing. • Collect acorns and distribute into suitable areas. • Carefully plan planting of new trees near old oak trees (oak is a light-demanding tree and sensitive to overcrowding). • Where important trees are experiencing crown competition from adjoining younger trees, the younger trees should be removed gradually over a period of years. *Further guidance*		
White-legged and Clubtailed Dragonfly  	• Maintain good water quality. • Maintain plentiful tall bankside vegetation and 'open' riparian terrestrial habitat (not wet woodland). *Further guidance* *See British Dragonfly survey 2023*	Barkham Brook: records near Arborfield Green, River Kennet: records west as Fobney Island Nature Reserve, Reading, River Thames: recorded Maidenhead westwards across Berkshire, Additional sites: notable population in wetlands south of Aldermaston, Windsor Great Park, The Goring Gap	White-legged damselfly (*Platycnemis pennipes*) Clubtailed dragonfly *(Gomphus vulgatissimus)*

White clawed crayfish 	• Undertake targeted surveys, including eDNA, to establish whether white-clawed crayfish are still present in the county, including on small tributaries which may not contain signal crayfish, and inform landowners of management and conservation safeguards should any populations be discovered. • Establish ark sites if necessary to maintain populations. • Consider modifying habitat in waterbodies with known populations by providing additional refuges (earthenware pipes, tiles and flowerpots). • Promote local biosecurity (crayfish plague is not just spread by signal crayfish, there are a variety of disease vectors, including through fishing gear). • Survey to improve knowledge of current distribution. Inform landowners, developers and other stakeholders of presence. *Further guidance* *The current distribution of White-clawed crayfish is not known and that recorded absence by survey may overlook very sparse populations which eDNA surveys can pick up. White-clawed crayfish have almost become extinct in Berkshire and the catchment of the River Thames, mainly due to the spread of the invasive Signal crayfish and the fungal disease crayfish plague. The Crayfish Conservation Manual*	Most recently recorded at Barkham Brook, Hamstead Park	White clawed crayfish (*Austropotamobius pallipes*)

Mammals			
Bats 	• Identify woodlands where bats exist and roost and log sightings to TVERC. • Retain mature, dead, and dying standing trees, especially trees with cracks, loose bark, ivy, and holes or hollows. • Maintain dark and humid conditions near known roosts. • Prioritise low intensity woodland management techniques (such as hand harvesting and select-felling) instead of intensive management. • Plant trees and hedgerows within 6km of known bat roosts to build landscape connectivity. • Near known bat roosts, create (or ensure the presence of) ponds, areas of open standing water, or waterlogged areas to encourage insect populations that bats feed on. • Near bat roost locations (rural and/or urban), create (or allow the growth of) new mature trees and/or woodland that can support future bat populations. *Further guidance: Volunteering opportunities and Bat management guidance*	Streatley, Calcot Park Golf Course, Holyport, Ryeish Green, Thames Valley Park Nature Reserve, Beech Wood (Wokingham), Runnymede, Poyle, Lambourn Woodlands, Kintbury, Beenham, Holly Copse (Bradfield Southend), Franklin's Copse (Pangbourne), Swallowfield, Shepperlands Copse (Arborfield Green), Swinley Forest, Buckler's Forest, Jealott's Hill, Waltham St Lawrence, Windsor greenspaces, Ascot.	Barbastelle bat (*Barbastella barbastellus*), Bechstein bat (*Myotis bechsteinii),* Leisler's bat (*Nyctalus leisleri*), Nathusius' pipistrelle bat (*Pipistrellus nathusii*), Serotine bat (*Eptesicus serotinus*), Grey long eared bat (*Plecotus austriacus*)
Eurasian beaver	• Reintroduce beavers into suitable Berkshire locations where they are given space and time to naturally restore river and wetland ecosystems, with the goal to increase the diversity of the habitat(s) in that area. • Allow space for riparian habitats next to watercourses to enable beaver to thrive (ideally at least 20m). Suitable habitats are a mosaic of	No current locations within Berkshire	Eurasian beaver *(Castor fiber)*

