

### 1. Introduction

LNRS guidance<sup>1</sup> requires that strategies should consider both habitats and species when setting priorities for recovering or enhancing nature within the strategy area. To this end, it was advised that Responsible Authorities should follow a two-stage process to identify Priorities and Potential Measures for species recovery. This document outlines how this process was followed for the Nottinghamshire and Nottingham LNRS, as overseen by the Species Working Group of the LNRS.

### 2. Stage 1 – creating a 'LNRS Species Longlist'

#### 2.1 Process overview

According to LNRS guidance, the purpose of Stage 1 is to create an 'LNRS Species Longlist' for the LNRS area. To be included in the Longlist a species must meet one of the following criteria:

1. Any native species\* occurring in Nottinghamshire which has been assessed as Red List Threatened against IUCN criteria – Vulnerable (VU), Endangered (EN) or Critically Endangered (CR) categories in approved GB IUCN Red Lists.
2. Any native species occurring in Nottinghamshire which have not been formally assessed against IUCN Red List criteria but where strong evidence or authoritative expert opinion is provided to show that they would meet the criteria for Threatened status.

3. Any native species occurring in Nottinghamshire considered to be nationally extinct that have re-established themselves or have been rediscovered.
4. Any native species occurring in Nottinghamshire which have been assessed as Red List Near Threatened against IUCN criteria.
5. Any native species which Natural England (NE) suggest as suitable candidates for conservation translocation, or any native species already subject to translocation efforts that, on NE's advice, need to be scaled up to maximise success.
6. Any other native species which are considered to be 'locally significant'; these may be species considered to be candidates for a conservation translocation or reintroduction or which are local 'flagship' species.

\*a native species is one naturally occurring or has in the past naturally occurred in England and include regularly occurring migratory species (breeding and non-breeding), natural colonists (species that have arrived in England of their own accord and have become established), and species that have been reintroduced in England following past extinctions.

To assist with this process, a draft Threatened and Near Threatened List was produced by Natural England for the whole of England, listing all species with a GB IUCN red list status (Threatened and Near Threatened). Using this list, the Nottinghamshire Biological and Geological Records Centre (NBGRC) filtered the list for species which they had records from Nottinghamshire to produce an initial Longlist, and produced a separate list of species included on Section 41 of the Natural Environment and Rural Communities (NERC) Act (and therefore considered to be 'Species of Principal Importance for Conservation in England') which are known to occur in the county. Based on the above LNRS criteria, species falling into this category were included as it was considered that they would help with the determination of any 'locally significant' species under criterion 6.

Separate spreadsheets were then created for each of the taxa using each of the two original spreadsheets, and these were sent for comments to species specialists (County Recorders and species experts) as listed in the table below.

<sup>1</sup> Local nature recovery strategy statutory guidance – What a local nature recovery strategy should contain (Defra, March 2023) and Species Recovery within Local Nature Recovery Strategies – Advice for Responsible Authorities (Defra, August 2023)

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

Taxon	Specialist
Amphibians and Reptiles	County Recorder for Amphibians and Reptiles
Birds	Natural Environment Manager – Nottinghamshire County Council and RSPB
Fish	Fisheries Technical Officer – Environment Agency
Fungi	Notts Fungi Group
Spiders	British Arachnological Society
Beetles	County Recorder for Beetles
Butterflies	Individual entomologist specialist
Crayfish	County Recorder for Butterflies
Diptera	East Midlands Butterfly Conservation
Dragonflies	County Recorder for Crayfish
Moths	County Recorder for Diptera
Orthoptera	County Recorder for Dragonflies
Invertebrates	County Recorder for Macro Moths
Moths	County Recorder for Orthoptera
Molluscs	DaNES Invertebrate Group
Mammals	Sorby Invertebrate Group
Bryophytes	Individual invertebrate specialists
Lichen	East Midlands branch of Butterfly Conservation
Vascular plants	Conchological Society of Britain and Ireland
Individual Mollusc expert	Individual Mollusc expert
Mammals	County Recorder for Mammals
Bryophytes	County Recorder for Bryophytes
Lichen	Sorby Natural History Society
Individual Lichen specialists	Individual Lichen specialists
Vascular plants	County Recorder for Plants

The species specialists were asked to review the initial Longlist of 831 species produced by the NBGRC, with the above criteria in mind, to:

- a) identify any IUCN red listed species that were missing and add these to the list
- b) identify any IUCN red listed species included in error or no longer considered to occur in the county.
- c) look particularly at criterion 2 (for taxa not subject to a formal IUCN red listing process) and criterion 6 (to identify 'locally significant' species, including with regard to the Section 41 list).

### 2.2 Key issues

For most taxa, consultation with the relevant species specialist resulted in limited additions to or removals from the list produced by the NBGRC, including as a result of 'locally significant' species being added to the list. This criterion proved to be the most challenging in terms of adopting a consistent approach. The more significant changes to the list were as follows:

**Birds:** NBGRC identified 121 species of bird recorded in Nottinghamshire that are IUCN GB red listed (though the list contained 138 entries in total as some species were listed for breeding and non-breeding populations) and 47 species that are listed on Section 41 of the NERC Act. The relevant species specialists recommended removing 62 of the species from the GB IUCN list, which were species that are not known to breed in Nottinghamshire or that are only irregular visitors, and adding 9 of the Section 41 species as 'locally significant'.

**Bryophytes:** NBGRC identified only one species of bryophyte recorded in Nottinghamshire that is IUCN GB red listed. The species specialist recommended a large number of additional species be included as 'locally significant' based on Bryophyte Local Wildlife Site designation criteria and the JNCC Bryophyte Guidelines for the Selection of SSSIs. Following a review by the LNRS Species Working Group it was decided to reduce this list in order to maintain consistency in the application of the "locally significant" criterion, resulting in the list of 128 species being cut down to 21 by the species specialist working with the UK Moss Recorder to produce a list of 'flagship' species.

**Moths:** NBGRC identified 78 species of moth recorded in Nottinghamshire that are listed on Section 41 of the NERC Act. The relevant species specialist stated that this list did not accurately represent threatened moth species in Nottinghamshire and recommended that the publication 'The Conservation Status of Larger Moths in Nottinghamshire' was consulted instead. This list was reviewed by the LNRS Species Working Group, where it was decided to reduce it down in order to maintain consistency in the application of the "locally significant" criterion. This resulted in a list of 170 species being cut down to 29, with only species in Grade 1 of 'The Conservation Status of Larger Moths in Nottinghamshire' and species considered to be flagships (by species specialists) retained on the Longlist.

**Vascular Plants:** NBGRC identified 63 species of vascular plant recorded in Nottinghamshire that are IUCN GB red listed. The relevant species specialist recommended that the Nottinghamshire Rare Plant Register be used as the basis for selecting species for the Longlist. All of the species on the Rare Plant Register that were IUCN GB red listed and all of the species considered to be locally significant (either due to comments from the species specialist or because they are classified as County Rare or County Scarce) were added to the Longlist, and 155 species of vascular plant were added in total. This was then reduced down to 89 following review by the LNRS Species Working Group (to maintain consistency in the application of the "locally significant" criterion), with only species that are IUCN GB red list Threatened or Near Threatened and reintroduction candidates retained.

This process resulted in 438 species being included in the Longlist.

### 3. Stage 2 – creating a 'LNRS Species Priorities List'

#### 3.1 Process overview

LNRS guidance states that the once the Longlist has been produced, a short-listing process must be applied to determine the LNRS Species Priority List. This priorities list should provide a manageable number of deliverable species priorities, for individual species or species assemblages. This short-listing process was:

**a Identifying species which the LNRS can best support** by categorising species A-G using the categories in the table below, taken from the national guidance. Category A species were then assessed on a case-by-case basis, and Category E-G species were removed.

