

# **Appendix B – Cumbria LNRS Species Short List**

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## Contents

Contents .....	2
Woodland, Trees and Scrub Assemblages .....	3
Broadleaved Woodland Assemblage .....	3
Upland Oakwood Assemblage .....	5
Wet Woodland Assemblage .....	5
Veteran and Ancient Trees Assemblage.....	6
Moorland, Heathland and Montane Assemblages .....	7
Upland Blanket Bog Assemblage .....	7
Moorland and Upland Grassland Assemblage .....	8
Upland Habitat Mosaics Assemblage.....	9
Montane/Arctic Alpines Assemblage .....	10
Grassland and Limestone Pavement Assemblages .....	12
Wading Birds of In-Bye and Fell Edge Assemblage .....	12
Farmland Assemblage .....	12
Hay Meadows Assemblage .....	13
Limestone Grassland/Pavement Assemblage.....	14
Wet/Marshy Grassland Assemblage .....	16
Wetland and Freshwater Assemblages .....	17
Rivers Assemblage .....	17
Lakes Assemblage .....	18
Tarns and Ponds Assemblage.....	19
Wetland, Fen and Reedbed Assemblage.....	20
Lowland Raised Bog Assemblage.....	21
Coastal and Estuarine Assemblages .....	23
Saltmarsh and Intertidal Assemblage.....	23
Dunes and Wet Slacks Assemblage .....	24
Built Environment Assemblages .....	26
Gardens and Brownfield Sites Assemblage .....	26
Urban Waterbodies Assemblage.....	27
Urban Built-up Areas Assemblage.....	27
Mine Spoil Assemblage.....	28
Key Invasive Non-Native Species.....	29

## Woodland, Trees and Scrub Assemblages

### Broadleaved Woodland Assemblage

Unifying measures include:

M30:

- create glades/rides and open areas in appropriate locations within woodland to benefit lichens and woodland butterflies
- where rainforest bryophytes and ferns are present maintain shaded and humid conditions
- retain deadwood within woodlands to create a range of microhabitats to benefit invertebrates and fungi

M50:

- cutting at an appropriate time of year to avoid disturbance to breeding birds, and if likely to be present, dormice

M52:

- manage scrub as a mosaic of successional habitats, providing blocks of scrub interspersed with sheltered, sunny areas for varied foraging and basking opportunities and hibernation areas, to benefit reptiles, invertebrates and scrub nesting birds

Scientific name	Common name	Taxon group
<i>Bufo bufo</i>	Common toad	Amphibian
<i>Triturus cristatus</i>	Great crested newt	Amphibian
<i>Acanthis cabaret</i>	Lesser redpoll	Bird
<i>Accipiter gentilis</i>	Northern goshawk	Bird
<i>Anthus trivialis</i>	Tree pipit	Bird
<i>Caprimulgus europaeus</i>	Nightjar	Bird
<i>Coccothraustes coccothraustes</i>	Hawfinch	Bird
<i>Ficedula hypoleuca</i>	Pied flycatcher	Bird
<i>Milvus milvus</i>	Red kite	Bird
<i>Muscicapa striata</i>	Spotted flycatcher	Bird
<i>Phoenicurus phoenicurus</i>	Redstart	Bird
<i>Phylloscopus sibilatrix</i>	Wood warbler	Bird
<i>Poecile palustris</i>	Marsh tit	Bird
<i>Scolopax rusticola</i>	Woodcock	Bird
<i>Hymenophyllum wilsonii</i>	Wilson's filmy-fern	Fern
<i>Daphne mezereum</i>	Mezereon	Flowering plant
<i>Argynnis paphia</i>	Silver washed fritillary	Insect - butterfly
<i>Boloria euphrosyne</i>	Pearl-bordered fritillary	Insect - butterfly
<i>Boloria selene</i>	Small pearl-bordered fritillary	Insect - butterfly

Appendix B – Cumbria LNRS Species Short List

<b>Scientific name</b>	<b>Common name</b>	<b>Taxon group</b>
<i>Fabriciana adippe</i>	High brown fritillary	Insect - butterfly
<i>Hamearis lucina</i>	Duke of burgundy	Insect - butterfly
<i>Thecla betulae</i>	Brown hairstreak	Insect - butterfly
<i>Andrena apicata</i>		Insect - hymenopteran
<i>Andrena ruficrus</i>		Insect - hymenopteran
<i>Formica lugubris</i>		Insect - hymenopteran
<i>Formica rufa</i>		Insect - hymenopteran
<i>Formicoxenus nitidulus</i>	Shining guest ant	Insect - hymenopteran
<i>Anania funebris</i>	White-spotted sable	Insect - moth
<i>Anania terrealis</i>		Insect - moth
<i>Eriogaster lanestris</i>	Small eggar	Insect - moth
<i>Eupithecia inturbata</i>	Maple pug	Insect - moth
<i>Macaria wauaria</i>	V-moth	Insect - moth
<i>Trichopteryx polycommata</i>	Barred tooth-striped	Insect - moth
<i>Callicera aurata</i>		Insect - true fly (diptera)
<i>Ctenophora pectinicornis</i>		Insect - true fly (diptera)
<i>Tanyptera atrata</i>		Insect - true fly (diptera)
<i>Bacidia subturgidula</i>		Lichen
<i>Bellicidia incompta</i>		Lichen
<i>Pyrenula hibernica</i>	Blackberries-in-custard	Lichen
<i>Ramonia nigra</i>		Lichen
<i>Schismatomma ricasolii</i>		Lichen
<i>Sticta canariensis</i>		Lichen
<i>Thelotrema petractoides</i>		Lichen
<i>Toniniopsis separabilis</i>		Lichen
<i>Habrodon perpusillus</i>		Moss
<i>Homomallium incurvatum</i>		Moss
<i>Erinaceus europaeus</i>	European hedgehog	Terrestrial mammal
<i>Martes martes</i>	Pine marten	Terrestrial mammal
<i>Muscardinus avellanarius</i>	Hazel dormouse	Terrestrial mammal
<i>Myotis nattereri</i>	Natterer's bat	Terrestrial mammal
<i>Nyctalus noctula</i>	Noctule	Terrestrial mammal
<i>Plecotus auritus</i>	Brown long-eared bat	Terrestrial mammal
<i>Sciurus vulgaris</i>	Eurasian red squirrel	Terrestrial mammal

## Upland Oakwood Assemblage

Unifying measures include:

M30:

- create glades/rides and open areas in appropriate locations within woodland to benefit lichens and woodland butterflies
- where rainforest bryophytes and ferns are present maintain shaded and humid conditions
- retain deadwood within woodlands to create a range of microhabitats to benefit invertebrates and fungi

Taxon scientific name	Common name	Taxon group
<i>Acanthis cabaret</i>	Lesser redpoll	Bird
<i>Ficedula hypoleuca</i>	Pied flycatcher	Bird
<i>Muscicapa striata</i>	Spotted flycatcher	Bird
<i>Phoenicurus phoenicurus</i>	Redstart	Bird
<i>Phylloscopus sibilatrix</i>	Wood warbler	Bird
<i>Hymenophyllum wilsonii</i>	Wilson's filmy-fern	Fern
<i>Calosoma inquisitor</i>	Caterpillar hunter	Insect - beetle (coleoptera)
<i>Formica lugubris</i>		Insect - hymenopteran
<i>Formica rufa</i>		Insect - hymenopteran
<i>Formicoxenus nitidulus</i>	Shining guest ant	Insect - hymenopteran
<i>Tanyptera atrata</i>		Insect - true fly (diptera)
<i>Schismatomma ricasolii</i>		Lichen
<i>Adelanthus decipiens</i>		Moss
<i>Hageniella micans</i>	Sparkling signal-moss	Moss
<i>Hylocomiastrum umbratum</i>		Moss
<i>Plagiochila atlantica</i>		Moss
<i>Erinaceus europaeus</i>	European hedgehog	Terrestrial mammal

## Wet Woodland Assemblage

Unifying measures include:

M30:

- retain deadwood within woodlands to create a range of microhabitats to benefit invertebrates and fungi

Taxon scientific name	Common name	Taxon group
<i>Poecile montanus</i>	Willow tit	Bird
<i>Adiantum capillus-veneris</i>	Maidenhair fern	Fern
<i>Thelypteris palustris</i>		Fern
<i>Cephalanthera longifolia</i>	Narrow-leaved helleborine	Flowering plant
<i>Corallorhiza trifida</i>	Coralroot orchid	Flowering plant