Eurasian beaver (continued) 	woodlands, trees, shrub, grasses and water dependent vegetation. • Make space for beavers next to watercourses to reduce risk of potential conflicts with adjacent land users. • Identify potential barriers to movement of beavers, alongside other riparian mammals, and mitigate these to facilitate the safe movement of beaver through their territories focussing on where welfare is compromised. • Allow riparian habitats to regenerate to form a mosaic of trees, shrubs, grasses and water dependent vegetation where beavers can thrive. • Plant suitable tree species that coppice easily, (for example willow, aspen, poplar) to encourage beavers to settle there. • Encourage and enable beavers to remain, settle and increase in abundance to support creation of diverse wetland habitats. Further guidance		
Harvest mouse 	• Leave 1-2m grass margins (wider if possible) uncut in arable fields • In arable fields, leave 1-2m grass margins (wider if possible) fenced off and ungrazed by sheep with occasional topping of margin to remove/reduce thistle/nettle. Graze cattle on margins every 2-3 years. • Promote set-aside with tussocky grasses rather than wildflowers. Create conservation headlands. *Further guidance on Conservation Headlands*	Moor Copse fields and land surrounding Shepherd Meadows, Frost Folly, Buckler's community garden in Bracknell	Eurasian Harvest mouse *(Micromys minutus)*

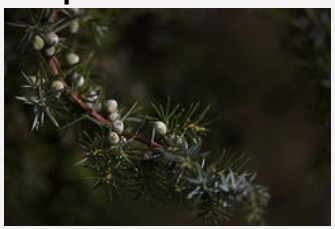
Hazel dormouse 	• Maintain margins of deciduous trees/shrubs beside rides, glades, and at the edges of conifer plantations. • Improve connectivity from woods to the wider habitat of scrub and hedges. Create soft edges to woodland (bramble banks, hawthorn, rose), encourage farmers and landowners to plant hedges along roadsides rather than using fencing and allow grass to grow up into hedge and avoid flailing it. • If thinning is necessary, create canopy gaps of 30x30-50x50m in winter but do not clear the understorey. • Retain deadwood/trees with crevices/cavities. • Retain woody species in sunny areas (e.g. Blackthorn Hazel). • Coppice 50x50m on a 20 year cycle. Cut non-adjacent coupes. • Layer or plant hazels. • Ensure arboreal connections across rides every 50-100m. • Limit grazing and browsing. • Connect suitable habitat within 2km through woodland and hedgerow creation. • Erect dormouse boxes and/or tubes. *Further guidance*	Moor Copse, Ashampstead, Basildon Park, Hampstead Marshall and surrounding areas, Newbury, habitat along the Thames Path	Hazel dormouse (*Muscardinus avellanarius*)
Hedgehog 	In gardens, parks, urban environments and new developments: • Reduce/stop the use of slug pellets and pesticides. • Create 13cmx13cm holes through fences and walls, creating 'hedgehog highways' to help foraging. • Create or install 'hedgehog houses' that provide undisturbed safe space.	Hedgehog roadkill hotspots	European hedgehog (*Erinaceus europaeus*)

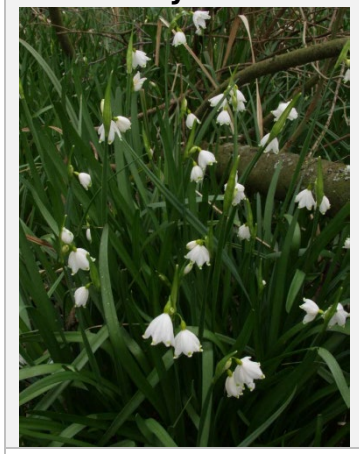
Hedgehog (continued)	• Sweep fallen leaves into permanent leaf stores and manage grass in gardens and parks to create a mosaic of long grass, short turf, open soil, and tussocks. • Introduce road passes at roadkill hotspots to reduce fatalities. *Further guidance* *Hedgehogs have declined in number greatly. They used to be a common sight in both rural and urban areas. In addition to the more urban actions above, the rural hedgehog populations will benefit from broader, general habitat improvements including the creation and good management of hedges, scrub, woodlands, deadwood, and grasslands as well as increasing regenerative farming practices.*		
Otter 	• Ensure that fish and crayfish traps are legally consented and have adequate and properly affixed otter guards to prevent otters from drowning in traps. • Address hot spots where there is evidence of regular otter roadkill by the provision of ledges, underpasses and fencing, to improve their chance of survival as they move through the landscape. *Further guidance* *Otter populations have been recovering in Berkshire in recent decades which is a great success story. They are however, still considered 'near threatened' with extinction globally and they are still at a stage of recovery in part of Berkshire, with the Loddon catchment currently showing limited consolidation of the population. In addition to the actions above, Otters and other species require broad improvements to riverside habitats which are already measures that the LNRS is promoting.* *There is information for landowners and woodland owners for otter habitat management. Developments and planners should use available information about supporting otters.*	Along the Thames particularly around Reading, and the Kennet	Eurasian otter *(Lutra lutra)*