Category	Description	Benefit from	Suitable LNRS species priorities?
A: Needs more / bigger / better-connected habitat	<ul style="list-style-type: none"> <li>- Species likely to markedly benefit from general creation, expansion, and improved connectivity of good quality habitats in the strategy area</li> <li>- Species with high recovery potential that do not require specific or targeted recovery measures</li> </ul>	Yes	<b>Probably not - species are likely to benefit from LNRS measures generally and do not need to be singled out for specific LNRS measures</b>
B: Needs targeted habitat management	<ul style="list-style-type: none"> <li>- Species with specific requirements for habitat quality, structure, conditions, or processes above and beyond category A</li> <li>- Species may require specific configurations or complexes of connected or nearby habitat/s, either at site level or across large areas / multiple sites. This may include habitat connectivity measures for species needing support to track climate change.</li> <li>- Causes of decline can be addressed with new or improved management practices</li> </ul>	Yes	Yes
C: Needs improvements in environmental quality	<ul style="list-style-type: none"> <li>- Species primarily limited by one or more pressures beyond site level that can be mitigated at LNRS scale or wider scales through collaboration with neighbouring RAS</li> <li>- For example, better catchment water quality, improved spatial planning of air pollution sources, mitigation of recreational disturbance</li> </ul>	Yes	Yes

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

Category	Description	Benefit from	Suitable LNRS species priorities?
<b>D: Needs bespoke conservation action/s</b>	<ul style="list-style-type: none"> <li>- Species requiring additional, tailored measures which can be spatially indicated on the local habitat map</li> <li>- Species may need multiple coordinated actions to bring about recovery, including combinations of local actions and national actions, where LNRS could address the former</li> <li>- Examples of bespoke, spatially targetable local actions include conservation translocations (such as assisted colonisation for climate change adaptation), control of invasive species, and localised surveys NB. Species requiring bespoke measures which cannot be mapped should be assigned to category E)</li> </ul>	<b>Yes</b>	<b>Yes</b>
<b>E: Needs better evidence base / on-the-ground action is not a priority</b>	<ul style="list-style-type: none"> <li>- Species for which there is insufficient evidence or understanding regarding drivers of decline, required recovery actions, and range /population levels</li> <li>- Species for which the current priority is other than on-the-ground action, for example research or ex-situ</li> </ul>	<b>Unknown</b>	<b>No</b>
<b>F: Needs action outside England</b>	<ul style="list-style-type: none"> <li>- Species with low (or very low) recovery potential due to factors constraining recovery beyond English borders</li> <li>- Evidence shows that action in England is highly unlikely to improve species' prospects</li> <li>- This category is likely to apply only to migratory species (e.g., Afro-Palearctic migratory birds affected by hunting)</li> </ul>	<b>No</b>	<b>No</b>
<b>G: Vagrants / occasional visitors</b>	<ul style="list-style-type: none"> <li>- Species currently outside their normal breeding or wintering range or normal migration route, without an extant population in the strategy area, and which are not suitable for conservation translocation</li> </ul>	<b>No</b>	<b>No</b>

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

### b. Grouping species into habitat-based assemblages

– remaining category A-D species should be grouped based on species' shared potential to benefit from the same recovery measures. Assemblages might be named on the basis of habitat or a flagship (umbrella) species whose requirements are representative of the needs of various others. It will likely not be possible / appropriate to place every candidate species into an assemblage: some species will require specific, individual recovery measures.

**c. Selecting LNRS species priorities** - selection of potential priorities (a combination of assemblages and individual species) to constitute the short, manageable LNRS species priorities list. There are several factors to consider – urgency, deliverability, contributions to national species recovery, cross-boundary considerations, maximising benefits, climate change impacts and pre-existing initiatives.

### 3.2 Identifying species which the LNRS can best support

As decided by the Species Working Group, the Species Longlist was once again split into taxa and sent to species experts. This time, experts were asked to categorise species from A-G as per the table shown above. In total, **192 species** were initially placed into categories B, C and D on a provisional short-list. In addition, the LNRS project team had a meeting with Natural England in April 2024 to discuss species appropriate for inclusion based on their reintroduction

potential. The results of this discussion were discussed by the Species Working Group in a follow-up meeting later in April 2024 and as a result, three species of vascular plant were added to the short-list – Black Poplar, Cross-leaved Heath and Creeping Willow.