## Appendix B – Cumbria LNRS Species Short List

Taxon scientific name	Common name	Taxon group
<i>Epipactis phyllanthes</i>		Flowering plant
<i>Impatiens noli-tangere</i>	Touch-me-not balsam	Flowering plant
<i>Neottia nidus-avis</i>	Bird's-nest orchid	Flowering plant
<i>Hypocreopsis lichenoides</i>	Willow gloves	Fungus
<i>Eustroma reticulata</i>	Netted carpet	Insect - moth
<i>Macaria wauaria</i>	V-moth	Insect - moth
<i>Paratalanta pandalis</i>		Insect - moth
<i>Polia trimaculosa</i>	Silvery arches	Insect - moth
<i>Myotis brandtii</i>	Brandt's bat	Terrestrial mammal
<i>Myotis mystacinus</i>	Whiskered bat	Terrestrial mammal
<i>Myotis nattereri</i>	Natterer's bat	Terrestrial mammal
<i>Nyctalus noctula</i>	Noctule	Terrestrial mammal
<i>Pipistrellus nathusii</i>	Nathusius's pipistrelle	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Terrestrial mammal
<i>Plecotus auritus</i>	Brown long-eared bat	Terrestrial mammal

## Veteran and Ancient Trees Assemblage

Unifying measures include:

M46:

- retain fallen and standing deadwood

M48:

- protecting the species that live in and on ancient trees by reducing or avoiding the use of pesticides, slurry and fertilizer and other pollutants
- maintain a range of tree ages to ensure succession
- retaining both standing and fallen deadwood

Taxon scientific name	Common name	Taxon group
<i>Anaptychia ciliaris</i> subsp. <i>Ciliaris</i>		Lichen
<i>Bacidia subturgidula</i>		Lichen
<i>Bellicidia incompta</i>		Lichen
<i>Caloplaca herbidella</i> s str.	Geranium fire-dot	Lichen
<i>Caloplaca lucifuga</i>		Lichen
<i>Caloplaca luteoalba</i>		Lichen
<i>Lecanora quercicola</i>		Lichen
<i>Pectenaria cyanoloma</i>		Lichen
<i>Pyrenula hibernica</i>	Blackberries-in-custard	Lichen
<i>Ramonia nigra</i>		Lichen
<i>Ricasolia amplissima</i>		Lichen
<i>Schismatomma ricasolii</i>		Lichen
<i>Sticta canariensis</i>		Lichen
<i>Toniniopsis separabilis</i>		Lichen

## Moorland, Heathland and Montane Assemblages

### Upland Blanket Bog Assemblage

Unifying measures include:

M55:

- restore hydrological function and appropriate robust vegetation cover, and species diversity on drained or actively eroding peatlands using established techniques

M56:

- appropriate grazing regimes and stocking levels
- appropriate heather management that does not harm important habitats and hydrological function
- reduced input of medication, pesticides and biocides into the environment

<b>Taxon scientific name</b>	<b>Common name</b>	<b>Taxon group</b>
<i>Asio flammeus</i>	Short-eared owl	Bird
<i>Calidris alpina</i>	Dunlin	Bird
<i>Circus cyaneus</i>	Hen harrier	Bird
<i>Falco columbarius</i>	Merlin	Bird
<i>Falco peregrinus</i>	Peregrine falcon	Bird
<i>Gallinago gallinago</i>	Snipe	Bird
<i>Numenius arquata</i>	Curlew	Bird
<i>Pluvialis apricaria</i>	Golden plover	Bird
<i>Tringa totanus</i>	Redshank	Bird
<i>Vanellus vanellus</i>	Lapwing	Bird
<i>Coenonympha tullia</i>	Large heath	Insect - butterfly
<i>Erebia epiphron</i>	Mountain ringlet	Insect - butterfly
<i>Bombus monticola</i>	Bilberry bumble bee	Insect - hymenopteran
<i>Dyscia fagaria</i>	Grey scalloped bar	Insect - moth
<i>Xanthorhoe decoloraria</i>	Red carpet	Insect - moth
<i>Xestia alpicola alpina</i>	Northern dart	Insect - moth
<i>Barbilophozia kunzeana</i>		Liverwort
<i>Biantheridion undulifolium</i>		Liverwort
<i>Cinclidium stygium</i>		Moss
<i>Dicranum undulatum</i>	Waved fork-moss	Moss
<i>Hamatocaulis vernicosus</i>		Moss
<i>Splachnum vasculosum</i>	Rugged collar-moss	Moss
<i>Tomentypnum nitens</i>		Moss
<i>Zootoca vivipara</i>	Common lizard	Reptile

## Moorland and Upland Grassland Assemblage

Unifying measures include:

M56:

- appropriate grazing regimes and stocking levels
- appropriate heather management that does not harm important habitats and hydrological function
- reduced input of medication, pesticides and biocides into the environment

<b>Taxon scientific name</b>	<b>Common name</b>	<b>Taxon group</b>
<i>Epidalea calamita</i>	Natterjack toad	Amphibian
<i>Alauda arvensis</i>	Skylark	Bird
<i>Anthus trivialis</i>	Tree pipit	Bird
<i>Asio flammeus</i>	Short-eared owl	Bird
<i>Circus cyaneus</i>	Hen harrier	Bird
<i>Falco columbarius</i>	Merlin	Bird
<i>Linaria flavirostris</i>	Twite	Bird
<i>Saxicola rubetra</i>	Whinchat	Bird
<i>Bartsia alpina</i>	Alpine bartsia	Flowering plant
<i>Genista anglica</i>	Petty whin	Flowering plant
<i>Pyrola rotundifolia</i> subsp. <i>Rotundifolia</i>	Wintergreen	Flowering plant
<i>Teesdalia nudicaulis</i>	Shepherd's cress	Flowering plant
<i>Erebia epiphron</i>	Mountain ringlet	Insect - butterfly
<i>Fabriciana adippe</i>	High brown fritillary	Insect - butterfly
<i>Hamearis lucina</i>	Duke of burgundy	Insect - butterfly
<i>Bombus humilis</i>	Brown-banded carder bee	Insect - hymenopteran
<i>Bombus monticola</i>	Bilberry bumble bee	Insect - hymenopteran
<i>Colletes fodiens</i>		Insect - hymenopteran
<i>Formicoxenus nitidulus</i>	Shining guest ant	Insect - hymenopteran
<i>Tachysphex nitidus</i>		Insect - hymenopteran
<i>Dyscia fagaria</i>	Grey scalloped bar	Insect - moth
<i>Entephria flavicinctata</i>	Yellow-ringed carpet	Insect - moth
<i>Eupithecia inturbata</i>	Maple pug	Insect - moth
<i>Scotopteryx mucronata</i>	Lead belle	Insect - moth
<i>Stilbia anomala</i>	Anomalous	Insect - moth
<i>Cladonia uncialis</i> subsp. <i>Uncialis</i>	Cladonia uncialis subsp. Uncialis	Lichen



## Upland Habitat Mosaics Assemblage

Unifying measures include:

M52:

- Manage scrub as a mosaic of successional habitats, providing blocks of scrub interspersed with sheltered, sunny areas for varied foraging and basking opportunities and hibernation features, to benefit reptiles, invertebrates and scrub nesting birds.

M56:

- appropriate grazing regimes and stocking levels
- appropriate heather management that does not harm important habitats and hydrological function
- reduced input of medication, pesticides and biocides into the environment

M57:

- establishment of native scrub, woodland, and wood pasture in suitable locations such as areas of bracken or species-poor grassland over mineral soil, and as appropriate mosaics within heathland

M60:

- reintroduction of missing plant species through scarification and seeding

<b>Taxon scientific name</b>	<b>Common name</b>	<b>Taxon group</b>
<i>Acanthis cabaret</i>	Lesser redpoll	Bird
<i>Anthus trivialis</i>	Tree pipit	Bird
<i>Cuculus canorus</i>	Cuckoo	Bird
<i>Saxicola rubetra</i>	Whinchat	Bird
<i>Tetrao tetrix</i>	Black grouse	Bird
<i>Turdus torquatus</i>	Ring ouzel	Bird
<i>Juniperus communis</i>	Juniper	Conifer
<i>Juniperus communis subsp. Nana</i>	Dwarf juniper	Conifer
<i>Betula nana</i>	Dwarf birch	Flowering plant
<i>Coenonympha tullia</i>	Large heath	Insect - butterfly
<i>Bombus monticola</i>	Bilberry bumble bee	Insect - hymenopteran
<i>Vipera berus</i>	Adder	Reptile
<i>Zootoca vivipara</i>	Common lizard	Reptile

## Montane/Arctic Alpines Assemblage

Unifying measures include:

M65:

- manage montane habitats to be wildlife-rich through appropriate grazing pressure and stocking levels

M66:

- continuing to work with the climbing community to ensure they understand how to avoid damage and disturbance to sensitive habitats and species, observe seasonal climbing restrictions, avoid 'gardening' new routes

M69 (for flowering plants):

- develop a propagation programme in nurseries to support the translocation of rare and locally extinct plant species that have been lost or have declined, using
  - local/appropriate provenance seed (propagules)
  - specialist direction/advice

Taxon scientific name	Common name	Taxon group
<i>Aquila chrysaetos</i>	Golden eagle	Bird
<i>Calidris alpina</i>	Dunlin	Bird
<i>Charadrius morinellus</i>	Dotterel	Bird
<i>Falco peregrinus</i>	Peregrine falcon	Bird
<i>Turdus torquatus</i>	Ring ouzel	Bird
<i>Juniperus communis</i> subsp. <i>Nana</i>	Dwarf juniper	Conifer
<i>Asplenium obovatum</i> subsp. <i>Lanceolatum</i>	<i>Asplenium obovatum</i> subsp. Lanceolatum	Fern
<i>Asplenium septentrionale</i>	Forked spleenwort	Fern
<i>Polystichum lonchitis</i>	Holly-fern	Fern
<i>Trichomanes speciosum</i>	Kilarney fern	Fern
<i>Woodsia ilvensis</i>	Oblong woodsia	Fern
<i>Ajuga pyramidalis</i>	Pyramidal bugle	Flowering plant
<i>Alchemilla wichurae</i>	Lady's-mantle	Flowering plant
<i>Bartsia alpina</i>	Alpine bartsia	Flowering plant
<i>Betula nana</i>	Dwarf birch	Flowering plant
<i>Carex atrata</i>	Black alpine-sedge	Flowering plant
<i>Carex vaginata</i>	Sheathed sedge	Flowering plant
<i>Cerastium alpinum</i>	Alpine mouse-ear	Flowering plant
<i>Dryas octopetala</i>	Mountain avens	Flowering plant
<i>Euphrasia arctica</i> subsp. <i>Borealis</i>	Eyebright	Flowering plant
<i>Euphrasia confusa</i>	Eyebright	Flowering plant
<i>Euphrasia frigida</i>	An eyebright	Flowering plant
<i>Euphrasia micrantha</i>	Eyebright	Flowering plant
<i>Euphrasia officinalis</i> subsp. <i>Monticola</i>	Eyebright	Flowering plant

Appendix B – Cumbria LNRS Species Short List

<b>Taxon scientific name</b>	<b>Common name</b>	<b>Taxon group</b>
<i>Euphrasia officinalis</i> subsp. <i>Pratensis</i>	Eyebright	Flowering plant
<i>Euphrasia ostenfeldii</i>	Eyebright	Flowering plant
<i>Euphrasia ostenfeldii</i>	An eyebright	Flowering plant
<i>Euphrasia rivularis</i>	Cumbrian eyebright	Flowering plant
<i>Euphrasia rostkoviana</i> subsp. <i>Rostkoviana</i>	Eyebright	Flowering plant
<i>Euphrasia tetraquetra</i>	Eyebright	Flowering plant
<i>Hieracium caledonicum</i>	Rubicund hawkweed	Flowering plant
<i>Hieracium diaphanum</i>	Dark-leaved hawkweed	Flowering plant
<i>Hieracium duriceps</i>	Small-headed hawkweed	Flowering plant
<i>Hieracium itunense</i>	Barras hawkweed	Flowering plant
<i>Hieracium itunense</i>	Hawkweed	Flowering plant
<i>Hieracium subgracilentipes</i>	Hawkweed	Flowering plant
<i>Myosotis alpestris</i>	Alpine forget-me-not	Flowering plant
<i>Phleum alpinum</i>	Alpine cat's-tail	Flowering plant
<i>Poa alpina</i>	Alpine meadowgrass	Flowering plant
<i>Poa glauca</i>	Glaucous meadow-grass	Flowering plant
<i>Potentilla fruticosa</i>	Shrubby cinquefoil	Flowering plant
<i>Salix lapponum</i>	Downy willow	Flowering plant
<i>Saxifraga hirculus</i>	Marsh saxifrage	Flowering plant
<i>Saxifraga nivalis</i>	Alpine saxifrage	Flowering plant
<i>Sedum villosum</i>	Hairy stonecrop	Flowering plant
<i>Silene suecica</i>	Alpine catchfly	Flowering plant
<i>Vicia orobus</i>	Wood bitter-vetch	Flowering plant
<i>Erebia epiphron</i>	Mountain ringlet	Insect - butterfly
<i>Marsupella stableri</i>		Liverwort
<i>Scapania paludosa</i>		Liverwort
<i>Oedipodium griffithianum</i>		Moss
<i>Pohlia ludwigii</i>		Moss

## Grassland and Limestone Pavement Assemblages

### Wading Birds of In-Bye and Fell Edge Assemblage

Unifying measures for this assemblage are covered by general habitat measures M52, M55, M56, M57, M60 and M71.

Taxon scientific name	Common name	Taxon group
<i>Alauda arvensis</i>	Skylark	Bird
<i>Emberiza citrinella</i>	Yellowhammer	Bird
<i>Gallinago gallinago</i>	Snipe	Bird
<i>Haematopus ostralegus</i>	Oystercatcher	Bird
<i>Numenius arquata</i>	Curlew	Bird
<i>Tringa totanus</i>	Redshank	Bird
<i>Vanellus vanellus</i>	Lapwing	Bird

### Farmland Assemblage

Unifying measures include:

M22:

- protect, maintain and enhance existing farm landscape features which support biodiversity

M26:

- create new food, shelter and nesting opportunities on arable land, such as:
  - nesting plots for birds
  - beetle banks
  - sowing bird and pollinator friendly seed mixes
  - leaving rough margins and scrub

M28:

- establishment of traditional orchards, including native fruit and nut tree species to benefit farmland species

Taxon scientific name	Common name	Taxon group
<i>Epidalea calamita</i>	Natterjack toad	Amphibian
<i>Triturus cristatus</i>	Great crested newt	Amphibian
<i>Actitis hypoleucos</i>	Common sandpiper	Bird
<i>Alauda arvensis</i>	Skylark	Bird
<i>Coccothraustes coccothraustes</i>	Hawfinch	Bird
<i>Crex crex</i>	Corncrake	Bird

## Appendix B – Cumbria LNRS Species Short List

Taxon scientific name	Common name	Taxon group
<i>Emberiza citrinella</i>	Yellowhammer	Bird
<i>Falco tinnunculus</i>	Kestrel	Bird
<i>Gallinago gallinago</i>	Snipe	Bird
<i>Haematopus ostralegus</i>	Oystercatcher	Bird
<i>Linaria cannabina</i>	Linnet	Bird
<i>Milvus milvus</i>	Red kite	Bird
<i>Motacilla flava flavissima</i>	Yellow wagtail	Bird
<i>Numenius arquata</i>	Curlew	Bird
<i>Passer domesticus</i>	House sparrow	Bird
<i>Passer montanus</i>	Tree sparrow	Bird
<i>Perdix perdix</i>	Grey partridge	Bird
<i>Sturnus vulgaris</i>	Starling	Bird
<i>Tringa totanus</i>	Redshank	Bird
<i>Tyto alba</i>	Barn owl	Bird
<i>Vanellus vanellus</i>	Lapwing	Bird
<i>Bombus humilis</i>	Brown-banded carder bee	Insect - hymenopteran
<i>Eriogaster lanestris</i>	Small eggar	Insect - moth
<i>Anguis fragilis</i>	Slow-worm	Reptile
<i>Natrix helvetica</i>	Grass snake	Reptile
<i>Erinaceus europaeus</i>	European hedgehog	Terrestrial mammal
<i>Micromys minutus</i>	Harvest mouse	Terrestrial mammal
<i>Myotis nattereri</i>	Natterer's bat	Terrestrial mammal
<i>Nyctalus noctula</i>	Noctule	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Terrestrial mammal

### Hay Meadows Assemblage

Unifying measures include:

M69 (for flowering plants):

- (for flowering plants) develop a propagation programme in nurseries to support the translocation of rare and locally extinct plant species that have been lost or have declined, using
  - local/appropriate provenance seed (propagules)
  - specialist direction/advice

M70:

- timing cutting to benefit plant species biodiversity
- variable cutting regimes
- reduced input of medication, pesticides and biocides into the environment

Taxon scientific name	Common name	Taxon group
<i>Crex crex</i>	Corncrake	Bird
<i>Linaria flavirostris</i>	Twite	Bird
<i>Motacilla flava flavissima</i>	Yellow wagtail	Bird
<i>Numenius arquata</i>	Curlew	Bird
<i>Tyto alba</i>	Barn owl	Bird

## Appendix B – Cumbria LNRS Species Short List

Taxon scientific name	Common name	Taxon group
<i>Vanellus vanellus</i>	Lapwing	Bird
<i>Alchemilla glomerulans</i>	Lady's-mantle	Flowering plant
<i>Alchemilla monticola</i>	Hairy lady's mantle	Flowering plant
<i>Colchicum autumnale</i>	Meadow saffron	Flowering plant
<i>Crepis mollis</i>	Northern hawk's-beard	Flowering plant
<i>Gymnadenia densiflora</i>	Marsh fragrant-orchid	Flowering plant
<i>Hordelymus europaeus</i>	Wood barley	Flowering plant
<i>Platanthera bifolia</i>	Lesser butterfly-orchid	Flowering plant
<i>Platanthera chlorantha</i>	Greater butterfly-orchid	Flowering plant
<i>Potentilla argentea</i>	Hoary cinquefoil	Flowering plant
<i>Pseudorchis albida</i>	Small-white orchid	Flowering plant
<i>Vicia orobus</i>	Wood bitter-vetch	Flowering plant
<i>Bombus humilis</i>	Brown-banded carder bee	Insect - hymenopteran
<i>Bombus monticola</i>	Bilberry bumble bee	Insect - hymenopteran
<i>Bombus muscorum</i>	Moss carder-bee	Insect - hymenopteran
<i>Bombus rupestris</i>		Insect - hymenopteran
<i>Bombus soroeensis</i>		Insect - hymenopteran
<i>Adscita statices</i>	Forester	Insect - moth
<i>Agonopterix atomella</i>	Greenweed flatbody	Insect - moth
<i>Hemaris tityus</i>	Narrow-bordered bee hawk-moth	Insect - moth
<i>Micromys minutus</i>	Harvest mouse	Terrestrial mammal

## Limestone Grassland/Pavement Assemblage

Unifying measures include:

M69 (for flowering plants):

- develop a propagation programme in nurseries to support the translocation of rare and locally extinct plant species that have been lost or have declined, using
  - local/appropriate provenance seed (propagules)
  - specialist direction/advice

M70:

- timing cutting to benefit plant species biodiversity
- variable cutting regimes
- reduced input of medication, pesticides and biocides into the environment

M79:

- scrub management (where appropriate) on rotation to create light sunny areas
- control of encroachment of bracken, bramble, and cotoneaster
- translocation of key butterfly food plants (of local appropriate provenance) such as primrose, cowslips, and violets

Appendix B – Cumbria LNRS Species Short List

<b>Taxon scientific name</b>	<b>Common name</b>	<b>Taxon group</b>
<i>Alauda arvensis</i>	Skylark	Bird
<i>Anthus trivialis</i>	Tree pipit	Bird
<i>Cuculus canorus</i>	Cuckoo	Bird
<i>Picus viridis</i>	Green woodpecker	Bird
<i>Juniperus communis</i>	Juniper	Conifer
<i>Adiantum capillus-veneris</i>	Maidenhair fern	Fern
<i>Dryopteris submontana</i>		Fern
<i>Gymnocarpium robertianum</i>		Fern
<i>Polystichum lonchitis</i>	Holly-fern	Fern
<i>Anacamptis morio</i>	Green-winged orchid	Flowering plant
<i>Crepis praemorsa</i>	Leafless hawk's-beard	Flowering plant
<i>Daphne mezereum</i>	Mezereon	Flowering plant
<i>Galatella linosyris</i>	Goldilocks aster	Flowering plant
<i>Gentiana verna</i>	Spring gentian	Flowering plant
<i>Gentianella amarella</i> subsp. <i>Septentrionalis</i>	Autumn gentian	Flowering plant
<i>Gentianella campestris</i>	Field gentian	Flowering plant
<i>Helianthemum oelandicum</i> subsp. <i>Incanum</i>		Flowering plant
<i>Hordelymus europaeus</i>	Wood barley	Flowering plant
<i>Hypericum montanum</i>	Pale st john's-wort	Flowering plant
<i>Hypochaeris maculata</i>	Spotted cat's-ear	Flowering plant
<i>Linum perenne</i>	Perennial flax	Flowering plant
<i>Meum athamanticum</i>	Spignel	Flowering plant
<i>Ophrys insectifera</i>	Fly orchid	Flowering plant
<i>Polygala amarella</i>	Dwarf milkwort	Flowering plant
<i>Primula farinosa</i>	Bird's-eye primrose	Flowering plant
<i>Spiranthes spiralis</i>	Autumn lady's-tresses	Flowering plant
<i>Veronica spicata</i> subsp. <i>Hybrida</i>		Flowering plant
<i>Veronica spicata</i> subsp. <i>Spicata</i>	Spiked speedwell	Flowering plant
<i>Viola rupestris</i>	Teesdale violet	Flowering plant
<i>Aricia artaxerxes artaxerxes</i>	Northern brown argus	Insect - butterfly
<i>Boloria euphrosyne</i>	Pearl-bordered fritillary	Insect - butterfly
<i>Boloria selene</i>	Small pearl-bordered fritillary	Insect - butterfly
<i>Erebia aethiops</i>	Scotch argus	Insect - butterfly
<i>Erynnis tages</i>	Dingy skipper	Insect - butterfly
<i>Fabriciana adippe</i>	High brown fritillary	Insect - butterfly
<i>Hamearis lucina</i>	Duke of burgundy	Insect - butterfly
<i>Hipparchia semele</i>	Grayling	Insect - butterfly
<i>Andrena humilis</i>		Insect - hymenopteran
<i>Andrena tarsata</i>	Tormentil mining bee	Insect - hymenopteran
<i>Bombus humilis</i>	Brown-banded carder bee	Insect - hymenopteran
<i>Bombus rupestris</i>		Insect - hymenopteran
<i>Osmia parietina</i>	Wall mason bee	Insect - hymenopteran
<i>Adscita geryon</i>	Cistus forester	Insect - moth
<i>Anania funebris</i>	White-spotted sable	Insect - moth
<i>Anania terrealis</i>		Insect - moth
<i>Melanthia procellata</i>	Pretty chalk carpet	Insect - moth
<i>Photedes captiuncula</i>	Least minor	Insect - moth
<i>Scythris fallacella</i>		Insect - moth
<i>Thera cognata</i>	Chestnut-coloured carpet	Insect - moth
<i>Chlorita dumosa</i>		Insect - true bug (hemiptera)

## Appendix B – Cumbria LNRS Species Short List

Taxon scientific name	Common name	Taxon group
<i>Lempholemma cladodes</i>	Lempholemma cladodes	Lichen
<i>Vertigo (vertigo) geyeri</i>	Geyer's whorl snail	Mollusc
<i>Vertigo (vertilla) angustior</i>	Narrow-mouthed whorl snail	Mollusc

## Wet/Marshy Grassland Assemblage

Unifying measures include:

M78:

- appropriate grazing and cutting
- appropriate soil and nutrient management

Taxon scientific name	Common name	Taxon group
<i>Epidalea calamita</i>	Natterjack toad	Amphibian
<i>Gallinago gallinago</i>	Snipe	Bird
<i>Motacilla flava flavissima</i>	Yellow wagtail	Bird
<i>Numenius arquata</i>	Curlew	Bird
<i>Tringa totanus</i>	Redshank	Bird
<i>Vanellus vanellus</i>	Lapwing	Bird
<i>Genista anglica</i>	Petty whin	Flowering plant
<i>Parnassia palustris</i>	Grass of parnassus	Flowering plant
<i>Euphydryas aurinia</i>	Marsh fritillary	Insect - butterfly
<i>Strongylocoris luridus</i>		Insect - true bug (hemiptera)
<i>Eumerus sabulonum</i>		Insect - true fly (diptera)
<i>Natrix helvetica</i>	Grass snake	Reptile
<i>Nyctalus noctula</i>	Noctule	Terrestrial mammal
<i>Pipistrellus nathusii</i>	Nathusius's pipistrelle	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Terrestrial mammal

## Waxcap Fungi Priority Species

These fungi are grouped together as priority species and as a result have their own bespoke measure (M76).