Pine Marten 	• Investigate reintroducing pine martens into suitable Berkshire locations. • Manage forests at varying scales to encourage complexity. Where possible, undertake continuous cover forest practice. *Vincent Wildlife Trust | Pine Marten* *Pine marten distribution document*	No current locations within Berkshire	Pine marten *(Martes martes)*
Water vole 	• Expand and consolidate existing American mink control activities to the catchment scale. • Restore and extend good quality riparian and marginal habitat for water voles along ditches and rivers to help populations expand and recolonise. • Maintain and expand water vole monitoring programmes. • Consider water vole re-introductions at locations which are securely mink-free, and which are remote from any existing water vole populations. • Ensure that fish and crayfish traps that are being used are legally compliant by having adequate otter guards to prevent water voles from drowning in traps. *Further guidance from Farm wildlife* *PTES guidance*	Along all river catchments, monitored specifically in the Kennet Valley and at Cookham	Water vole (*Arvicola amphibius*)

Non-vascular plants			
Lichens 	• Maintain or restore grazing in woodlands and wood pasture, taking into account existing grazing pressure from wild herbivores, to prevent excessive tree density and unfavourable shade levels. • Undertake short periods of lower grazing to allow some regeneration to escape and create future generations of trees. • Intervene minimally in pasture woodland (manage intensively in areas of no lichen interest). • Heavily thin/selectively fell in over stocked woods (especially former pasture woods). • Undertake small group felling to 'rescue' veteran trees in dense regrowth. • Avoid coppicing/clear felling near lichen rich stands. • Maintain (ideally by grazing) 30% of the woodland as glades of varying sizes for at least 30 years. Thin very unevenly to introduce structural variation. • Reconnect fragmented woods (convert to low intervention pasture woodlands). • Control invasives (particularly Rhodedendron). • Retain deadwood and veterans in ride systems. • When restoring PAWS with lichen interest, restore grazing early and open the canopy more than is typically recommended. • Create infield trees. • Restore elm populations. *Further guidance:* *Eagle's claw lichen*, *Sap groove lichen*, *General lichens*	Chieveley	Eagle's claw lichen (*Anaptychia ciliaris),* Sap groove lichen (*Bacidia incompta)*, Orange fruited elm lichen (*Caloplaca luteoalba*)

Marsh clubmoss 	• Locate new scrapes or shallow pools adjacent to existing or historical marsh clubmoss sites. • Avoid damaging existing habitats or removing the existing spore bank. • Create scrapes or very shallow ponds where the summer water levels remain at or very close to the soil surface, either because of high water table levels, or because of the presence of seepages. • Maintain a short sward with patches of bare ground, ideally by grazing. • Create ponds at sites along tracks that focus grazing pressure. Further guidance *Marsh Clubmoss spores will remain dormant for a long time waiting for suitable conditions to reoccur. It will move between sites as conditions change.*	Wet, peaty heathland and peat	Marsh clubmoss (*Lycopodiella inundata*)
Sphagnum mosses 	• Maintain high and stable water levels by leaky dams and similar. • Remove scrub and Rhododendron to restore to historical areas. • Minimise trampling. Further guidance *Sphagnum mosses are indicators of healthy waterlogged peatland acting as carbon sink. Drying peat releases carbon.*	Swinley Forest (Buttersteep, Bush Fields, Crowthorne Forest), Longmoor Bog SSSI, Padworth (Burnt Common)	Sphagnaceae