### 3.3 Grouping species into habitat-based assemblages

A Species Assemblage and Prioritisation Workshop was held on 19th June 2024, attended by individuals representing the following organisations/positions:

Organisation/position
Butterfly Conservation (East Midlands branch)
County Recorder for Dragonflies
National Trust
Notts Amphibian and Reptile Group
Notts Biodiversity Action Group
Nottinghamshire County Council
Notts Dormouse Group
Nottinghamshire Wildlife Trust
Rushcliffe Borough Council
Senior Invertebrate Ecologist (ecological consultancy)
Trent Rivers Trust

At this workshop, the provisionally short-listed species were reviewed and grouped into habitat-based assemblages (which were themselves determined at the workshop), where possible and appropriate, noting that a small number of species were placed into multiple assemblages (Common Toad, Slow-worm, Lapwing).

Species assemblage	Number of Species
Grassland	7
Idle Valley Fenland	7
Farmland	33
Woodland (Sherwood)	18
Woodland	16
Magnesium Limestone Substrate	9
Floodplain Grazing Marsh	7
Ponds	3
Wetland	22
River	8
Heathland	24
Urban	4
Urban Greenspace	2
Orchard	2
Open Mosaic Habitat	4

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

In the workshop, one species, Great Crested Newt, was added to the shortlist whilst 18 species which had initially been placed in categories B, C or D were moved to category E and therefore removed as priority species during the workshop:

Species Removed	Reason for exclusion
Short-eared Owl	Infrequent and erratic breeder so not considered an appropriate priority species
Nightingale	Locally extinct
Pearl-bordered Fritillary	Not considered a priority for Butterfly Conservation currently
Six-spotted Orbweaver	Habitat requirements not well understood
Flamingo Moss	Presumed extinct
Greater Broomrape	Extinct in the county, no plans to reintroduce
Chamomile	Only one recent record which is believed to be an accidental reintroduction in topsoil
Royal Fern	Presumed extinct, last recorded 1972
White-stemmed Pondweed	Presumed extinct, last recorded in 1965
True Fox Sedge	Extinct, no plans to reintroduce
Rare Spring Sedge	Extinct, no plans to reintroduce
Spreading Bellflower	Extinct, no plans to reintroduce
Dodder	Extinct, no plans to reintroduce
Flat Sedge	Extinct, no plans to reintroduce
Chalk Eyebright	Extinct, no plans to reintroduce
Meadow Saffron	Extinct, no plans to reintroduce
Pheasant's Eye	Extinct, no plans to reintroduce
Thorow-wax	Extinct, no plans to reintroduce

Ultimately, 174 species were short-listed into categories B, C and D. These are listed at the end of this Appendix, with columns showing which categories (B, C or D) and assemblage the species was placed into.

### 4. Developing Priorities and Potential Measures

Potential Measures for the 15 species assemblages and the 15 species priorities were drafted by the LNRS project team, and each was assigned to the appropriate habitat grouping of Priorities and Potential Measures.

For all species assemblages, the priority was an improved conservation status of that assemblage, with the general Potential Measures for the habitat grouping considered sufficient to achieve this (i.e. no additional Potential Measures were identified for the species assemblages Priorities).

For the species priorities, each species had a bespoke Priority which was checked and agreed with the relevant species specialist where necessary. A bespoke Potential Measure was also developed, again in agreement with the relevant species specialist where necessary.

### 5. Mapping Process

See **Appendix 6** which describes how mapping was undertaken, including for species.