Taxon scientific name	Common name	Taxon group
<i>Clavaria zollingeri</i>		Fungus
<i>Entoloma bloxamii s. lat.</i>		Fungus
<i>Entoloma prunuloides</i>		Fungus
<i>Gliophorus reginae</i>		Fungus
<i>Gloioxanthomyces vitellinus</i>		Fungus
<i>Neohygrocybe nitrata</i>		Fungus
<i>Clavaria zollingeri</i>		Fungus
<i>Entoloma bloxamii s. lat.</i>		Fungus
<i>Entoloma prunuloides</i>		Fungus
<i>Gliophorus reginae</i>		Fungus



## Wetland and Freshwater Assemblages

### Rivers Assemblage

Unifying measures for this assemblage are covered by general habitat measures M82 and M83:

- M82: Support natural processes and function in river channels, floodplains and lakeshores, to benefit the habitats and species they support, through appropriate river restoration and re-naturalisation techniques
- M83: Restore natural species movement where movement is impeded.

Taxon scientific name	Common name	Taxon group
<i>Actitis hypoleucos</i>	Common sandpiper	Bird
<i>Cinclus cinclus subsp. Gularis</i>	British dipper	Bird
<i>Motacilla cinerea</i>	Grey wagtail	Bird
<i>Acipenser sturio</i>	Common sturgeon	Bony fish (actinopterygii)
<i>Anguilla anguilla</i>	European eel	Bony fish (actinopterygii)
<i>Osmerus eperlanus</i>	European smelt	Bony fish (actinopterygii)
<i>Salmo salar</i>	Atlantic salmon	Bony fish (actinopterygii)
<i>Salmo trutta subsp. Fario</i>	Brown trout	Bony fish (actinopterygii)
<i>Salmo trutta subsp. Trutta</i>	Sea trout	Bony fish (actinopterygii)
<i>Austropotamobius pallipes</i>	White-clawed crayfish	Crustacean
<i>Myriophyllum verticillatum</i>	Whorled water-milfoil	Flowering plant
<i>Persicaria minor</i>	Small water-pepper	Flowering plant
<i>Teesdalia nudicaulis</i>	Shepherd's cress	Flowering plant
<i>Glossosoma intermedium</i>	Small grey sedge	Insect - caddis fly (trichoptera)
<i>Saldula melanoscela</i>	Saldula melanoscela	Insect - true bug (hemiptera)
<i>Clorismia rustica</i>	Southern silver-stiletto	Insect - true fly (diptera)
<i>Hilara albiventris</i>		Insect - true fly (diptera)
<i>Hilara biseta</i>		Insect - true fly (diptera)
<i>Nephrotoma dorsalis</i>		Insect - true fly (diptera)
<i>Nephrotoma lunulicornis</i>		Insect - true fly (diptera)
<i>Platypalpus subtilis</i>		Insect - true fly (diptera)
<i>Rhabdomastix japonica</i>	River-shore crane fly	Insect - true fly (diptera)
<i>Rhaphium gravipes</i>		Insect - true fly (diptera)
<i>Rhaphium patulum</i>		Insect - true fly (diptera)
<i>Rhaphium rivale</i>		Insect - true fly (diptera)
<i>Spiriverpa lunulata</i>		Insect - true fly (diptera)
<i>Tachydromia acklandi</i>		Insect - true fly (diptera)
<i>Tachydromia calcarata</i>		Insect - true fly (diptera)
<i>Tachydromia costalis</i>		Insect - true fly (diptera)
<i>Tachydromia edenensis</i>		Insect - true fly (diptera)
<i>Tachydromia halidayi</i>		Insect - true fly (diptera)
<i>Tachydromia woodi</i>		Insect - true fly (diptera)
<i>Lampetra fluviatilis</i>	River lamprey	Jawless fish (agnatha)
<i>Lampetra planeri</i>	Brook lamprey	Jawless fish (agnatha)
<i>Petromyzon marinus</i>	Sea lamprey	Jawless fish (agnatha)

## Appendix B – Cumbria LNRS Species Short List

Taxon scientific name	Common name	Taxon group
<i>Collema dichotomum</i>	River jelly-lichen	Lichen
<i>Margaritifera (margaritifera) margaritifera</i>	Freshwater pearl mussel	Mollusc
<i>Natrix helvetica</i>	Grass snake	Reptile
<i>Arvicola amphibius</i>	European water vole	Terrestrial mammal
<i>Lutra lutra</i>	European otter	Terrestrial mammal
<i>Myotis daubentonii</i>	Daubenton's bat	Terrestrial mammal
<i>Myotis mystacinus</i>	Whiskered bat	Terrestrial mammal
<i>Myotis nattereri</i>	Natterer's bat	Terrestrial mammal
<i>Nyctalus noctula</i>	Noctule	Terrestrial mammal
<i>Pipistrellus nathusii</i>	Nathusius's pipistrelle	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Terrestrial mammal

## Lakes Assemblage

Unifying measures for this assemblage are covered by general habitat measures M82 and M83:

- M82: Support natural processes and function in river channels, floodplains and lakeshores, to benefit the habitats and species they support, through appropriate river restoration and re-naturalisation techniques
- M83: Restore natural species movement where movement is impeded.

Taxon scientific name	Common name	Taxon group
<i>Botaurus stellaris</i>	Bittern	Bird
<i>Mergus serrator</i>	Red-breasted merganser	Bird
<i>Pandion haliaetus</i>	Osprey	Bird
<i>Podiceps cristatus</i>	Great crested grebe	Bird
<i>Acipenser sturio</i>	Common sturgeon	Bony fish (actinopterygii)
<i>Anguilla anguilla</i>	European eel	Bony fish (actinopterygii)
<i>Coregonus albula</i>	Vendace	Bony fish (actinopterygii)
<i>Coregonus lavaretus</i>	Gwyniad/ schelly	Bony fish (actinopterygii)
<i>Salmo salar</i>	Atlantic salmon	Bony fish (actinopterygii)
<i>Salmo trutta subsp. Fario</i>	Brown trout	Bony fish (actinopterygii)
<i>Salvelinus alpinus</i>	Arctic charr	Bony fish (actinopterygii)
<i>Callitriche palustris</i>	Narrow-fruited water-starwort	Flowering plant
<i>Luronium natans</i>	Floating water-plantain	Flowering plant
<i>Najas flexilis</i>	Slender naiad	Flowering plant
<i>Collema dichotomum</i>	River jelly-lichen	Lichen
<i>Vertigo (vertigo) lilljeborgi</i>	Lilljeborg's whorl snail	Mollusc
<i>Natrix helvetica</i>	Grass snake	Reptile
<i>Myotis daubentonii</i>	Daubenton's bat	Terrestrial mammal
<i>Myotis mystacinus</i>	Whiskered bat	Terrestrial mammal
<i>Myotis nattereri</i>	Natterer's bat	Terrestrial mammal
<i>Nyctalus noctula</i>	Noctule	Terrestrial mammal
<i>Pipistrellus nathusii</i>	Nathusius's pipistrelle	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Terrestrial mammal

## Tarns and Ponds Assemblage

Unifying measures include:

M84:

- Create new, restore existing, and continue to manage a variety of wildlife-rich wetland habitats including ponds, scrapes and wet woodland to:
  - be varied in depth for a range of species/habitat communities
  - be fringed with appropriate marginal vegetation
  - provide predator refuges for water voles and birds such as islands and reedbeds
  - avoid stocking of fish or wildfowl

Taxon scientific name	Common name	Taxon group
<i>Bufo bufo</i>	Common toad	Amphibian
<i>Epidalea calamita</i>	Natterjack toad	Amphibian
<i>Triturus cristatus</i>	Great crested newt	Amphibian
<i>Hirudo medicinalis</i>	Medicinal leech	Annelid
<i>Anguilla anguilla</i>	European eel	Bony fish (actinopterygii)
<i>Salmo trutta subsp. Fario</i>	Brown trout	Bony fish (actinopterygii)
<i>Pilularia globulifera</i>	Pillwort	Fern
<i>Baldellia ranunculoides</i>	Lesser water-plantain	Flowering plant
<i>Myriophyllum verticillatum</i>	Whorled water-milfoil	Flowering plant
<i>Oenanthe fistulosa</i>	Tubular water-dropwort	Flowering plant
<i>Persicaria minor</i>	Small water-pepper	Flowering plant
<i>Potamogeton praelongus</i>	Long-stalked pondweed	Flowering plant
<i>Ranunculus reptans</i>	Creeping spearwort	Flowering plant
<i>Utricularia intermedia</i>	Intermediate bladderwort	Flowering plant
<i>Collema dichotomum</i>	River jelly-lichen	Lichen
<i>Vertigo (vertigo) geyeri</i>	Geyer's whorl snail	Mollusc
<i>Natrix helvetica</i>	Grass snake	Reptile
<i>Myotis daubentonii</i>	Daubenton's bat	Terrestrial mammal
<i>Myotis mystacinus</i>	Whiskered bat	Terrestrial mammal
<i>Myotis nattereri</i>	Natterer's bat	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Terrestrial mammal

## Wetland, Fen and Reedbed Assemblage

Unifying measures include:

M84:

- Create new, restore existing, and continue to manage a variety of wildlife-rich wetland habitats including ponds, scrapes and wet woodland to
  - be varied in depth for a range of species/habitat communities
  - be fringed with appropriate marginal vegetation
  - provide predator refuges for water voles and birds such as islands and reedbeds
  - avoid stocking of fish or wildfowl

M96

- Manage wetland habitats including basin mires, fens and flushes to be wildlife-rich through:
  - ecologically appropriate grazing regimes
  - scrub management
  - reduced nutrient input

Taxon scientific name	Common name	Taxon group
<i>Epidalea calamita</i>	Natterjack toad	Amphibian
<i>Triturus cristatus</i>	Great crested newt	Amphibian
<i>Anthus trivialis</i>	Tree pipit	Bird
<i>Circus cyaneus</i>	Hen harrier	Bird
<i>Emberiza schoeniclus</i>	Reed bunting	Bird
<i>Numenius arquata</i>	Curlew	Bird
<i>Pandion haliaetus</i>	Osprey	Bird
<i>Pluvialis apricaria</i>	Golden plover	Bird
<i>Podiceps cristatus</i>	Great crested grebe	Bird
<i>Poecile montanus</i>	Willow tit	Bird
<i>Anguilla anguilla</i>	European eel	Bony fish (actinopterygii)
<i>Lycopodiella inundata</i>	Marsh clubmoss	Clubmoss
<i>Blysmus compressus</i>	Flat-sedge	Flowering plant
<i>Calamagrostis purpurea</i>	Scandinavian small-reed	Flowering plant
<i>Carex flava</i>	Large yellow-sedge	Flowering plant
<i>Carex flava x viridula = c. X alsatica</i>	Sedge	Flowering plant
<i>Carex limosa</i>	Bog sedge	Flowering plant
<i>Gymnadenia densiflora</i>	Marsh fragrant-orchid	Flowering plant
<i>Oenanthe fistulosa</i>	Tubular water-dropwort	Flowering plant
<i>Stellaria palustris</i>	Marsh stitchwort	Flowering plant
<i>Thyselium palustre</i>	Milk-parsley	Flowering plant
<i>Utricularia intermedia</i>	Intermediate bladderwort	Flowering plant
<i>Armillaria ectypa</i>	Marsh honey fungus	Fungus
<i>Geastrum minimum</i>	Tiny earthstar	Fungus
<i>Coenophila subrosea</i>	Rosy marsh moth	Insect - moth

## Appendix B – Cumbria LNRS Species Short List

Taxon scientific name	Common name	Taxon group
<i>Rheumaptera hastata</i>	Argent & sable	Insect - moth
<i>Teratocoris caricis</i>		Insect - true bug (hemiptera)
<i>Fossombronia foveolata</i>	Pitted frillwort	Liverwort
<i>Mesoptychia rutheana</i> syn. <i>Leicolea rutheana</i>		Liverwort
<i>Omphiscola glabra</i>	Mud snail	Mollusc
<i>Hamatocaulis vernicosus</i>		Moss
<i>Splachnum vasculosum</i>	Rugged collar-moss	Moss
<i>Thamnobryum angustifolium</i>	Derbyshire feather-moss	Moss
<i>Tomentypnum nitens</i>		Moss
<i>Natrix helvetica</i>	Grass snake	Reptile
<i>Vipera berus</i>	Adder	Reptile
<i>Zootoca vivipara</i>	Common lizard	Reptile
<i>Pipistrellus nathusii</i>	Nathusius's pipistrelle	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Terrestrial mammal

## Lowland Raised Bog Assemblage

Unifying measures for this assemblage are covered by general habitat measures M94 and M95:

- M94: Restore hydrological function and species diversity on drained lowland raised bog and fens/degraded peatlands using established techniques.
- M95: Create and restore wildlife-rich fringe habitats (such as wet woodland, purple moor grass and rush pasture, and reedbeds) around peatland and wetland habitats.

Taxon scientific name	Common name	Taxon group
<i>Anthus trivialis</i>	Tree pipit	Bird
<i>Caprimulgus europaeus</i>	Nightjar	Bird
<i>Circus cyaneus</i>	Hen harrier	Bird
<i>Falco columbarius</i>	Merlin	Bird
<i>Numenius arquata</i>	Curlew	Bird
<i>Pandion haliaetus</i>	Osprey	Bird
<i>Pluvialis apricaria</i>	Golden plover	Bird
<i>Poecile montanus</i>	Willow tit	Bird
<i>Poecile palustris</i>	Marsh tit	Bird
<i>Lycopodiella inundata</i>	Marsh clubmoss	Clubmoss
<i>Carex limosa</i>	Bog sedge	Flowering plant
<i>Drosera anglica</i>	Great sundew	Flowering plant
<i>Coenonympha tullia</i>	Large heath	Insect - butterfly
<i>Hagenella clathrata</i>	Window-winged sedge	Insect - caddis fly (trichoptera)
<i>Coenagrion pulchellum</i>	Variable coenagrion	Insect - dragonfly (odonata)
<i>Leucorrhinia dubia</i>	White-faced darter	Insect - dragonfly (odonata)
<i>Bombus muscorum</i>	Moss carder-bee	Insect - hymenopteran
<i>Adscita statices</i>	Forester	Insect - moth
<i>Coenophila subrosea</i>	Rosy marsh moth	Insect - moth
<i>Dyscia fagaria</i>	Grey scalloped bar	Insect - moth
<i>Rheumaptera hastata</i>	Argent & sable	Insect - moth

Appendix B – Cumbria LNRS Species Short List

<b>Taxon scientific name</b>	<b>Common name</b>	<b>Taxon group</b>
<i>Selidosema brunnearia</i>	Bordered grey	Insect - moth
<i>Sterrhopterix fusca</i>		Insect - moth
<i>Globiceps (kelidocoris) juniperi</i>		Insect - true bug (hemiptera)
<i>Teloleuca pellucens</i>	Teloleuca pellucens	Insect - true bug (hemiptera)
<i>Hybomitra micans</i>	Black-legged horsefly	Insect - true fly (diptera)
<i>Idioptera pulchella</i>		Insect - true fly (diptera)
<i>Parhelophilus consimilis</i>		Insect - true fly (diptera)
<i>Pallavicinia lyellii</i>	Ribbonwort	Liverwort
<i>Dicranum undulatum</i>	Waved fork-moss	Moss
<i>Sphagnum austinii</i>		Moss
<i>Vipera berus</i>	Adder	Reptile
<i>Zootoca vivipara</i>	Common lizard	Reptile

## Coastal and Estuarine Assemblages

### Saltmarsh and Intertidal Assemblage

Unifying measures include:

M106:

- grazing management to provide suitable habitat for key species (e.g. A grazed tussocky vegetation structure for breeding birds such as redshank and skylark, and a short sward where natterjack toad are found)

M107:

- minimising disturbance to wildlife

M109:

- Maintain a full transition of vegetational stages of intertidal habitat that will support species of varying salinity tolerance and create a diversity of microhabitats including:
  - ephemeral water bodies
  - bare ground for foraging, refuge and basking
  - sand dunes/upper salt marsh with short vegetation
  - shallow freshwater pools with no vegetation
  - winter hibernation sites for natterjack toads
  - food plants for St Bees seed-eater such as sea campion

Taxon scientific name	Common name	Taxon group
<i>Epidalea calamita</i>	Natterjack toad	Amphibian
<i>Alauda arvensis</i>	Skylark	Bird
<i>Charadrius hiaticula</i>	Ringed plover	Bird
<i>Haematopus ostralegus</i>	Oystercatcher	Bird
<i>Larus argentatus</i>	Herring gull	Bird
<i>Larus fuscus subsp. Graellsii</i>	British lesser black-backed gull	Bird
<i>Larus marinus</i>	Great black-backed gull	Bird
<i>Recurvirostra avosetta</i>	Avocet	Bird
<i>Rissa tridactyla</i>	Kittiwake	Bird
<i>Somateria mollissima</i>	Eider	Bird
<i>Sterna hirundo</i>	Common tern	Bird
<i>Sterna paradisaea</i>	Arctic tern	Bird
<i>Tringa totanus</i>	Redshank	Bird
<i>Osmerus eperlanus</i>	European smelt	Bony fish (actinopterygii)
<i>Zostera (zostera) marina</i>	Eelgrass	Flowering plant
<i>Zostera (zosterella) noltei</i>	Dwarf eel-grass	Flowering plant
<i>Harpalus honestus</i>	St. Bees seed-eater	Insect - beetle (coleoptera)
<i>Scopula marginepunctata</i>	Mullein wave	Insect - moth
<i>Chiloxanthus pilosus</i>	Chiloxanthus pilosus	Insect - true bug (hemiptera)
<i>Bryum salinum</i>	Saltmarsh thread-moss	Moss

## Dunes and Wet Slacks Assemblage

Unifying measures include:

M105:

- creating and maintaining undisturbed breeding sites and roosting areas that are above the high tide levels
- maintaining and restoring ephemeral water bodies free of vegetation for natterjack toads
- maintaining large areas of bare sand with sparse vegetation, whilst minimising damage to Northern tiger beetle larval habitat

M109:

- Maintain a full transition of vegetational stages of intertidal habitat that will support species of varying salinity tolerance and create a diversity of microhabitats including:
  - ephemeral water bodies
  - bare ground for foraging, refuge and basking
  - sand dunes/upper salt marsh with short vegetation
  - shallow freshwater pools with no vegetation
  - winter hibernation sites for natterjack toads
  - food plants for St Bees seed-eater such as sea campion

Taxon Scientific Name	Common Name	Taxon Group
<i>Bufo bufo</i>	Common Toad	Amphibian
<i>Epidalea calamita</i>	Natterjack Toad	Amphibian
<i>Triturus cristatus</i>	Great Crested Newt	Amphibian
<i>Alauda arvensis</i>	Skylark	Bird
<i>Charadrius hiaticula</i>	Ringed Plover	Bird
<i>Haematopus ostralegus</i>	Oystercatcher	Bird
<i>Larus argentatus</i>	Herring Gull	Bird
<i>Larus fuscus subsp. graellsii</i>	British Lesser Black-Backed Gull	Bird
<i>Larus marinus</i>	Great Black-backed Gull	Bird
<i>Sterna dougallii</i>	Roseate tern	Bird
<i>Sterna hirundo</i>	Common Tern	Bird
<i>Sterna paradisaea</i>	Arctic Tern	Bird
<i>Sterna sandvicensis</i>	Sandwich Tern	Bird
<i>Sternula albifrons</i>	Little Tern	Bird
<i>Corallorhiza trifida</i>	Coralroot Orchid	Flowering plant
<i>Epipactis dunensis</i>	Dune Helleborine	Flowering plant
<i>Hyoscyamus niger</i>	Henbane	Flowering plant
<i>Hypochaeris maculata</i>	Spotted Cat's-ear	Flowering plant
<i>Hypopitys monotropa</i>	Yellow Bird's-nest	Flowering plant
<i>Hypopitys monotropa subsp. hypophegea</i>		Flowering plant
<i>Myosotis stricta</i>	Upright forget me not	Flowering plant
<i>Parnassia palustris</i>	Grass of Parnassus	Flowering plant



Appendix B – Cumbria LNRS Species Short List

<b>Taxon Scientific Name</b>	<b>Common Name</b>	<b>Taxon Group</b>
<i>Pyrola rotundifolia</i> subsp. <i>maritima</i>		Flowering plant
<i>Pyrola rotundifolia</i> subsp. <i>rotundifolia</i>	Wintergreen	Flowering plant
<i>Radiola linoides</i>	Allseed	Flowering plant
<i>Teesdalia nudicaulis</i>	Shepherd's Cress	Flowering plant
<i>Viola canina</i>	Heath Dog-violet	Flowering plant
<i>Geastrum minimum</i>	Tiny Earthstar	Fungus
<i>Equisetum variegatum</i>		Horsetail
<i>Cupido minimus</i>	Small Blue	Insect - butterfly
<i>Hipparchia semele</i>	Grayling	Insect - butterfly
<i>Bombus humilis</i>	Brown-banded Carder Bee	Insect - hymenopteran
<i>Bombus humilis</i>		Insect - hymenopteran
<i>Bombus muscorum</i>	Moss Carder-bee	Insect - hymenopteran
<i>Colletes cunicularius</i>		Insect - hymenopteran
<i>Colletes floralis</i>	The Northern Colletes	Insect - hymenopteran
<i>Colletes fodiens</i>		Insect - hymenopteran
<i>Elampus panzeri</i>		Insect - hymenopteran
<i>Megachile circumcincta</i>		Insect - hymenopteran
<i>Oxybelus argentatus</i>		Insect - hymenopteran
<i>Oxybelus mandibularis</i>		Insect - hymenopteran
<i>Tachysphex nitidus</i>		Insect - hymenopteran
<i>Chrysopa abbreviata</i>		Insect - lacewing (Neuroptera)
<i>Actebia praecox</i>	Portland Moth	Insect - moth
<i>Monosynamma sabulicola</i>		Insect - true bug (Hemiptera)
<i>Quickella arenaria</i>	Sand Amber Snail	Mollusc
<i>Bryum marratii</i>	Baltic Bryum	Moss
<i>Bryum warneum</i>		Moss
<i>Zootoca vivipara</i>	Common Lizard	Reptile

## Built Environment Assemblages

### Gardens and Brownfield Sites Assemblage

Unifying measures include:

M20:

- encourage nature-friendly practices in gardens, allotments and public/community spaces, including
  - pollinator-friendly planting
  - reduction in mowing
  - use of peat-free compost
  - reduced pesticide use
  - creating holes in fences that allow wildlife such as hedgehog to move between different spaces

M120:

- safeguard and value the contribution of wildlife-rich brownfield sites in providing a range of resting, feeding and breeding places for invertebrates, reptiles and birds when considering development by
  - identifying and surveying our most valuable brownfield sites
  - managing these sites to maximise their value for nature
  - providing mitigation and compensation measures against their loss

Taxon Scientific Name	Common Name	Taxon Group
<i>Charadrius hiaticula</i>	Ringed Plover	Bird
<i>Omalotheca sylvatica</i>	Heath Cudweed	Flowering plant
<i>Orobanche purpurea</i>	Yarrow Broomrape	Flowering plant
<i>Cupido minimus</i>	Small Blue	Insect - butterfly
<i>Erynnis tages</i>	Dingy Skipper	Insect - butterfly
<i>Hipparchia Semele</i>	Grayling	Insect - butterfly
<i>Thecla betulae</i>	Brown Hairstreak	Insect - butterfly
<i>Andrena apicata</i>		Insect - hymenopteran
<i>Andrena ruficrus</i>		Insect - hymenopteran
<i>Bombus humilis</i>	Brown-banded Carder Bee	Insect - hymenopteran
<i>Bombus muscorum</i>	Moss Carder-bee	Insect - hymenopteran
<i>Bombus rupestris</i>		Insect - hymenopteran
<i>Colletes fodiens</i>		Insect - hymenopteran
<i>Osmia parietina</i>	Wall Mason Bee	Insect - hymenopteran
<i>Microdon mutabilis</i>	Microdon mutabilis	Insect - true fly (Diptera)
<i>Anguis fragilis</i>	Slow-worm	Reptile

## Urban Waterbodies Assemblage

Unifying measures include:

M121:

- reduce and sensitively design artificial lighting to help bats and other nocturnal wildlife commute and forage

M127:

- design new urban waterbodies to be wildlife friendly with varied bank profiles and depths to provide a range of habitat conditions to support amphibians, invertebrates and mammals
- avoid stocking new waterbodies intended for wildlife with fish or wildfowl

Taxon Scientific Name	Common Name	Taxon Group
<i>Bufo bufo</i>	Common Toad	Amphibian
<i>Triturus cristatus</i>	Great Crested Newt	Amphibian
<i>Cinclus cinclus subsp. gularis</i>	British Dipper	Bird
<i>Podiceps cristatus</i>	Great crested grebe	Bird
<i>Anguilla anguilla</i>	European Eel	Bony fish (Actinopterygii)
<i>Lampetra fluviatilis</i>	River Lamprey	Jawless fish (Agnatha)
<i>Lampetra planeri</i>	Brook lamprey	Jawless fish (Agnatha)
<i>Natrix helvetica</i>	Grass Snake	Reptile
<i>Vipera berus</i>	Adder	Reptile
<i>Zootoca vivipara</i>	Common Lizard	Reptile
<i>Arvicola amphibius</i>	European Water Vole	Terrestrial mammal
<i>Erinaceus europaeus</i>	European hedgehog	Terrestrial mammal
<i>Lutra lutra</i>	European Otter	Terrestrial mammal
<i>Myotis daubentonii</i>	Daubenton's bat	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	Terrestrial mammal

## Urban Built-up Areas Assemblage

Unifying measures include:

M119:

- safeguard existing nesting, breeding and roosting sites, and provide mitigation, compensation and enhancement measures wherever possible, by
  - increasing awareness of specific buildings that support important colonies of nesting birds or roosting bats and mitigate against their harm
  - integrating suitable numbers of universal bird bricks, swift bricks, and bat bricks into all new developments (including extensions and alterations that require planning permission)

## Appendix B – Cumbria LNRS Species Short List

M121:

- reduce and sensitively design artificial lighting to help bats and other nocturnal wildlife commute and forage

Taxon Scientific Name	Common Name	Taxon Group
<i>Apus apus</i>	Swift	Bird
<i>Falco peregrinus</i>	Peregrine falcon	Bird
<i>Larus argentatus</i>	Herring Gull	Bird
<i>Larus fuscus subsp. graellsii</i>	British Lesser Black-Backed Gull	Bird
<i>Passer domesticus</i>	House Sparrow	Bird
<i>Passer montanus</i>	Tree Sparrow	Bird
<i>Sturnus vulgaris</i>	Starling	Bird
<i>Ctenophora pectinicornis</i>		Insect - true fly (Diptera)
<i>Erinaceus europaeus</i>	European hedgehog	Terrestrial mammal
<i>Myotis alcathoe</i>	Alcathoe bat	Terrestrial mammal
<i>Myotis brandtii</i>	Brandt's Bat	Terrestrial mammal
<i>Myotis daubentonii</i>	Daubenton's bat	Terrestrial mammal
<i>Myotis mystacinus</i>	Whiskered Bat	Terrestrial mammal
<i>Myotis nattereri</i>	Natterer's bat	Terrestrial mammal
<i>Nyctalus noctula</i>	Noctule	Terrestrial mammal
<i>Pipistrellus nathusii</i>	Nathusius's Pipistrelle	Terrestrial mammal
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	Terrestrial mammal
<i>Plecotus auritus</i>	Brown Long-eared Bat	Terrestrial mammal

## Mine Spoil Assemblage

Unifying measures include:

M72:

- re-work gravels/mine spoil to prevent encroachment of successional vegetation, growth and shading on calaminarian grasslands and mine spoils

Taxon Scientific Name	Common Name	Taxon Group
<i>Anaptychia ciliaris subsp. ciliaris</i>		Lichen
<i>Lecidea inops</i>	Copper lecidea	Lichen
<i>Peltigera venosa</i>		Lichen
<i>Cephaloziella stellulifera</i>		Liverwort
<i>Ditrichum plumbicola</i>		Moss
<i>Grimmia atrata</i>		Moss

## Key Invasive Non-Native Species

Scientific Name	Common Name	Taxon Group	Target
<i>Ichthyosaura alpestris</i>	Alpine Newt	Amphibian	Control in the county and eradicate locally
<i>Branta canadensis</i>	Canada Goose	Bird	Control in the county and eradicate locally
<i>Oxyura jamaicensis</i>	Ruddy Duck	Bird	Control in the county and eradicate locally
<i>Gymnocephalus cernua</i>	Ruffe	Bony fish	Eradicate from the county
<i>Sargassum muticum</i>	Wireweed	Chromist	Control locally
<i>Pacifastacus leniusculus</i>	Signal Crayfish	Crustacean	Control locally
<i>Cotoneaster bullatus</i>	Hollyberry Cotoneaster	Flowering plant	Control in the county and eradicate locally
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster	Flowering plant	Control in the county and eradicate locally
<i>Cotoneaster integrifolius</i>	Entire-leaved Cotoneaster	Flowering plant	Control in the county and eradicate locally
<i>Cotoneaster simonsii</i>	Himalayan Cotoneaster	Flowering plant	Control in the county and eradicate locally
<i>Crassula helmsii</i>	New Zealand Pigmyweed	Flowering plant	Control in the county and eradicate locally
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia	Flowering plant	Control in the county and eradicate locally
<i>Elodea canadensis</i>	Canadian Waterweed	Flowering plant	Control in the county and eradicate locally
<i>Elodea nuttallii</i>	Nuttall's Waterweed	Flowering plant	Control in the county and eradicate locally
<i>Fallopia japonica</i>	Japanese Knotweed	Flowering plant	Control in the county and eradicate locally
<i>Fallopia sachalinensis</i>	Giant Knotweed	Flowering plant	Control in the county and eradicate locally
<i>Heracleum mantegazzianum</i>	Giant Hogweed	Flowering plant	Control in the county and eradicate locally
<i>Impatiens glandulifera</i>	Himalayan Balsam	Flowering plant	Control in the county and eradicate locally
<i>Lagarosiphon major</i>	Curly Waterweed	Flowering plant	Eradicate from the county
<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>		Flowering plant	Control in the county and eradicate locally
<i>Lysichiton americanus</i>	Skunk cabbage	Flowering plant	Control in the county and eradicate locally
<i>Prunus laurocerasus</i>	Cherry Laurel	Flowering plant	Control in the county and eradicate locally
<i>Rhododendron luteum</i>	Yellow Azalea	Flowering plant	Control in the county and eradicate locally
<i>Rhododendron ponticum</i>	Rhododendron ponticum	Flowering plant	Control in the county and eradicate locally

Appendix B – Cumbria LNRS Species Short List

<b>Scientific Name</b>	<b>Common Name</b>	<b>Taxon Group</b>	<b>Target</b>
<i>Rosa rugosa</i>	Japanese Rose	Flowering plant	Control in the county and eradicate locally
<i>Crepidula fornicata</i>	slipper limpet	Mollusc	Eradicate from the county
<i>Dreisseina polymorpha</i>	zebra mussel	Mollusc	Eradicate from the county
<i>Agarophyton vermiculophyllum</i>	Worm wort weed	Seaweed	Prevent from entering the county
<i>Cervus nippon</i>	Sika Deer	Terrestrial mammal	Control locally
<i>Neovison vison</i>	American Mink	Terrestrial mammal	Eradicate from the county
<i>Sciurus carolinensis</i>	Eastern Grey Squirrel	Terrestrial mammal	Eradicate from the county