Vascular Plants			
Chalk grassland orchids 	• Create oak scrub. • Create open conditions via livestock grazing, mowing and raking, the control of encroaching scrub, or the felling of trees and lopping of branches. • Exclude/control deer and rabbits. *Further information on chalk grassland wildflowers*	Areas around Tidmarsh (the only recorded locations in Berkshire)	White Helleborine *(Cephalanthera damasonium),* Fly orchid *(Ophrys insectifera)* Chalk Fragrant orchid *(Gymnadenia conopsea)*
Juniper 	• Establish a nursery for young plants. • Manage juniper areas with grazing and succession. • Create bare ground for germination. • Undertake landscape-level biosecurity management to prevent spread of *Phytophora* and increase genetic resilience of extant and new populations. Further guidance	Currently just isolated examples across Berkshire	Juniper (*Juniperus communis*), Juniper berry moth (*Argyresthia praecocella*)
Lesser butterfly orchid	• Create open woodland on calcareous soils in lowland beech and yew woodland. • Open glades and ride network (remove cut material to prevent build-up of litter). • Manage rotationally, such as with coppicing, to encourage populations to expand.	No current Berkshire records	Lesser butterfly orchid (*Platanthera bifolia*)

Lesser butterfly orchid (continued) 	• Plough or re-seed rough pasture and old meadows, rather than draining. • Allow light grazing (too little grazing causes dense tussocky grassland to develop, excluding the orchids). *Further guidance*		
Loddon Lily 	• Prevent encroachment of Loddon Lily sites by Himalayan Balsam through appropriate and timely management. *Further information*	Loddon Nature Reserve in Twyford, Sutherland Grange in Windsor, Streatley Meadow LWS, Cookham, Dinton Pastures, Sonning Lock, Wargrave Marsh, Hurley, Whitchurch Lock, Earley, Remenham	Loddon lily/Summer snowflake *(Leucojum aestivum)*
Pillwort 	• Locate ponds adjacent to existing or historical pillwort sites. Pillwort will readily spread within the same grazing unit. • Create shallow ponds with very shallow margins. Less than 30cm for at least 1m. • Create fluctuating water levels to reduce the cover of terrestrial and aquatic plants. • Maintain open habitats by light grazing with cattle or ponies. • Make a complex of pools. Pillwort will move between sites as conditions change.	Moor Green Lake, Heath Lake	Pillwort (*Pilularia globulifera)*

Pillwort (continued)	• Remove invasive aquatic plants (e.g. *Crassula helmsii*) as soon as they occur. Once established they are very difficult to remove effectively. *Freshwater habitats guidance*		
Spreading bellflower 	• Thin woodland to create more open conditions (25-35% of woodland as canopy gaps). • Suppress bramble growth. • Undertake small group felling or coppice (short-medium rotation <12yrs), adjoining rides/glades if possible. • Disturb soils in small, sunny areas without removing topsoil. • Graze lightly to remove competition from tall plants. • Maintain open, connecting, sunny woodland edges. • Create/maintain open areas around existing plants. *See further guidance*	Last record around Newbury	Spreading bellflower (*Campanula patula*)
Yellow bird's nest 	• Intervene minimally in deep shade woodlands to reduce disturbance within 100m of known and potential sites. • Keep hazel, beech or pine trees in the vicinity of populations. • Avoid targeting woodland management in known locations and immediately adjacent woodlands or assign low intervention management. *See further guidance here* *Yellow bird's nest is found on leaf litter in shaded woods and in damp dune slacks. It is epiparasitic, using Tricholoma fungus to extract nutrients from nearby living trees. It is most frequent under beech and hazel on calcareous soils and under pine in more acidic soils and likes deep shade.*	Only known sites in Basildon Park	Yellow bird's nest (*Monotropa hypopitys*)

Fungi			
Bolete mushrooms 	• Ensure continuity of associated trees, including a range from saplings through to veterans. • Divert extraction routes away from known communities of boletes. • Avoid heavy machinery compaction in known bolete hotspots. • Avoid mowing regimes during peak fruiting period (normally late summer to mid-autumn). • Control bracken outside of peak fungal fruiting. • Avoid use of fertilisers in wood pasture bolete hotspots. • Avoid fire sites close to associated trees. • Retain conifer elements and substantial stumps in woodland. *Local further guidance here*	Windsor Great Park, Upper Bucklebury	Bilious bolete (*Boletus legaliae*), Tawny bolete (*Boletus moravicus*), Oldrose bolete (*Boletus rhodopurpureus*), Ruby bolete (*Rubinoboletus rubinus*), Golden bolete (*Buchwaldoboletus sphaerocephalus*), Devil's bolete (*Boletus Satanas*)

Birds			
Farmland birds  	• Provide and maintain seed sources to support farmland birds, especially during late winter, either by directly providing seed or by allowing plants to go to seed in suitable areas. • Increase the presence of invertebrates on and around farmland, to support birds. Organic grazing and organic farming with reduced chemical inputs (insecticides) can be particularly beneficial to birds who feed on invertebrates. • Avoid ploughing after harvest and avoid cutting all hedges annually. On more intensively farmed arable land, the cropped area provides a valuable nesting and foraging habitats and wildflower, grass and nectar rich margins or plots are essential to help boost insect populations and provide summer food resources for breeding birds. Together these measures offer greater food sources and habitat for roosting and breeding. *Further guidance* *Farming for wildlife* *Grey partridge, northern lapwing, stone curlew, turtle dove, Linnets, Yellow Wagtails, Corn Buntings and Yellowhammers are particularly expected to benefit from the measures above as well as wider action across the county to create and appropriately managed habitats including grasslands, hedgerows, wetland-edges, and hay meadows.* *Volunteering Opportunities*	Higher parts of the Berkshire Downs, Areas south of the Kennet, Areas west of Newbury	Grey partridge (*Perdix perdix*), Northern lapwing (*Vanellus vanellus*), Stone curlew (*Burhinidae*), Turtle dove (*Streptopelia turtur),* Corn bunting (*Emberiza calandra*), Linnet (*Linaria cannabina*), Skylark (*Alauda arvensis arvensis*), Yellowhammer (*Emberiza citrinella*), Yellow wagtail (*Motacilla flava flavissima*)

Nightingale 	• Ensure all stages of coppice are present by undertaking a sequential coppice of adjacent coupes. Nightingale favour medium growth stage (4-10yrs). • Allow dense scrub to develop along wood edge and in coppice for feeding and nesting habitat (takes ~7yrs for scrub to be sufficiently dense for breeding). • Where appropriate, thin canopy to encourage dense shrub layer (including bramble). • Retain and restore soil moisture (modify drainage if necessary). • Link suitable habitats with tall, thick hedgerows. • Control browsing where affecting regeneration and scrub structure. *Volunteering Opportunities and further guidance*	Kennet Valley, especially Theale and Burghfield Gravel Pits	Nightingale (*Luscinia megarhynchos*)
Urban birds  	• Protect and retain existing nest sites where possible. • Strongly encourage LPA Local Plans wording to include a ratio of at least 1 universal/swift brick per new dwelling, referring to best practice guidance (such as *BS 42021 Integral nest boxes - Selection and installation for new developments*). • Encourage wording in LPA Local Plans to include extensions, and non-residential buildings. *Volunteering opportunities and further guidance for swifts and house martins*	Across Berkshire	Common starling (*Sturnus vulgaris*), House martin (*Delichon urbicum*), Common swift (*Apus apus),* House sparrow (*Passer domesticus*)

Waders of Wetlands 	• Create islands for nesting in waterbodies and implement maintenance regimes to ensure continued suitability. • Limit access to parts of wetland areas (such as restored gravel workings) to reduce disturbance. • Create open scrape areas or areas of permanent water or mud to provide feeding areas. • Create and manage wetlands and floodplain grazing marsh (including seasonal and ephemeral wetlands and wet areas). • Create or safeguard nesting and wintering areas. • Increase awareness of landowners and farmers of the potential of such areas and the optimum management to secure good wader habitat.	All river valleys in the county, especially the Kennet, Loddon and Blackwater	Lapwing *(Vanellus vanellus),* Ringed Plover *(Charadrius hiaticula),* Little Ringed Plover (*Charadrius dubius),* Snipe *(Gallinago gallinago),* Redshank *(Tringa tetanus),* Oystercatcher *(Haematopus ostralegus),* *Golden Plovers* (*Pluvialis apricaria)*
Woodlark 	• Restrict public access to nesting areas during breeding season (February to July). • Clear scrub encroachment in heathland areas to create or maintain open areas of low vegetation with small areas of bare earth to create or maintain suitable breeding areas. • Leave song-post trees in clear-fell woodlands. *Further guidance*	Greenham, Cookham, Snelsmore Commons, heathlands and plantations in the Mortimer/Padworth area, heaths of south-east Berkshire	Woodlark *(Lullula arborea)*

Fish			
Fish  	• Where feasible remove barriers for fish migration. • Where barrier removal not possible, provide bespoke fish passes at suitable structures along rivers to enable fish to move between river sections and lay eggs to reproduce (salmonid passes for trout and eel passes for eels). *Further guidance* *Eels are experiencing a major global decline in numbers including within Berkshire rivers in the past 30 years with declines also noted for Brown Trout. Alongside overall improvement to river quality and riverbeds, these fish also need to be able to move through rivers but have struggled to do this in recent history after the creation of numerous barriers in our rivers and watercourses (e.g. weirs and river locks). Creating fish passes help fish to move between sections of river to access places to lay their eggs and reproduce.* *Broader habitat measures to restore damaged river habitat will also have great benefit for fish species, particularly where the re-instatement of gravel beds (often lost due to historic dredging) provided valuable spawning habitat for species such as brown trout, bullhead, chub, dace and barbel.*	Various watercourses across Berkshire	Brown trout (*Salmo trutta*), European eel (*Anguilla Anguilla*)

END OF LIST

You have reached the end of the LNRS draft Species Priorities List. Please report any sightings of these species to Thames Valley Environmental Records Centre to help inform future biodiversity recovery work.

Potential measures are listed above which are intended to support **88 target species, collected into 43 categories/habitat assemblages.** Those actions would also have knock on benefits to a further non-exhaustive list of species which cannot all be mentioned.

There are many other threatened and near threatened species in Berkshire, many of which need habitat improvements in order to recover their population numbers. However, their habitat needs are often much less specific than those above. This is why there are not priorities through this list. Instead, many of these species are expected to benefit from the bigger, better, more joined up network or nature that the LNRS is promoting through the statement of biodiversity priorities and the Local Habitat Map.

Many more threatened and near threatened species from Berkshire's longlist are expected to be supported through the wider habitat improvements and management techniques listed on the draft Statement of Biodiversity Priorities.

How will LNRS 'Species Priorities Lists' contribute towards the government's species ambitions?
The government has set legally binding targets to:

- Halt the decline in species abundance by the end of 2030
- Increase species abundance by the end of 2042 so that is greater than in 2022 and at least 10% greater than in 2030
- Reduce the risk of species' extinction by 2042, when compared to the risk of species' extinction in 2022

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Mammals

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Non-vascular plants

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Loddon Lily
Pilwort, Pilularia globulifera / Pilvaren /Pilwort. | Andrew Spink | Flickr
Spreading bellflower, Spreading bellflower | Tomasz Stramel | Flickr
Yellow bird's nest, Yellow Bird's Nest (Monotropa hypopitys) | Flickr

Fungi

Bolete mushrooms (Ruby bolete), ruby bolete|Boletus rubellus| Chris Rowland | Flickr

Birds

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Waders of wetlands (Oystercatcher), Oystercatcher | Flickr
Woodlark, Woodlark | António Pena | Flickr

Fish

Brown Trout, In The Shallows----Brown Trout | This trout was fooled by a ... | Flickr
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Acknowledgements
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- Berks and South Bucks Bat Group
- Berkshire Mammal Group
- Berkshire Ornithological Society
- Berkshire Reptile and Amphibian Group
- British Dragonfly Society
- Butterfly Conservation Upper Thames Group
- Centre for Hydrology and Ecology
- Environment Agency
- Freshwater Habitats Trust
- Forestry Commission
- Lavells Wetland Trust
- Loddon Fisheries and Conservation Consultive
- Natural England
- NatureSpace Partnership
- People's Trust for Endangered Species
- Plant Life
- RSPB
- Species Recovery Trust
- Thames Basin Heath Partnership
- University of Reading
- Reading and District Natural History Society
- Wild Maidenhead
- Over 20 further county recorders and individuals with expertise in habitat management for a variety of species.
- Representatives from each of the LNRS project partner organisations (Figure 2)



Figure 2: Partner organisations of the Berkshire LNRS