### 6. Short List of species

Taxon group	Scientific name	Common name	Category	Assemblage
Beetle	<i>Carabus monilis</i>	Necklace Ground Beetle	B	Farmland
Beetle	<i>Cryptocephalus coryli</i>	Hazel Pot Beetle	B	Woodland (Sherwood)
Birds	<i>Passer domesticus</i>	House Sparrow	B	Urban
Birds	<i>Carduelis cabaret</i>	Lesser Redpoll	B	Heathland
Birds	<i>Carduelis cannabina</i>	Linnet	B	Farmland
Birds	<i>Caprimulgus europaeus</i>	Nightjar	C	Heathland
Birds	<i>Alauda arvensis</i> subsp. <i>arvensis</i>	Sky Lark	B	Farmland
Birds	<i>Anthus trivialis</i>	Tree Pipit	B	Heathland
Birds	<i>Passer montanus</i>	Tree Sparrow	B, D	Farmland
Birds	<i>Lullula arborea</i>	Wood Lark	C	Heathland
Birds	<i>Emberiza citrinella</i>	Yellowhammer	B	Farmland
Birds	<i>Cuculus canorus</i>	Common Cuckoo	B	Wetland
Birds	<i>Botaurus stellaris</i> [br] [n-br]	Bittern	D	Bespoke
Birds	<i>Chroicocephalus ridibundus</i> [n-br]	Black-headed Gull	B	Wetland
Birds	<i>Podiceps nigricollis</i> [br]	Black-necked Grebe	D	Bespoke
Birds	<i>Sterna hirundo</i> [br]	Common Tern	B	Wetland
Birds	<i>Phalacrocorax carbo</i> [br]	Cormorant	B	Wetland
Birds	<i>Emberiza calandra</i> [br]	Corn Bunting	D	Farmland
Birds	<i>Numenius arquata</i> [br]	Curlew	B, D	Floodplain Grazing Marsh
Birds	<i>Spatula querquedula</i> [br]	Garganey	B	Wetland
Birds	<i>Accipiter gentilis</i> [br]	Goshawk	C, D	Woodland
Birds	<i>Ardea cinerea</i> [br]	Grey Heron	B	Wetland
Birds	<i>Perdix perdix</i> [br]	Grey Partridge	B	Farmland
Birds	<i>Coccothraustes coccothraustes</i> [br]	Hawfinch	B	Woodland
Birds	<i>Falco subbuteo</i> [br]	Hobby	B	Wetland
Birds	<i>Pernis apivorus</i> [br]	Honey-buzzard	B	Woodland (Sherwood)



## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

Taxon group	Scientific name	Common name	Category	Assemblage
Birds	<i>Delichon urbicum</i> [br]	House Martin	B	Urban
Birds	<i>Falco tinnunculus</i> [br]	Kestrel	B	Farmland
Birds	<i>Alcedo atthis</i> [br]	Kingfisher	B	River
Birds	<i>Vanellus vanellus</i> [br] [n-br]	Lapwing	B	Farmland
Birds	<i>Vanellus vanellus</i> [br] [n-br]	Lapwing	B	Floodplain Grazing Marsh
Birds	<i>Dryobates minor</i> [br]	Lesser Spotted Woodpecker	B	Woodland
Birds	<i>Poecile palustris</i> [br]	Marsh Tit	B, D	Woodland
Birds	<i>Pandion haliaetus</i> [br]	Osprey	B, D	Wetland
Birds	<i>Haematopus ostralegus</i> [br]	Oystercatcher	B	Wetland
Birds	<i>Aythya ferina</i> [br]	Pochard	B	Wetland
Birds	<i>Tringa totanus</i> [br]	Redshank	B	Floodplain Grazing Marsh
Birds	<i>Charadrius hiaticula</i> [br]	Ringed Plover	B	Wetland
Birds	<i>Tadorna tadorna</i> [br]	Shelduck	B	Wetland
Birds	<i>Muscicapa striata</i> [br]	Spotted Flycatcher	B	Woodland
Birds	<i>Sturnus vulgaris</i> [br]	Starling	B	Urban
Birds	<i>Hirundo rustica</i> [br]	Swallow	B	Farmland
Birds	<i>Apus apus</i> [br]	Swift	B	Urban
Birds	<i>Strix aluco</i> [br]	Tawny Owl	B	Woodland
Birds	<i>Passer montanus</i> [br]	Tree Sparrow	B, D	Farmland
Birds	<i>Aythya fuligula</i> [br]	Tufted Duck	B	Wetland
Birds	<i>Cygnus columbianus</i> [n-br]	Bewick's Swan	B	Floodplain Grazing Marsh
Birds	<i>Streptopelia turtur</i> [br]	Turtle Dove	D	Farmland
Birds	<i>Mareca penelope</i> [br]	Wigeon	B	Floodplain Grazing Marsh
Birds	<i>Scolopax rusticola</i> [br]	Woodcock	B, D	Woodland
Birds	<i>Motacilla flava</i> [br]	Yellow Wagtail	B	Farmland
Bryophyte	<i>Calliergon giganteum</i>	Giant Spearmoss	B	Magnesium Limestone Substrate (Grassland)
Bryophyte	<i>Climacium dendroides</i>	Tree Moss	B	Wetland

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

Taxon group	Scientific name	Common name	Category	Assemblage
Bryophyte	Conardia compacta	Compact Feather-moss	B	Magnesium Limestone Substrate (Grassland)
Bryophyte	Dicranum majus	Great Fork-moss	B	Woodland (Sherwood)
Bryophyte	Distichium inclinatum	Inclined Distichium	B, D	Magnesium Limestone Substrate (Grassland)
Bryophyte	Flexitrichum gracile	Slender Ditrichum	B	Magnesium Limestone Substrate (Grassland)
Bryophyte	Entodon concinnus	Lime Entodon Moss	B	Magnesium Limestone Substrate (Grassland)
Bryophyte	Heterogemma capitata	Delicate Notchwort	B	Heathland
Bryophyte	Leucobryum glaucum	Pincushion Moss	B	Woodland (Sherwood)
Bryophyte	Marchesinia mackaii	MacKay's Pouncewort	B	Magnesium Limestone Substrate (Woodland)
Bryophyte	Nardia scalaris	Ladder Flapwort	B	Heathland
Bryophyte	Norwellia curvifolia	Rustwort	B	Woodland
Bryophyte	Plagiothecium latebricola	Alder Silk-moss	B	Woodland
Bryophyte	Schistostega pennata	Golden Goblin	B	Heathland
Bryophyte	Sphagnum auriculatum	Cow-horn Bog-moss	B	Heathland
Bryophyte	Sphagnum capillifolium s.str.	Acute-leaved Bog-moss	B	Heathland
Bryophyte	Sphagnum cuspidatum	Feathery Bog-moss	B	Heathland
Bryophyte	Sphagnum palustre	Blunt-leaved Bog-moss	B	Woodland
Bryophyte	Sphagnum subnitens	Lustrous Bog-moss	B	Idle Valley Fenland
Butterfly	Plebejus argus	Silver-studded Blue	D	Bespoke
Butterfly	Pyrgus malvae	Grizzled Skipper	B	Open Mosaic
Butterfly	Satyrus w-album	White-letter Hairstreak	D	Woodland
Butterfly	Erynnis tages	Dingy Skipper	B	Open Mosaic
Crustacean	Austropotamobius pallipes	White-clawed Crayfish	D	Bespoke
Diptera	Ctenophora ornata	Magnificent Cranefly	B	Woodland (Sherwood)
Diptera	Scenopinus niger		B	Woodland (Sherwood)
Fish	Anguilla anguilla	European Eel	B	River
Fish	Salmo salar	Atlantic Salmon	B	River

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

Taxon group	Scientific name	Common name	Category	Assemblage
Fish	Lampetra fluviatilis	River lamprey	B	River
Fish	Petromyzon marinus	Sea lamprey	B	River
Fish	Salmo trutta (subsp.) trutta	Sea trout	B	River
Fish	Cobitis taenia	Spined loach	D	Bespoke
Fungus	Agaricus litoralis		B	Heathland
Fungus	Clitocybe amarescens		B	Farmland
Fungus	Clitocybe sinopica		B	Heathland
Fungus	Cystoderma carcharias	Pearly Powdercap	B	Woodland
Fungus	Trichoglossum walteri		B	Grassland
Fungus	Trametes suaveolens		B	Wetland
Herpetofauna	Bufo bufo	Common Toad	C	Pond
Herpetofauna	Bufo bufo	Common Toad	C	Farmland
Herpetofauna	Bufo bufo	Common Toad	C	Grassland
Herpetofauna	Triturus cristatus	Great Crested Newt	B	Pond
Herpetofauna	Vipera berus	Adder	D	Bespoke
Herpetofauna	Lissotriton helvetica	Palmate Newt	D	Pond
Herpetofauna	Anguilla fragilis	Slow-worm	B	Heathland
Herpetofauna	Anguilla fragilis	Slow-worm	B	Urban Greenspace
Herpetofauna	Anguilla fragilis	Slow-worm	B	Open Mosaic
Herpetofauna	Anguilla fragilis	Slow-worm	B	Woodland (Sherwood)
Lichen	Hertelidea botryosa		B	Woodland (Sherwood)
Lichen	Sclerophora pallida		B	Magnesium Limestone Substrate (Woodland)
Lichen	Dichoporis taylorii (Strigula taylorii)		B	Magnesium Limestone Substrate (Woodland)
Lichen	Acrocordia cavata		B	Magnesium Limestone Substrate (Woodland)
Lichen	Alyxoria ochrocheila (Opegapha ochrocheila)		B	Woodland (Sherwood)
Lichen	Microcalicium ahlneri		B	Woodland (Sherwood)

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

Taxon group	Scientific name	Common name	Category	Assemblage
Lichen	Piccolia ochrophora		B	Woodland (Sherwood)
Lichen	Swinscowia jamesii (Strigula jamesii)		B	Woodland (Sherwood)
Lichen	Xylopsora caradocensis		B	Woodland (Sherwood)
Mammals	Castor fiber	Beaver	D	Bespoke
Mammals	Muscardinus avellanarius	Hazel Dormouse	B	Bespoke
Mammals	Arvicola amphibius	European Water Vole	D	Bespoke
Mollusc	Vertigo moulinsiana	Desmoulin's Whorl Snail	B,C,D	Idle Valley Fenland
Mollusc	Vertigo angustior	Narrow-mouthed Whorl Snail	B,C,D	Wetland
Mollusc	Segmentina nitida	Shining Ram's Horn Snail	B,C,D	Floodplain Grazing Marsh
Mollusc	Omphiscola glabra	Pond Mud Snail	B,C,D	Wetland
Moth	Gagitodes sagittata	Marsh Carpet	B, C	Idle Valley Fenland
Moth	Synanthedon scoliaeformis	Welsh Clearwing	B	Woodland (Sherwood)
Moth	Synanthedon culiciformis	Large Red-belted Clearwing	B	Bespoke
Moth	Synanthedon myopaeformis	Red-belted Clearwing	B	Orchard
Moth	Cossus cossus	Goat	C	River
Moth	Sesia apiformis	Hornet Moth	B	Urban Greenspace
Moth	Eriogaster lanestris	Small Eggar	B	Farmland
Moth	Cyclophora porata	False Mocha	C	Idle Valley Fenland
Moth	Xanthorhoe biriviata	Balsam Carpet	C	River
Moth	Eupithecia insigniata	Pinion-spotted Pug	B	Orchard
Moth	Eupithecia valerianata	Valerian Pug	C	Idle Valley Fenland
Moth	Eupithecia pygmaeata	Marsh Pug	C	Idle Valley Fenland
Moth	Eupithecia egenaria	Pauper Pug	B	Woodland
Moth	Eupithecia denotata	Campanula Pug	B	Woodland
Moth	Boarmia roboraria	Great Oak Beauty	B	Woodland (Sherwood)
Moth	Hemaris fuciformis	Broad-bordered Bee Hawk-moth	B	Woodland (Sherwood)

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

Taxon group	Scientific name	Common name	Category	Assemblage
Moth	<i>Orgyia recens</i>	Scarce Vapourer	B	Farmland
Moth	<i>Meganola albula</i>	Kent Black Arches	B	Woodland
Moth	<i>Sideridis albicolon</i>	White Colon	B	Heathland
Moth	<i>Parascotia fuliginaria</i>	Waved Black	C	Woodland
Moth	<i>Hemaris tityus</i>	Narrow-bordered Bee Hawk-moth	C	Heathland
Moth	<i>Pasiphila debiliata</i>	Bilberry Pug	B	Heathland
Moth	<i>Hypena rostralis</i>	Buttoned Snout	B	Farmland
Orthoptera	<i>Stenobothrus lineatus</i>	Stripe-winged Grasshopper	B	Heathland
Spiders	<i>Mastigusa macrophthalma</i>		B	Woodland (Sherwood)
Spiders	<i>Thanatus formicinus</i>	Diamond-backed Spider	D	Bespoke
Spiders	<i>Zora silvestris</i>		B	Heathland
Spiders	<i>Midia midas</i>	Midas Tree-weaver	B	Woodland (Sherwood)
Vascular plants	<i>Allium oleraceum</i>	Field Garlic	B, C	Grassland
Vascular plants	<i>Anacamptis morio</i>	Green-winged Orchid	B, C	Grassland
Vascular plants	<i>Anthemis arvensis</i>	Corn Chamomile	C	Farmland
Vascular plants	<i>Anthemis cotula</i>	Stinking Chamomile	C	Farmland
Vascular plants	<i>Apera spica-venti</i>	Loose silky-bent	C	Farmland
Vascular plants	<i>Baldellia ranunculoides</i>	Lesser Water Plantain	C, D	Wetland
Vascular plants	<i>Chenopodium murale</i>	Nettle-leaved Goosefoot	C	Farmland
Vascular plants	<i>Clinopodium acinos</i>	Basil Thyme	B, D	Grassland
Vascular plants	<i>Coeloglossum viride</i>	Frog Orchid	B, D	Grassland
Vascular plants	<i>Cynoglossum officinale</i>	Hound's Tongue	B, D	Grassland
Vascular plants	<i>Dianthus armeria</i>	Deptford Pink	D	Bespoke
Vascular plants	<i>Dianthus deltoides</i>	Maiden Pink	B, C	Open Mosaic
Vascular plants	<i>Galeopsis speciosa</i>	Large-flowered Hemp-nettle	C	Farmland
Vascular plants	<i>Genista anglica</i>	Petty Whin	B, D	Heathland

## Appendix 5 – Identifying Priorities and Potential Measures for species recovery

Taxon group	Scientific name	Common name	Category	Assemblage
Vascular plants	Gnaphalium sylvaticum	Heath Cudweed	B, C	Heathland
Vascular plants	Groenlandia densa	Opposite-leaved Pondweed	B, C	Wetland
Vascular plants	Hyoscyamus niger	Henbane	B	Farmland
Vascular plants	Hypochaeris glabra	Smooth Cat's Ear	B, C	Heathland
Vascular plants	Juncus compressus	Round-fruited Rush	B, C	Wetland
Vascular plants	Lathyrus palustris	Marsh Pea	B, C	Idle Valley Fenland
Vascular plants	Lithospermum arvense	Field Gromwell	C	Farmland
Vascular plants	Oxybasis urtica	Upright Goosefoot	C	Farmland
Vascular plants	Potamogeton compressus	Grass-wrack Pondweed	C	Wetland
Vascular plants	Potamogeton friesii	Flat-stalked Pondweed	C	Wetland
Vascular plants	Ranunculus arvensis	Corn Buttercup	B, C	Farmland
Vascular plants	Roemeria argemone	Prickly Poppy	B	Farmland
Vascular plants	Scandix pecten-veneris	Shepherd's Needle	B, C	Farmland
Vascular plants	Scleranthus annuus	German Knotweed	B, C	Farmland
Vascular plants	Silene noctiflora	Night-flowering Catchfly	B, C	Farmland
Vascular plants	Stellaria palustris	Meadow Starwort	B, C	Floodplain Grazing Marsh
Vascular plants	Teesdalia nudicaulis	Shepherd's Cress	C	Heathland
Vascular plants	Valerianella dentata	Narrow-fruited Cornsalad	B, C	Farmland
Vascular plants	Vaccinium myrtillus	Bilberry	B, C	Heathland
Vascular plants	Crocus nudiflorus	Autumn Crocus	B, C	Bespoke
Vascular plants	Salix repens	Creeping Willow	D	Bespoke
Vascular plants	Erica tetralix	Cross-leaved Heath	B, C	Heathland
Vascular plants	Populus nigra	Black Poplar	D	Bespoke