LARC NATURE RECOVERY ACTION PLAN

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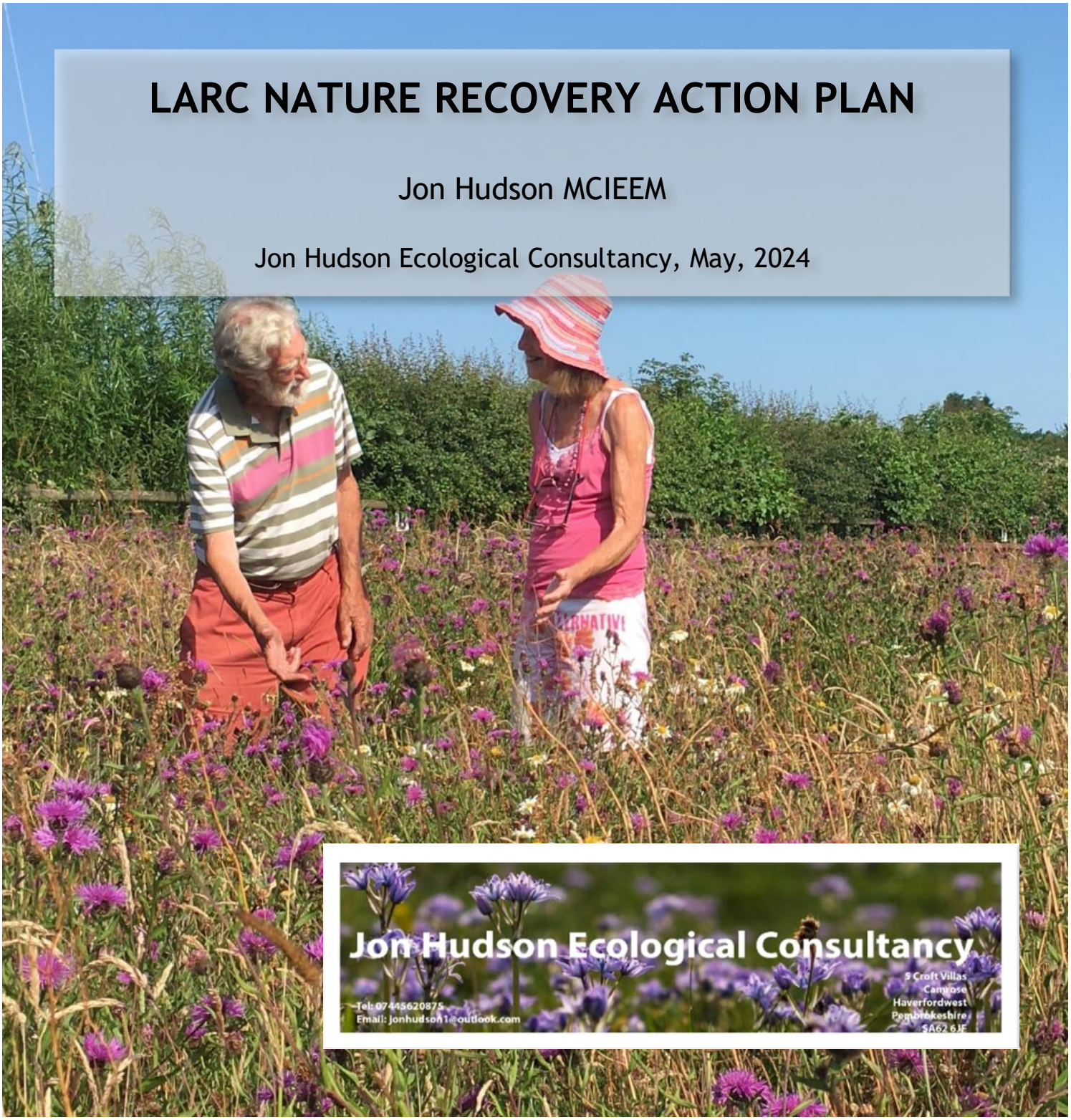
Jon Hudson Ecological Consultancy, May, 2024



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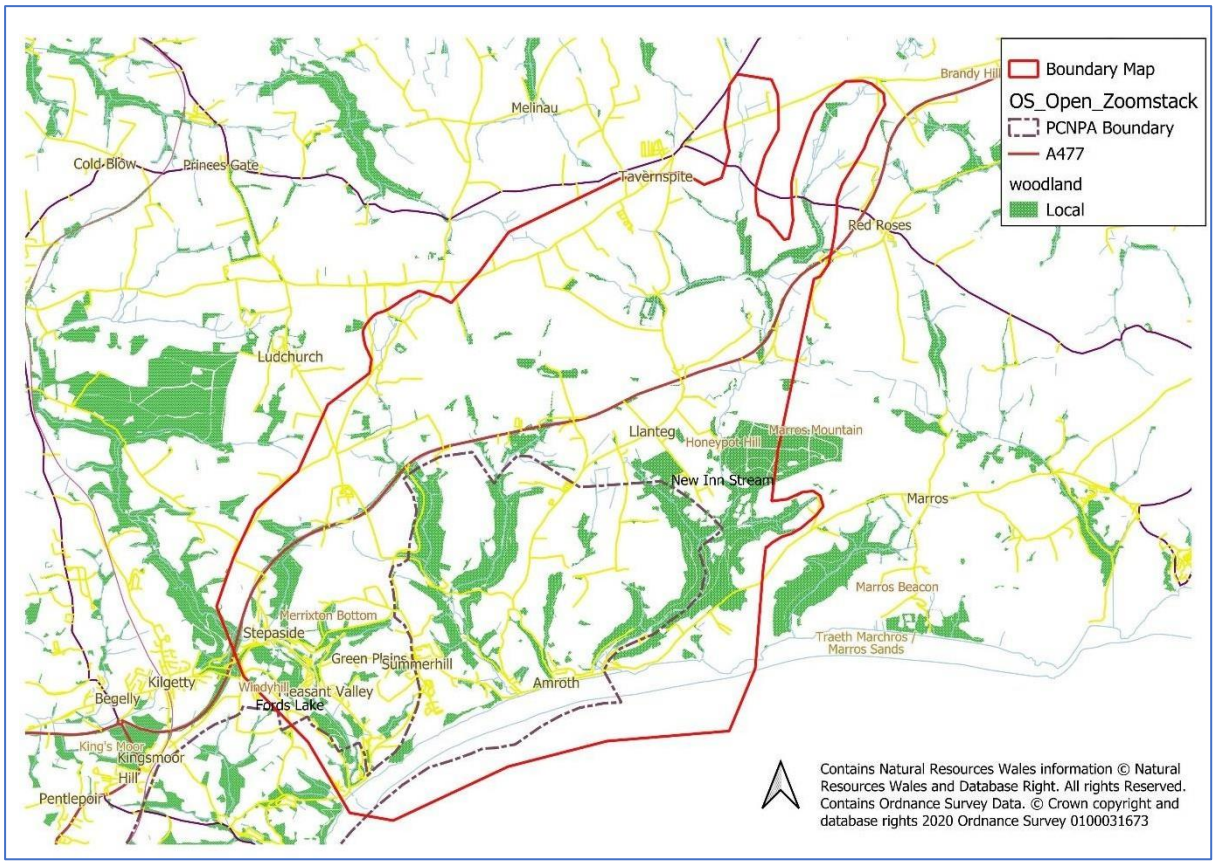
1. Introduction

Jon Hudson Ecological Consultancy was commissioned by Llanteg and Amroth Renaturing Community (LARC) to undertake a desk-based study to identify the key biodiversity interests in Llanteg and Amroth area (referred to hereafter as the "LARC Area") and to offer recommendations for biodiversity enhancements. The report also sets out some opportunities and actions that could be undertaken in order to ensure the current biodiversity interests are retained and enhanced. Issues that could affect biodiversity interests are also identified. The project was funded by the World Wildlife Fund (WWF) with support from the Pembrokeshire Nature Partnership and the Pembrokeshire Coast National Park Authority.

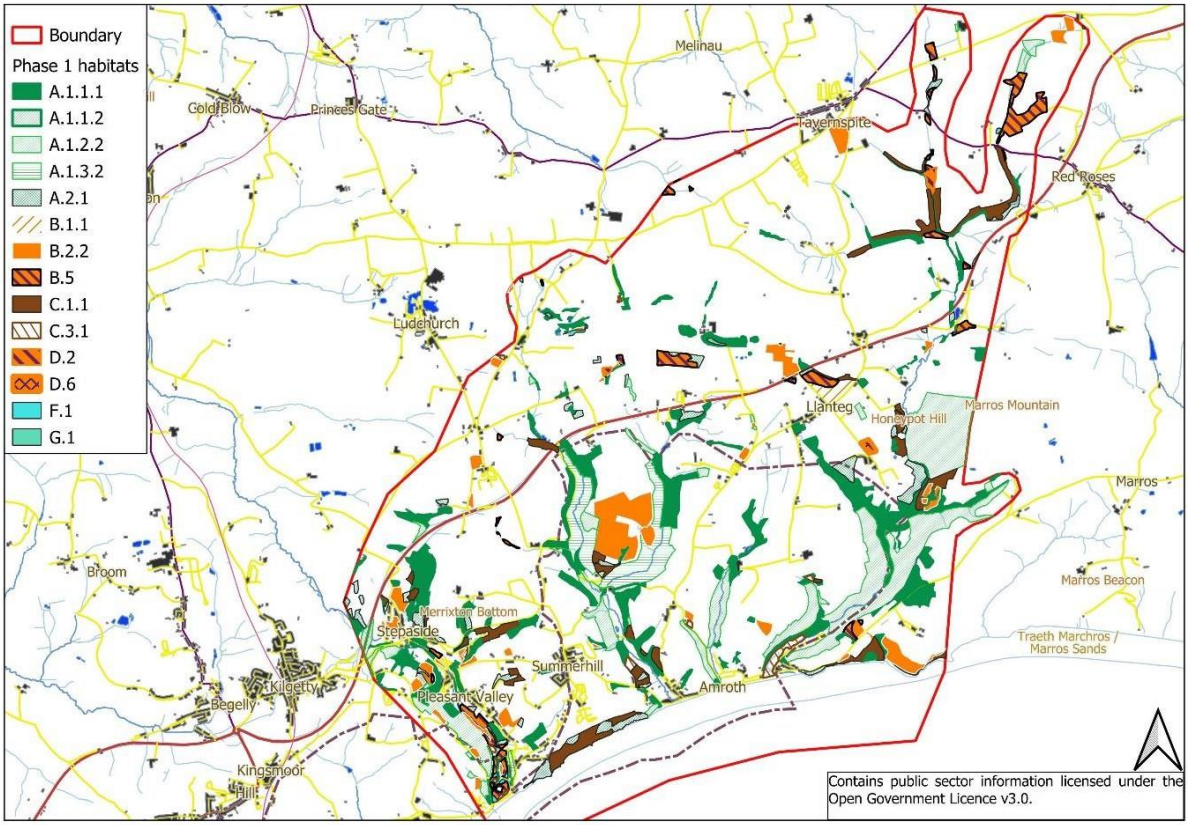
Map 1 shows the location and boundary of the LARC Area dealt with in this report. Map 1 shows the A477 cutting through the middle of the LARC Area (form Red Roses in the Northeast to Stepaside in the Southwest), the boundary of the Pembrokeshire Coast National Park, and the presence of the five main community clusters (Tavernspite, Llanteg, Amroth, Summerhill and Stepaside).



Map 1 The LARC Area is shown by a red line

The LARC Area is generally dominated by agriculturally improved grasslands that are intensively managed, species-poor and of little biodiversity interest. It does, however, also support a range of habitats including areas of semi-improved neutral and marshy grasslands, hedgerows, scrub and Bracken *Pteridium aquilinum*, broadleaved woodlands (both ancient and younger secondary woodland), ponds and streams, coastal grassland and scrub. Together, these habitats support a rich and varied wildlife that includes a wide range of tree and shrub species, wildflowers and the insects that depend on them, as well as a range of birds, reptiles, amphibians, fish and mammals.

The primary habitat dataset used in this project was the Phase 1 Habitat Survey (Jones et al., 2003; JNCC, 2007). This is the primary spatial dataset showing the distribution of semi-natural habitats across Wales. This Habitat Map of Wales is now between 25 and 43 years old. Unfortunately, it is badly out of date and is consequently of limited use in identifying key areas of habitat. Section 7.1 provides suggestions to address this issue. Map 2 below shows the 14 semi-natural habitats mapped within the LARC Area. These are also listed in Table 1 below.



Map 2 All semi-natural habitats mapped by the Phase 1 Survey

Table 1 The Phase 1 habitats mapped in the LARC Area

Phase 1 code	Habitat Name
A.1.1.1	semi-natural broadleaved woodland
A.1.1.2	planted broadleaved woodland
A.1.2.2	planted coniferous woodland
A.1.3.2	planted mixed woodland
A.2.1	dense scrub
B.1.1	unimproved acid grassland
B.2.2	semi-improved neutral grassland
B.5	marshy grassland
C.1.1	bracken
C.3.1	tall ruderal herb
D.2	wet heath
D.6	wet heath/acid grassland mosaic
F.1	swamp
G.1	standing water

Studies of this map and historical aerial imagery on Google Earth suggest that there have been many changes since the Phase 1 map was prepared. There have been losses of neutral grassland (Phase 1 code B.2.2) and marshy grassland (Phase 1 code B.5) to agricultural improvement and scrub invasion. Many stands of Bracken (C.1.1) mapped in the Phase 1 survey have, in the last 20 – 40 years, become scrubbed over or have developed into secondary woodland. The Phase 1 habitat map showed one area of unimproved acid grassland (Phase 1 code B.1.1), two small areas of wet heath (Phase 1 code D.2) and one area with a mosaic of these two habitats (Phase 1 mosaic code D.6). In all four cases, these habitats appear to have been abandoned and now lost to wet woodland/scrub. It is unlikely that they could be successfully recovered without damage to developing wet woodland.

Whilst there have been losses of several areas of species-rich grasslands to agricultural improvement, there has also been some abandonment of intensive agricultural activity (particularly on wetter fields) which has led to the development of areas of semi-improved neutral grassland, marshy grassland and scrub and some areas have in recent years been planted with broadleaved trees. Similarly, many conifer plantations have been clear felled and have reverted to scrub and developing broadleaved woodland.

2. Key Features of Interest

This section identifies and describes the key biodiversity interests in the LARC Area. These are the "key features" (the most important habitats and species) which could most easily and effectively be enhanced. Across the LARC Area, the following habitats and species are considered to be those that could most benefit from enhanced, joined-up management across the landscape. Some Key Biodiversity sites are also described in Section 3.

Table 2 List of the key biodiversity interests

Habitat Feature	Types included	Status
Hedgerows	All types	Priority Habitat listed on Section 7 – list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales
Ancient Semi-Natural Woodlands (ASNW)	Wet woodland Lowland mixed deciduous woodland	Priority Habitat listed on Section 7 – list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales
Semi- improved neutral grasslands	Species-rich types	Potential to rehabilitate the grassland to a type of priority grassland habitat
Unimproved neutral & marshy grasslands	Species-rich types that fit descriptions of Lowland meadows or Purple moor grass and rush pastures	Priority Habitat listed on Section 7 – list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales
Ponds	Ponds supporting Red Data Book species, UK BAP species, species fully protected under the Wildlife and Countryside Act Schedule 5 and 8, Habitats Directive Annex II species, a Nationally Scarce wetland plant species, or three Nationally Scarce aquatic invertebrate species.	No known Pond Priority Habitat types in the LARC Area but ponds are of considerable importance to a wide range of species of plants, mammals, birds and insects

Habitat Feature	Types included	Status
Arable	Arable margins around arable fields managed specifically to provide benefits for wildlife	No known Arable margin Priority Habitat types in the LARC Area but arable land is of considerable importance to Birds

Species Feature	Species included	Status
Birds	Yellowhammer *Emberiza citrinella* House Sparrow *Passer domesticus* Linnet *Linaria cannabina* Skylark *Alauda arvensis* Willow Tit *Poecile montanus* House Martin *Delichon urbicum* Swift *Apus apus*	Red Listed (BOCC 5 Stanbury et. al. 2021)
	Kestrel *Falco tinnunculus* Meadow Pipit *Anthus pratensis* Whitethroat *Curruca communis* Bullfinch *Pyrrhula pyrrhula*	Amber Listed (BOCC 5)
	Chough *Pyrrhocorax pyrrhocorax* Dartford Warbler *Sylvia undata*	Priority Species listed on Section 7 – list of the species of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales
Other species	Badger *Meles meles*	Protected under the Protection of Badgers Act 1992, in England and Wales.
	Bats (any species) Eurasian Otter *Lutra lutra* Hazel Dormouse *Muscardinus avellanarius* Harvest Mouse *Micromys minutus* Reptile & Amphibian species (any species) Dingy Skipper *Erynnis tages* Wall Brown *Lasiommata megera* Shrill Carder Bee *Bombus sylvarum*	Priority Species listed on Section 7 – list of the species of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales

2.1 Hedgerows

The hedges in the LARC Area are variable. Around the more improved fields, they are rather species-poor and often tightly flailed. Elsewhere, they are generally reasonably wide and dense, and some are species-rich (with more than five species per 30m length). Other, unfenced hedges have been hollowed out by livestock browsing and offer few wildlife benefits. There are very few trees in the more intensively managed hedgerows.

When well-managed, hedgerows can form valuable wildlife "corridors", allowing birds, reptiles and amphibians, mammals, invertebrates and plants to spread and colonise other areas. As well as being wildlife corridors, hedgerows provide important shelter and food sources in the form of nectar and pollen for insects and seeds and berries for birds and mammals. Birds also nest in hedges, attracted by the cover and food.

2.2 Woodlands: Ancient Semi-Natural Woodlands (and other broadleaved woodlands)

There are several blocks of Ancient Semi-Natural Woodland (ASNW) listed on the Ancient Woodland Inventory in the LARC Area, including some "restored" ancient woodlands that had been coniferised in the past. Typically, the ancient woodlands are restricted to the larger, valleys with steep sides and wet valley floors. The woods are generally dominated by mixed broadleaved species such as Oaks *Quercus petraea* and *Q. robur* and their hybrids, Ash *Fraxinus excelsior*, Hazel *Corylus avellana*, Holly *Ilex aquifolium* and Birches *Betula* spp. with species such as Willows *Salix* spp. and Alder *Alnus glutinosa* on the wetter valley floors.

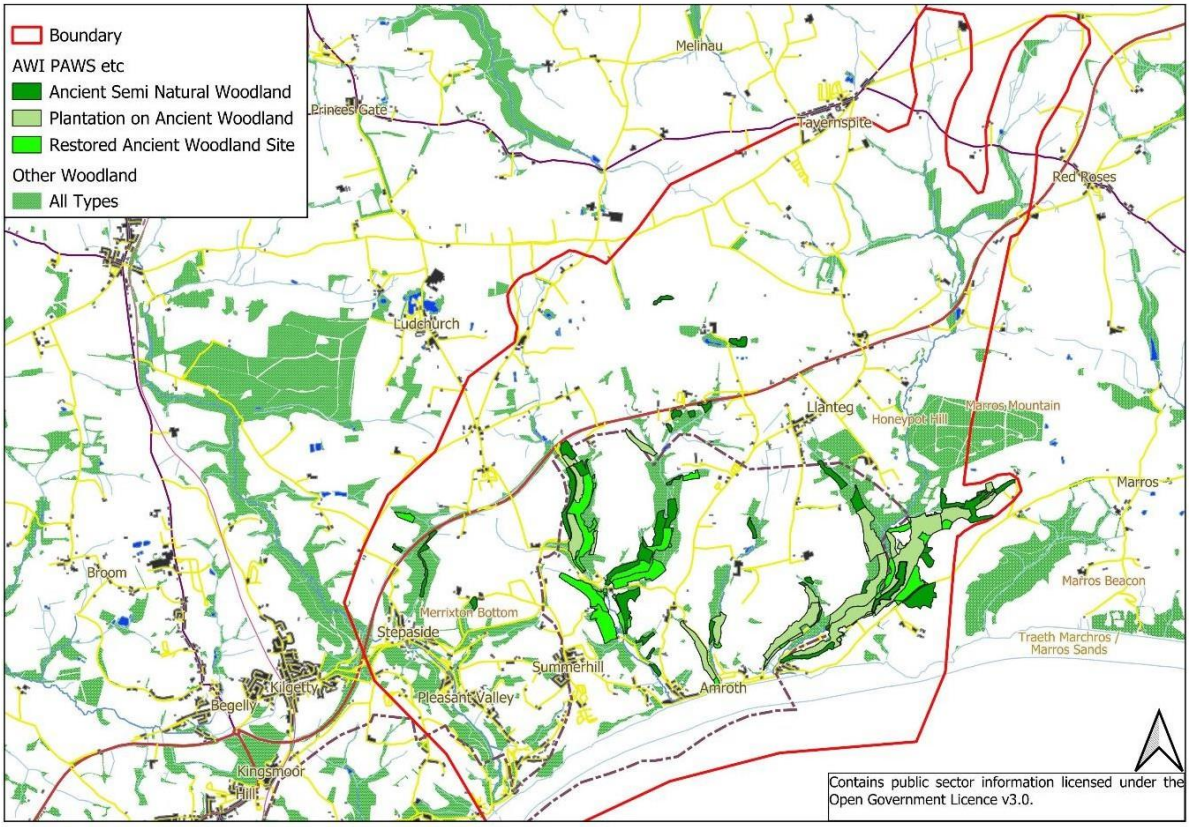
Several coniferous Plantations on Ancient Woodlands (PAWS) are present, and some have been reverted to broadleaved woodland (e.g., parts of Woodreefe Wood, Little Trelissey Wood and some of the woods at Craig y Borion) and these are now becoming valuable wildlife habitats. Coniferous plantations are important for species such as Common Crossbill *Loxia curvirostra*, Eurasian Siskin *Spinus spinus*, Spotted Flycatcher *Muscicapa striata*, Redpoll *Acanthis flammea* and Goldcrest *Regulus regulus*. New woodlands (such as the Woodland Trust Lanteague Wood

which has been planted with native broadleaf trees such as Ash, Oaks, Beech *Fagus sylvatica*, Hawthorn *Crataegus monogyna* and Crab Apple *Malus sylvestris* have been created here and there.

Large areas of the West of Wales, England and Scotland have suitable climatic conditions to support temperate rainforest. Temperate rainforest is a broad category of woodland in parts of the world with a climate that is rainy and without extremes of hot or cold. This climate is reflected in the abundance and diversity of mosses, liverworts, ferns and lichens that thrive in damp, equable conditions. Temperate rainforests are variable, and there is no clear and simple separation between rainforest and non-rainforest. Rainforests grade into other woodlands of various types. Our temperate rainforest has diffuse climatic, geographical, ecological and floristic boundaries, and within it, there are multiple gradients of ecological and floristic variation. (Averis 2023). Temperate rainforests occur in oceanic and hyperoceanic regions and receive very high levels of rainfall and are so damp that plants grow on other plants. These plants are known as "epiphytes". The damp shady conditions and clean oceanic air allow fungi, ferns, lichens and bryophytes (mosses and liverworts) to thrive. Although only tiny fragments remain today, the west coast of Britain would have supported far more rainforests in the period between the last Ice Age and the Bronze Age.

Most of the woodlands in the LARC Area show some characteristics of temperate rainforest and some of the old, least disturbed woodlands (e.g., parts of Craig y Borion Wood and the small patch of coastal oak wood at Telpyn Farm) are fragments of temperate rainforest and could be important for a range of oceanic, "Old Forest", lichen species, oceanic bryophytes (mosses and liverworts) and support "rainforest" plants such as Hay scented Buckler Fern *Dryopteris aemula*.

Apart from the paths that run through them, the steep valley woods are generally undisturbed and difficult to access. They are likely to be important refuges for species such as Eurasian Otter *Lutra lutra*, Bats *Chirpotera*, Hazel Dormouse *Muscardinus avellanarius* and Badger *Meles meles* and, for the most part, are best treated as "minimum-intervention" areas and left largely unmanaged.



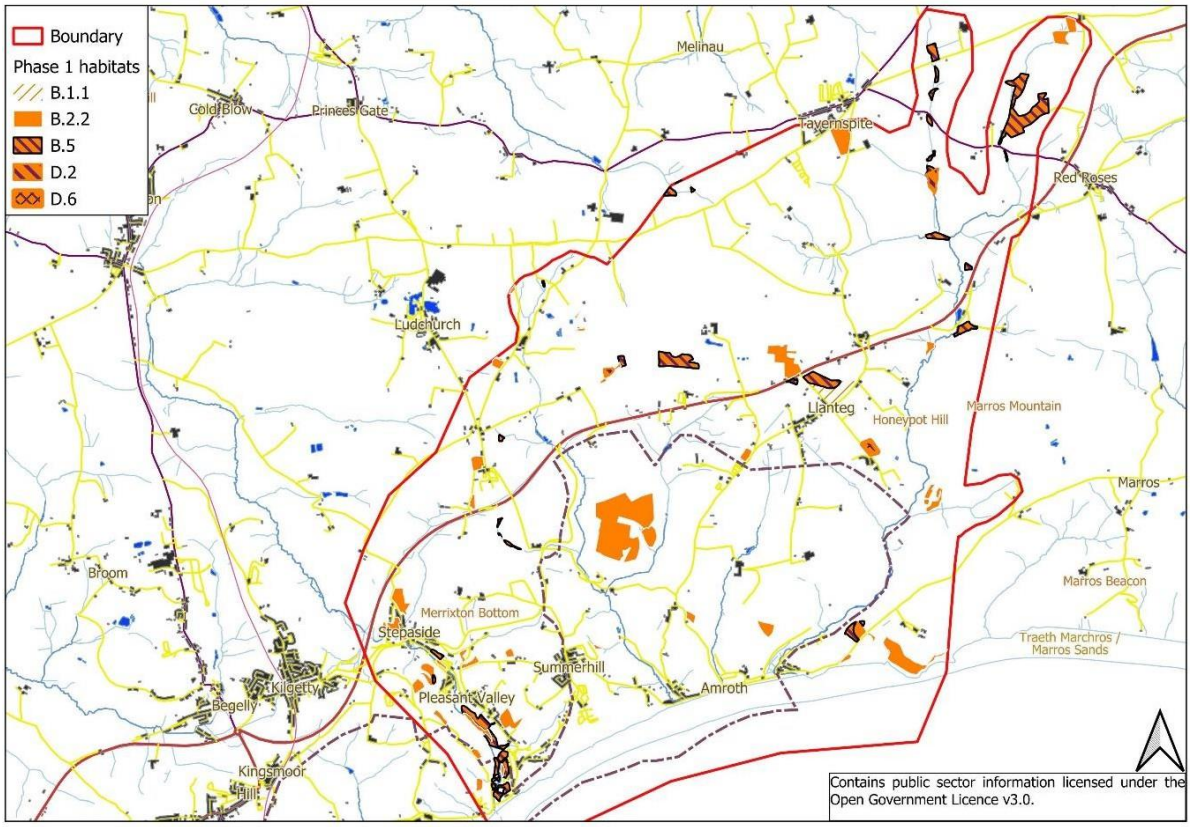
Map 3 Woodlands in the LARC Area

2.3 Semi-improved Neutral Grassland and Marshy Grassland

Only small areas of semi-improved neutral grassland (Phase 1 code B.2.2) are present in the LARC Area, except at Craig y Borion where a larger, contiguous area has been restored. These grasslands are typically dominated by grasses such as Crested Dog's Tail *Cynosurus cristatus*, Common Bent *Agrostis capillaris,* Red Fescue *Festuca rubra* and Yorkshire Fog *Holcus lanatus*. Typical flowers include species such as Black knapweed *Centaurea nigra*, Birds-foot Trefoil *Lotus corniculatus*, Yellow Rattle *Rhinanthus minor*, Red Clover *Trifolium pratense,* White Clover *T. repens*, Ribwort Plantain *Plantago lanceolata*, Meadow Buttercup *Ranunculus acris* and Creeping Buttercup *R. repens*. These grasslands are likely to revert to unimproved grassland Priority Habitat (A Welsh Section 7 Habitat of Principle Importance) under continued appropriate management.

Larger areas of marshy grassland (Phase 1 code B.5) are present in the LARC Area and historical aerial imagery (available on "Google Earth") suggests that some previously agriculturally improved areas have, in recent years, begun reverting to marshy grassland. Often these grasslands

that have been improved in the past are species-poor, dominated by Soft Rush *Juncus effusus* or sometimes Sharp-flowered Rush *Juncus acutiflorus* with a limited range of wildflowers. The more species-rich marshy grasslands have a wider range of associated species such as Water Mint *Mentha aquatica*, Greater Birds-foot Trefoil *Lotus pedunculatus* and Marsh Bedstraw *Galium palustre.*



Map 4 Semi-natural grasslands in the LARC Area

2.4 Ponds

There are several extant ponds and historical (dried-up or filled-in old ponds) of varying sizes shown on maps and visible on aerial imagery within the LARC Area. The OS Six-inch England and Wales, 1842-1952 map indicates that historically there were many more, particularly around the Llanteg area. Extant ponds are most common in the LARC Area in a broad swathe between Ludchurch and Marros Mountain, at Castle Ely Mill, Furzy Park/Crunwere, "The Old Farmhouse", Trenewydd, Penybont, EastLake Farm, Parrots Hill Wood/Horsemanstone and Garness Farm. A large old pond is present in Little Craig y

Borion Wood, but this has now become a valuable wet woodland and swamp habitat and should be left unmanaged. See Map 5, Section 4.4.

Records provided by Kevin Caley show that eleven species of dragonfly, four amphibian species and Eurasian Coot *Fulica atra* and Common Moorhen *Gallinula chloropus* are present on waterbodies in the LARC Area, suggesting that reasonable water quality is present in at least some of the ponds.

2.5 Arable

The arable fields in the LARC Area are often temporary, used to grow wheat, fodder beet and maize and returned to improved pasture on rotation. They generally do not have any "arable field margins" (strips or blocks around arable fields that are managed specifically to provide benefits for wildlife) which are considered to be Priority Habitats.

2.6 Birds

Not all red or amber-listed species recorded from the LARC Area are included as "key species" here. Instead, a selection of species for which practical management actions could be relatively easily undertaken was chosen. Habitat management actions for these species would be also likely to benefit a range of birds and other species.

Some key bird species in the LARC Area include Yellowhammer *Emberiza citrinella*, House Sparrow *Passer domesticus*, Linnet *Linaria cannabina*, Skylark *Alauda arvensis*, Dartford Warbler *Sylvia undata*, Willow Tit *Poecile montanus*, House Martin *Delichon urbicum* and Swift *Apus apus* (Red Listed), Kestrel *Falco tinnunculus*, Meadow Pipit *Anthus pratensis*, Whitethroat *Curruca communis*, Bullfinch *Pyrrhula pyrrhula* (Amber Listed) and Chough *Pyrrhocorax pyrrhocorax*, an iconic, Pembrokeshire Section 7 species.

2.7 Other Species

Not all CR (Critically Endangered), EN (Endangered), NT (Near Threatened), VU (Vulnerable) or NS (Nationally Scarce) species are included as "key species" here. Instead, a selection of species for which practical management actions could be relatively easily undertaken were chosen. Habitat management actions for these species would be likely to benefit a range of other species too.

2.7.1 Badger:

Badger (*Meles meles*) is a protected species but requires no specific management in the LARC Area. Badgers are likely to be widespread across much of the area with their main setts often on the steep slopes of the wooded valleys. Badgers will forage in woodlands, grasslands and scrub. They are included here as the location of badger setts must be considered when undertaking any management works. Natural Resources Wales provides a basic guide for developers and anyone considering undertaking works near badger setts. This guide as a substitute for professional advice. https://naturalresources.wales/media/696694/badgers-a-guide-for-developers.pdf?mode=pad&rnd=133216507090000000

2.7.2 Bats (*Chiroptera*):

All UK bat species are protected by European and UK legislation: the Conservation of Habitats and Species Regulations 2010 and amendments and Schedule 5 of the Wildlife and Countryside Act 1981. The following bat species have all been recorded from the LARC Area: Bechstein's Bat *Myotis bechsteinii*, Brown Long-eared Bat *Plecotus auritus*, Common Pipistrelle *Pipistrellus pipistrellus*, Daubenton's Bat *Myotis daubentonii*, Greater Horseshoe Bat *Rhinolophus ferrumequinum*, Lesser Horseshoe Bat *Rhinolophus hipposideros*, Nathusius's Pipistrelle *Pipistrellus nathusii*, Natterer's Bat *Myotis nattereri*, Noctule Bat *Nyctalus noctula*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Western Barbastelle *Barbastella barbastellus* and Whiskered Bat *Myotis mystacinus*. Bats use a wide range of habitats in which to roost and forage. Larger trees, particularly Oaks, Ash, Beech and Sycamore

Acer pseudoplatanus (the latter of which are not locally native species – see Table 3, Section 6.1 for a list of locally native trees and shrubs) are most frequently used as roosts, but bats will use any tree of any size with suitable cavities or crevices. Mature semi-natural woodland, maturing broadleaf plantations and veteran trees are all likely to be an important resource of roosting habitat in the LARC Area. Most species of bat will also roost in buildings and other structures such as caves and mineshafts. Bat foraging habits vary between species but there is a general requirement for a steady supply of insects through the seasons, "flight lines" (corridors along which to fly between roosts and feeding areas) and a local source of water.

2.7.3 Eurasian Otter:

Eurasian Otters (*Lutra lutra*) have been recorded from all of the streams in the LARC Area. Otters need the following habitat attributes:

- Food – Including eels, fish, crustaceans, molluscs, amphibians, reptiles, dragonflies and even slugs.
- Shelter – Around 30 resting places in one Otter territory. Minimal disturbance – Otters are nocturnal and need quiet, undisturbed places to rest during the day.
- Connected habitats – Otters can use up to 40km of river as their territory. This means they need to move frequently within and between patches of good habitat to feed, breed and rest. They will also cross fields, woods and other terrestrial habitats to move between watercourses.
- Breeding habitat – In order to successfully rear young, a female Otter needs a sheltered location, often with a pool where she can teach her young to swim and catch food. Otter breeding holts are often located some distance away from main rivers.
- Freshwater – Otters can hunt in coastal waters or inland but need fresh water to keep their coat clean.

2.7.4 Hazel Dormouse:

Hazel Dormouse *Muscardinus avellanarius* is listed on Section 7 of the Environment (Wales) Act 2016 and is rare in the county. It has been recorded from near Ludchurch, near Red Roses and at Colby woodland garden. Possible Dormouse evidence was noted south of Llanteg at Lanteague Wood (Acer Ecology, 2020) and the species may be more widespread in suitable habitats within the LARC Area. Dormice are mainly ancient woodland specialists, preferring mature deciduous woodland with a wide variety of tree and shrub species. In South Wales, they are often found in other habitats, including mature hedgerows, reedbeds, heathland and scrub habitats. They feed on flowers, pollen, fruit, insects and ripe nuts, and require a continuous availability of food throughout spring and summer. Hazel, Honeysuckle *Lonicera periclymenum*, Brambles *Rubus fruticosus* agg. and Oaks are particularly important food sources.

2.7.5 Harvest Mouse:

Harvest Mouse *Micromys minutus* is listed on Section 7 of the Environment (Wales) Act 2016 and lives in long tussocky grassland, reedbeds, hedgerows, arable field margins and around woodland edges. Its main food sources are seeds and fruits, but they also eat invertebrates. Harvest mice build spherical nests of tightly woven grass, in the tall grasses, cereal crops reeds and other tall vegetation. The species is known from a few locations in the LARC Area and is likely to be widespread in the area. A successful captive breeding programme is ongoing at nearby Folly Farm.

2.7.6 Reptile & Amphibian species:

All British reptiles and amphibians are protected under Schedule 5 of the Wildlife and Countryside Act 1981. Common Toad *Bufo bufo*, Common Frog *Rana temporaria*, Palmate Newt *Lissotriton helveticus*, Viviparous Lizard *Zootoca vivipara*, Slow-worm *Anguis fragilis*, Barred Grass-Snake *Natrix helvetica* and Adder *Vipera berus* have all been recorded from several places within the LARC Area mostly from sites such as Colby and the other valleys. All of these species are likely to be present in suitable habitats elsewhere within the LARC Area.

There are old records of Smooth Newt *Lissotriton vulgaris*, but these may have been misidentifications.

2.7.7 Invertebrate: Butterfly - Dingy Skipper:

Dingy Skipper *Erynnis tages* is listed on Section 7 of the Environment (Wales) Act 2016 and is rare in the county. It has been recorded from the LARC Area (at "The Downs") but may also be present elsewhere, particularly along the coast or wherever the larval foodplant Common Bird's-foot Trefoil *Lotus corniculatus* is abundant.

2.7.8 Invertebrate: Butterfly - Wall Brown:

Wall Brown *Lasiommata megera* is listed on Section 7 of the Environment (Wales) Act 2016 and is rare in the county. It has been recorded from within the LARC Area at "The Downs" but is also present elsewhere, along the coast wherever unimproved grassland and areas of bare ground occur.

2.7.9 Invertebrate: Bee – Shrill Carder Bee

Shrill Carder Bee *Bombus sylvarum* is listed on Section 7 of the Environment (Wales) Act 2016 and is rare in the county. It has been recorded just once in the LARC Area, at Colby.

3. Key Sites/Locations

The wooded valleys stand out as the key biodiversity hotspots with the Pleasant Valley and Colby areas appearing to be the most diverse with mixes of woodland, scrub and some semi- improved neutral grasslands.

3.1 Colby/Craig y Borion

The National Trust property at Colby/Craig y Borion is a 900-acre estate of woodland and farmland with extensive areas of semi-improved neutral grassland. The estate comprises a mixture of improved grassland, semi-improved neutral grassland, marshy grassland, hedgerows, broad-leaved woodland and recently felled coniferous woodland. There are also smaller areas of dense bracken, scrub, bare ground, quarry, ephemeral/short perennial vegetation, swamp, running water and buildings and yards. These habitats are surrounded by the main woodlands of Craig y Borion and Little Craig y Borion Woods. The estate is of high conservation significance and supports most of the key habitats and species present in the LARC Area.

3.2 Pleasant Valley

The valley running from Stepaside to the coast via Sardis is well wooded (albeit without any significant areas of ancient semi-natural woodland) and has a range of habitats including semi-improved neutral and marshy grasslands, scrub and swamp. The site supports several of the key habitats and species present in the LARC Area.

3.3 Allt Clyn Gwyn Valley (Factory Wood, Woodreefe Wood, Little Trelissey Wood)

Much of the ancient woodland here was coniferised in the past but large areas are being restored with the conifers being removed. The valley still supports significant areas of broadleaved woodland and, in the upper reaches, areas of scrub, bracken and semi-improved grassland. Small stands of Oak-dominated woodland on the coast at Telpyn Farm are not included on the Ancient Woodland Inventory but have the appearance of ancient woodland and are known to support at least some oceanic woodland lichens. Areas of Mill Stone Grit blockfield at Garness support a suite of oceanic liverworts and together these features hint at the presence of a now more or less lost temperate rainforest in the valley. The site supports several of the key habitats and species present in the LARC Area.

3.4 Garness to Blaecilgoed

The broad swathe of land on both sides of the A477 running from Garness farm and Lanteague Wood in the east to Blaencilgoed Farm in the west is another important area. Here aerial imagery shows a landscape in which small damp fields with dense hedges are mixed with extensive areas of scrub and patches of woodland. Many of the key habitats and species are likely to be present in at least some places here.

3.5 The Downs

The area known as "The Downs" to the north of Llanteg stands out as being of high conservation significance with around 700 species recorded from a small area. This high species count is likely in large part due to beneficial management here and to recorder effort and that other patches of similar habitats within the LARC Area may prove equally valuable. The site supports several of the key habitats and species present in the LARC Area.

3.6 Key Grassland Areas

Few areas of semi-natural grassland are present in the LARC Area. However, the Phase 1 Map suggests that there are small focal areas around Stepaside, down Pleasant Valley to the coast. To the south and west of Llanteg, numerous areas of marshy grassland mixed with some neutral grasslands appear to occur in a broad arc from Llanteg village to Blaencilgoed Farm, with a concentration around "The Downs" (Mapped in Caley, 2018). The National Trust at Colby/Craig y Borion have been reverting some of the fields between Craig y Borion and Little Craig y Borion woods to more species-rich grasslands with considerable success. Matt Sutton Ecology surveyed the grasslands in 2016, noting that they were mostly agriculturally improved. Jon Hudson Ecology re-surveyed the southern part of the area in 2023 (Hudson 2023b) when it was found that those fields mapped as improved in 2016 were now considered semi-improved and that there are now around 25 hectares of semi-improved grassland (Phase 1 Code B2.2) spread over thirteen fields here.

3.7 Key Bird Areas

Wiseman's Bridge, Amroth, Llanteg village, Colby Woodland and Gardens, Marros Mountain and Telpyn Point have been identified as key bird sites by Toby Phelps ("Birds in our corner of Pembrokeshire Llanteg, Amroth & Beyond"). Additional areas are likely to include most of the other woodlands and the broad swathe of land south of the A477 from little Craig y Borion Wood eastwards to Woodreefe wood via Lanteague Wood and Garness Farm where there are many small fields, thick hedges, patches of woodland and scrubby areas.

4. Opportunities for Biodiversity Enhancement

This section broadly identifies some potential enhancement opportunities and actions that could be undertaken in order to ensure the key biodiversity interests are retained and enhanced. Management actions would generally be best focussed in and around those areas where key habitats and species are already present, and where opportunities to increase existing habitats and improve connectivity exist.

4.1 Hedgerows

Some basic hedgerow management practices can be applied across the hedgerow resource within the LARC Area. Defunct (gappy, non-stock-proof) hedges could be "gapped up" and made stock-proof and re-fenced. Intensively managed hedgerows could be brought into more sympathetic management. There are a number of well-established, generic management options that can be used to restore and manage hedgerows. Information on these basic types of restoration/management interventions along with a series of best practice guides are available at https//hedgelink.org.uk/guidance/hedgelink-documents/. The hedge bottoms and field margins provide shelter and food plants for a variety of insects, birds, mammals, reptiles and amphibians. These margins could be enlarged and mown only once every few years. The establishment of hedgerow trees could also be considered in areas where they are currently absent or scarce. Further information is available from your local Tree Warden or The Tree

Council at www.treecouncil.org.uk.

4.2 Ancient Semi-Natural Woodland (and other broadleaved woodlands)

Many of the woods in the LARC Area are best treated as 'non or minimum-intervention' areas where little work is required other than controlling invasive non-native species (INNS), managing paths and keeping boundaries and access routes clear and safe. Non-intervention woodlands can be heavily shaded, where the trees develop a closed canopy with little light getting to the ground, resulting in only a limited number of wildflowers on the woodland floor. Where some light does get in, the ground can be dominated by carpets of a handful of species such as Bluebell *Hyacinthoides non-scripta* and Dog's Mercury *Mercurialis perennis*. Trees tend to be tall and thin due to the increased competition for light which can make them vulnerable to storm events. More positively, there is often a lot of standing dead wood and dead and decaying timber on the ground and they provide undisturbed habitats for species such as Hazel Dormouse, Owls, Eurasian Goshawk *Accipiter gentilis*, Bats, Badger and Eurasian Otter as well as deadwood-eating insects.

Small-scale thinning and coppicing in long-established woodlands can help to diversify the size and age of retained trees and create enough space for them to grow to maturity. This helps to deliver lots of opportunities for different wildlife - big old trees for birds, fungi, lichens and insects that utilise dead wood, young growth for caterpillars and the birds that feed on them and new saplings to create the woodlands of the future. Thinning also provides the best chance for the widest range of tree species to establish as it reduces competition from shade-loving species. Light woodland management can also be beneficial for Dormice and lichens although care is needed as rare lichens can be restricted to just one or a few trees and Hazel Dormouse habitats could easily be damaged in woodland management operations.

4.3 Grasslands

4.3.1 Semi-improved neutral grasslands

There are opportunities for improving some of the semi-improved neutral grasslands and making them more species-rich. This could be achieved through collecting and spreading seeds or green hay from nearby species-rich fields, the use of local provenance native wildflower seeds and by avoiding inputs of fertilisers or lime. This would be most readily achieved in fields where the grass swards are already thinner and less productive. Maintaining a suitable long-term grazing and/or cutting regime is essential and the feasibility of establishing this should be investigated prior to any restoration work being undertaken. No fertilisers or other inputs should be applied to any fields under reversion. There should be no cultivation or drainage of reverted fields. Detailed advice should be sought from Plantlife, a local meadows group or an ecologist. Advice and information regarding grassland reversion are available at https://meadows.plantlife.org.uk/making-meadows/ .

4.3.2 Marshy grasslands

In order to restore areas of marshy grassland it may be necessary to consider breaking up drains and blocking ditches to re-wet areas dominated by Soft Rush *Juncus effusus*. Often mowing of the rushes will also be required to help open up and diversify the sward. Again spreading green hay from more species-rich marshy grassland habitats or the use of local provenance native wildflower seeds will hasten the development of a more diverse marshy grassland.

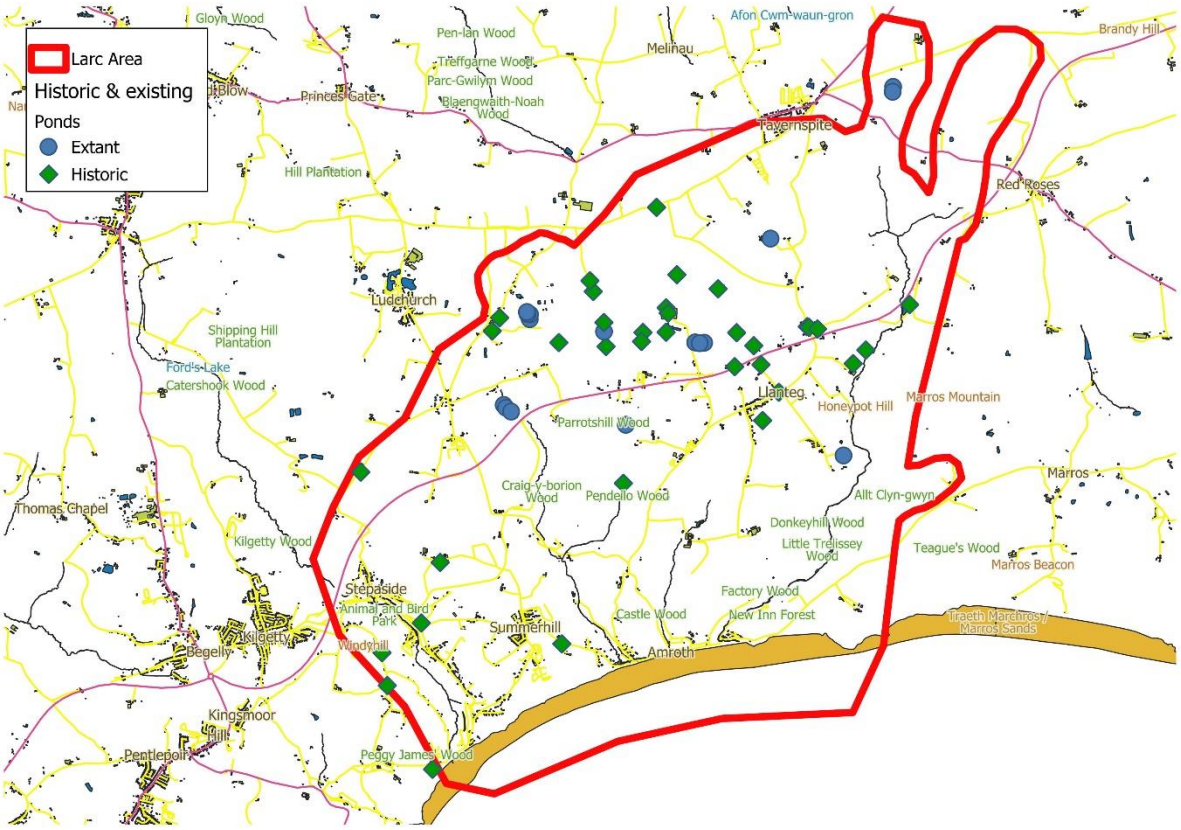
4.3.3 Improved grasslands

On more intensively managed grasslands there may be opportunities for "extensification" (through modifications to the grazing and cutting regimes) that could create suitable conditions for ground-nesting birds. Agriculturally improved grasslands managed for silage or haylage can allow sufficient time for ground nesting species to breed if managed appropriately. Mechanical operations on improved grasslands, such as slurry/muck spreading, rolling, topping and harrowing, can be particularly damaging to ground-nesting birds in the spring. It is possible to create

opportunities for nesting and feeding birds by creating unmanaged areas as "Skylark plots" or by avoiding mechanical operations in the breeding season (April–July) in fields with breeding birds and by spreading out the grass harvest. Species such as the Skylark and Meadow Pipit are more likely to be able to breed if periods of seven weeks are allowed between cuts. More extensive cattle grazing of the improved grasslands will have similar benefits. Adopting the above management options as well as leaving some areas of uncut grass for longer periods and leaving wide, uncut margins will also be beneficial for a range of other species. Further advice is available at https://www.grasslandbirdtrust.org/conservation/land-management-practices/ and https://www.rspb.org.uk/helping-nature/what-we-do/influence-government-and- business/farming

4.4 Ponds

Several ponds are present, scattered across the LARC Area. See Map 5 below which identifies the larger ponds visible from maps and aerial imagery. Existing ponds may need to be de- silted on an occasional basis to stop them from silting up or becoming choked with vegetation. When this becomes necessary, it should be done rotationally, clearing no more than a third of the pond at a time and then leaving it for a period of non-intervention. Historic, dried-up (or filled-in) ponds were located by using the National Library of Scotland's "Georeferenced Maps" website (https//maps.nls.uk/geo/explore/). On this website, the OS Six-inch England and Wales, 1842-1952 map shows historic ponds in blue. This map was overlaid with modern aerial imagery. Historical ponds thus identified could then be targeted for restoration (see Map 5).



Map 5 Historic and extant ponds

When restoring ponds it is important to ensure that the water source is unpolluted and where possible:

- Create pond complexes or multiple pools including both permanent and seasonal ponds of varying areas and depths, rather than a single waterbody.
- Make broad, undulating drawdown zones.
- Make sure that most pond slopes are shallow (less than 15 degrees).
- Create underwater bars and shoals to benefit aquatic plants.

Further advice is available from https//freshwaterhabitats.org.uk/advice-resources/pond- creation-hub/.

4.5 Arable

Conservation measures for arable plants include annually cultivated fallow margins and plots, unsprayed and unfertilised cereal fields, headlands and root crops and wild bird seed cover. Some of these may be included in agri-environment schemes. Outside of an agri-environment scheme, simply targeting sympathetic management (such as fallow margins or skylark plots) in the right place (fields that have a history of having been arable) will help arable plants, Birds and other wildlife. Advice is available from Plantlife (https//www.plantlife.org.uk/managing- arable-land/).

4.6 Birds

4.6.1 "Farmland" Birds

It is possible to provide and enhance suitable habitat for "farmland" birds (species such as Yellowhammer, Linnet, Skylark, Kestrel, Meadow Pipit, Whitethroat and Bullfinch) through activities such as not cutting hedges every year and instead cutting them in a rotation over several years, introducing wildflower margins/plots in field corners that can be left uncut over the summer and autumn, rotating crops throughout the year, leaving winter stubbles, creating "Skylark plots" and creating beetle banks for additional nesting habitat and food sources. Kestrels would benefit from the provision of suitable nest boxes around areas such as Colby.

Nesting birds need a constant supply of seeds, insects and fresh green material, while newly hatched chicks require protein-rich insects to promote growth and feathering up. The closer the food resources are to their nesting sites, the better. Maintain food sources by

- Introducing conservation headlands that allow a native arable flora to develop and keep them free from herbicides or pesticides.
- Planting flower-rich, diverse wild bird cover crops that flower June – August.
- Creating beetle-banks to increase populations of small mammals and beneficial insects, including seed-bearing winter crops.
- Providing supplementary bird food via feeders in winter and spring.

- Ensuring plenty of cover in thick hedges to minimise the risk of predation.

4.6.2 Other Birds

House Sparrow, House Martin and Swift would benefit from the provision of suitable nest boxes around the villages. Swift nestboxes or bricks (https//www.swift-conservation.org/universal_swift_nest_brick02.pdf) could be installed on suitable large buildings (see https//ecodewi.org.uk/swift-boxes-going-up-in-st-davids/) for details of a similar project in St. Davids).

Willow Tit, Dartford Warbler and Chough have very specialised habitat requirements that are more difficult to manage, and more detailed information is provided below.

Willow Tit is the UK's most threatened resident bird. They require habitats such as wet woodlands or damp woodland margins and scrubby wetlands. In order to create and improve Willow tit habitat, works could include:

- Maintaining areas of early successional habitat through small-scale glade creation, thinning and rotational coppicing whilst retaining dead wood and old trees and maintaining a generally dense shrub layer.
- Planting tree species such as Willow, Alder, Elder and Birch can help if they are naturally scarce.
- Willow Tits need soft rotting deadwood in which they can excavate a nest hole and standing deadwood is preferable. Cutting trees to leave high stumps (1-2 metres tall) and encouraging rotting by cutting deep cross-cuts on the top of the stump to increase water penetration and by ring barking can create suitable nest sites.
- Generally, Willow Tits will not use traditional nest boxes but artificial nest sites can be created by cutting rotting logs 1-2 metres long and tying them to living trees.

Dartford Warbler numbers are limited by the availability of suitable habitats and by cold winter temperatures. The species is dependent on mature, dry heath habitats and particularly on dense stands of young to mature Gorse. It eats insects and does not migrate for the winter, meaning that it is vulnerable

to extended periods of cold weather. It is a ground-nesting bird, preferring to breed under the protective cover of dense Heather or compact Gorse. Careful management of stands of gorse is key to maintaining the species and advice should be sought from PCNPA.

Chough numbers are limited by the availability of suitable nest sites, changes in climate (particularly summer drought) and the presence of natural predators such as the peregrine. There is little that can be done about these issues. However, other factors such as the extent and quality of foraging habitat, and the use of anti-parasitic chemicals, such as avermectins in livestock grazing on chough feeding areas are more controllable. Ensuring that chough feeding areas are well grazed and that grazing animals treated with avermectins are kept off the site for at least six weeks following treatment are key actions.

4.7 Other Species

4.7.1 Badger

There are no direct actions required for this species, but, due to its protected status, disturbance must be avoided. Activities such as footpath creation or maintenance, pond creation and woodland management could cause disturbance. The following activities would be likely to require licensing. Using very heavy machinery (generally tracked vehicles) within 30 metres of any entrance to an active sett

- Using lighter machinery (generally wheeled vehicles), particularly for any digging operation, within 20 metres
- light work such as hand digging or scrub clearance within 10 metres.

Further information is available at https://naturalresources.wales/permits-and- permissions/species-licensing/list-of-protected-species/badger-licensing/?lang=en

4.7.2 Bats

There are 18 Bat species in the UK all of which use woodland, scrub, hedges and grasslands for roosting, foraging or navigation. Many Bats use mature trees for roosting, some relying on them year-round, others for just part of the year. Many practical things can be done to improve habitats for Bats. These include:

- Retaining and maintaining older trees. Any tree, however small can be used as a Bat roost, as long as it provides shelter, for example, in the form of splits, cracks, holes and cavities in the trunk and branches, loose bark and ivy cover.
- When trees have to be removed because of safety concerns (e.g.,, particularly ash trees near properties, roads and paths) the stem can be retained at a safe and sensible height (monolithing). In these monoliths, cavities can be carved to offer roosting features for bats and nesting sites for birds. See https//louishudson15.wixsite.com/heartwood-1.

Photo 1 Bat roost features carved into a retained "monolith" ash trunk

- Keeping hedges in good health and "gapping up" - Even gaps as small as 10m may prevent bats from using hedgerows and lines of trees.
- Erecting Bat boxes on trees and buildings.
- Minimising the use of pesticides around hedges and associated ditches, as this affects the invertebrates on which the Bats feed.
- Increasing habitat connectivity between roosts and foraging areas. This can be achieved, for example, by planting new hedges, gapping up existing hedges and creating flower-rich grasslands or areas of scrub and woodland.

More detailed information on the habitat requirements of each species is available at https//data.jncc.gov.uk/data/23745574-3756-40ef-81cd-e6fea30decc0/habitat-management-for-Bats.pdf

4.7.3 Eurasian Otter

Many practical things can be done to improve habitats for Otters. These include:

- Leave the root plates of fallen trees – Otters will use cavities behind these to rest.
- Retain mature riverside trees with good root plates to help prevent riverbank erosion, maintain shade, create refuges for fish and provide natural holt sites.
- Manage the land adjacent to streams to create a 'mosaic' of interconnected habitats.
- Leave parts of riverbanks uncut or un-grazed to encourage dense clumps of vegetation, particularly greater tussock sedge, blackthorn, bramble and reed.
- Create islands in lakes and ponds.
- Encourage scrub or clumps of trees within, and at the edges of the floodplain.
- Create piles of woody brash as habitat piles and potential Otter couches.
- Manage woodland as non-intervention or at a low intensity – cutting or coppicing only in small rotations to minimise disturbance.
- If trees/scrub on riverbanks need clearing, clear as late in the year as possible and only on one bank.

- Fence off corners of riverside fields or meanders. Plant with scrub or allow to scrub over naturally.
- Install artificial Otter holts in undisturbed areas, away from dog walkers in particular – for advice sheets see https//gmb.bzh/wp-content/uploads/2022/08/Fiche-log-pile- holt.pdf
- Don't disturb natural piles of boulders or wood near rivers. These can be used by Otters for shelter.
- Maintain hedgerows near rivers and protect them from livestock and excessive flail mowing.
- Create and maintain wetland areas. This could be a reedbed, a pond, a marshy area or a floodplain woodland.
- Where possible, leave flood debris (tree branches etc) in your river channel—these are often used as Otter resting, crossing or sprainting sites.
- Prevent pollution by farming in accordance with the Codes of Good Agricultural Practice.
- Report any pollution incidents to Natural Resources Wales (NRW). https://naturalresources.wales/about-us/contact-us/report-an-incident/

4.7.4 Hazel Dormouse

Hazel Dormouse has been recorded from Colby Woodland garden and the countryside around Ludchurch and Red Roses but is likely to be present elsewhere in the LARC Area. Good habitat for dormice is often provided by young-growth woodland stands: areas of scrub, early coppice regrowth, or young naturally regenerated broadleaved stands. The PAWS sites in the LARC area may provide areas of suitable habitat. Such early successional woodland is often species- rich, though this diversity declines once the canopy closes and reduces the light available to ground flora and shrubs. Management involves:

- Periodic removal, coppicing or killing of trees to limit the density of the canopy layer and maintain a well-lit understorey.
- Work need not be undertaken uniformly – instead felling small groups or individual trees or shrubs at intervals throughout the stand should maintain the species richness if undertaken every five years or so.
- Hand-felling is preferred as the use of harvesting machinery is usually expensive and harmful

to wildlife.

- Rhododendron or Laurel bushes should be removed as their spread smothers other shrubs.
- Dormice benefit from increased connectivity in the landscape as young dormice need to have woodlands connected by hedges to enable them to disperse through the landscape and establish territories of their own. Even small gaps in hedgerows can act as a barrier to dormice dispersal.

For further information see the "Dormouse Conservation Handbook" at https://ptes.org/wp-content/uploads/2014/06/Dormouse-Conservation-Handbook.pdf.

Knowledge of Hazel Dormouse distribution in Pembrokeshire is poor. Before managing sites for dormice, their presence should be confirmed. This can be done simply by searching for discarded hazelnut shells in woodlands and along hedgerows. Dormice eat hazelnuts in a particular way, leaving the shell with distinctive tell-tale marks. With a little bit of practice, volunteers can learn to identify which nuts dormice have opened. A "Dormouse Nut Hunt" leaflet is available from the People's Trust for Endangered Species at https://peoplestrust.wpenginepowered.com/wp-content/uploads/2019/04/Help_us_find_hazel_dormice_generic.pdf

4.7.5 Harvest Mouse

Harvest Mice have been recorded from several locations in the LARC Area and the species may be widespread. Suitable habitats include arable field margins and rough grassland with long-stalked grasses, areas along ditches and water courses with Reed Canary Grass *Phalaris arundinacea*, Reeds *Phragmites australis* or other tall grasses. Harvest Mice will also benefit from winter stubble and sacrificial wildlife crops on arable land. To benefit this species it is best to:

- Create or maintain suitable habitats near known populations to allow populations to expand and colonise new areas by providing appropriate habitats between sites to link them together.

Searching for abandoned summer nests is the best way to survey for harvest mice presence at a site, as the harvest mouse is the only British mouse to build nests of woven grass well above ground. Looking for nests also requires less effort than live trapping and allows a number of sites to be surveyed in one day.

4.7.6 Reptile & Amphibian species

Common Frog and Common Toad, Palmate Newt, Viviparous Lizard, Adder, Slow-worm and Barred Grass Snake have all been recorded from several places within the LARC Area, mostly to the south of Ludchurch and Llanteg. Bracken is an important plant for adders. Bracken is also home to lizards, slow-worms, frogs and toads as well as a variety of other species, including birds and butterflies and many invertebrate species. Adders and other reptiles and amphibians often hibernate and thermoregulate within bracken. Adders spend long periods under dead bracken or in damp bracken humus. Bracken, however, is often regarded as a 'nuisance' and heavily controlled, either through cutting and collecting, rolling or the use of herbicides such as Asulam 'Asulox' or glyphosate ' Roundup'. Such management can be extremely damaging to animals sheltering within the bracken.

There may be opportunities to improve some sites for reptiles and the Amphibian and Reptile Conservation Trust should be contacted for advice. https://www.arc-trust.org/. Other than maintaining as many landscape and habitat features as possible (e.g., ponds, wetlands, bracken, scrub, long grass log/brash piles etc), a simple beneficial thing to do it to create artificial hibernacula. Advice is available from https//ptes.org/wp-content/uploads/2020/09/How-to-make-a-reptile-hibernaculum.pdf

4.7.7 Invertebrates: Butterflies - Dingy Skipper

This species of butterfly is known from "The Downs", it is a rare species that is reliant on Common Bird's-foot Trefoil *Lotus corniculatus* as the larval foodplant in most cases, but it also uses Greater Bird's-foot Trefoil *L. pedunculatus* on damper soils. Suitable conditions occur where foodplants grow in a sparse sward, often with patches of bare ground in a sunny, sheltered situation. Taller vegetation is also required for shelter and roosting. The Dingy Skipper occurs in discrete colonies, many of which are very small. It is a sedentary species that is unlikely to colonise new areas of habitat unless they are close to existing populations. Therefore, to ensure the long-term survival of the species in the area, more patches of suitable habitat are required nearby.

Management should aim to:

- Maintain a sparse sward interspersed with patches of bare ground. Some areas of tall vegetation should be retained. Sites need not be large provided that suitable habitat patches are present nearby.
- Grazing is the most suitable form of management. Grazing regimes should produce a range of sward heights including breeding patches of less than 5cm. Cattle or horse grazing is superior to sheep grazing as it results in a less uniform sward.
- Late spring or early summer grazing should be avoided, as egg-laying female Dingy Skippers generally avoid damaged foodplants.
- Mowing is always a poor alternative to grazing. However, where grazing is impractical, a single annual cut in the autumn can help maintain Dingy Skipper sites. Grassland should be mown on rotation, leaving some areas uncut each year. All cuttings should be removed from the site.

4.7.8 Invertebrates: Butterflies – Wall Brown

The Wall Brown favours short, open grassland, where the turf is short, broken or stony. It is also found on dunes and other coastal habitats, as well as disused quarries. It has been recorded at "The Downs" and may be present around Blaencilgoed Quarry and in places along the coast. Grasses are the larval foodplant. Management for Dingy Skipper is likely to also be beneficial for this species, provided

that some areas of longer, tussock grass and scrub are retained and areas of bare ground (e.g., paths and tracks) are available for basking. Another Section 7 butterfly, the Grayling *Hipparchia semele*, is also likely to benefit from similar management.

4.7.9 Invertebrates: Bees – Shrill Carder Bee

A single Shrill Carder Bee *Bombus sylvarum* was seen at Colby in 2016 (Sutton 2016) near Little Craig Y Borion Cottage. The presence of a worker bee suggests a breeding population on or close to the site. The field in which it was noted was rough unmanaged grassland, a habitat potentially suitable for nesting carder bees. As noted by Sutton, hay meadows do not generally provide ideal habitat as the preferred foraging plants are more typically associated with disturbed land, and nests would be damaged by hay-making operations. Furthermore, as it is a late emerging species, it is crucial to provide forage into late September to ensure new queens are reared. Late-cut meadows, arable margins, areas of disturbed ground, field edges, hedgerow and ditch margins can all provide suitable habitat.

5. Connectivity

Connectivity is a measure of the relative ease with which typical species can move through the landscape between patches of habitat. Habitat loss and fragmentation reduce the size of populations and hinders the movement of species between increasingly isolated populations, threatening their long-term viability. Connectivity maps are used to draw "buffers" around areas of each habitat type to show where habitat creation should be targeted. The NRW habitat network mapping and connectivity methodology (Latham et al 2013) uses the Phase 1 habitat map to identify three levels of connectivity:

1. Core network. Buffers drawn around the areas of strongest connectivity. These are suitable for more specialist species that require larger areas of habitat and can travel only short distances between habitat patches.
2. Focal network. Buffers cover a larger area, but connectivity is weaker. These are suitable for more generalist species that can deal with smaller areas of habitat and can travel further between habitat patches.
3. Local network. Buffers around small habitat fragments.

Habitat connectivity maps are provided below for woodlands and grasslands. Not all levels are present in any given area. For example, in the LARC Area, no core grassland areas were mapped due to the paucity of semi-natural grasslands occurring on the Phase 1 map.

It should be noted that these connectivity maps come with some caveats:

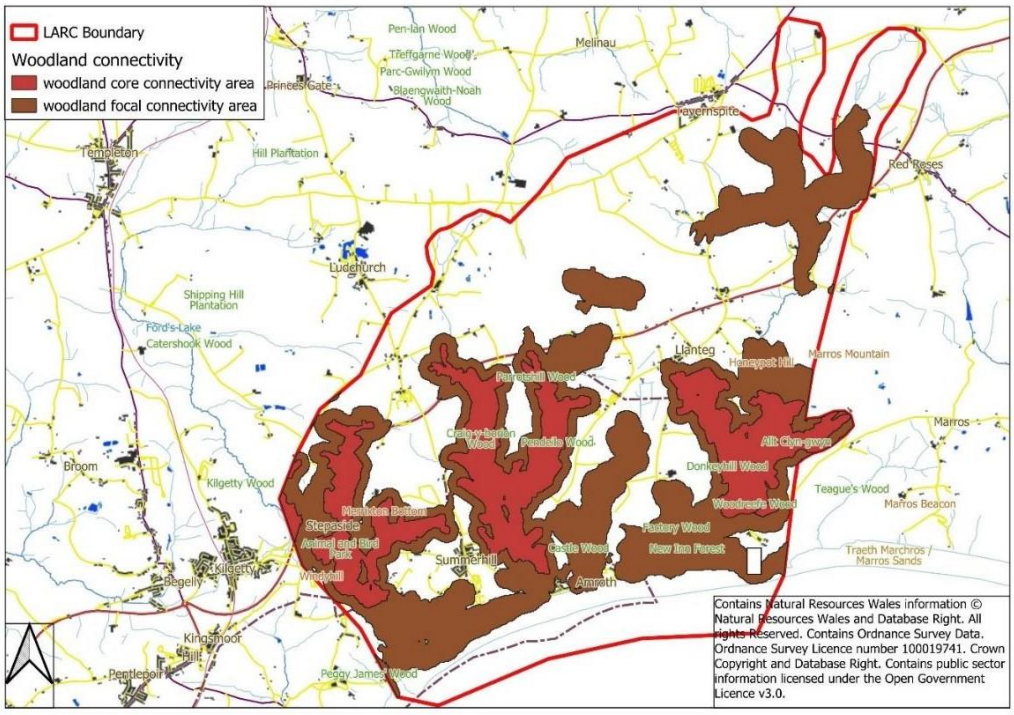
1. They require interpretation and do not provide specific prescriptions for where to develop new habitats and ecosystems.
2. They are based upon the Phase 1 habitat map which, as noted in Section 1, is now rather out of date.
3. It can appear they suggest converting entire fields or areas to new woodland for example, but this is not the case. Connectivity maps simply show the broad areas where it would be most beneficial to create or encourage certain habitat types.
4. Opportunities to increase connectivity will be dependent on the support and enthusiasm of landowners – in reality, connectivity is more about opportunity. Therefore, connectivity maps should be used simply as a guide to what might be possible.

5.1 Woodland Connectivity

There are plenty of opportunities to increase the connectivity between the woodlands in the LARC Area. Key areas would be:

- Linking the woodlands in the Fords Lake Valley (in the Summerhill/Sardis/Stepaside) area and the southern parts of the Colby woodlands.
- Linking the northern arms of the Craig y Borion Wood to Little Craig y Borion Wood around Craig y Borion Farm.
- Linking Castle Wood and the southern parts of the Colby woodlands.
- Linking Little Craig y Borion Wood and the East Lake Valley woodland.
- Linking the Castle Wood/East Lake Valley woodland and Factory Wood.

Using the NRW habitat network mapping and connectivity methodology (available to download from DataMap Wales) Map 5 below shows where the main woodland connectivity opportunities lie.



Map 6 Woodland connectivity

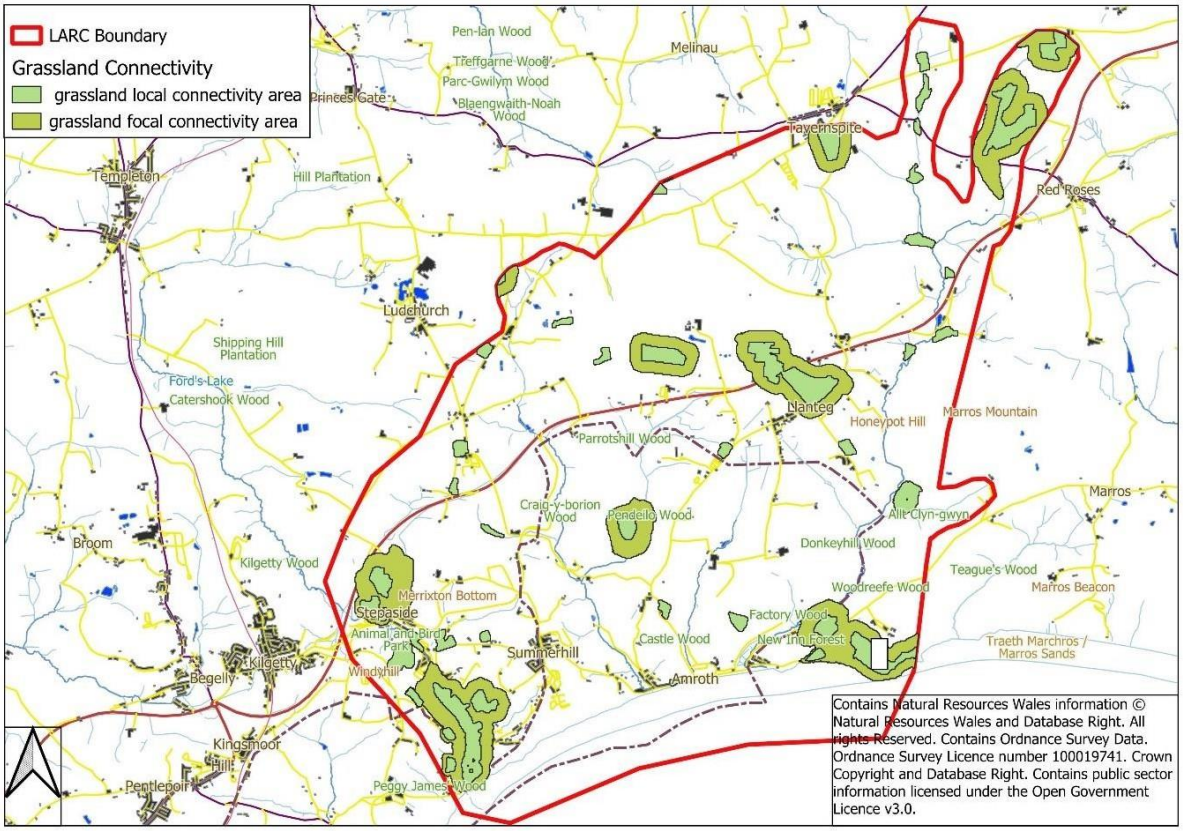
Tree planting and hedgerow restoration can of course be used to increase the connectivity between woodlands, but could also cause breaks in the connectivity of other habitats. For example, tree planting on semi-improved or marshy grassland not only leads directly to a loss of these important habitats but can also break these areas into smaller, disconnected "islands". This could be an issue, particularly in the area to the South and West of Llanteg village to Little Craig y Borion Wood where aerial imagery suggests there are likely to be areas of semi-improved and marshy grasslands. Planting a new woodland on an area of agriculturally improved grassland would not have direct negative impacts on biodiversity but, if this then formed a barrier between two areas of semi-natural grassland, this could reduce connectivity of the grasslands. Careful consideration and interpretation are therefore required when considering creating new habitats.

5.2 Grassland Connectivity

There are some opportunities to increase the connectivity between the semi-natural grasslands in the LARC Area. Before grassland connectivity opportunities can be properly explored better mapping of the grassland types would be required (See Section 7.1). However, Using the existing NRW habitat network mapping and connectivity methodology ap 6 below shows where the main grassland connectivity opportunities lie.

- Around Stepaside, down Pleasant Valley to the coast.
- To the south and west of Llanteg where numerous areas of marshy grassland are mixed with some neutral grasslands in a broad arc from Llanteg village to Blaencilgoed Farm.
- The National Trust at Colby/Craig y Borion
- Around Telpyn Farm

In Map 6 the two extensions to the northeast of the LARC area are likely to no longer be suitable for grassland connectivity as there appears to have been a loss of semi-natural grassland here in recent decades. Furthermore, Map 6 does not show the new areas of semi-improved grassland that have developed since the phase 1 survey (e.g., at Colby and around Llanteg).



Map 7 Grassland connectivity

5.3 Connecting Other Habitats

Connectivity maps for other habitats are not currently available but similar approaches to woodland and grassland connectivity can be applied to other habitats such as scrub or heath etc. For ponds it is best to develop a "Pondscape Plan" - a way in which the number of ponds and the habitats in and between them (and their management and protection) is planned across the LARC Area. This will help ensure that enough high-quality ponds are maintained (or created) in the best locations and that their connectivity at a landscape scale is considered. Consultation with local experts and the Local Planning Authority may be required.

6. Issues

This section broadly identifies some of the issues that affect the LARC Area and offers suggestions for mitigation options.

6.1 INNS (Invasive Non-Native Species)

A survey of the Colby estate in 2023 (Hudson 2023a) for the presence of Invasive Non-Native Species (INNS) of vascular plants was undertaken on behalf of the National Trust. The following species were recorded from the estate woodlands: Pheasant Berry (also known as Himalayan Honeysuckle, Flowering Nutmeg or Himalayan Nutmeg) *Leycesteria formosa*, Himalayan Balsam *Impatiens glandulifera*, *Rhododendron* species and Cherry Laurel *Prunus laurocerasus*. Other INNS or potentially invasive species were also recorded including Japanese Knotweed *Reynoutria japonica*, Montbretia *Crocosmia* spp., Buddleia *Buddleja davidii* and *Cotoneaster* species. The National Trust has begun a programme of control here. These species are also likely to be present in many of the other woodlands within the LARC Area. Cotoneaster, Rhododendron and Montbretia are common garden plants likely to be fairly widespread in and around the villages. Three-cornered Leek *Allium triquetrum* was recorded from Chapel Lane Road Verge during the Llanteg Baseline Road Verge Survey. This species is highly invasive and may swamp native road verge communities. Himalayan Balsam was recorded from the New Inn Stream and Llanteg Main Lane Verge during the New Inn Stream Chemical Sampling Study and verge study. Red Valerian *Centranthus ruber* was recorded from Telpyn Point during the Tair Nant Wildlife Group Walk around the Pendine- Amroth New Inn) high up on the cliffs.

All future sightings of INNS should be recorded using "INNS Mapper", an app and website for the reporting of sightings, surveys and management of INNS https://innsmapper.org/home. As most of the LARC Area lies within the Pembrokeshire Coast National Park, the authority (PCNPA) will be keen to hear from community groups and landowners where a cooperative coordinated approach to INNS control can be delivered. Email matthewt@pembrokeshirecoast.org.uk for more information.

In order to avoid the possible introduction of INNS any tree or shrub planting should be restricted to species listed in Table 3 below which is adapted from information available on the PCNPA website.

Common Name	Scientific Name	Habitat	Additional information
Alder	*Alnus glutinosa*	Wet woodland	
Ash	*Fraxinus excelsior*	Woodland/Hedgerow	Although native, it is presently advised that Ash is omitted from planting schemes. Refer to Plant Health (Wales) (Amendment) Order 2013
Aspen	*Populus tremula*	Woodland/Hedgerow	
Bog Myrtle	*Myrica gale*	Wetland/Moorland	
Broom	*Cytisus scoparius*	Coastal/Hedgerow	
Blackthorn	*Prunus spinosa*	Woodland/Hedgerow	
Crab Apple	*Malus sylvestris*	Woodland/Hedgerow	
Dogwood	*Cornus sanguinea*	Woodland/Hedgerow	Only native in a few areas in the South, including Pembroke River and Bosherston
Downy Birch	*Betula pubescens*	Woodland/heaths	Rare on the St Davids Peninsular
Eared Willow	*Salix aurita*	Wetland/Coastal/Moorland	
Elder	*Sambucus nigra*	Woodland/Hedgerow	
Gorse	*Ulex europaeus/gallii*	Uplan/Coastal/Hedgerow	
Goat Willow	*Salix caprea*	Woodland / Wetland / Hedgerow	
Grey Willow	*Salix atrocinerea*	Wetland/Hedgerow/Shelter	

Common Name	Scientific Name	Habitat	Additional information
Guelder Rose	*Viburnum opulus*	Woodland/Hedgerow	Guelder Rose is rare in West Pembrokeshire
Hawthorn	*Crataegus monogyna*	Woodland/Hedgerow	
Hazel	*Corylus avellana*	Woodland/Hedgerow	
Holly	*Ilex aquifolium*	Woodland/Hedgerow	
Juniper	*Juniperus communis*	Coastal	Very Limited species of relict coastal distribution Do not plant on the coast outside gardens
Oak species	*Quercus petraea, Quercus robur* and *hybrids*	Woodland/Hedgerow	
Rowan	*Sorbus aucuparia*	Woodland/Hedgerow/heaths	
Silver Birch	*Betula pendula*	Woodland/Hedgerow	Absent from the St Davids Peninsular
Spindle	*Euonymus europaeus*	Woodland/Hedgerow	Lime rich soils
Wayfaring Tree	*Viburnum lantana*	Woodland/Hedgerow	Only Native in one small area down river of Pembroke Castle
Wild Cherry	*Prunus avium*	Woodland/Hedgerow	
Wild Privet	*Ligustrum vulgare*	Coastal/Hedgerow	
Wild Service Tree	*Sorbus torminalis*	Woodland/Hedgerow	Restricted distribution with the main Population around Cleddau estuary
Wych Elm	*Ulmus glabra*	Woodland/Hedgerow	

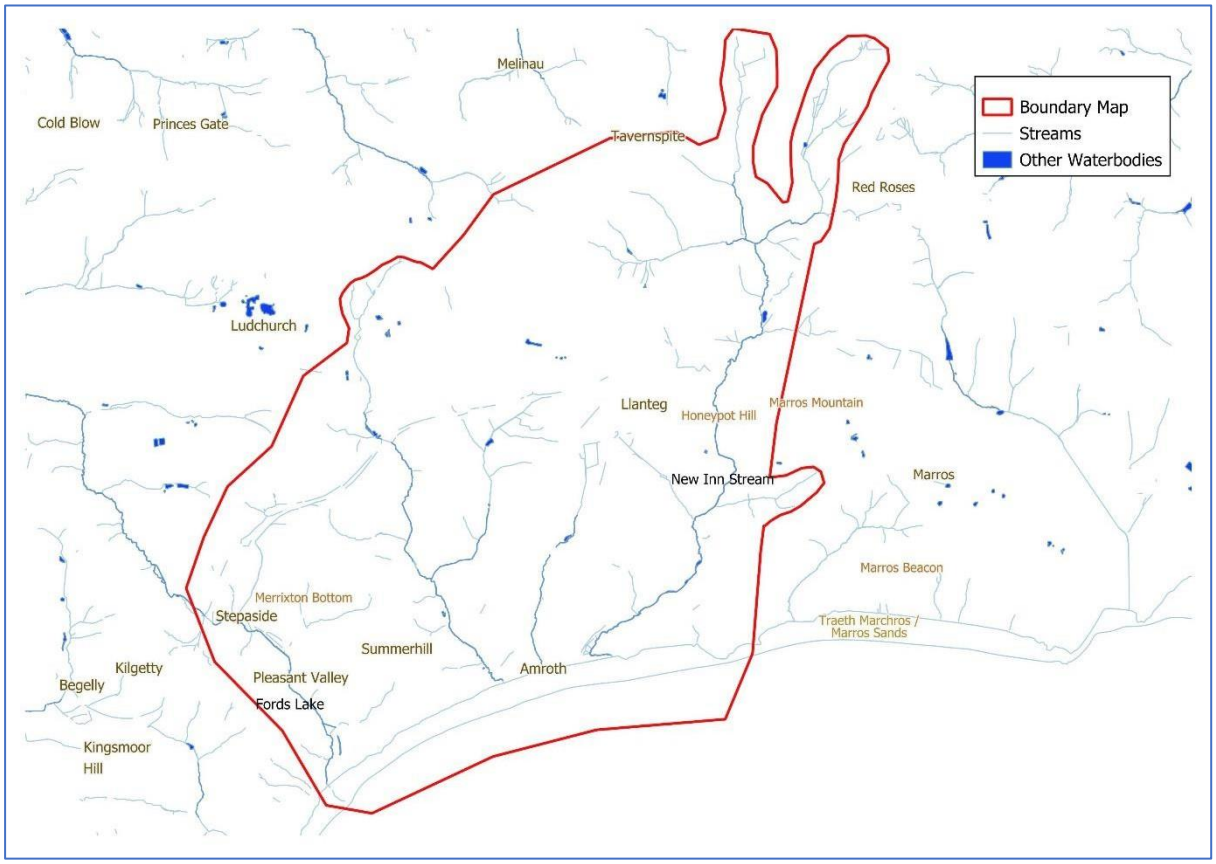
Table 3 Tree and shrub native to Pembrokeshire

Beech and Sycamore are common in Pembrokeshire, having become naturalised over the past few hundred years, however, it is not recommended that these or other non-native species are planted in or adjacent to existing semi-natural broadleaved woodlands where they could become invasive.

6.2 Water Quality - Nutrient Enrichment & Pollution

Pollution can have serious impacts on the quality of watercourses and waterbodies. See Map 8. Typically, water pollution comes from residential septic tanks, water treatment plants, storm overflows and agricultural activities such as slurry spreading. The quality of water refers to multiple factors, such as concentration of dissolved oxygen, bacteria levels, or the amount of material suspended in the water (turbidity) and pollution levels - particularly from ammonia, nitrates and phosphates. All of these factors can have negative ecological effects and health implications for drinking and bathing waters.

The New Inn Stream Water Quality Monitoring Project (Bailey et al. 2014), was a one-year initiative, initiated in 2022, which focused on assessing the impact of nutrient pollution from land runoff on the New Inn Stream and its tributaries, which play a vital role in sustaining the ecosystem of Amroth Bay, a popular tourist destination in Pembrokeshire.



Map 8 Streams in the LARC Area

Key findings from the project include:

- Over 268 water quality tests conducted by volunteers, revealing widespread pollution along the entire New Inn stream network.
- Identification and reporting of five pollution incidents to Natural Resources Wales, highlighting the urgent need for action.
- High levels of nitrates and phosphate exceeding recommended thresholds, indicative of severe nutrient pollution. Indeed only 2% of water samples tested for nitrates and 20% of samples tested for phosphates would have been classified as clean water according to accepted criteria. Although ammonia values were generally low, there were a small number of times when ammonia levels toxic to aquatic life were recorded by the team, occasionally breaching National thresholds.

The report reveals concerning levels of nitrate, phosphate, and ammonia pollution along the entire stream. Findings indicate a widespread issue, likely stemming from diverse sources such as private sewage plants, slurry runoff from intensive dairy farming, and pollution incidents from residential and commercial properties.

The report acknowledges the collective responsibility of the community in addressing water quality issues. It emphasizes the need for a collaborative approach involving regulatory bodies, local communities, and businesses to find sustainable solutions.

The report noted that "The poor quality of the river at the New Inn is a community problem, and we are all culpable in large and small ways. Pointing fingers won't solve the issue; instead, we must collectively seek solutions and adopt practices that prioritize environmental sensitivity".

Advice for farmers and landowners to help avoid run-off and protect water, soil and air from agricultural pollution is available from:

- The Code of Good Agricultural Practice https//www.gov.wales/sites/default/files/publications/2018-02/code-of-good-agricultural-practice-introduction.pdf

- The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 https://www.gov.wales/water-resources-control-agricultural-pollution-wales- regulations-2021-guidance-farmers-and-land
- Advice on the promotion of healthy soil structure and enhanced organic matter through methods such as regenerative grazing and using native multi-species swards is available from: https://agricology.co.uk/resource/herbal-leys/

Bailey et al (2024) provide an in-depth discussion of the issues as well as advice on what local residents and businesses can do to help improve water quality in the LARC Area.

6.3 Ash Dieback

Ash Dieback is caused by the fungus *Hymenoscyphus fraxineus* (previously known as *Chalara fraxinea*). The disease causes leaf loss and crown dieback and can lead to the death of the tree. It often rapidly kills Ash saplings and young trees, but older trees can survive for longer periods. Many old Ash trees are likely to succumb eventually, and others will require felling or lopping to make them safe. The best-case scenario is that old Ashes will have a much- increased death rate and there will be fewer opportunities for regeneration. Assuming at least some trees are resistant/resilient to the disease, it will take at least 150 years for the old Ash tree habitat to start developing again and over 250 years for the full range of habitats currently present on old Ash trees to be restored. Management should, therefore, aim to retain all Ash trees where at all possible. Felling must be avoided where practicable and other means of making trees safe (such as monolithing, lopping and pollarding) must be the preferred management method. Of course, only trees where there are safety issues need to be managed and where possible, preference should be given to retaining the tree and considering other mitigation measures such as re-routing public paths etc. Any healthy resilient trees should not be felled and must be looked after as they may provide important seed sources for natural regeneration or replanting.

No other single tree species is likely to fulfil the role of Ash and, therefore, planting a

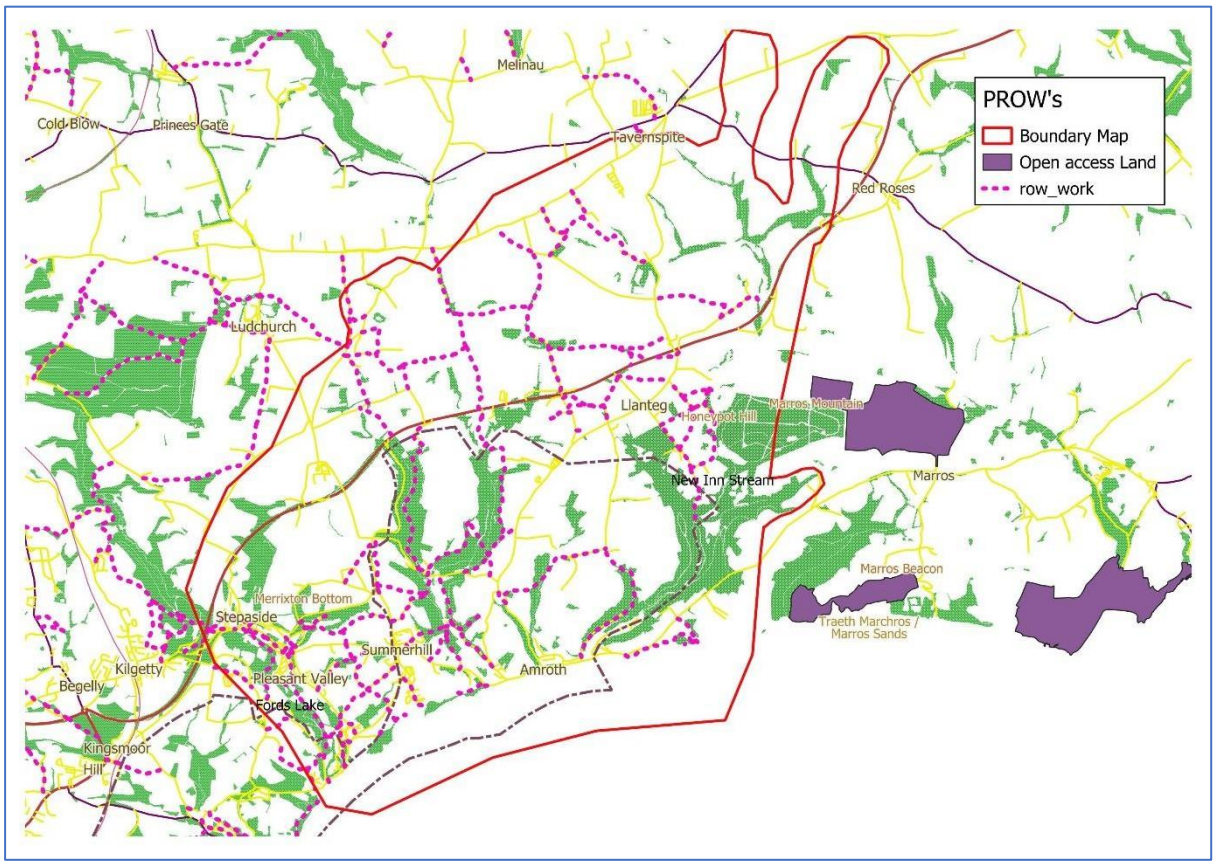
combination of species such as Hazel *Corylus avellana*, native Oaks *Quercus spp*., Aspen *Populus tremula*, and *Salix* Willows should be considered. Planting seeds collected from resistant or resilient Ash trees might also be considered (but advice should be sought first). Norway Maple *Acer platanoides*, small-leaved Lime *Tilia cordata*, Sycamore *Acer pseudoplatanus*, Field Maple *Acer campestre* and Poplars *Populus spp*. are all not native to Pembrokeshire and, in the case of Norway Maple and Sycamore, not native to Britain. However, these trees have alkaline, base-rich bark (as does Ash) and, away from areas of woodland, in more formal, "garden" settings, they may support some of the base-demanding mosses and lichens that are mostly reliant upon Ash. However, In order to avoid the possible introduction of non-native species, any woodland creation or tree planting in the wider countryside should be restricted to species listed in Table 3 in Section 6.1 above.

Norway Maple is generally dioecious, having separate male and female flowering trees. The planting of Norway Maple need not wholly be avoided and could be considered in special cases (such as to replace dying Ash trees that are known to support Old Forest lichens), as the establishment of male flowering trees will not create any problems of natural regeneration. Therefore, should Norway maple be considered in any planting scheme careful selection of only male flowering trees will be required.

Sycamore can be highly invasive, and its seeds are poisonous to horses. It is therefore not recommended for planting. However, where sycamore is thought to provide an important source of food or substrate for a particular group of animals or plants (such as mosses or lichens), or where it makes a valuable contribution to the landscape, such trees should perhaps be retained.

7. Citizen Science/Volunteer Engagement Opportunities

Many conservation organisations rely on data collected by members of the public to help them monitor and protect wildlife. Taking part in Citizen Science is a useful way of helping the environment and expanding scientific knowledge. Information gathered by Citizen Scientists is vital in helping scientists understand how the environment is changing and where more action is needed. There are different surveys to take part in and most don't require any previous knowledge. Many citizen science projects can be undertaken in gardens and parks or along Public Rights of Way (See Map 9).



Map 9 Public Rights of Way

7.1 Updating the Phase 1 habitat map

As noted in Section 1, the Phase 1 habitat map for the LARC Area is incomplete and outdated. Updating this map would be useful to help determine the current extent and distribution of semi-natural habitats and would help better identify connectivity opportunities. A volunteer project could be set up to map at least some habitat types and identify changes that have occurred since the Phase 1 survey. For example, with some simple training (or a basic knowledge of meadow grasses and flowers) volunteers can identify various grassland types using the "Magnificent Meadows" methods - see http://www.magnificentmeadows.org.uk/assets/pdfs/How_to_identify_different_types_of_grassland.pdf

7.2 Citizen Science Wildlife Surveys

- Undertake searches of historic sites for rare plants. See Appendix 1 for locations.
- **BTO Garden BirdWatch**. A weekly wildlife survey where participants contribute sightings of species they have seen in their gardens. Covers birds, mammals, reptiles, amphibians and invertebrates in gardens.
- **BTO Nesting Neighbours.** Follows the progress of individual bird nests through the spring and summer.
- **Recordpool.** The Record Pool collects data on reptiles and amphibians in the UK and makes them available, locally and nationally, for conservation purposes.
- **Garden Dragon Watch.** Reptile Conservation's survey of reptiles and amphibians in gardens.
- **The UK Pollinator Monitoring Scheme**. Aims to establish how insect pollinator populations are changing across Great Britain.
- **Garden Butterfly Survey.** Records the butterflies that visit gardens over the course of a year.
- **Garden Moth Scheme**. Records the moths that visit gardens over the course of a year.
- **The UK Ladybird Survey.** Aims to encourage the recording of all species of ladybird found within the UK – including the invasive harlequin ladybird.
- **BSBI's Plant Alert**. A new project aimed at discovering which garden plants have the potential to become invasive and problematic in future.
- **INNS Mapper**, Sightings of INNS could be recorded using "INNS Mapper", an app and website for the reporting of sightings, surveys and management of INNS https://innsmapper.org/home.

7.3 Citizen Science Climate Change Projects

Natures Calendar. Helps track the effects of weather and climate change on wildlife.

Grow project. An app that enables citizens to document changes in their environment by taking pictures at different points in time to show changes.

7.4 Citizen Science Projects at UK Centre for Ecology & Hydrology (UKCEH)

A wide range of citizen science survey projects (often with associated mobile phone apps) are available at https//www.ceh.ac.uk/citizen-science-apps Projects include:

- **Bloomin' Algae.** App for reporting the presence of harmful algal blooms of blue-green algae.
- **National Plant Monitoring Scheme.** Survey wildflowers and their habitats to provide evidence of which widespread plants are increasing or declining, as well as indicating the changing state of valued habitats such as grassland, fenland and even road verges.
- **UK Pollinator Monitoring Scheme.** Gather data on a wide range of flower-visiting insects.
- **Predatory Birds Monitoring Scheme.** A long-term, national monitoring scheme that investigates the levels of pollution in select species of predatory and fish-eating birds.

7.5 Citizen Science Projects at the Natural History Museum (NHM)

A wide range of citizen science surveys, project (often with associated mobile phone apps) are available at https//www.nhm.ac.uk/take-part/monitor-and-encourage-nature/community-science.html

8. Climate Change

8.1 Flooding

There is little that can be done locally to counteract the effects of flooding caused by climate change and global sea-level rise. However, all steps taken locally to reduce Carbon dioxide emissions and sequester carbon will of course contribute to national and global targets that may help to minimise sea level rise and the worst effects of climate change. Coastal communities often face threats from fluvial (river) flooding as well as from coastal flooding and it is more likely to be possible to take meaningful local action to alleviate the effects of fluvial flooding. Climate change has led to increases in the frequency of intense rainfall events that cause significant run-off from built-up and agricultural areas, exceeding the capacity of natural watercourses and artificial drainage systems. These extreme rainfall events are

further exacerbated by actions such as the drainage of wetlands, changes to river channels and by increased run-off from agricultural land.

8.1.1 Natural flood management

Many flood issues can be addressed through “Nature-based Solutions”. Nature-based Solutions are an approach that uses natural systems to provide critical services, such as wetlands for flood mitigation or “soft” (natural) defences to reduce the impact of waves, storm surges, and erosion. These solutions can also be used in conjunction with traditional “hard” infrastructure, forming "hybrid" solutions. A range of Natural Flood Management (NFM) techniques are available to slow the flow of rainwater and provide habitats for wildlife. Works can include wetland creation, hedge and tree planting, leaky dam installation, soil and land management and fencing off odd, awkward areas of fields from grazing so that more vegetation can grow which helps to store and slow the flow of water across the land. Natural flood management schemes work best when a ‘whole catchment approach’ is taken, where a plan is developed to manage the flow of water along the whole length of a river catchment from its source to the sea. The small scale and short length of the streams affecting the villages in the LARC Area make catchment-scale projects manageable and achievable. The “Land Use Planning Tool” commissioned by the Pembrokeshire Nature Partnership and hosted by the West Wales Biodiversity Information Centre (WWBIC) could be utilised (in conjunction with local knowledge) to help identify suitable locations for a variety of different intervention options in each catchment. Contact the Nature Partnership at https://www.biodiversitywales.org.uk/Contact

8.2 Development and Planning

Where development proposals have the potential to aggravate climate-related issues such as flooding, representations to the Planning Authority should be made. Anyone can respond to a planning consultation - In addition to individuals who might be directly affected by a planning application, community groups and Community Councils can all provide comments on applications.

8.3 Carbon sequestration

Whilst tree planting is often seen as the main or sometimes only way to help store carbon, species-rich and semi-natural grasslands provide stable carbon stores and essential ecosystem services (including water supply and flow regulation, soil erosion control, support for pollinators and invertebrates as well as health and wellbeing benefits). Permanent grasslands are significant carbon stores; approximately 90% of the carbon stored in grassland is in its soil and roots, which remains locked away in their undisturbed so In Great Britain, permanent grasslands have recently been estimated to store more than two billion tons of carbon to a depth of 100 cm. Intensive land management practices, such as over-fertilising and ploughing, and disturbance of permanent grassland soils, releases the carbon back into the atmosphere. For example, the conversion of grassland into arable farmland can cause a 59% decline in soil carbon stocks. Implementing less intensive land management practices, such as reducing livestock density and fertiliser application, can increase species-richness and carbon sequestration in permanent grasslands. Where tree planting is considered, planting should be restricted to those species listed in Table 3 in Section 6.1 above.

8.4 Sources of information and advice

- The Pontbren Project is an innovative approach to using woodland management and strategically located belts of trees are used to reduce the amount of water running off improved upland grasslands in mid-Wales. https//climate- adapt.eea.europa.eu/metadata/ publications/the-pontbren-project-a-farmer-led-approach-to-sustainable-land-management-in-the-uplands
- A film exploring the principles and methods of natural flood management in small streams and their catchments Stroud RSuDS Technical film - Principles and methods of natural flood management in small streams and their catchments | Stroud District Council
- The evidence-base for working with natural processes to reduce flood risk https//www.gov.uk/government/publications/working-with-natural-processes-to- reduce-flood-risk

- West Wales Biodiversity Information Centre https//www.wwbic.org.uk/
- Pembrokeshire Nature Partnership - Pembrokeshire County Council https//www.pembrokeshire.gov.uk/biodiversity
- Wildlife Trust of South and West Wales https//www.welshwildlife.org/
- Commenting on planning applications https//www.pembrokeshire.gov.uk/planning-applications/commenting-on-applications

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11. Appendices

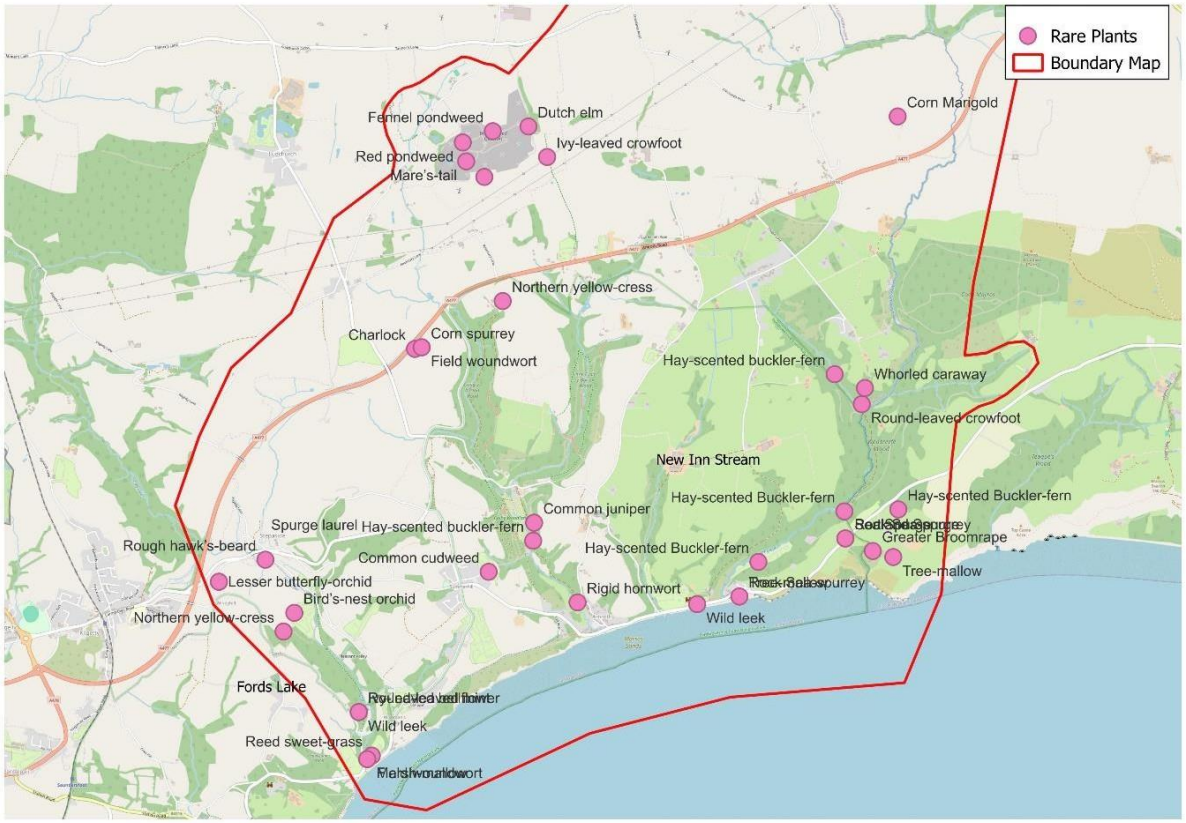
Appendix 1 Rare Plants

The list below includes historic records of rare plants recoded from the LARC Area

Scientific Name	Common Name	Date last seen	Grid Reference	Location
Allium ampeloprasum	Wild leek	2016	SN17030720	Vegetation in front of the high Amroth Castle Wall
Allium ampeloprasum	Wild leek	1923	SN1406	Wiseman's Bridge
Allium ampeloprasum var. *babingtonii*	Babington's Leek	2016	SN17030720	Vegetation in front of the high Amroth Castle Wall
Althaea officinalis	Marsh-mallow	1957	SN145061	Marsh, Wiseman's Bridge
Carum verticillatum	Whorled caraway	2014	SN18330875	Small unimproved wet field, Ledgerland
Ceratophyllum demersum	Rigid hornwort	2008	SN161072	Orchard Lea, Amroth
Crepis biennis	Rough hawk's-beard	1992	SN138076	Stepaside H.P.trail
Daphne laureola	Spurge laurel	1941	SN1307	Wooded bank, Kilgetty
Dryopteris aemula	Hay-scented buckler-fern	2014	SN1583807717	Colby Lodge Woodlands, Amroth
Dryopteris aemula	Hay-scented buckler-fern	1982	SN18110886	South-west of Ledgerland
Dryopteris aemula	Hay-scented Buckler-fern	1999	SN181078	Little Trelissey Wood, Amroth
Dryopteris aemula	Hay-scented Buckler-fern	1987	SN185078	Telpyn Farm: roadside opposite top entrance to farm
Dryopteris aemula	Hay-scented Buckler-fern	1983	SN1707	Amroth
Euphorbia paralias	Sea Spurge	1987	SN181076	Telpyn Point
Euphorbia portlandica	Portland Spurge	1987	SN181076	Telpyn Cliffs
Euphrasia arctica subsp. *borealis*		1929	SN1406	Wiseman's Bridge
Filago vulgaris	Common cudweed	1848	SN1507	Near Tinkers Hill, Amroth

Scientific Name	Common Name	Date last seen	Grid Reference	Location
Glebionis segetum	Corn Marigold	1984	SN186107	Crunwere CY
Glyceria maxima	Reed sweet-grass	2016	SN14580617	Relict floodplain behind road at Wiseman's Bridge
Hippuris vulgaris	Mare's-tail	2002	SN15441053	Blaencilgoed QryTN07
Juncus x kern-reichgeltii		2002	SN15571041	Blaencilgoed QryTN02
Juniperus communis	Common juniper	1988	SN158078	Rhydllagoed Wood
Lavatera arborea	Tree-mallow	1999	SN173072	Amroth
Lavatera arborea	Tree-mallow	1967	SN1807	Telpyn Point
Mentha suaveolens	Round-leaved mint	1940	SN1406	Wiseman's Bridge
Neottia nidus-avis	Bird's-nest orchid	2010	SN140072	Stepaside Heritage Park kilns
Orobanche rapum-genistae	Greater Broomrape	1998	SN183075	Field west of Telpyn Farm
Platanthera bifolia	Lesser butterfly-orchid	1940	SN1307	Hill slopes behind Stepaside
Potamogeton alpinus	Red pondweed	1990	SN15421067	Chair Pond, pool 5, Blaencilgoed Quarries, Ludchurch
Potamogeton pectinatus	Fennel pondweed	1970	SN156107	Gelli-halog Quarries
Ranunculus hederaceus	Ivy-leaved crowfoot	2009	SN16041054	Blaencilcoed Quarry TN11
Ranunculus omiophyllus	Round-leaved crowfoot	2014	SN1830708636	Secondary woodland over soakaway, Ledgerland
Rorippa islandica	Northern yellow-cress	2016	SN1567709494	Yard and track at Craig y Borion
Rorippa islandica	Northern yellow-cress	2016	SN13960711	Grove Colliery, Pleasant Valley, Stepaside
Sinapis arvensis	Charlock	2003	SN15010916	Kilgetty Cutting Survey TN24
Spergula arvensis	Corn spurrey	2003	SN15060917	Kilgetty Cutting Survey TN23

Scientific Name	Common Name	Date last seen	Grid Reference	Location
Spergularia rupicola	Rock Sea-spurrey	1987	SN181076	Telpyn Point, Coal Measures cliffs
Spergularia rupicola	Rock Sea-spurrey	1979	SN173072	East of Amroth, Coal Measures cliffs
Stachys arvensis	Field woundwort	2003	SN15060917	Kilgetty Cutting Survey TN23
Stachys arvensis	Field woundwort	2000	SN145061	Wisemans Bridge car park and bridge
Ulmus x hollandica	Dutch elm	2009	SN15911077	Blaencilcoed Quarry TN03
Wahlenbergia hederacea	Ivy-leaved bellflower	1851	SN1406	Near Wiseman's Bridge
Misopates orontium	Weasel's-snout	1989	SM8903	Popton Point
Spergula arvensis	Corn spurrey	1989	SM8903	Popton Point
Stachys arvensis	Field woundwort	1989	SM8903	Popton Point
Misopates orontium	Weasel's-snout	1994	SM90110363	Bullwell Bay, Rhoscrowther
Scleranthus annuus	Annual knawel	1994	SM90110363	Bullwell Bay, Rhoscrowther
Silene gallica	Small-flowered catchfly	1994	SM90110363	Bullwell Bay, Rhoscrowther
Stachys arvensis	Field woundwort	1994	SM90110363	Bullwell Bay, Rhoscrowther



Map 10 Rare plant locations

Appendix 2 Protected/Priority Species

Group	*Genus*	*Species*	Common Name
Insect - Butterfly	*Erynnis*	*tages*	Dingy Skipper
Insect - Butterfly	*Lasiommata*	*megera*	Common Wall-brown
Vertebrate - Amphibian	*Bufo*	*bufo*	Common Toad
Vertebrate - Amphibian	*Rana*	*temporaria*	Common / Pond Frog
Vertebrate - Amphibian	*Lissotriton*	*helveticus*	Palmate Newt
Vertebrate - Bird	*Accipiter*	*gentilis*	Eurasian Goshawk
Vertebrate - Bird	*Alauda*	*arvensis*	Western Skylark
Vertebrate - Bird	*Acanthis*	*flammea*	Redpoll
Vertebrate - Bird	*Fringilla*	*coelebs*	Northern Chaffinch
Vertebrate - Bird	*Pyrrhula*	*pyrrhula*	European Bullfinch
Vertebrate - Bird	*Delichon*	*urbicum*	European House Martin
Vertebrate - Bird	*Larus*	*marinus*	Great Black-backed Gull
Vertebrate - Bird	*Motacilla*	*cinerea*	Grey Wagtail
Vertebrate - Bird	*Periparus*	*ater*	Coal Tit
Vertebrate - Bird	*Passer*	*domesticus*	House Sparrow
Vertebrate - Bird	*Prunella*	*modularis*	Dunnock
Vertebrate - Bird	*Calidris*	*canuta*	Red Knot

Vertebrate - Bird	*Gallinago*	*gallinago*	Common Snipe
Vertebrate - Bird	*Sylvia*	*borin*	Garden Warbler
Vertebrate - Bird	*Turdus*	*pilaris*	Fieldfare
Vertebrate - Bird	*Turdus*	*viscivorus*	Mistle Thrush
Vertebrate - Bird	*Accipiter*	*nisus*	Eurasian Sparrowhawk
Vertebrate - Bird	*Acrocephalus*	*schoenobaenus*	Sedge Warbler
Vertebrate - Bird	*Columba*	*oenas*	European Stock Dove
Vertebrate - Bird	*Emberiza*	*schoeniclus*	Common Reed-bunting
Vertebrate - Bird	*Strix*	*aluco*	Tawny Owl
Vertebrate - Bird	*Troglodytes*	*troglodytes*	Common Wren
Vertebrate - Bird	*Turdus*	*iliacus*	Redwing
Vertebrate - Bird	*Turdus*	*philomelos*	European Song Thrush
Vertebrate - Bird	*Anser*	*anser*	Greylag Goose
Vertebrate - Bird	*Apus*	*apus*	Common Swift
Vertebrate - Bird	*Vanellus*	*vanellus*	Northern Lapwing
Vertebrate - Bird	*Corvus*	*frugilegus*	Western Rook
Vertebrate - Bird	*Cuculus*	*canorus*	European Cuckoo
Vertebrate - Bird	*Falco*	*aesalon*	Eurasian Merlin
Vertebrate - Bird	*Falco*	*tinnunculus*	Common Kestrel
Vertebrate - Bird	*Chloris*	*chloris*	Western Greenfinch
Vertebrate - Bird	*Linaria*	*cannabina*	Common Linnet
Vertebrate - Bird	*Chroiocephalus*	*ridibundus*	Common Black-headed Gull
Vertebrate - Bird	*Larus*	*argentatus*	European Herring Gull
Vertebrate - Bird	*Larus*	*fuscus*	Lesser Black-backed Gull
Vertebrate - Bird	*Locustella*	*naevia*	Grasshopper-warbler
Vertebrate - Bird	*Anthus*	*pratensis*	Meadow Pipit
Vertebrate - Bird	*Saxicola*	*rubetra*	Whinchat
Vertebrate - Bird	*Poecile*	*montana*	Willow Tit
Vertebrate - Bird	*Poecile*	*palustris*	Marsh Tit
Vertebrate - Bird	*Phylloscopus*	*trochilus*	Willow Warbler
Vertebrate - Bird	*Pluvialis*	*apricaria*	Eurasian Golden-plover
Vertebrate - Bird	*Regulus*	*regulus*	European Goldcrest
Vertebrate - Bird	*Scolopax*	*rusticola*	Eurasian Woodcock
Vertebrate - Bird	*Sturnus*	*vulgaris*	(Spangled) Starling
Vertebrate - Bird	*Curruca*	*communis*	Common Whitethroat
Vertebrate -Fish	*Anguilla*	*anguilla*	Atlantic Eel
Vertebrate - Mammal	*Lutra*	*lutra*	Eurasian Otter
Vertebrate - Mammal	*Erinaceus*	*europaeus*	Western Hedgehog
Vertebrate - Mammal	*Micromys*	*minutus*	Eurasian Harvest-mouse
Vertebrate - Mammal	*Mustela*	*erminea*	Stoat
Vertebrate - Mammal	*Meles*	*meles*	European Badger
Vertebrate - Mammal	*Mustela*	*putorius*	European Polecat
Vertebrate - Mammal	*Nyctalus*	*noctula*	Noctule

Vertebrate - Mammal	*Pipistrellus*	*pipistrellus*	Pipistrelle
Vertebrate - Mammal	*Pipistrellus*	*pygmaeus*	Soprano Pipistrelle
Vertebrate - Mammal	*Plecotus*	*auritus*	Brown Long-eared Bat
Vertebrate - Reptile	*Vipera*	*berus*	Adder
Vertebrate - Reptile	*Zootaca*	*vivipara*	Viviparous Lizard
Insect - Moth	*Polyploca*	*ridens*	Frosted Green
Insect - Moth	*Arctia*	*caja*	Garden Tiger
Insect - Moth	*Spilosoma*	*lubricipeda*	White Ermine
Insect - Moth	*Spilosoma*	*luteum*	Buff Ermine
Insect - Moth	*Tyrea*	*jacobaeae*	Cinnabar
Insect - Moth	*Lycia*	*hyrtaria*	Brindled Beauty
Insect - Moth	*Ecliptopera*	*silaceata*	Small Phoenix
Insect - Moth	*Timandra*	*comae*	Blood-vein
Insect - Moth	*Theria*	*primaria*	Early Moth
Insect - Moth	*Hepialus*	*humuli*	Ghost Swift
Insect - Moth	*Malacosoma*	*neustria*	Lacky
Insect - Moth	*Acronicta*	*psi*	Grey Dagger
Insect - Moth	*Acronicta*	*rumicis*	Knot Grass
Insect - Moth	*Melanchra*	*persicariae*	Dot Moth
Insect - Moth	*Melanchra*	*pisi*	Broom Moth
Insect - Moth	*Orthosia*	*gracilis*	Powdered Quaker
Insect - Moth	*Diarsia*	*rubi*	Small Square-spot
Insect - Moth	*Dichrorampha*	*consortana*	Downland Drill
Insect - Moth	*Pelochrista*	*caecimaculana*	Hardheads Tortrix

Appendix 3 Full species list

Group	*Genus*	*species*	Common Name
Annelid Worm	*Allolobophora*	*chlorotica*	Green Worm
Annelid Worm	*Aporrectodea*	*rosea*	Rosy-headed Worm
Annelid Worm	*Eisenia*	*foetida*	Brandling Worm
Annelid Worm	*Arenicola*	*marina*	Blow Lugworm
Annelid Worm	*Sabellaria*	*alveolata*	Honeycomb Worm
Annelid Worm	*Spirobranchus*	*lamarcki*	Intertidal Keelworm
Annelid Worm	*Spirorbis*	*sp (p).*	Spirorbid Worm
Annelid Worm	*Lanice*	*conchilega*	Sand Mason
Arachnid - Acarine	*Eriophyes*	*similis*	"Blackthorn Gall-mite"
Arachnid - Acarine	*Gamasus*	*coleoptratorum*	Long-legged Silphid Phoretic Mite
Arachnid - Acarine	*Parasitellus*	*fucorum*	Common Bumblebee-phoretic Mite
Arachnid - Acarine	*Poecilochirus*	*carabi agg.*	Silphid-phoretic Mite
Arachnid - Acarine	*Hydracna*	*sp.*	Spotted Water-mite
Arachnid - Harvestman	*Nemastoma*	*bimaculatum*	
Arachnid - Harvestman	*Dicranopalpus*	*cf. ramosus*	
Arachnid - Harvestman	*Leiobunum*	*rotundum*	
Arachnid - Harvestman	*Phalangium*	*opilio*	
Arachnid - Spider	*Eratigena (= Tegenaria)*	*duellica (= gigantea)*	Giant House-spider
Arachnid - Spider	*Aranea*	*diadematа*	Common / Garden Cross Spider
Arachnid - Spider	*Araniella*	*cucurbitina*	Green Web-spider
Arachnid - Spider	*Larinioides*	*cornutus*	Furrow / Foliate Spider
Arachnid - Spider	*Nuctenea*	*umbratica*	Walnut Spider
Arachnid - Spider	*Neriene*	*peltata*	
Arachnid - Spider	*Pholcus*	*phalangoides*	
Arachnid - Spider	*Pisaura*	*mirabilis*	Nursery-web Spider
Arachnid - Spider	*Salticus*	*scenicus*	Zebra Jumping-spider
Arachnid - Spider	*Meta*	*menardi*	
Arachnid - Spider	*Meta*	*mengei*	
Arachnid - Spider	*Tetragnatha*	*extensa*	
Arachnid - Spider	*Neottiura (=Theridion)*	*bimaculata*	"Cream-back Spider"
Arachnid - Spider	*Xysticus*	*cristatus*	Crested Marbled Crab-spider
Arachnid - Spider	*Pisaura*	*mirabilis*	Nursery-web Spider
Bacteria	*Serratia*	*marcescens*	Pink Slime Bacterium
Bacteria	*Nostoc*	*commune*	Witch's Butter

Bryophyte - Liverwort	*Frullania*	*dilatata*	Dilated Scalewort
Bryophyte - Liverwort	*Marchantia*	*polymorpha*	Common Parasol-liverwort
Bryophyte - Moss	*Brachythecium*	*rutabulum*	Rough-stalked Feather-moss
Bryophyte - Moss	*Eurhynchium*	*praelongum*	Common Feather-moss
Bryophyte - Moss	*Hypnum*	*cupressiforme*	Cypress-leaved Plait-moss
Bryophyte - Moss	*Mnium*	*hornum*	Horn Calcareous-moss
Bryophyte - Moss	*Plagiomnium*	*undulatum*	Hart's-tongue Thyme-moss
Bryophyte - Moss	*Thuidium*	*tamariscinum*	Common Tamarisk-moss
Centipede	*Lithobius*	*forficatus*	
Cnidarian	*Actinia*	*equina*	Beadlet Anemone
Cnidarian	*Anemonia*	*viridis*	Snakelocks Anemone
Cnidarian	*Obelia*	*sp.*	Sea-fir
Cnidarian	*Physalia*	*physalils*	Portuguese Man'o'War
Cnidarian	*Sycon*	*ciliatum*	Vase Sponge
Collembola	*Tomocerus*	*vulgaris*	
Collembola	*Anurida*	*maritima*	Seaside / Blue Springtail
conifer	*Juniperus*	*communis*	Juniper
conifer	*Chamaecyparis*	*lawsoniana*	Lawson Cypress
conifer	*Pinus*	*sylvestris*	Scot's Pine
crustacean	*Arcitalitrus*	*dorrieni*	Lawnhopper, Lawn Shrimp, Woodhopper
crustacean	*Asellus*	*aquaticus*	Common Pond Slater
crustacean	*Philoscia*	*muscorum*	Lined Woodlouse
crustacean	*Platyarthrus*	*hoffmannseggii*	Ant-hill Woodlouse
crustacean	*Porcellio*	*scaber*	Common Rough Woodlouse
Crustacean	*Semibalanus*	*balanoides*	Acorn Barnacle
Crustacean	*Carcinus*	*maenas*	Green Shore-crab
Crustacean	*Chthamalus*	*stellatus*	Black-lipped Kite-barnacle
Crustacean	*Gammarus*	*pulex*	River Sandhopper, FW Shrimp, River Flea
Crustacean	*Maja*	*squinado*	European Spider-crab
Crustacean	*Pagurus*	*bernhardus*	Bernhard's Hermitcrab
Crustacean	*Palaemon*	*serratus*	Common Coastal Prawn
Flatworm	*Polycelis*	*felina*	Cat-ear Flatworm
Fungus - Lichen	*Cladonia*	*digitata*	Finger Cup Lichen
Fungus - Lichen	*Parmotrema*	*perlatum*	Black Stone Flower
Fungus - Lichen	*Peltigera*	*hymenina*	Dog Lichen
Fungus - Lichen	*Phaeophyscia*	*orbicularis*	Mealy Shadow Lichen'
Fungus - Lichen	*Physcia*	*aipolia*	Hoary Rosette Lichen
Fungus - Lichen	*Physcia*	*tenella*	Fringed Rosette Lichen'
Fungus - Lichen	*Xanthoria*	*parietina*	Yellow-scale, Sunburst Lichen
Fungus - Lichen	*Evernia*	*prunastri*	Oakmoss
Fungus - Lichen	*Acrocordia*	*conoidea*	
Fungus - Lichen	*Parmotrema*	*perlatum*	Black Stone-flower

Fungus - Lichen	*Peltigera*	*membranacea*	Velvet-shell Dog-lichen
Fungus - Non-Lichen	*Auricularia*	*auricula-judae*	Jelly-ears
Fungus - Non-Lichen	*Clavaria*	*falcata*	White Spindles, Stemmed Fairy-fingers
Fungus - Non-Lichen	*Clavulinopsis*	*fusiformis*	Golden Spindles
Fungus - Non-Lichen	*Claviceps*	*purpurea*	Purple Ergot
Fungus - Non-Lichen	*Laetisaria*	*lichenicola*	Pink Lichen-stainer
Fungus - Non-Lichen	*Hymenoscyphus*	*fraxineus*	Ash Dieback Fungus
Fungus - Non-Lichen	*Hygrocybe*	*conica*	Blackening Waxcap, Witch's Hat
Fungus - Non-Lichen	*Daldinia*	*concentrica*	King Alfred's Cakes, Cramp Balls, Coal Fungus
Fungus - Non-Lichen	*Lycoperdon*	*pyriforme*	Stump Puffball
Fungus - Non-Lichen	*Sphaerosporella*	*brunnea*	Small Brown Eyelash-Cup
Fungus - Non-Lichen	*Russula*	*vesca*	Bare-gilled Russule, The Flirt
Fungus - Non-Lichen	*Stropharia*	*aeruginosa*	Verdigris Agaric
Fungus - Non-Lichen	*Hypoxylon*	*fusca*	Hazel Blackwarts
Fungus - Non-Lichen	*Hygrocybe*	*chlorophana*	Golden Wax-cap
Fungus - Non-Lichen	*Pseudoinonotus*	*dryadeus*	Oak Weeping-bracket
Fungus - Non-Lichen	*Leotia*	*lubrica*	Lizard-tuft, Jellybabies
Fungus - Non-Lichen	*Mycena*	*arcangeliana*	Angel's Bonnet
Fungus - Non-Lichen	*Mycena*	*inclinata*	Oak-stump / Clustered Bonnet
Fungus - Non-Lichen	*Peziza*	*badia*	Common Bay-cup
Fungus - Non-Lichen	*Armillaria*	*mellea*	Smooth Honey-fungus
Fungus - Non-Lichen	*Armillaria*	*ostoyae*	Dark Honey-fungus
Fungus - Non-Lichen	*Daedaleopsis*	*confragosa*	Blushing / Blood-stained Bracket, Thin-maze Polypore
Fungus - Non-Lichen	*Trametes*	*versicolor*	Turkeytail, Many-banded Polypore
Fungus - Non-Lichen	*Aleuria*	*aurantia*	Orange-peel Fungus
Fungus - Non-Lichen	*Sarcoscypha*	*austriaca*	Scarlet Elf-cap
Fungus - Non-Lichen	*Scleroderma*	*citrinum*	Common Earthball
Fungus - Non-Lichen	*Hypholoma*	*fasciculare*	Sulphur Tuft, Clustered Woodlover
Fungus - Non-Lichen	*Paralepista*	*flaccida*	Tawny Funnel
Fungus - Non-Lichen	*Xylaria*	*hypoxylon*	Candlesnuff, Stag's-horn, Carbon Antlers
Hair-worm	*Gordia*	*villoti*	Terrestrial Hair-worm
Insect - Beetle	*Malthodes*	*flavoguttatus*	
Insect - Beetle	*Malthodes*	*marginatus*	
Insect - Beetle	*Rhagonycha*	*fulva*	Soldier Beetle, Bloodsucker
Insect - Beetle	*Carabus (Carabus)*	*granulatus*	
Insect - Beetle	*Notiophilus*	*biguttatus*	
Insect - Beetle	*Clytus*	*arietis*	Wasp Beetle

Insect - Beetle	*Rhagium (Hagrium)*	*bifasciatum*	Two-banded Longhorn-beetle
Insect - Beetle	*Rutpela (formerly Strangalia)*	*maculata*	Spotted Longhorn-beetle
Insect - Beetle	*Oedemera*	*nobilis*	Swollen-thighed False Blister-beetle, Thick-thighed Flower-beetle
Insect - Beetle	*Melolontha*	*melolontha*	Common Cockchafer, Maybug
Insect - Beetle	*Nicrophorus*	*humator*	Black Sexton-beetle
Insect - Beetle	*Nicrophorus*	*investigator*	Banded Sexton-beetle
Insect - Beetle	*Tachyporus*	*chrysomelinus agg.*	
Insect - Beetle	*Apion*	*apricans*	Red Clover Weevil
Insect - Beetle	*Cassida*	*rubiginosa*	Thistle Tortoise-beetle
Insect - Beetle	*Gastrophysa*	*viridula*	Dock Jewel-beetle
Insect - Beetle	*Coccidula*	*rufa*	Red Ladybird
Insect - Beetle	*Coccinella*	*septempunctata*	7-spot Ladybird
Insect - Beetle	*Barynotus*	*moerens*	
Insect - Beetle	*Hydroporus*	*palustris*	
Insect - Beetle	*Athous*	*haemorrhoidalis*	Common click-beetle
Insect - Beetle	*Helophorus (Empleurus)*	*porculus*	
Insect - Beetle	*Hydrobius*	*fuscipes*	
Insect - Beetle	*Ontholestes*	*murinus*	Common Brown Rove-beetle
Insect - Beetle	*Staphylinus*	*erythropterus*	Yellow-spotted Chestnut-backed Rove-beetle
Insect - Beetle	*Staphylinus*	*olens*	Devil's Coach-horse
Insect - Beetle	*Xantholinus (Xantholinus)*	*longiventris*	
Insect - Beetle	*Adalia*	*decempunctatum*	10-spot Ladybird
Insect - Beetle	*Hyphydrus*	*ovatus*	
Insect - Bristletail	*Campodea*	*fragilis*	Common Compost 2-tailed Bristletail
Insect - Bug	*Acanthosoma*	*haemorrhoidalis*	Hawthorn Shieldbug
Insect - Bug	*Coreus*	*marginatus*	Dock Bug
Insect - Bug	*Leptoglossus*	*occidentalis*	Western Conifer Seed-bug
Insect - Bug	*Palomena*	*prasina*	European Green Shieldbug
Insect - Bug	*Pentatoma*	*rufipes*	Forest Bug
Insect - Bug	*Eurygaster*	*testudinaria*	Greater Tortoise-bug
Insect - Bug	*Anthocoris*	*nemorum*	Common Flowerbug
Insect - Bug	*Philaenus*	*spumarius*	Froghopper, Spittle-bug
Insect - Bug	*Cicadella*	*viridis*	Common Green Leafhopper
Insect - Bug	*Evacanthus*	*interruptus*	Black-and-yellow Leafhopper

Insect - Bug	*Grypocoris*	*stysi*	Umbellifer Mirid
Insect - Bug	*Stenoderma (Brachystira)*	*laevigata*	Spurless Grass-bug
Insect - Bug	*Notonecta*	*glauca*	Common Water-boatman
Insect - Bug	*Gerris*	*lacustris*	Common Pondskater
Insect - Bug	*Dolycorus*	*baccarum*	Hairy Shield-bug
Insect - Butterfly	*Lasiommata*	*megera*	Common Wall-brown
Insect - Butterfly	*Erynnis*	*tages*	Dingy Skipper
Insect - Butterfly	*Ochlodes*	*venatus (syn. O. sylvanus)*	Large Skipper
Insect - Butterfly	*Thymelicus*	*sylvestris*	Small Skipper
Insect - Butterfly	*Celastrina*	*argiolus*	Holly Blue
Insect - Butterfly	*Lycaena*	*phlaeas*	Small Copper
Insect - Butterfly	*Polyommatus*	*icarus*	Common Blue
Insect - Butterfly	*Argynnis*	*paphia*	Silver-washed Fritillary
Insect - Butterfly	*Aglais*	*urticae*	Small Tortoiseshell
Insect - Butterfly	*Inachis*	*io*	Peacock Butterfly
Insect - Butterfly	*Polygonia*	*c-album*	Comma
Insect - Butterfly	*Vanessa*	*atalanta*	Eurasian Red Admiral
Insect - Butterfly	*Vanessa*	*cardui*	Common Painted-lady
Insect - Butterfly	*Aphantopus*	*hyperantus*	Common Ringlet
Insect - Butterfly	*Maniola*	*jurtina*	Common Meadow-brown
Insect - Butterfly	*Pararge*	*aegeria*	European Speckled Wood
Insect - Butterfly	*Pyronia*	*tithonus*	Gatekeeper
Insect - Butterfly	*Gonepteryx*	*rhamni*	Brimstone
Insect - Butterfly	*Anthocharis*	*cardamines*	Common Orangetip
Insect - Butterfly	*Pieris*	*brassicae*	Large, 'Cabbage', White
Insect - Butterfly	*Pieris*	*napi*	Green-veined White
Insect - Butterfly	*Pieris*	*rapae*	Small White
Insect - Butterfly	*Polyommatus*	*icarus*	Common Blue
Insect - Butterfly	*Aglais*	*urticae*	Small Tortoiseshell
Insect - Butterfly	*Argynnis*	*paphia*	Silver-washed Fritillary
Insect - Butterfly	*Polygonia*	*c-album*	Comma
Insect - Butterfly	*Vanessa*	*cardui*	Eurasian Painted-lady
Insect - Butterfly	*Colias*	*croceus*	Common Clouded-yellow
Insect - Butterfly	*Gonepteryx*	*rhamni*	Brimstone
Insect - Caddis-fly	*Limnephilus*	*marmoratus*	Cinnamon Sedge
Insect - Caddis-fly	*Rhyacophila*	*dorsalis*	Diamond-mark Caddisfly
Insect - Caddis-fly	*Hydropsyche*	*instabilis*	Net-caddisfly sp.
Insect - Dipteran Fly	*Phytomyza*	*ranunculi*	Buttercup Miner
Insect - Dipteran Fly	*Phytomyza*	*spondylii*	Hogweed Miner
Insect - Dipteran Fly	*Bombylius*	*canescens*	Western Bee-fly
Insect - Dipteran Fly	*Bombylius*	*major*	Dark-edged / Great Bee-fly
Insect - Dipteran Fly	*Sarcophaga*	*carnaria*	Common Flesh-fly
Insect - Dipteran Fly	*Rhagio*	*scolopaceus*	Downlooker Snipefly
Insect - Dipteran Fly	*Chloromyia*	*formosa*	Broad Centurion
Insect - Dipteran Fly	*Episyrphus*	*balteatus*	Marmalade Hoverfly
Insect - Dipteran Fly	*Eristalis*	*arbustorum*	Plain-faced Dronefly
Insect - Dipteran Fly	*Eristalis*	*nemorum*	Dark-quadrate Dronefly

Insect - Dipteran Fly	*Eristalis*	*tenax*	Common / Hive-bee Dronefly
Insect - Dipteran Fly	*Helophilus*	*pendulus*	Orange-footed Tiger-hoverfly
Insect - Dipteran Fly	*Melanostoma*	*scalare*	Slender Grass-hoverfly
Insect - Dipteran Fly	*Merodon*	*equestris*	Northern Narcissus-fly
Insect - Dipteran Fly	*Platycheirus*	*albimanus*	Grey-spotted Boxer
Insect - Dipteran Fly	*Rhingia*	*campestris*	Common Snout-dronefly
Insect - Dipteran Fly	*Sphaerophoria*	*rueppelli*	Rüppell's Globetail
Insect - Dipteran Fly	*Volucella*	*bombylans*	Bumblebee Plumehorn
Insect - Dipteran Fly	*Volucella*	*pellucens*	Pied Plumehorn
Insect - Dipteran Fly	*Haematopota*	*pluvialis*	Common Grey / Notch-horned Cleg
Insect - Dipteran Fly	*Tabanus*	*sudeticus*	Dark Giant Horsefly
Insect - Dipteran Fly	*Bibio*	*marci*	St. Mark's Fly
Insect - Dipteran Fly	*Dilophus*	*febrilis*	Fever-fly
Insect - Dipteran Fly	*Pollenia*	*rudis*	Cluster-fly
Insect - Dipteran Fly	*Physocephala*	*rufipes*	Waisted Thick-head
Insect - Dipteran Fly	*Dolichopus*	*popularis*	Common Bent-tail
Insect - Dipteran Fly	*Mesembrina*	*meridiana*	Noon fly
Insect - Dipteran Fly	*Scathophaga*	*stercoraria*	Yellow Dung-fly
Insect - Dipteran Fly	*Sciara*	*analis*	Common Fungus-gnat
Insect - Dipteran Fly	*Nephrotoma*	*flavescens*	Tiger Cranefly
Insect - Dipteran Fly	*Tipula*	*luna*	
Insect - Dipteran Fly	*Tipula*	*maxima*	Great Cranefly
Insect - Dipteran Fly	*Tipula*	*paludosa*	Rusty-tipped Cranefly
Insect - Dipteran Fly	*Poecilobothrus*	*nobilitatus*	Semaphore Fly / Bent-tail
Insect - Dipteran Fly	*Simulium*	*spp.*	Blackfly
Insect - Dragonfly	*Aeshna*	*juncea*	Common / Rush Hawker
Insect - Dragonfly	*Aeshna*	*mixta*	Migrant Hawker
Insect - Dragonfly	*Anax*	*imperator*	Common Emperor
Insect - Dragonfly	*Coenagrion*	*puella*	Common Azure
Insect - Dragonfly	*Enallagma*	*cyathigerum*	Common Bluet
Insect - Dragonfly	*Ischnura*	*elegans*	Common Bluetail
Insect - Dragonfly	*Pyrrhosoma*	*nymphula*	Large Red Damselfly
Insect - Dragonfly	*Cordulegaster*	*boltonii*	Golden-ringed Dragonfly
Insect - Dragonfly	*Libellula*	*depressa*	Broad-bodied Chaser
Insect - Dragonfly	*Sympetrum*	*striolatum*	Common Darter
Insect - Dragonfly	*Anax*	*imperator*	Common Emperor
Insect - Dragonfly	*Calopteryx*	*virgo*	Beautiful Demoiselle
Insect - Dragonfly	*Coenagrion*	*puella*	Common Azure
Insect - Dragonfly	*Enallagma*	*cyathigerum*	Common Bluet
Insect - Dragonfly	*Ischnura*	*elegans*	Common Blue-tail
Insect - Dragonfly	*Pyrrhosoma*	*nymphula*	Large Red Damselfly
Insect - Dragonfly	*Libellula*	*depressa*	Broad-bodied Chaser
Insect - Dragonfly	*Sympetrum*	*striolatum*	Common Darter
Insect - Earwig	*Forficula*	*auricularia*	Common Earwig
Insect - Hymenopteran	*Andrena*	*haemorrhoa*	Early Mining-bee

Insect - Hymenopteran	*Bombus (Bombus)*	*terrestris*	White-tailed Bumblebee
Insect - Hymenopteran	*Bombus (Melanobombus)*	*lapidarius*	Large Red-tailed Bumblebee
Insect - Hymenopteran	*Bombus (Pyrobombus)*	*hypnorum*	Tree Bumblebee
Insect - Hymenopteran	*Bombus (Thoracobombus)*	*muscorum*	Moss Carder-bee
Insect - Hymenopteran	*Bombus (Thoracobombus)*	*pascuorum*	Common Carder-bee
Insect - Hymenopteran	*Nomada*	*fabriciana*	Fabricius' Nomad-bee
Insect - Hymenopteran	*Nomada*	*flava*	Yellow Nomad-bee
Insect - Hymenopteran	*Chrysis*	*ignita*	Common Ruby-tail
Insect - Hymenopteran	*Neuroterus*	*quercusbaccarum*	Common Spangle Gall-wasp
Insect - Hymenopteran	*Ophion*	*luteus*	Orange Caterpillar-wasp
Insect - Hymenopteran	*Megachile (Megachile)*	*centuncularis*	Common / 'Yellow-bellied' Leafcutter-bee
Insect - Hymenopteran	*Myrmica*	*rubra*	Common Red Ant
Insect - Hymenopteran	*Urocerus*	*gigas*	Giant Horntail / Wood-wasp
Insect - Hymenopteran	*Rhogogaster*	*viridis*	Common Green Sawfly
Insect - Hymenopteran	*Tenthredo*	*notha*	(July) Black-toed Yellow-band Sawfly
Insect - Hymenopteran	*Symmorphus*	*bifasciatus*	Willow Mason-wasp
Insect - Hymenopteran	*Dolichovespula*	*sylvestris*	Common Tree-wasp
Insect - Hymenopteran	*Vespula*	*germanica*	German / Spot-faced Wasp
Insect - Hymenopteran	*Vespula*	*vulgaris*	Common Wasp
Insect - Hymenopteran	*Apis*	*mellifera*	Asian Honey-bee
Insect - Hymenopteran	*Colletes*	*hederae*	Ivy Cellophane-bee
Insect - Mecoptera	*Panorpa*	*communis*	Common/ Dark Scorpion-fly
Insect - Mecoptera	*Panorpa*	*germanica*	Spotted Scorpion-fly
Insect - Moth	*Polyploca*	*ridens*	Frosted Green
Insect - Moth	*Arctia*	*caja*	Garden Tiger
Insect - Moth	*Spilosoma*	*lubricipeda*	White Ermine
Insect - Moth	*Spilosoma*	*luteum*	Buff Ermine

Insect - Moth	*Tyrea*	*jacobaeae*	Cinnabar
Insect - Moth	*Lycia*	*hyrtaria*	Brindled Beauty
Insect - Moth	*Ecliptopera*	*silaceata*	Small Phoenix
Insect - Moth	*Timandra*	*comae*	Blood-vein
Insect - Moth	*Theria*	*primaria*	Early Moth
Insect - Moth	*Hepialus*	*humuli*	Ghost Swift
Insect - Moth	*Malacosoma*	*neustria*	Lacky
Insect - Moth	*Acronicta*	*psi*	Grey Dagger
Insect - Moth	*Acronicta*	*rumicis*	Knot Grass
Insect - Moth	*Melanchra*	*persicariae*	Dot Moth
Insect - Moth	*Melanchra (= Ceramica)*	*pisi*	Broom Moth
Insect - Moth	*Orthosia*	*gracilis*	Powdered Quaker
Insect - Moth	*Diarsia*	*rubi*	Small Square-spot
Insect - Moth	*Dichrorampha*	*consortana*	Downland Drill
Insect - Moth	*Pelochrista*	*caecimaculana*	Hardheads Tortrix
Insect - Moth	*Alucita*	*hexadactyla*	20-plume
Insect - Moth	*Anthophila*	*fabriciana*	Common Nettle-tap
Insect - Moth	*Coleophora*	*striatipenella*	Hedge Case-bearer
Insect - Moth	*Chrysoteuchia*	*culmella*	Garden Grass-veneer
Insect - Moth	*Eudonia*	*lacustrata*	Little Grey
Insect - Moth	*Eudonia*	*mercurella*	Small Grey
Insect - Moth	*Patania (syn. Pleuroptera)*	*ruralis*	Mother-of-Pearl
Insect - Moth	*Udea*	*olivalis*	Olive Pearl
Insect - Moth	*Agonopterix*	*heracliana*	Common Flat-body
Insect - Moth	*Depressaria*	*radiella*	Parsnip Flatback / Moth
Insect - Moth	*Habrosyne*	*pyritoides*	Buff Arches
Insect - Moth	*Thyatira*	*batis*	Peach Blossom
Insect - Moth	*Elachista*	*atricomella*	Cock's-foot Leaf-miner, Black-headed Dwarf
Insect - Moth	*Diaphora*	*mendica*	Muslin
Insect - Moth	*Eilema*	*griseola*	Dingy Footman
Insect - Moth	*Eilema*	*lurideola*	Common Footman
Insect - Moth	*Mitochrista*	*miniata*	Rosy Footman
Insect - Moth	*Phragmatobia*	*fuliginosa*	Ruby Tiger
Insect - Moth	*Herminia*	*tarsipennalis*	Common Fanfoot
Insect - Moth	*Calliteara*	*pudibunda*	Pale Tussock
Insect - Moth	*Rivula*	*sericealis*	Straw Dot
Insect - Moth	*Abraxas*	*grossulariata*	Common Magpie
Insect - Moth	*Alcis*	*repandata*	Mottled Beauty
Insect - Moth	*Biston*	*betularia*	Peppered Moth
Insect - Moth	*Campaea*	*margaritaria*	Light Emerald
Insect - Moth	*Crocallis*	*elinguaria*	Scalloped Oak
Insect - Moth	*Ectropis*	*crepuscularia*	Engrailed
Insect - Moth	*Lomaspilis*	*marginata*	Clouded Border
Insect - Moth	*Lomographa*	*temerata*	Clouded Silver

Insect - Moth	*Macaria*	*alternata*	Sharp-angled Peacock-moth
Insect - Moth	*Odontopera*	*bidentata*	Scalloped Hazel
Insect - Moth	*Opisthograptis*	*luteolata*	Brimstone Moth
Insect - Moth	*Ourapteryx*	*sambucaria*	European Swallowtail-moth
Insect - Moth	*Peribatodes*	*rhomboidaria*	Willow Beauty
Insect - Moth	*Petrophora*	*chlorosata*	Brown Silver-line
Insect - Moth	*Plagodis*	*dolabraria*	Scorched Wing
Insect - Moth	*Selenia*	*dentaria*	Early Thorn
Insect - Moth	*Geometra*	*papilionaria*	Large Emerald
Insect - Moth	*Anticlea*	*derivata*	Streamer
Insect - Moth	*Camptogramma*	*bilineata*	Yellow Shell
Insect - Moth	*Chloroclystis*	*v-ata*	V-pug
Insect - Moth	*Cidaria*	*fulvata*	Barred Yellow
Insect - Moth	*Colostygia*	*multistrigaria*	Mottled Grey
Insect - Moth	*Dysstroma (=Chloroclysta)*	*truncata*	Common Marbled Carpet
Insect - Moth	*Earophila*	*badiata*	Shoulder Stripe
Insect - Moth	*Electrophaes*	*corylata*	Broken-barred Carpet
Insect - Moth	*Epirrhoe*	*alternata*	Common Carpet
Insect - Moth	*Euphyia*	*unangulata*	Sharp-angled Carpet
Insect - Moth	*Eupithecia*	*exiguata*	Mottled Pug
Insect - Moth	*Eupithecia*	*vulgata*	Common Pug
Insect - Moth	*Gandaritis*	*pyraliata*	Barred Straw
Insect - Moth	*Hydrelia*	*flammeolaria*	Small Yellow Wave
Insect - Moth	*Hydriomena*	*furcata*	July Highflyer
Insect - Moth	*Operophtera*	*brumata*	Winter Moth
Insect - Moth	*Perizoma*	*bifaciata*	Barred Rivulet
Insect - Moth	*Perizoma*	*flavofasciata*	Sandy Carpet
Insect - Moth	*Xanthorhoe*	*designata*	Flame Carpet
Insect - Moth	*Xanthorhoe*	*spadicearia*	Red Twin-spot Carpet
Insect - Moth	*Xanthorhoe*	*montanata*	Silver-ground Carpet
Insect - Moth	*Idaea*	*biselata*	Small Fan-footed Wave
Insect - Moth	*Idaea*	*straminata*	Plain Wave
Insect - Moth	*Idaea*	*subsericeata*	Satin Wave
Insect - Moth	*Glyphipterix*	*simpliciella*	Cocksfoot Moth
Insect - Moth	*Korscheltellus*	*lupulina*	Common Swift
Insect - Moth	*Macrothylacia*	*rubi*	Fox Moth
Insect - Moth	*Philudoria (= Euthrix)*	*potatoria*	Drinker
Insect - Moth	*Micropterix*	*aruncella*	White-barred Gold
Insect - Moth	*Acronicta*	*tridens*	Dark Dagger
Insect - Moth	*Craniophora*	*ligustri*	Coronet
Insect - Moth	*Amphipyra*	*pyramidea*	Copper Underwing
Insect - Moth	*Cucullia*	*umbratica*	Shark
Insect - Moth	*Cucullia*	*verbasci*	Mullein Moth
Insect - Moth	*Deltote (syn. Protodeltote)*	*pygarga*	Marbled White Spot
Insect - Moth	*Hadena*	*bicruris*	Lychnis

Insect - Moth	*Hadena*	*perplexa*	Tawny Shears
Insect - Moth	*Mythimna*	*impura*	Dusky / Smoky Wainscot
Insect - Moth	*Mythimna*	*pallens*	Common Wainscot
Insect - Moth	*Orthosia*	*cerasi*	Common Quaker
Insect - Moth	*Orthosia*	*gothica*	Hebrew Character
Insect - Moth	*Orthosia*	*incerta*	Clouded Drab
Insect - Moth	*Panemeria*	*tenebrata*	Small Yellow Underwing
Insect - Moth	*Agrotis*	*exclamationis*	Heart-and-dart
Insect - Moth	*Axylia*	*putris*	Flame
Insect - Moth	*Diarsia*	*mendica*	Ingrailed Clay
Insect - Moth	*Noctua*	*janthe*	Lesser Broad-bordered Yellow-underwing
Insect - Moth	*Noctua*	*pronuba*	Large Yellow Underwing
Insect - Moth	*Ochropleura*	*plecta*	Flame Shoulder
Insect - Moth	*Xestia*	*c-nigrum*	Setaceous Hebrew Character
Insect - Moth	*Xestia*	*ditrapezium*	Triple-spotted Clay
Insect - Moth	*Xestia*	*triangulum*	Double Square-spot
Insect - Moth	*Xestia*	*xanthographa*	Square-spot Rustic
Insect - Moth	*Colocasia*	*coryli*	Nut Tree Tussock
Insect - Moth	*Abrostola*	*tripartita*	Spectacle
Insect - Moth	*Autographa*	*gamma*	Silver Y
Insect - Moth	*Apamea*	*monoglypha*	Dark Arches
Insect - Moth	*Apamea*	*crenata*	Clouded-bordered Brindle
Insect - Moth	*Apamea*	*epomodion*	Clouded Brindle
Insect - Moth	*Charanyca*	*trigrammica*	Treble-lines
Insect - Moth	*Euplexia*	*lucipara*	Small Angle-shades
Insect - Moth	*Mesapamea*	*(secalis) cf didyma*	Lesser Common Rustic
Insect - Moth	*Oligia*	*fasciuncula*	Middle-barred Minor
Insect - Moth	*Oligia*	*strigilis*	Marbled Minor
Insect - Moth	*Xylena*	*exsoleta*	(Northern) Swordgrass
Insect - Moth	*Notodonta (=Eligmodonta)*	*ziczac*	Pebble Prominent
Insect - Moth	*Pterostoma*	*palpina*	Pale Prominent
Insect - Moth	*Phalera*	*bucephala*	European Bufftip
Insect - Moth	*Endrosis*	*sarcitrella*	White-shouldered House-moth
Insect - Moth	*Hofmannophila*	*pseudopretella*	Brown House-moth
Insect - Moth	*Plutella*	*xylostella*	Diamond-back
Insect - Moth	*Amblyptilia*	*punctidactyla*	Brindled Plume
Insect - Moth	*Platyptilia*	*gonodactyla*	Triangle Plume
Insect - Moth	*Pterophora*	*pentadactyla*	White Plume-moth
Insect - Moth	*Aphomia*	*sociella*	Bee Moth
Insect - Moth	*Deilephila*	*elpenor*	Large Elephant Hawkmoth
Insect - