

East Sussex and Brighton & Hove Local Nature Recovery Strategy

Statement of Biodiversity Priorities: Priority Species

Species Recovery

Species abundance and diversity serve as crucial indicators of the health of the natural environment. 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 it 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.

LNRS is a new tool for driving the national ambition to increase species abundance and reduce risk of species extinction, by planning for more, bigger, better and better-connected habitat to support species recovery and resilience.

Creation of species longlist

The first step in the process was to create a “species longlist”. The list was selected against nationally set criteria.

- Any native species which have been assessed as Red List *Threatened* and *Near Threatened* against International Union for the Conservation of Nature (IUCN) criteria.
- Any native species which have not been formally assessed against IUCN Red List criteria but where strong evidence is provided to show that they would meet the criteria for Threatened status.
- Any native species considered to be nationally extinct that re-establish themselves or are rediscovered.
- Any native species which the government’s nature advisor, Natural England, suggest as suitable candidates for conservation translocations or any native species already subject to translocation efforts that, on Natural England’s advice, need to be scaled up to maximise success.
- Other species of local significance which have not yet been Red List assessed or lack approved Red Lists but for which there is strong evidence to show (or in the absence of this, authoritative expert opinion) that they would meet criteria for *Threatened* Status.

The International Union for Conservation of Nature (IUCN) Red List is an inventory of the global conservation status and extinction risk of species. Many, but not all, species groups have Red Lists, which assign the following classes to species depending on factors including rate of decline, population size, area of distribution and degree of fragmentation.

- **Extinct:** There is no reasonable doubt that the last individual of the species has died.
- **Extinct in the Wild:** The species only exists in captivity or naturalised populations outside its original range.
- **Critically Endangered:** The species faces an extremely high risk of extinction in the wild.
- **Endangered:** The species faces a very high risk of extinction in the wild.
- **Vulnerable:** The species faces a high risk of extinction in the wild.
- **Near Threatened:** The species is close to qualifying for a threatened category or is likely to qualify in the near future.
- **Least Concern:** The species faces a low risk of extinction in the wild.
- **Data Deficient:** There is inadequate information to assess the species' extinction risk.
- **Not Evaluated:** The species has not yet been evaluated for its extinction risk.

Prioritisation to short list

Meetings were held between January to June 2024 with local organisations, and local representatives from national organisations¹, who have been involved in species prioritisation exercises. This was to understand what has already been done with respect to species recovery across Sussex to avoid duplication of effort and to ensure locally important species were included in the longlist.

The resultant longlist was created by the Sussex Biodiversity Record Centre (SxBRC) by searching for species that fit the nationally set criteria listed above within local records. The date of the most recent record and the number of records was collated for these species and the lists were organised into taxa (species groups) and shared with the County Recorders in July 2024. County Recorders are skilled and dedicated volunteers, each one an expert in their own particular field, with a primary role to verify the accuracy of species records received. This review provided an opportunity to add species to the longlist where they were felt to be of local significance (as above), and to gain expert opinion on and justification for which of the species should be included in the longlist. The resultant longlist included 877 species.

Species Prioritisation (creation of shortlist)

The next stage was to create a “shortlist” containing those individual species that the LNRS will focus on supporting. Some of these species share similar habitat management requirements, and these were grouped into assemblages.

There are County Recorders for the majority of the taxa, and species atlases for Sussex have recently been published for flora, birds, odonata (dragonflies and damselflies), lepidoptera (butterflies and moths) and bees. Feedback from the County Recorders, alongside the best available information on species ecological needs, national distribution, local distribution and abundance from SxBRC and species atlases, was used to assign species to one of the categories A to G in table 1 below.

Table 1. Species guidance: identifying species which LNRS can best support

Category	Description	Benefit from LNRS?	Suitable priority species?
A: Needs more/bigger/better-connected habitat	<ul style="list-style-type: none">• Species likely to markedly benefit from general creation, expansion and improved connectivity of good quality habitats in the strategy area and do not need to be singled out for specific LNRS measures.• Species with high recovery potential that do not require specific or targeted recovery measures.	Yes	Probably not
B: Needs targeted habitat management	<ul style="list-style-type: none">• Species with specific requirements for habitat quality, structure, conditions or processes above and beyond category A.• Species may require specific configurations or complexes or connected or nearby habitat(s), either at site level or across large areas/multiple sites. This may include habitat connectivity	Yes	Yes

¹ Organisations involved included Buglife, SxBRC, South Downs National Park Authority, Environment Agency, Natural England, Sussex Wildlife Trust, Chichester Harbour Conservancy, High Weald National Landscape, Forestry Commission, Weald to Waves, Royal Society for the Protection of Birds, Species Recovery Trust, East Sussex County Council and West Sussex County Council.

	<p>measures for species needing support to track climate change.</p> <ul style="list-style-type: none"> • Causes of decline can be addressed with new or improved management practices. 		
C: Needs improvement in environmental quality	<ul style="list-style-type: none"> • 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. • E.g. better catchment water quality, improved spatial planning or air pollution sources, mitigation of recreational disturbance. 	Yes	Yes
D: Needs bespoke conservation action/s	<ul style="list-style-type: none"> • Species requiring additional, tailored measures <i>which can be spatially indicated</i> on the local habitat map. • Species may need multiple coordinated actions to bring about recovery, including combinations of local actions and national actions, where LNRS could address the former. • 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. <p>NB Species requiring bespoke measures <i>which cannot be mapped</i> should be assigned to category E.</p>		
E: Needs better evidence base/on-the-ground action not a priority	<ul style="list-style-type: none"> • Species for which there is insufficient evidence or understanding regarding drivers of decline, required recovery actions, and range/population levels. • Species for which the current priority is other than on-the-ground actions, e.g. research of ex-situ action. 	Unknown	No
F: Needs action outside England	<ul style="list-style-type: none"> • Species with low (or very low) recovery potential due to factors constraining recovery beyond English borders. • Evidence shows that action in England is highly unlikely to improve species' prospects. • This category is likely to apply only to migratory species (e.g. Afro-Palearctic migratory birds affected by hunting). 	No	No

G: Vagrants/occasional visitors	<ul style="list-style-type: none"> Species currently outside their normal breeding or wintering range or normal migration route, without an extant populations in the strategy area, and which are not suitable for conservation translocation. 	No	No
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Sussex is a well recorded county, as demonstrated by there being over 12 million species records in the database held by SxBRC. As such, for the majority of species groups, the balance of probability is that if there have been no records for the past 20 years, the species is unlikely to be present in most cases. Species for which the most recent records were from 2004 or earlier were therefore excluded from the shortlist (effectively assigned category E on the grounds of needing a better evidence base). However, this date cut-off was not applied to lichens (as there has not been a dedicated County Recorder for the group for some years, and it may therefore have been under-recorded) or to fungi (as the fruiting bodies can lie dormant for several years).

Species which are present but which do not require targeted action over and above that proposed for habitats or are widespread were assigned to category A on the grounds that they would likely benefit from general habitat improvements. In other words, they are supported by other LNRS measures.

If species were considered to meet the criteria for categories B to D above, they were provisionally shortlisted, with this categorisation further refined through consideration of additional criteria provided in the guidance, listed in Table 2. These included whether species were considered iconic of the strategy area, where East Sussex is a stronghold, or whether their recovery locally would contribute to recovery at a national level.

Some species, often urban, which did not meet the national criteria of being 'near threatened' or above were included where there was strong support for them from the public surveys, e.g. glow worm; these species meet the additional criteria set out in the Species Guidance which recognises that some species can be a great hook for wider public and stakeholder engagement with the LNRS, and that Responsible Authorities may wish to consider the depth of public interest in species and the opportunities this presents for encouraging broad local participation in the LNRS process. It is important to note that most national criteria focus on rarity and species in semi-natural habitats, whereas urban habitats have a differing range of iconic, indicator, classic and often much-loved species. Urban areas are also where this is most development and thus loss of wildlife.

Some species assigned to categories B to D in Table 1 above would benefit from similar management measures, and were therefore grouped together into assemblages, with measures developed for them.

Table 2. Species guidance: additional criteria

Para 4.3	<ul style="list-style-type: none"> Local significance Not red listed but expert opinion would meet 'threatened' Candidates for conservation translocation Iconic/local champion species Flagship/indicator for wider ecosystem improvement
Para 2.2	<ul style="list-style-type: none"> Public interest/local participation
Para 6.2	<ul style="list-style-type: none"> Assemblages (groups of species that share similar habitat management requirements)

Para 6.3	<ul style="list-style-type: none"> • Urgency • Deliverability- how feasible is it to deliver • Contributions to national species recovery - is species of national/international significance? <i>Should</i> prioritise species/assemblages which are only found in strategy area (local interpretation- stronghold) • Cross-boundary considerations- any opportunities to join up recovery plans across boundaries? • Maximising benefits - would recovery bring about other benefits? Keystone species/assemblages. • Pre-existing initiatives.
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Justification for categorisation, along with measures for shortlisted species and assemblages was again shared with County Recorders and local species experts to ensure it was robust. The lists and measures were also reviewed by the Working Group, Supporting Authorities, the Technical Review Panel, and other individuals/organisations with species expertise.

Priority Species

The LNRS Priority Species list contains the individual species and assemblages (groups of species that share similar management requirements) that the LNRS will focus on supporting. Of the 877 species on the longlist, 160 were shortlisted, demonstrating the richness of biodiversity in the LNRS area. Of these, 125 were grouped into 19 assemblages, leaving 35 species which required their own bespoke measures. All priority species are listed in Table 3. Habitat measures are considered likely to support an additional 326 species for which the LNRS area is known to be important.

Table 3. Priority species for the East Sussex and Brighton & Hove LNRS area.

Species Group	Common Name	Scientific Name	Assemblage
Mammals (excluding bats)	Beaver	<i>Castor fiber</i>	
	European otter	<i>Lutra lutra</i>	Streams and rivers
	European water vole	<i>Arvicola amphibius</i>	
	Hazel dormouse	<i>Muscardinus avellanarius</i>	
	Pine marten	<i>Martes martes</i>	
	West European hedgehog	<i>Erinaceus europaeus</i>	
Bats	Bechstein's bat	<i>Myotis bechsteineii</i>	
	Grey long-eared bat	<i>Plecotus austriacus</i>	
Birds	Bearded tit	<i>Panurus biarmicus</i>	Reedbed and river birds
	Bittern	<i>Botaurus stellaris</i>	Reedbed and river birds
	Corn bunting	<i>Emberiza calandra</i>	Farmland birds
	Cuckoo	<i>Cuculus canorus</i>	Farmland birds
	Dartford warbler	<i>Curruca undata</i>	Heathland birds
	Eurasian honey-buzzard	<i>Pernis apivorus</i>	Woodland birds
	Fulmar	<i>Fulmarus glacialis</i>	Cliff nesting birds
	Grey partridge	<i>Perdix perdix</i>	Farmland birds
	Hawfinch	<i>Coccothraustes coccothraustes</i>	Woodland birds
	House martin	<i>Delichon urbicum</i>	Urban birds
	Kittiwake	<i>Rissa tridactyla</i>	Cliff nesting birds
	Lapwing	<i>Vanellus vanellus</i>	Breeding waders – wet grassland and heathland
	Lesser spotted woodpecker	<i>Dryobates minor comminutus</i>	Woodland birds
	Linnet	<i>Linaria cannabina</i>	Farmland birds
	Little tern	<i>Sternula albifrons</i>	Shorebirds – breeding and migrating/winter
	Marsh harrier	<i>Circus aeruginosus</i>	Reedbed and river birds
	Marsh tit	<i>Poecile palustris</i>	Woodland birds
	Mediterranean gull	<i>Ichthyaetus melanocephalus</i>	Shore birds- breeding and migrating/winter
	Nightingale	<i>Luscinia megarhynchos</i>	Woodland birds
	Nightjar	<i>Caprimulgus europaeus</i>	Heathland birds
	Redshank	<i>Tringa tetanus</i>	Breeding waders – wet grassland and heathland

Species Group	Common Name	Scientific Name	Assemblage
	Ringed plover	<i>Charadrius hiaticula</i>	Shore birds- breeding and migrating/winter
	Sandwich tern	<i>Thalasseus sandvicensis</i>	Shore birds- breeding and migrating/winter
	Skylark	<i>Alauda arvensis</i>	Farmland birds
	Spotted flycatcher	<i>Muscicapa striata</i>	Woodland birds
	Starling	<i>Sturnus vulgaris</i>	Urban birds
	Stone-curlew	<i>Burhinus oediconemus</i>	Farmland birds
	Swift	<i>Apus apus</i>	Urban birds
	Tree pipit	<i>Anthus trivialis</i>	Heathland birds
	Tree sparrow	<i>Passer montanus</i>	Farmland birds
	Turtle dove	<i>Streptopelia turtur</i>	Farmland birds
	Yellowhammer	<i>Emberiza citrinella</i>	Farmland birds
Amphibians & reptiles	Common toad	<i>Bufo bufo</i>	Ponds for amphibians
	Great crested newt	<i>Triturus cristatus</i>	Ponds for amphibians
Fish	Brown/Sea trout	<i>Salmo trutta</i>	Streams and rivers
	European eel	<i>Anguilla anguilla</i>	Streams and rivers
Crustaceans	White-clawed crayfish	<i>Austropotamobius pallipes</i>	
Spiders	A spider	<i>Lathys stigmatisata</i>	Shingle and sand dunes
	A spider	<i>Micaria albobittata</i>	
	A spider	<i>Neon pictus</i>	Shingle and sand dune
	A spider	<i>Pellenes tripunctatus</i>	Shingle and sand dune
	A spider	<i>Phaeocedus braccatus</i>	Chalk grassland
	A spider	<i>Trichopterna cito</i>	Shingle and sand dune
	A spider	<i>Trochosa robusta</i>	
	Fen raft spider	<i>Dolomedes plantarius</i>	
	Golden lantern-spider	<i>Agroeca cuprea</i>	Shingle and sand dune
Ants, bees & wasps	Brown-banded carder bee	<i>Bombus humilis</i>	Chalk grassland
	Downland furrow bee	<i>Halictus eurygnathus</i>	Chalk grassland
	Heath potter wasp	<i>Eumenes coarctatus</i>	
	Moss carder bee	<i>Bombus muscorum</i>	Chalk grassland
	Oak mining bee	<i>Andrena ferox</i>	
	Potter flower bee	<i>Anthophora retusa</i>	

Species Group	Common Name	Scientific Name	Assemblage
	Red-shanked carder bee	<i>Bombus ruderarius</i>	Chalk grassland
	Sea aster bee	<i>Colletes halophilus</i>	Coastal grazing marsh and upper saltmarsh
Beetles	A beetle	<i>Geotrupes mutator</i>	
	Glow-worm	<i>Lampyris noctiluca</i>	
	Mediterranean oil beetle	<i>Meloe mediterraneus</i>	
	Six-spotted pot beetle	<i>Cryptocephalus sexpunctatus</i>	
	Southern oyster mushroom beetle	<i>Triplax lacordairii</i>	
	Stag beetle	<i>Lucanus cervus</i>	
Butterflies & moths	Adonis blue	<i>Polyommatus bellargus</i>	Chalk grassland
	Chalk hill blue	<i>Polyommatus coridon</i>	Chalk grassland
	Chalk-hill lance-wing	<i>Epermenia insecurella</i>	Chalk grassland
	Common fan-foot	<i>Pechipogo strigilata</i>	Open deciduous woodland
	Grayling	<i>Hipparchia semele</i>	Chalk grassland
	Marsh mallow moth	<i>Hydraecia osseola</i>	Coastal grazing marsh and upper saltmarsh
	Silver spotted skipper	<i>Hesperia comma</i>	
	Small blue	<i>Cupido minimus</i>	Chalk grassland
	Small pearl-bordered fritillary	<i>Boloria selene</i>	
	Sussex emerald	<i>Thalera fimbrialis</i>	Shingle and sand dune
Crickets & grasshoppers	Wart-biter	<i>Decticus verrucivorus</i>	
Dragonflies & damselflies	Emerald damselfly	<i>Lestes sponsa</i>	
Flies	A true fly	<i>Miltogramma germari</i>	Shingle and sand dune
	Large plain stiletto	<i>Thereva cinifera</i>	
True Bugs	A planthopper	<i>Tettigometra impressopunctata</i>	Chalk grassland
	Pondweed leafhopper	<i>Erotettix cyane</i>	
Molluscs	A mollusc	<i>Euglesa pseudosphaerium</i>	Grazing marsh molluscs
	Carthusian snail	<i>Monacha (Monacha) cartusiana</i>	Chalk grassland
	Heath snail	<i>Helicella itala</i>	Chalk grassland
	Large-mouthed valve snail	<i>Valvata macrostoma</i>	Grazing marsh molluscs
	Ramshorn snail	<i>Anisus (Disculifer) vorticulus</i>	Grazing marsh molluscs
	The shining ram's-horn	<i>Segmentina nitida</i>	Grazing marsh molluscs
Higher Plants	Annual knawel	<i>Scleranthus annuus</i>	Rare arable plants

Species Group	Common Name	Scientific Name	Assemblage
	Basil thyme	<i>Clinopodium acinos</i>	Chalk grassland
	Bird's-nest orchid	<i>Neottia nidus-avis</i>	Open deciduous woodland
	Borrer's saltmarsh-grass	<i>Puccinellia fasciculata</i>	Coastal grazing marsh and upper saltmarsh
	Burnt orchid	<i>Neotinea ustulata</i>	Chalk grassland
	Chalk milkwort	<i>Polygala calcarea</i>	Chalk grassland
	Corn buttercup	<i>Ranunculus arvensis</i>	Rare arable plants
	Deptford pink	<i>Dianthus armeria</i>	Chalk grassland
	Early gentian	<i>Gentianella anglica</i>	Chalk grassland
	Field fleawort	<i>Tephrosia integrifolia</i>	Chalk grassland
	Field gentian	<i>Gentianella campestris</i>	
	Field gromwell	<i>Lithospermum arvense</i>	Rare arable plants
	Frog orchid	<i>Coeloglossum viride</i>	Chalk grassland
	Frosted orache	<i>Atriplex laciniata</i>	Shingle and sand dune
	Heath lobelia	<i>Lobelia urens</i>	
	Lesser calamint	<i>Clinopodium calamintha</i>	
	Lesser marshwort	<i>Apium inundatum</i>	
	Little-robin	<i>Geranium purpureum</i>	Shingle and sand dune
	Marsh clubmoss	<i>Lycopodiella inundata</i>	
	Moon carrot	<i>Seseli libanotis</i>	Chalk grassland
	Musk orchid	<i>Herminium monorchis</i>	Chalk grassland
	Parsley water-dropwort	<i>Oenanthe lachenalii</i>	Coastal grazing marsh and upper saltmarsh
	Pheasant's-eye	<i>Adonis annua</i>	Rare arable plants
	Prickly poppy	<i>Papaver argemone</i>	Rare arable plants
	Red star-thistle	<i>Centaurea calcitrapa</i>	
	Round-headed rampion	<i>Phyteuma orbiculare</i>	Chalk grassland
	Saltmarsh goosefoot	<i>Oxybasis chenopodioides</i>	Coastal grazing marsh and upper saltmarsh
	Saltwort	<i>Salsola kali</i>	Shingle and sand dune
	Sea barley	<i>Hordeum marinum</i>	Coastal grazing marsh and upper saltmarsh
	Sea bindweed	<i>Calystegia soldanella</i>	Shingle and sand dune
	Sea clover	<i>Trifolium squamosum</i>	Coastal grazing marsh and upper saltmarsh
	Sea sandwort	<i>Honckenia peploides</i>	Shingle and sand dune

Species Group	Common Name	Scientific Name	Assemblage
	Sea kale	<i>Crambe maritima</i>	Shingle and sand dune
	Shepherd's needle	<i>Scandix pecten-veneris</i>	Rare arable plants
	Slender hare's ear	<i>Bupleurum tenuissimum</i>	Coastal grazing marsh and upper saltmarsh
	Spiked rampion	<i>Phyteuma spicatum</i>	
	Stinking hawk's-beard	<i>Crepis foetida</i>	Shingle and sand dune
	Upright chickweed	<i>Moenchia erecta</i>	
	Wall germander	<i>Teucrium chamaedrys</i>	Chalk grassland
	White helleborine	<i>Cephalanthera damasonium</i>	Open deciduous woodland
Mosses	Curly beardless-moss	<i>Weissia condensa</i>	Chalk grassland
	Ribbonwort	<i>Pallavicinia lyellii</i>	Sandstone outcrops
	Round-leaved feather-moss	<i>Rhynchostegium rotundifolium</i>	
	Slender thread-moss	<i>Orthodontium gracile</i>	Sandstone outcrops
	Sterile beardless-moss	<i>Weissia sterilis</i>	Chalk grassland
Stoneworts	Bristly stonewort	<i>Chara hispida</i>	
Lichens	Lemon tart lichen	<i>Lecanora sublivescens</i>	Open parkland mature and veteran tree lichens
	Oak rim lichen	<i>Lecanora quercicola</i>	Open parkland mature and veteran tree lichens
	Scaly-breck lichen	<i>Squamarina lentigera</i>	Chalk grassland
Fungi	Bilious bolete	<i>Rubroboletus legaliae</i>	Deciduous woodland and wood pasture fungi
	Bitter tooth	<i>Hydnellum scabrosum</i>	Deciduous woodland and wood pasture fungi
	Blushing waxcap	<i>Neohygrocybe ovina</i>	Waxcap grassland fungi
	Citrine waxcap	<i>Hygrocybe citrinovirens</i>	Waxcap grassland fungi
	Crimson waxcap	<i>Hygrocybe punicea</i>	Waxcap grassland fungi
	Date waxcap	<i>Hygrocybe spadicea</i>	Waxcap grassland fungi
	Dingy waxcap	<i>Neohygrocybe ingrata</i>	Waxcap grassland fungi
	Felted pinkgill	<i>Entoloma griseocyaneum</i>	Waxcap grassland fungi
	Glistening waxcap	<i>Gloioxanthomyces vitellinus</i>	Waxcap grassland fungi
	Golden-gilled bolete	<i>Phylloporus pelletieri</i>	Deciduous woodland and wood pasture fungi
	Jubilee waxcap	<i>Gliophorus reginae</i>	Waxcap grassland fungi
	Lilac pinkgill	<i>Entoloma porphyrophaeum</i>	Waxcap grassland fungi
	Mealy pinkgill	<i>Entoloma prunuloides</i>	Waxcap grassland fungi
	Nitrous waxcap	<i>Neohygrocybe nitrata</i>	Waxcap grassland fungi

Species Group	Common Name	Scientific Name	Assemblage
	Pale bolete	<i>Butyriboletus fechtneri</i>	Deciduous woodland and wood pasture fungi
	Pink waxcap	<i>Porpolomopsis calyptriformis</i>	Waxcap grassland fungi
	Rosewood brittlegill	<i>Russula melitodes</i>	Deciduous woodland and wood pasture fungi
	Splendid waxcap	<i>Hygrocybe splendidissima</i>	Waxcap grassland fungi
	Toasted waxcap	<i>Cuphophyllus colemannianus</i>	Waxcap grassland fungi
	Umbrella polypore	<i>Polyporus umbellatus</i>	Deciduous woodland and wood pasture fungi
	Zoned tooth	<i>Hydnellum conrescens</i>	Deciduous woodland and wood pasture fungi

Priority Species Measures

Abbreviations

The abbreviations used at the start of the information section summarise any conservation status, and are as follows:

Legal Protection – under international and/or national conventions/legislation.

[International Union for Conservation of Nature \(IUCN\) Red List](#) (Great Britain):

- EX Extinct
- EW Extinct in the Wild
- CR Critically Endangered
- EN Endangered
- VU Vulnerable
- NT Near Threatened
- LC Least Concern

R – Rare (pre 1994 Red List).

NR – Nationally Rare, occurring in 15 or fewer hectads (10km x 10km square) in Great Britain (GB) or England (England).

NR (marine) – Nationally Rare marine species, occurring in eight or fewer hectads in Great Britain.

NS – Nationally scarce, recorded in 16-100 hectads (10km squares) but not included in one of the Red List Categories.

BoCC Red, Amber or Green – [Birds of Conservation Concern](#).

S41 – [Species listed under Section 41 of the Natural Environment and Rural Communities Act](#).

Sussex Rare – species assessed as being particularly rare in Sussex by local species experts.

Some measures, although critical, cannot be addressed directly by the Local Nature Recovery Strategy as they related to supporting mechanisms, processes and functions. These ‘enabling measures’ are shown in italics.

Individual Species Measures

Species	Information	Measures
Beaver <i>Castor fiber</i>	EN. Critically endangered in England. Used to be widespread in Britain but hunted to extinction. Important components of river and wetland ecosystems. Candidate for local conservation introductions.	Improve the condition of riparian habitats in the strategy area to support the future establishment of a beaver population and their natural spread.
European water vole <i>Arvicola amphibius</i>	Legal protection, S41, EN, Sussex Rare. Found throughout Britain. Long term decline, disappearing from 94% of former sites. Populations in Sussex critically low; estimated that over 90% lost in last 30 years. Found in Pett and Rye Levels.	<ol style="list-style-type: none"> 1. Eradication of non-native American mink; 2. Improve habitat networks and connectivity around key populations; 3. Create suitable habitat on edges of floodplains to provide refuge habitat during floods; 4. Bank side management- increase the occurrence of bank side trees/hedges/reeds/scrub patches along linear watercourse to provide seasonal food and refuge habitat, plus sensitive, graded cuts on bankside vegetation to encourage female dispersal; 5. Pollution control; 6. Create non-linear wetlands (vertical habitats such as reedbeds, fens etc); 7. <i>Increase survey effort in non-linear sites which are particularly important in winter.</i> Helping-water-voles-on-your-land.pdf
Hazel dormouse <i>Muscardinus avellanarius</i>	Legal protection, VU, S41. Occurs mainly in southern England, especially Devon, Sussex and Kent. East Sussex is a stronghold for the species.	<ol style="list-style-type: none"> 1. Create structural diversity and increase light levels in woodland, e.g. through active coppicing, creating glades and opening up rides. 2. Cut hedgerows (where connected to woodland sites/other suitable habitat) on three-year cycle, alternating sides. managing-woodlands-for-dormice-final.pdf

Species	Information	Measures
Pine marten <i>Martes martes</i>	<p>Legal protection, S41.</p> <p>Once widespread across the UK, hunting and woodland clearance meant the species restricted to Scottish Highlands and pockets of Wales and northern England by the 20th century. Population is spreading across Scotland but remains very rare in England and Wales.</p> <p>SWT working in partnership with KWT and Wildwood Trust to assess the feasibility of restoring them to the south-east.</p>	Create, improve and connect woodland habitats to support future establishment of a pine marten population and its natural spread.
West European hedgehog <i>Erinaceus europaeus</i>	<p>S41, VU.</p> <p>Widespread but has undergone significant decline. Scored highly in public consultations- champion species for urban habitats and gardens.</p>	<ol style="list-style-type: none"> 1. Improve connectivity between gardens by creating access points at the bottom of fences, or planting hedgerows as boundaries. 2. Create wildlife friendly gardens, e.g. by planting shrubs and hedges, encouraging insects with wildflowers and scrub habitat, creating compost, log and leaf piles. 3. Install hedgehog houses. 4. <i>Research rural hedgehog populations.</i> 5. <i>Develop planning guidance for East Sussex to encourage access fences or penetrable boundaries within new development.</i> <p>Helping Hedgehogs</p> <p>Top 10 Tips for a hedgehog-friendly garden</p> <p>Help a hedgehog The Wildlife Trusts</p> <p>Hedgehogs In Your Garden RSPCA - RSPCA- rspca.org.uk</p> <p>Britain's National Hedgehog Conservation Strategy- Hedgehog Street</p>
Bechstein's bat <i>Myotis bechsteinii</i>	Legal protection, S41,	<ol style="list-style-type: none"> 1. Monitor and protect (e.g. through raising awareness with landowners) all existing confirmed roost sites, retain as many potential roosts sites as practically possible, and ensure a

Species	Information	Measures
	<p>Very rare species, only found in southern Wales and parts of southern England. The UK is at the northernmost edge of its distribution range.</p> <p>Relatively few confirmed records in East Sussex but distribution has widened in more recent years.</p> <p>Woodland management is key.</p>	<p>succession or continuity of potential roost sites for the future.</p> <ol style="list-style-type: none"> 2. Create a good network of habitats for roosting, feeding and commuting, avoiding isolated any areas currently used for feeding and ensure good connectivity between sites. 3. <i>Reduce pesticide use within foraging areas to improve insect diversity.</i> <p>Woodland specialists- Bats and woodland- Bat Conservation Trust</p>
Grey long-eared bat	<p>Legal protection, EN.</p> <p>Southern European species, with distribution extending to southern England. In England, restricted to a few colonies in Sussex, Hampshire, Isle of Wight, Dorset, Devon and Somerset.</p> <p>Key species: Records for this species have increased over recent years in East Sussex.</p> <p>Grassland meadows and woodland edge for foraging, roosts in buildings.</p>	<ol style="list-style-type: none"> 1. Monitor and protect (e.g. through raising awareness with landowners) known roost sites, retain as many potential roost sites as practically possible, and ensure a succession or continuity of potential roost sites for the future. 2. Create a good network of habitats for roosting, feeding and commuting, avoiding isolating any areas currently used for feeding and ensure good connectivity between sites. 3. <i>Reduce pesticide use within foraging areas to improve insect diversity.</i>
White-clawed crayfish <i>Austropotamobius pallipes</i>	<p>Legal protection, S41, EN, Sussex Rare.</p> <p>Only freshwater crayfish in Britain. Under threat and declining throughout European range. In lowland England, tends to be confined to clean, base-rich watercourses.</p>	<ol style="list-style-type: none"> 1. Survey to know current distribution. 2. Investigate and correct sources of poor water quality or water resource issues and enhancement of habitat, e.g. <ol style="list-style-type: none"> a. Reduce risk of pollution through reduction in chemical use and creation of buffer zones. b. Maintain water levels and ensure stable flow regime with pools and glides. c. Maintain/create variety of refuges within channel, e.g. cobbles and boulders, submerged tree roots, soft banks.

Species	Information	Measures
		<ul style="list-style-type: none"> d. Maintain stands of submerged vegetation and ensure habitat not dominated by algae such as blanket weed. e. Maintain areas of undercut, vertical bank, with overhanging vegetation. <p>3. Follow CHECK-CLEAN-DRY principles if entering watercourses to limit transfer of crayfish plague.</p> <p>4. Inform landowners, developers and other stakeholders of presence.</p> <p>Ark sites for crayfish. Buglife.</p> <p>Check Clean Dry » NNSS</p>
A spider <i>Micaria albovittata</i>	VU, NR, Sussex Rare. Common on hot hillsides near the coast. Mainly occurs in stony areas or on steep slopes unsuitable for cultivation. Most records Dorset and South Devon. The single recent Sussex site (Hastings/St Leonards) is regionally important as the only one on the SE English coast- all others are further west.	Maintain open grassland and prevent growth of scrub.
A spider <i>Trochosa robusta</i>	VU, NR. Only recorded from southern half of England. Mainly stony chalk grassland, especially on cliff-tops and under-cliff. This already VU species is in clear decline and expected to be EN or CR when next reviewed. The 1997 record from Hastings Country Park is important in this context and deserves dedicated resurvey. Hastings Country Park, Ditchling Beacon.	Localised survey of historic site to assess presence and inform future management.
Fen raft spider <i>Dolomedes plantarius</i>	Legal protection, S41, VU, NR, Sussex Rare.	<ol style="list-style-type: none"> 1. Survey Pevensey Levels population to inform appropriate management. 2. Manage and maintain water levels.

Species	Information	Measures
	Only known from three locations in Britain: Pevensey Levels supports largest population in UK. Interest feature of SSSI and Ramsar.	
Heath potter wasp <i>Eumenes coarctatus</i>	Sussex Rare. South Devon to East Sussex and N to Bucks. Very localised. Heathland with patches of exposed clay and sources of water.	Manage heathland to maintain sources of water and patches of exposed wet clay for construction of nest pots.
Oak mining bee <i>Andrena ferox</i>	S41, EN. Rarely encountered and confined to scattered sites in S England. Mature and open leaved woodland with a high proportion of oak. Recorded at Hastings, Flat Roper Wood, Great Dixter.	Ensure high proportion of oak in broadleaved woodland. Woodland Wildlife Toolkit > Woodland and shrub canopy invertebrate assemblage.
Potter flower bee <i>Anthophora retusa</i>	S41, EN, Sussex Rare. Formerly widespread, now restricted to E Sussex, Dorset, Isel of Wight and Hampshire. Rapid and largely unexplained decline in Britain.	1. Maintain habitat of sandy deposits above chalk, with species-rich clifftop grassland. 2. Survey.
A beetle <i>Geotrupes mutator</i>	NT, NR, Sussex Rare. Uncommon and declining with thin scattering of records in England and Wales, usually in horse and cattle pasture. Requires large areas of unimproved grassland with grazing animals to provide it with a supply of dung.	Undertake conservation grazing with horse/cattle in suitable habitats.
Glow-worm <i>Lampyris noctiluca</i>	LC. Iconic species. Well distributed and relatively common in East Sussex, although concern that it is declining and it has been lost from some sites. Found in low growing vegetation, often at the base of hedgerows, in grasslands	1. Maintain dark corridors at and adjoining known sites. 2. Avoid strimming vegetation at the base of hedgerows during mating season (June to July).

Species	Information	Measures
	and woodland edges. Hides away in crevices under stones or bark during the day.	
Mediterranean oil beetle <i>Meloe mediterraneus</i>	VU, Sussex Rare. East Sussex is one of only two locations in UK where the species is found (the other being South Devon). Until recently presumed extinct. Found on coastal grassland.	Maintain, enhance and expand flower-rich coastal grasslands with abundant solitary mining bees. Mediterranean Oil Beetle- Bug Directory- Buglife
Six-spotted pot beetle <i>Cryptocephalus sexpunctatus</i>	S41, EN, NR. Broadleaf woodland species associated with a range of woody species such as Hazel, Aspen, and Oak. Larvae possibly myrmecophilous. Adults require warm, sheltered glades and rides in woodland and neglect of woodlands will be threat. Woodland and calcareous grassland with dense scrub. Iconic species recorded at Flatropers Wood.	<ol style="list-style-type: none"> 1. Continued management of ancient woodlands to ensure presence of open space. 2. Maintain grassland management with structural diversity including hawthorn and hazel scrub.
Southern oyster mushroom beetle <i>Triplax lacordairii</i>	R. Associated with oyster mushroom species, <i>Pleurotus</i> spp. Growing on dead and decaying Beech.	<ol style="list-style-type: none"> 1. Management to ensure suitable growth of oyster mushroom needed. 2. Ensure that fallen and standing deadwood retained, particularly that with bark attached. The Species The Species Recovery Trust southern oyster mushroom beetle
Stag beetle <i>Lucanus cervus</i>	Legal protection, NS, S41, Sussex Rare. Large and iconic species that is locally distributed in East Sussex the majority of records located to the west of a line between Crowborough and Ringmer, and particularly around the Ringmer area. Larvae take three to four years to fully develop.	Ensure undisturbed deadwood is available for larvae in suburban parks and gardens as well as in woodlands in wider countryside. Woodland Wildlife Toolkit > Stag Beetle Stag beetle facts- People's Trust for Endangered Species
Small Pearl-bordered Fritillary	S41, NT, Sussex Rare.	<ol style="list-style-type: none"> 1. Coppice woodlands to create coupes and glades.

Species	Information	Measures
<i>Boloria selene</i>	Extinct as a native. Strongholds throughout much of Scotland and Wales and in north-western and south-western counties of England, with scattered colonies elsewhere. Found in discrete colonies. Most English colonies found in open areas within deciduous woodland, with damp areas preferred. Relatively sedentary with limited capacity for colonising new areas. Very restricted range in East Sussex and species restoration project in place.	<ol style="list-style-type: none"> 2. Maintain well-established humid field layer with abundant <i>Viola</i> spp. 3. Manage water levels to prevent habitat drying out.
Wart-biter <i>Decticus verrucivorus</i>	Legal protection, S41, EN, NR, Sussex Rare. Extremely localised in GB and restricted to southern England where only found at six sites, three of which were reintroduction sites. Four sites in East Sussex. Chalk grassland.	<ol style="list-style-type: none"> 1. <i>Survey suitable locations.</i> 2. Ensure heterogenous habitat structure with mosaic of vegetation classes, flower-rich sward and areas of bare ground. 3. Manage scrub through periodic clearance and appropriate grazing regime. 4. Avoid grazing April to September when nymphs or adults likely to be present. <p>Decticus verrucivorus</p> <p>Wart-biter Bush-cricket- Bug Directory- Buglife</p>
Emerald damselfly <i>Lestes sponsa</i>	LC. Declining nationally. The status of this species in East Sussex is uncertain but perhaps declining and it should be placed on the 'concern list'. Needs shallow standing water (bog pools, ponds and ditches).	<ol style="list-style-type: none"> 1. <i>Annual counts from selected sites.</i> 2. Create shallow ponds with vegetation that retain water late in season.
Large plain stiletto <i>Thereva cinifera</i>	NT, NR. Currently known from only a few southern sites. Pett Levels population associated with rabbit disturbed sandy-	Create and maintain patches of disturbed bare ground within coastal floodplain grazing marsh.

Species	Information	Measures
	gravelly ground on coastal floodplain grazing marsh beside sea wall.	
Pondweed leafhopper <i>Erotettix cyane</i>	S41, Sussex Rare. Only found at six ponds in SE England at only three sites: two in Sussex, one in Surrey. Exclusively found in ponds on only food plant, broad-leaved pondweed <i>Potamogeton natans</i> .	1. Maintain and monitor known pond sites. 2. Ensure surrounding land management maintains high water quality. Pondweed Leafhopper- Species Directory- Freshwater Habitats Trust UKBAP species
Field gentian <i>Gentianella campestris</i>	S41, VU (GB), EN (England), Sussex Rare. Widespread but localised throughout Scotland, N Wales, N and W Ireland and northern England, but very rare in England south of Pennines. Rare in East Sussex and declining. Found on chalk heath and chalk grassland. Target species for Species Recovery Trust.	1. Creation and maintenance of short sward grassland, with relatively heavy cattle/pony grazing. 2. Carry out heather/bracken management from November. 3. <i>Support Species Recovery Trust project.</i> Gentianella campestris
Heath lobelia <i>Lobelia urens</i>	S41, VU (GB), VU (England), NR, Sussex Rare. Native in extreme south of Britain where it is rare and at northern European limit. Found at only seven sites across south of England from Cornwall to Sussex. Rare in East Sussex, found only at Flimwell. Target species for Species Recovery Trust.	1. Create small areas of bare ground at known sites to trigger dormant seeds through scrub removal and cattle grazing. 2. Heavy cutting and grazing interspersed with relaxation of management. 3. <i>Support the work of the Species Recovery Trust.</i> Lobelia urens
Lesser calamint <i>Clinopodium calamintha</i>	NS, Sussex Rare. Core British range in eastern England, but with outliers as far west as Forest of Dean. Rare in East Sussex. Best population is at Hastings Castle where the main threat is human activity. Found on dry banks and rocky places.	<i>Manage human disturbance through education.</i>

Species	Information	Measures
<p>Lesser marshwort <i>Apium inundatum</i></p>	<p>VU, Sussex Rare.</p> <p>Rare in Sussex. Although never common, formerly known from number of ponds on Wealden commons scattered across Sussex. Decreasing.</p> <p>Found in shallow ditches and ponds. Recorded at Chailey, Tarring Neville, Pevensey Levels.</p>	<ol style="list-style-type: none"> 1. Maintain and safeguard small farm ponds and grazed commons. 2. Create new small ponds in suitable locations.
<p>Marsh Clubmoss <i>Lycopodiella inundata</i></p>	<p>S41, EN, NS, Sussex Rare.</p> <p>Main populations found in southern England, in the New Forest, and on heaths in Hampshire and Surrey. Rare in East Sussex.</p> <p>Recorded at Isle of Thorns. Found on damp heathland, bare peaty soil.</p> <p>Requires bespoke conservation action, including conservation translocation within known sites.</p>	<ol style="list-style-type: none"> 1. <i>Protect known site through education and raised awareness.</i> 2. Maintain managed heath and hydrology. 3. Create areas of bare exposed peat to boost regeneration. 4. Expand habitat to improve connectivity.
<p>Red star-thistle <i>Centaurea calcitrapa</i></p>	<p>EN, NR, S41.</p> <p>Rare in British Isles, established only in Kent and Sussex. Archaeophyte, listed by NBN as non-native, although considered to be native in Sussex. Very locally abundant in horse-grazed grassland and open downland, forming extensive dense patches at Mile Oak. Doing OK at known sites.</p>	<ol style="list-style-type: none"> 1. Monitor known sites. 2. Encourage appropriate management (horse grazing) within and adjacent to known sites.
<p>Spiked rampion <i>Phyteuma spicatum</i></p>	<p>Legal protection, EN (GB), EN (England), NR, Sussex Rare.</p> <p>East Sussex is the only area in the BI where found as a native. Confined to 8 sites, one of which holds c. 85% of the UK population.</p> <p>Open woodland, wood margins, by rides and streams, hedge banks and road verges.</p> <p>Species Recovery Trust target species.</p>	<ol style="list-style-type: none"> 1. <i>Monitor known sites.</i> 2. Consider selective translocation to suitable sites and monitor. 3. Ensure main population is protected through appropriate management of verge. 4. Undertake bespoke management within main site, including bracken control, creation of bare ground to encourage

Species	Information	Measures
		<p>germination, measures to control deer etc, and use to inform conservation at other sites.</p> <p>The Species The Species Recovery Trust spiked rampion</p>
<p>Upright chickweed</p> <p><i>Moenchia erecta</i></p>	<p>VU.</p> <p>Occasional in Britain, predominantly in southern England and Wales. Rare in East Sussex. Formerly locally common on downland.</p> <p>Found on heathland, acid grassland, coastal sand. Records from Camber and Beddingham.</p>	<ol style="list-style-type: none"> 1. Maintain short grazed or mown turf with some disturbance to maintain open areas. 2. Remove scrub.
<p>Round-leaved feather-moss</p> <p><i>Rhynchostegium rotundifolium</i></p>	<p>Legal protection, S41, NR, Sussex Rare.</p> <p>Very rare in Britain. Known only from two sites in calcareous districts.</p> <p>Woodland/hedgerows.</p>	<p>Manage bramble and ivy.</p>
<p>Bristly stonewort</p> <p><i>Chara hispida</i></p>	<p>Not RDL but rare in the SE and very rare in Sussex. Another species which lives in its chalky water with other special things. It and its habitat need help.</p>	<ol style="list-style-type: none"> 1. Clearance to reduce eutrophication and competition. 2. Remove/prevent introduction of carp into known/potential sites. 3. Create suitable new water bodies.

Assemblage Measures

Coastal

Breeding and Migrating/Wintering Shore Birds Assemblage	
Measures: <ul style="list-style-type: none">• Protect from disturbance and predators through education, fencing etc. Wardening is key.• Create network of new breeding areas including use of mesh-sided rafts, shingle islands, and scrapes and pools to benefit species all year.• Potential for some managed realignment and creation of new saltmarsh.• <i>Monitor populations.</i>	
Species	Additional Information & resources
Little tern <i>Sternula albifrons</i>	Legal protection, BoCC Amber. Scarce breeding summer visitor and fairly common passage migrant. Only breeds at Rye Harbour and declining. Concerted effort required to reverse decline.
Mediterranean gull <i>Ichthyaetus melanocephalus</i>	Legal protection, Notable Bird, BoCC Amber. Fairly common winter visitor and passage migrant; scarce breeder. Colony at Rye Harbour is one of three main breeding sites in UK.
Ringed plover <i>Charadrius hiaticula</i>	BoCC Red. Scarce breeder; fairly common passage migrant and winter visitor. Breeding pairs restricted to short stretches of coast, almost always on shingle beaches.
Sandwich tern <i>Thalasseus sandvicensis</i>	BoCC Amber. Fairly common although localised breeding summer visitor and common passage migrant; very scarce winter visitor. Breeding restricted to Rye Harbour.

Cliff nesting birds
Measures: <ul style="list-style-type: none">• <i>Annual productivity and population monitoring.</i>• <i>Protection of breeding colonies from disturbance through e.g. wardening, awareness raising etc.</i>

Species	Additional Information & resources
Fulmar <i>Fulmarus glacialis</i>	BoCC Amber. Scarce breeding species and passage migrant. Would likely benefit from habitat measures.
Kittiwake <i>Rissa tridactyla</i>	BoCC Red. Common but very localised breeding species; fairly common or common winter visitor and passage migrant. Rare away from coast. Breeding colony at Seaford Head is iconic and is towards southern edge of range. Number of breeding birds has not declined in the same way as northern colonies.

Coastal Grazing Marsh & Upper Saltmarsh Assemblage	
Measures: <ul style="list-style-type: none"> • Maintain existing habitat inside and peripheral to protected sites and expand through positive management where possible. • Light grazing, aiming for low levels of disturbance/trampling, which could damage the flora and fauna and contribute to erosion. • Expand areas of grazing marsh by re-introducing appropriate water level management on improved grassland and arable land. Target to ensure the expansion and linkage of existing sites and to promote functioning coastal floodplains. • Encourage expansion of marsh mallow <i>Althaea officinalis</i> along drainage ditches from current range. 	
Species	Additional Information & resources
Borrer's saltmarsh-grass <i>Puccinellia fasciculata</i>	S41, NT, NS, Sussex Rare. Local and decreasing on coasts in south and SE BI. Rare in East Sussex. Shingle, tidal river banks and other brackish habitats. Ouse Valley.
Marsh mallow moth <i>Hydraecia osseola</i>	S41, R. Restricted in Britain to a few scattered locations in Kent and East Sussex. One of the only UK populations is on Sussex/Kent border feeds on <i>Althaea officinalis</i> growing along drainage ditches. Iconic.
Parsley water-dropwort <i>Oenanthe lachenalia</i>	NT.

	<p>Distributed widely around the coastline of GB. Declining in inland sites. Occasional, local in East Sussex. Appears to have decreased in Rye area. New populations on Pevensey Levels.</p> <p>Damp coastal grassland and marsh, rarely inland grassland and fen.</p>
<p>Saltmarsh goosefoot</p> <p><i>Chenopodium (Oxybasis) chenopodioides</i></p>	<p>NS, Sussex Rare.</p> <p>In mainland Britain, may now occur only in Thames Estuary, Kent and Sussex. Rare in Sussex.</p>
<p>Sea aster bee</p> <p><i>Colletes halophilus</i></p>	<p>S41, Notable A, Sussex Rare.</p> <p>Common in East Anglia and Thames estuary, occurs more sporadically along south coast of England. Strong evidence that it is expanding its range.</p> <p>Only known from four locations in county: Rye Harbour Nature Reserve, Hastings, Norman's Bay & Cuckmere.</p> <p>Dependent on sea aster.</p>
<p>Sea barley</p> <p><i>Hordeum marinum</i></p>	<p>S41, VU, NS, Sussex Rare.</p> <p>Recorded around coast primarily in southern England and south Wales. Has decreased in Britain, particularly from The Wash northwards. Scarce, local in East Sussex. Occurs along Ouse Valley in number of locations south of Lewes and locally frequent in Rye area.</p> <p>Found on coastal grassland, shingle, tidal rivers.</p>
<p>Sea clover</p> <p><i>Trifolium squamosum</i></p>	<p>NS, Sussex Rare.</p> <p>Records predominantly restricted to southern England and Wales. Scarce, local in East Sussex.</p> <p>Coastal- open brackish grassland; sand and shingle; seawalls and banks; tidal riverbanks.</p> <p>Ouse and Cuckmere Valleys.</p>
<p>Slender hare's-ear</p> <p><i>Bupleurum tenuissimum</i></p>	<p>S41, VU (GB), VU (England), NS, Sussex Rare.</p> <p>Vulnerable nationally, scarce in East Sussex.</p> <p>Saltmarsh.</p> <p>Ouse Valley.</p>

Shingle and Sand Dune Assemblage

Measures:

- Maintain existing habitat inside and peripheral to protected sites and have regard to these species in the consideration of any coastal defence works.
- Expand existing populations where possible by managing habitat adjacent to known locations.
- *Educate to minimise disturbance from trampling and recreational pressures.*
- *Safeguard sparsely vegetated shingle from loss and damage.*
- *Develop local policies to prevent further development of coastal sites.*
- [Coastal vegetated shingle- Buglife](#)

Species	Additional Information & resources
A spider <i>Pellenes tripunctatus</i>	VU, NR. Restricted to coastal shingle sites.
A true fly <i>Miltogramma germari</i>	R. Frequents sandy, coastal habitats- associated with a number of solitary bee species whose burrows are also used by the larvae of this species- a kleptoparasite of the bees' food stores. Coastal Dunes.
Frosted orache <i>Atriplex laciniata</i>	Sussex Rare. Not listed nationally but scarce in Sussex. Numbers can vary according to the movement of sand and shingle and could re-appear at former sites in the future.
Golden lantern spider <i>Agroeca cuprea</i>	S41, NT, NR. Known from only three locations nationally since 1992. Dune sites threatened by development etc. Camber Sands, Rye Harbour.
Little-robin <i>Geranium purpureum</i>	NR, NS, Sussex Rare. Confined to southern coasts in BI. Long known in Sussex but always rare.
Saltwort <i>Salsola kali</i>	VU. Widespread around coasts of BI. Had declined since 1960s with considerable loss in some areas, often due to recreational pressure. Rare in East Sussex.
Sea bindweed <i>Calystegia soldanella</i>	VU, Sussex Rare. Scarce, very locally frequent in East Sussex on coastal dunes and shingle.
Sea andwort	Widely recorded from most of coastline of BI. Rare in East Sussex and has declined in historic sites.

<i>Honckenya peploides</i>	
Sea-kale <i>Crame maritima</i>	Locally common in Sussex, likely reflecting the fact that Sussex is a stronghold for the habitat. Useful as a habitat indicator. Considered iconic.
Stinking hawksbeard <i>Crepis foetida</i>	Archaeophyte. Now only known from one natural site (Kent) and two established populations nearby. Re-introduced at Rye Harbour Nature Reserve where it is part of an ongoing programme.
Sussex emerald <i>Thalera fimbrialis</i>	Occasional immigrant but resident at Rye Harbour. Requires management for <i>Daucus carota</i> in coastal habitats. Iconic.

Farmed Landscape and Soils

Farmland Birds	
Measures: <ul style="list-style-type: none"> • Aim for a range of different crops and habitats including fallow areas throughout the year and retain areas of stubble. • Create and manage set aside areas that could support a mosaic of scrub, species-rich grassland, rough grassland, beetle banks, some bare ground and ponds or small wader scrapes to provide water and muddy edges. • Create flower rich arable margins. • Manage hay meadows to produce a range of seeds for seed eating species. • Create areas of scrub and avoid cutting all hedgerows annually to allow them to develop. • For stone-curlew, create 1 ha to 5ha uncropped fallow plots with 30% bare ground. Retain plot until crop is harvested from late July. Monitor breeding while protecting nests and chicks. 	
Species	Additional Information & resources
Corn bunting <i>Emberiza calandra</i>	S41, BoCC Red. Fairly common resident. Focus of conservation projects. Corn Bunting conservation- Advice for Farmers
Cuckoo <i>Cuculus canorus</i>	S41, BoCC Red. Fairly common but declining summer visitor. Reasons for national decline poorly understood.
Grey partridge <i>Perdix perdix</i>	S41, BoCC Red. Scarce resident; much declined but benefiting locally through conservation effort.

	Grey Partridge- advice for Farmers
Linnet <i>Linaria cannabina</i>	BoCC Red. Fairly common summer visitor and infrequently seen passage migrant. East Sussex is an important UK county for breeding, second only to Kent, and appears to be holding its own in the face of national declines. Stronghold for the species and considered iconic.
Skylark <i>Alauda arvensis</i>	BoCC Red. Slight increase in range but population decline. Populations in non-agricultural habitats seem to have held up. Very common but declining resident in East Sussex and probably common passage migrant and winter visitor.
Stone-curlew <i>Burhinus oedichnemus</i>	Legal protection, S41, BoCC Amber. Scarce breeding summer visitor and passage migrant. Also found on chalky downland and grassy heaths.
Tree sparrow <i>Passer montanus</i>	S41, BoCC Red. Much declined and now very scarce resident; scarce passage migrant and winter visitor. Across East Sussex, breeding restricted to Rye Bay, Pevensey Levels and Brede Valley.
Turtle dove <i>Streptopelia turtur</i>	S41, BoCC Red. Red. Scarce and declining summer visitor and passage migrant. Breeding has drastically declined. Sussex holds c. 4.5% of the national population. Remaining stronghold around Rye Bay plus cluster in and around Ashdown Forest. Providing feeding resources for turtle doves
Yellowhammer <i>Emberiza citrinella</i>	BoCC Red. Common resident. Declined, and dependent on management of arable margins and heathland.

Rare Arable Plants Assemblage	
Measures: <ul style="list-style-type: none"> • Low-input arable management, adjacent or on known sites. • Cultivate margins in the spring between February and April or in the autumn between September and November. • Do not apply any fertilisers or manures or pesticides except for herbicides to weed-wipe or spot-treat for the control of injurious weeds or invasive non-natives. • Managing Arable Farm Land- Plantlife 	

Species	Additional Information & resources
Annual knawel <i>Scleranthus annuus</i>	S41, EN (GB), EN (England). Generally lowland, has declined significantly throughout its range. Rare in East Sussex.
Corn buttercup <i>Ranunculus arvensis</i>	S41, CR (GB), EN (England), Sussex Rare. Archaeophyte. Formerly widespread across lowland England and Wales, extending to Scotland. Found in arable and disturbed ground. Population declined by more than 80% across core range during 20th century. Rare in East Sussex and declining, as elsewhere in BI.
Field gromwell <i>Lithospermum arvense</i>	EN (GB), EN (England), Sussex Rare. Archaeophyte. Arable weed in Britain since Bronze Age, declined substantially since 1960s. Rare in East Sussex. Has decreased greatly although can appear in large numbers.
Prickly poppy <i>Papaver argemone</i>	VU (GB), EN (England). Archaeophyte. Southern and central England and southern Scotland. Occasional, very locally frequent in East Sussex.
Shepherd's-needle <i>Scandix pecten-veneris</i>	S41, CR (GB), EN (England), Sussex Rare. Archaeophyte. Once an abundant arable weed, but now on the verge of extinction. Rare in East Sussex.

Grasslands

Breeding Waders – Wet Grassland & Heathland Assemblage		
Measures: <ul style="list-style-type: none"> • Restore and expand areas of wet meadow, heathland, mire and saltmarsh. • Graze (ideally cattle) to provide a mosaic of suitable sward heights for nesting and feeding. • Minimise grazing during the breeding season to reduce chance of trampling from livestock. • Create small wader scrapes, hollows and pools to provide muddy areas for feeding. • Consider use of predator fencing to protect nests and chicks. • <i>Minimise disturbance from human activity during breeding season.</i> 		
Species	Category	Additional Information & resources
Lapwing <i>Vanellus vanellus</i>	B	S41, BoCC Red. Scarce or fairly common resident and very common winter visitor. Coastal wetlands, rivers valleys and levels are core breeding areas, but pairs scattered across High Weald. Target conservation work has brought

		<p>increases in breeding pairs, but recovery likely to be slow. Wintering birds spread more widely over Downs and along the coast than breeders but river valleys and wetlands still key areas.</p> <p>Lapwing- advice for Farmers</p>
<p>Redshank</p> <p><i>Tringa totanus</i></p>	B	<p>BoCC Amber.</p> <p>Scarce resident; common winter visitor and autumn passage migrant; fairly common spring migrant. Breeding pairs declined more steeply in East Sussex than nationally. Wintering numbers declining but not as fast as nationally.</p> <p>Redshank conservation- advice for farmers</p>

Chalk Grassland Assemblage	
<p>Measures:</p> <ul style="list-style-type: none"> • Grazing with sheep or cattle between mid-July and April to maintain structural diversity with mixture of short turf, longer vegetation, small areas of scattered scrub and some bare ground. • Avoid use of fertilisers to keep nutrient levels low. • If necessary (if grazing not possible), a late summer cut with removal of arisings and control scattered scrub with cutting between November and February as required. • Safeguard existing sites and seek to expand habitat to improve connectivity. • <i>Survey and monitor.</i> 	
Species	Additional Information & resources
<p>Adonis blue</p> <p><i>Polyommatus bellargus</i></p>	<p>Legal protection, NT, Sussex Rare.</p> <p>Thermophilic, requires short sward grassland with ants and Horseshoe Vetch. Iconic.</p> <p>c0874 Adonis Blue</p>
<p>A planthopper</p> <p><i>Tettigometra impressopunctata</i></p>	<p>Sussex Rare.</p> <p>Scarce species restricted to high quality downland and calcareous dunes in southern England and Wales. Excellent indicator of high quality chalk grassland. Recorded at Malling Down.</p>
<p>A spider</p> <p><i>Phaeocedus braccatus</i></p>	<p>VU, NR, Sussex Rare.</p>

	<p>Confined to southern England. Very local but may be frequent at some sites on chalk grassland. The East Sussex population (Cuckmere to Malling Down) is the biggest cluster of hectads nationally and therefore important in this context.</p>
<p>Basil thyme <i>Clinopodium acinos</i></p>	<p>S41, VU (GB), VU (England). Thinly scattered across southern, central and eastern England, becoming increasingly common in northern England. Occasional, local in East Sussex.</p>
<p>Brown-banded carder bee <i>Bombus humilis</i></p>	<p>S41, Sussex Rare. Intermittently present along south and west coasts of England and Wales. Significant decline during 20th Century, coinciding with loss of large areas of flower-rich grassland. Largely restricted to coast between Hastings and Camber plus chalk grassland of South Downs.</p>
<p>Burnt orchid <i>Neotinea ustulata</i></p>	<p>S41, EN (GB), EN (England), NS, Sussex Rare. Distributed throughout central and south Europe and southern Sweden in the north. Scarce in East Sussex, always local on downland, formerly more widespread. Good populations remain.</p>
<p>Carthusian snail <i>Monacha (Monacha) cartusiana</i></p>	<p>NT, NR, Sussex Rare. East Sussex supports some of the largest populations of this species in the UK (e.g. downland above Lewes [Southerham], River Ouse grass banks south of Lewes, dunes at Rye). When present on Downs is usually sign of old chalk grassland not invaded by succession scrub.</p>
<p>Chalk hill blue <i>Polyommatus coridon</i></p>	<p>Legal protection, NT. More widespread than the other chalk grassland blues, larvae feed on Horseshoe Vetch. Iconic.</p>
<p>Chalk milkwort <i>Polygala calcarea</i></p>	<p>Sussex Rare. Infrequent and local plant in Britain, restricted to southern England. Scarce, locally not infrequent in East Sussex. There has been a decline but still present in good quantity in some areas.</p>
<p>Chalk-hill lance-wing <i>Epermenia insecurella</i></p>	<p>S41. Scarce species found only on eastern Downs in Sussex, nationally scarce. Larvae feed on bastard toadflax <i>Thesium humifusum</i>.</p>
<p>Curly beardless-moss <i>Weissia condensa</i></p>	<p>S41, Sussex Rare. Needs well grazed steep chalk grassland, with closely grazed turf and bare areas. South Downs considered within top five National Character Areas for this species.</p>

Deptford pink <i>Dianthus armeria</i>	Legal protection, S41, EN (GB), EN (England), NS, Sussex Rare. Thinly scattered across southern England and rare in Wales and Ireland. Rare in East Sussex. Early records from Downs near Eastbourne and still occurs there sporadically.
Downland furrow bee <i>Halictus eurygnathus</i>	EN. Not known outside Sussex. On South Downs between Brighton, Lewes and Eastbourne. Strongly associated with greater knapweed.
Early gentian <i>Gentianella anglica</i>	Legal protection, S41, Sussex Rare. Endemic to the UK- found in central and southern England. Has declined markedly outside its core area in Hampshire, Isle of Wight and Wiltshire. Rare in East Sussex and always has been. Detailed surveys in 1994 found largest known population on British mainland, although numbers had declined in later years. Tendency for numbers to vary considerably therefore could persist.
Field fleawort <i>Tephrosieris integrifolia</i>	VU, NS, Sussex Rare. In the British Isles, restricted to southern England with core areas in Sussex and Wiltshire Downs. Scarce in East Sussex. Most colonies small but there are some substantial populations remaining. Bullock Hill, Seven Sisters.
Frog orchid <i>Coeloglossum viride</i>	S41, RedList GB post2001 VU, RedList ENG post2001 VU. Vulnerable nationally and scarce in East Sussex. South Downs National Character Areas considered within the top five for this species.
Grayling <i>Hipparchia semele</i>	S41, VU, Sussex Rare. Single population in East Sussex is only one in UK on chalk. In imminent danger of extinction. Collaborative project underway between Butterfly Conservation and SDNPA to manage habitat around population aimed at expanding range - early signs are promising.
Heath snail <i>Helicella itala</i>	LC. Although only assessed as LC in the 2014 Red Data Book, states “Records imply distinct decline over recent decades. Loss of populations in southern and central England are a cause for concern.” In East Sussex the species is now very local and typically found on a few of the best chalk grassland sites where it indicates long-term sympathetic traditional management typically cattle grazing. An iconic species where habitat management and habitat connectivity are key issues; could be a candidate for selective re-introduction.

Moon carrot <i>Seseli libanotis</i>	NT (GB), NT (England), NR, Sussex Rare. Rare in BI and recorded recently only in Beds, Cambs and East Sussex. Rare in East Sussex. Seaford Head, Hope Gap. Cliff-tops and rough chalk grassland.
Moss carder bee <i>Bombus muscorum</i>	EN (European), S41. Widely distributed throughout Britain and Ireland but showing signs of continuing severe decline since 1970. In southern areas, largely retreated to coast. Coast between Pett and Camber, Pevensey Levels, eastern South Downs, vegetated shingle at Cuckmere, Newhaven.
Musk orchid <i>Herminium monorchis</i>	S41, VU (GB), EN (England), NS, Sussex Rare. Considered Regionally Extinct in Wales, now restricted to southern areas of England and is assessed as Endangered due to substantial and continuing decline. Rare across Sussex and was feared extinct in East Sussex until re-recorded at Malling Down in 2013.
Red-shanked carder bee <i>Bombus ruderarius</i>	S41. Catastrophic decline in abundance and distribution throughout British Isles. Scarce and declining in East Sussex.
Round-headed rampion <i>Phyteuma orbiculare</i>	NS, Sussex Rare. Occurs on downland in Wiltshire, Hampshire and Surrey, but nowhere so frequent as in Sussex- locally frequent in East Sussex. "Pride of Sussex.
Scaly-breck lichen <i>Squamarina lentigera</i>	Legal protection, S41, CR, NR, Sussex Rare. In the UK, used to be found in East Sussex (Brighton & Hove) and Isle of Wight but now confined to two sites in East Anglia. Given historic presence, worthy of inclusion. <ul style="list-style-type: none"> Requires targeted survey to establish presence and distribution.
Silver-spotted skipper <i>Hesperia comma</i>	Legal protection, NT, Sussex Rare. Found on the chalk of southern England, including the North and South Downs, the Chilterns, Dorset, Hampshire and Wiltshire. Abundance has increased. Needs unimproved open chalk grasslands with short, patchy swards. Prefers warm, south-facing slopes. c0874 Silver-spotted Skipper
Small blue <i>Cupido minimus</i>	Legal protection, S41, NT. Early successional member of chalk grassland assemblage - areas of hot bare chalk where kidney vetch is pioneer species required. Iconic.

	Small Blue
Sterile beardless-moss <i>Weissia sterilis</i>	S41, Sussex Rare. Needs well grazed steep chalk grassland, with closely grazed turf and bare areas. South Downs considered within top five National Character Areas for this species.
Wall germander <i>Teucrium chamaedrys</i>	Sometimes thought of as an introduction in the BI, now thought to be native in Sussex, with the Cuckmere colony being the only known surviving native population in the BI. <ul style="list-style-type: none"> • Monitor population at Cuckmere.

Waxcap and Other Grassland Fungi Assemblage	
Measures: <ul style="list-style-type: none"> • East Sussex known to be important for waxcap grasslands, with sites often found in old cemeteries. • Maintenance of existing habitat inside and peripheral to protected sites. • Traditional land management that created the necessary habitat for this species should be maintained and taken up at adjacent/nearby sites to expand habitat, including short-sward grazing or cutting and removing cut material, and no fertilisation, herbicides or ploughing. • <i>Raise awareness with landowner/manager.</i> • <i>Survey and monitor.</i> • Waxcaps and grassland fungi: A guide to identification and management. Plantlife. 	
Species	Additional Information & resources
Blushing waxcap <i>Neohygrocybe ovina</i>	Sussex Rare. European distribution. UK records predominantly from Wales, northern England and Scotland, with SE records from East and West Sussex.
Citrine waxcap <i>Hygrocybe citrinovirens</i>	Widespread but rare throughout Europe. Widely distributed across UK, although apparently absent from eastern England.
Crimson waxcap <i>Hygrocybe punicea</i>	Sussex Rare. Widespread but generally rare throughout Europe. Similarly, widespread across UK. Considered rare in East Sussex and noted to be associated with Alder.
Date waxcap <i>Hygrocybe spadicea</i>	S41, Sussex Rare.

	Widespread but generally rare throughout Europe. UK records widespread but largely confined to the west, with East Sussex records apparent outliers.
Dingy waxcap <i>Neohygrocybe ingrata</i>	European distribution. Scattered records across UK in England, Wales, Scotland and Ireland. English records restricted to SE (East and West Sussex), west and NW England.
Felted pinkgill <i>Entoloma griseocyaneum</i>	Sussex Rare. Rare but widespread in Europe. UK records scattered and widespread, although absent from East Anglia.
Glistening waxcap <i>Gloioxanthomyces vitellinus</i>	Rare but widespread in Europe. Widespread records across UK.
Jubilee waxcap <i>Gliophorus reginae</i>	Scarce and widely scattered across UK. Unknown whether significant population.
Lilac pinkgill <i>Entoloma porphyrophaeum</i>	Widespread across UK and recently recorded locally.
Mealy pinkgill <i>Entoloma prunuloides</i>	Sussex Rare. Uncommon in Britain and Ireland but widely distributed.
Nitrous waxcap <i>Neohygrocybe nitrata</i>	Widespread but generally rare throughout Europe. UK records widespread although apparently absent from eastern England and Midlands.
Pink waxcap <i>Porpolomopsis calyptriformis</i>	Sussex Rare. European distribution. Widespread across UK, rare in East Sussex. Sheffield Park.
Splendid waxcap <i>Hygrocybe splendidissima</i>	Widespread by generally rare throughout Europe, with largest populations in UK, Germany, Sweden, Denmark and Norway.
Toasted waxcap <i>Cuphophyllus colemannianus</i>	Globally vulnerable because of threats to habitat. European distribution. Widespread across UK.

Woodland, Hedgerow and Scrub

Deciduous Woodland and Wood Pasture Fungi

Measures:

- Maintain woodland cover, reversing habitat fragmentation and expansion of existing habitat.
- Prioritise expansion/connection at known sites.
- Wood-banks and other earthworks should be retained and protected from damage.
- Retain a conifer element in PAWs restoration.
- Sweet chestnut coppice with known toothed fungi communities should be retained and if possible managed along traditional methods of cutting on a 10 to 12-year rotation.
- Invasive rhododendron should be controlled or eliminated.
- Reduce levels of atmospheric nitrogen deposition.
- *Raise awareness with landowner/manager and avoid tree felling at known locations.*
- *Survey and monitor.*
- [Woodland Wildlife Toolkit](#) > Fungi.

Species	Additional Information & resources
Bilious bolete <i>Boletus (Rubroboletus) legaliae</i>	VU. Uncommon in southern England and Europe. Grows with oak and beech, often on neutral to acid soils. Unknown if a significant population, but shortlisted given recent record and extent of suitable habitat locally.
Bitter tooth <i>Hydnellum scabrosum</i>	S41. Relatively scarce with records confined to south-east England and Scotland. Unknown if local population significant, but shortlisted given extent of suitable habitat.
Golden-gilled bolete <i>(Phylloporus pelletieri)</i>	S41, VU. Predominantly western European distribution. Scarce and scattered records in UK from southern England, Wales, northern England and Scotland. Associated with oak and chestnut mostly found on well-drained banks. Unknown if significant population. Wood pasture and parkland. Recorded at Sheffield Park.
Pale bolete <i>Butyriboletus fechtneri</i>	EN. Formerly regarded as a <i>Boletus</i> but transferred to new genus in 2014. Native to Europe. Very few records on NBN, predominantly in southern England. Unknown if a significant population, but shortlisted given recent record and extent of suitable habitat locally.
Rosewood brittlegill	Rare in UK, England records restricted to SE, London, and Midlands.

<i>Russula melitodes</i>	Deciduous woodland, wood pasture and parkland.
Umbrella polypore <i>Polyporus umbellatus</i>	Scarce and scattered across UK. Rare in Sussex. Sheffield Park.
Zoned tooth <i>Hydnellum conrescens</i>	S41. Relatively widespread with records from across most of UK except for Midlands. Considered iconic in East Sussex.

Open Parkland Mature and Veteran Trees Lichens	
Measures: <ul style="list-style-type: none"> • Maintain open well-lit conditions around mature and veteran native trees in locations that support these species by thinning regeneration (whilst being mindful of the need to retain some younger trees) and controlling invasive species such as ivy, holly and rhododendron. • Remove or reduce sources of locally generated atmospheric pollutants, e.g. by reducing high stocking levels and by limiting fertilising of grasslands. • If possible, convert arable land adjacent to veteran trees to pasture. • Create new pollards out of younger trees and maintaining them by periodic recutting. • Necessary tree surgery of veteran trees may be needed to improve the stability of the tree and prolong its life without damaging the lichen. • <i>Monitor the habitat and species to ensure that the landowner is aware of the presence of these species.</i> • <i>Survey suitable veteran trees.</i> • Woodland Wildlife Toolkit > Lichens. 	
Species	Additional Information & resources
Lemon tart lichen <i>Lecanora sublivescens</i>	S41, NT, NS, Sussex Rare. Rare in Britain and internationally rare. Primarily a southern species. Well-lit trunks of mature or veteran oak or occasionally ash in parklands and wood pasture. Insufficient evidence but given historic presence and extent of suitable habitat locally, would likely benefit from habitat improvements. Lemon-tart-lichen-species-information-guide-final.v2.pdf
Oak rim lichen <i>Lecanora quercicola</i>	Rare in Britain. Primarily a southern species in GB. Well-lit trunks of mature or veteran oak trees. Insufficient evidence to assess local population but given historic presence and extent of suitable habitat locally. Oak-rim-lichen-species-information-guide-final.V2.pdf

Open Deciduous Woodland Assemblage	
Measures: <ul style="list-style-type: none"> • Coppice woodland to create open glades and rides with light shade. • Ensure presence of beech with shady bare ground beneath. Plant young beech trees near existing populations and/or allow natural recolonisation. • Avoid grazing. • Maintain fallen dead wood. 	
Species	Additional Information & resources
Bird's-nest orchid <i>Neottia nidus-avis</i>	NT (GB), VU (England). Widespread across most of Europe. In BI, generally lowland and has decreased. Scarce in East Sussex. Some new sites have been found but overall decrease.
Common fan-foot <i>Pechipogo strigilata</i>	Scarce resident of ancient woodlands in East Sussex and in danger of extinction. Larvae feed on withered leaves on fallen branches, mainly Quercus. c0874 Barred Tooth-stripe
White helleborine <i>Cephalanthera damasonium</i>	S41, VU (GB), VU (England). Scarce in East Sussex. At Friston Forest, spreading into new forestry compartments as beech plantation matures.

Woodland Birds Assemblage
Measures: <ul style="list-style-type: none"> • Re-introduce coppicing, varying lengths of rotation to benefit different species, e.g. tree pipits like newly coppiced areas, whereas medium and long rotation will benefit other species. They should be reasonably sized blocks to create a coarse mosaic of larger patches of scrub and coppice for nightingale and other species. • Create structural diversity by carrying out selective thinning to allow more light to reach the understorey, along with the widening of rides and creation of glades. • Remove invasive woody species. • Avoid heavy disturbance or a sudden/dramatic change in woodland structure. • Improve connectivity in the wider landscape through creation of scrubby areas and hedgerows and soft edges between woodland and open habitats. • <i>Control deer numbers.</i> • <i>Monitor populations.</i> • Retain deadwood where possible.

- Tackle recreational disturbance and predation by domestic pets through e.g. the creation or improvement of footpaths, fencing, interpretation and education, defensive planting (using thorny species) etc.
- [Woodland Wildlife Toolkit](#) > Birds.

Species	Additional Information & resources
Eurasian honey-buzzard <i>Pernis apivorus</i>	Legal protection, BoCC Amber. Very scarce breeding summer visitor and passage migrant. In 2011, estimated 12-15 breeding pairs across Sussex, making it one of the most important counties for the species in the UK. Provides excellent base for species to maintain robust population. Honey-buzzard BTO- British Trust for Ornithology
Hawfinch <i>Coccothraustes coccothraustes</i>	S41, BoCC Red. Scarce breeding resident and in most years scarce passage migrant and winter visitor; occasionally more numerous.
Lesser spotted woodpecker <i>Dryobates minor comminutus</i>	S41, BoCC Red. Scarce and declining resident.
Marsh tit <i>Poecile palustris</i>	S41, BoCC Red. Very common resident. Nationally, appears to be a stabilisation of the population, but unlikely they will regain former population levels in East Sussex.
Nightingale <i>Luscinia megarhynchos</i>	BoCC Red. Fairly common summer visitor and infrequently seen passage migrant. East and West Sussex are important UK counties for breeding, second only to Kent. East Sussex appears to be holding its own in the face of national declines. Stronghold for the species and considered iconic. <ul style="list-style-type: none"> • Specific habitat requirements: coppiced woodland; dense scrub/thickets; wetland. conservation-advice-notes-001-nightingalesb.pdf
Spotted flycatcher <i>Muscicapa striata</i>	S41, BoCC Red. Fairly common but declining summer visitor; scarce passage migrant in spring and fairly common in autumn. Main problems for East Sussex (and UK) birds relate to wintering ground and migration route. However, woodland management would help maximise breeding success.

Heathland and Sandstone

Heathland Birds	
Measures: <ul style="list-style-type: none"> • Improve connectivity within the wider landscape by connecting open areas to wide rides within woodlands and scrubby edges to woodlands. • Restore open habitats within woodlands, especially heathland, with scattered trees. Ideally these areas should be grazed to create structural diversity and encourage invertebrates. • <i>Monitor populations especially those away from heathlands. These species breed in a range of habitats except for Dartford Warbler which is primarily gorse and heathland, but some are found along the coast.</i> 	
Species	Additional Information & resources
Dartford Warbler <i>Curruca undata</i>	Legal protection, NT, BoCC Amber. Scarce to fairly common but localised resident. At northern limit of its European and World range. Stronghold for species and considered iconic. Ashdown Forest SPA.
Nightjar <i>Caprimulgus europaeus</i>	Legal protection, S41, BoCC Amber. Fairly common but localised summer visitor rarely seen on migration. Heaths relatively small and fragmented, limiting nesting opportunities and increasing risk of disturbance. Stronghold for the species and considered iconic. Ashdown Forest SPA.
Tree pipit <i>Anthus trivialis</i>	S41, BoCC Red. Widespread distribution from Northern Spain and GB in west to Eastern Europe, Russia and Siberia in east. Fairly common but local summer visitor and fairly common passage migrant in East Sussex. Significant decline in breeding population.

Sandstone Outcrops
Measures: <ul style="list-style-type: none"> • <i>Monitor known populations.</i> • Manage vegetation to ensure populations do not become overgrown. In particular, remove coniferous species.

<ul style="list-style-type: none"> • Raise awareness amongst climbers and other recreational users. • Raise awareness of the species with landowners/managers. • The High Weald Sandstone Project 		
Species	Category	Additional Information & resources
Ribbonwort <i>Pallavicinia lyellii</i>	B, 6.3	S41, Sussex Rare. Two well-known sites where it has been monitored for many years and needs sensitive management. It disappeared many years ago from other sites. Good colonies at Harrisons Rocks and Philpots. Reports that Philpots is getting overgrown but Harrisons managed well.
Slender thread-moss <i>Orthodontium gracile</i>	B	S41, NR, Sussex Rare. In the UK since 1970, recorded in East Sussex, Cheshire, mid-West Yorkshire and Midlothian. Recorded at Eridge Rocks and Butcher's Wood in 2013.

Wetlands

Amphibian Ponds Assemblage	
Measures: <ul style="list-style-type: none"> • Restore ponds: de-silt, deepen, maintain water levels and improve water quality. • Establish network of new ponds, with range of sizes and depths. • Maintain/extend undisturbed semi-natural habitat surrounding pond. • Avoid stocking with fish. • Establish toad crossing signage/patrols where roads cross migration routes. • GCN conservation strategy in place through District Licencing. 	
Species	Additional Information & resources
Common Toad <i>Bufo bufo</i>	Legal protection, S41. Widespread in the UK but have declined by over 68% in last 30 years.
Great Crested Newt <i>Triturus cristatus</i>	Legal protection, S41. Widespread but patchy distribution in the UK. East Sussex is a stronghold for the species. Qualifying feature of Dungeness, Romney Marsh and Rye Bay SSSI, Ramsar and SAC.

Grazing Marsh Molluscs

Measures:

- Manage ditches to maintain high water quality and to reduce shade and vegetation cover.
- Maintain water levels in ditches across grazing marsh.
- Reduce grazing/provide buffer zones to reduce poaching and eutrophication.

Species	Additional Information & resources
A mollusc <i>Euglesa pseudosphaerium</i>	LC, NS. Although only assessed as LC in the 2014 RDB this states, “ <i>This species has a very local distribution within habitats that are vulnerable to inappropriate management, drainage and eutrophication hence susceptible to inappropriate management, drainage and local extinction. A candidate for Near Threatened</i> ”. This is an iconic species indicative of the best flood plain and coastal grazing marshes and is one of the suite sometimes including <i>A. vorticulus</i> , <i>V. macrostoma</i> & <i>S. nitida</i> . The large populations on Pevensey Levels and Lewes Brooks are of not only of local but also national importance.
Large-mouthed valve snail <i>Valvata macrostoma</i>	S41, VU, NR, Sussex Rare. Pevensey Levels (and associated ‘Eastbourne Levels’) probably support the most extensive populations of this snail in England and so are of national importance for the species. The species has become extinct on Lewes Brooks in last 20 years. Iconic species indicative of the best flood plain and coastal grazing marshes and it is one of a suite sometimes including <i>A. vorticulus</i> , <i>E. pseudosphaerium</i> & <i>S. nitida</i> .
Ramshorn snail <i>Anisus (Disculifer) vorticulus</i>	Legal protection, S41, VU, NR, Sussex Rare. The Pevensey Levels are an SAC for populations of this snail there. An iconic highly protected snail found in best managed ditches together with other rare species typical of the best flood plain and coastal grazing marshes. An iconic highly protected snail indicative of a rare and threatened habitat.
The shining ram's-horn <i>Segmentina nitida</i>	LC; NS, S41.

	Pevensey Levels and Lewes Brooks support large populations of this iconic species & so are probably of national importance for the species. It is often associated of <i>Anisus vorticulus</i> , <i>Valvata macrostoma</i> and <i>Euglesa pseudosphaerium</i> and so typical of the best flood plain and coastal grazing marshes.
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Reedbed and River Birds Assemblage

Measures:

- General wetland and river improvements, including better water quality.
- Cut reedbeds in winter to ensure dominance of common reed.
- Rotational cutting, ideally on a four-year cycle to encourage structural diversity.
- Cut proportion of reeds around the margins in the summer (avoiding nesting birds) to encourage greater species diversity.
- Remove cuttings to prevent build up of litter and subsequent drying out of reedbed. Use to create habitat piles on fringes.
- Control scrub encroachment as required. Dig out bushes in wetter soils – added benefit of creating pools within reedbeds.
- NOTE: Wetland and reedbed management aimed at these species benefits other species including a range of invertebrates, fish, reptiles and mammals.

Species	Additional Information & resources
Bearded tit <i>Panurus biarmicus</i>	Legal protection. Scarce breeding resident; very scarce passage migrant and winter visitor. Key breeding sites are Rye Harbour and Pett Level. Little chance of population growing without further reedbed creation and ongoing management of existing reedbeds is essential.
Bittern <i>Botaurus stellaris</i>	Legal protection, S41, BoCC Red. Scarce winter visitor, rare outside winter months. Ongoing efforts at Rye Harbour to create nesting habitat.
Marsh harrier <i>Circus aeruginosus</i>	Legal protection, BoCC Amber. Scarce passage migrant and winter visitor; very scarce breeder since 2004.

Streams & Rivers Assemblage

Measures:

- Improve water quality and flow, with well-oxygenated water and clean gravels.
- Riparian tree planting where appropriate to increase shading of river channels and counter the effects of increased temperatures, but not where it shades out macrophytes.

<ul style="list-style-type: none"> Establish passes to overcome or remove barriers to migration upriver. 	
Species	Additional Information & resources
Brown/Sea Trout <i>Salmo trutta</i>	S41. Widespread. Sea trout and brown trout are same species: former is migratory spending most of its life at sea and returning to freshwater to spawn; latter spends all of its life in freshwater. Subspecies included in species given limited number of records for subspecies. Lowland rivers generally have limited populations, but East Sussex rivers appear to support reasonable and possibly unique populations.
European Eel <i>Anguilla anguilla</i>	S41, CR. Widely distributed around British and Irish coasts. Found in rivers and estuaries. In common with global trend, East Sussex eel stocks have fallen by over 90%. European eel
European Otter <i>Lutra lutra</i>	Legal protection, S41, Sussex Rare. Have been endangered or extinct in nearly all of their native countries but now recovering across Europe. Slow to return to East Sussex and currently no known resident otters.

Urban

Urban Birds Assemblage	
Measures: <ul style="list-style-type: none"> Create and improve management of species rich grassland, wetland and pockets of scrub in urban areas and improve connectivity within the landscape. Encourage the incorporation of sustainable urban drainage systems (SuDS). Provide suitable nest boxes/cups for swifts and house martins where there are no natural nests present and preserve existing nest sites through partnership working. <i>Engage with businesses and the public to educate them about these species and encourage their involvement in conservation of threatened urban bird species.</i> <i>Develop Sussex-wide guidance or standard planning conditions to encourage provision in new development (e.g. BHCC swift brick policy).</i> 1563785657-wwt-rspb-sustainable-drainage-systems-guide.pdf 	
Species	Additional Information & resources
House martin	BoCC Red.

<i>Delichon urbicum</i>	Common but declining summer visitor and abundant passage migrant. English population declines appear more severe in SE England.
Starling <i>Sturnus vulgaris</i>	S41, BoCC Red. Common but declining resident and very common to abundant winter visitor. Sussex holds c. 2.1% of GB population. Brighton murmurations considered iconic. Steep decline.
Swift <i>Apus apus</i>	BoCC Amber. Common summer visitor and passage migrant in East Sussex. Decline in breeding population. Scored highly in public surveys.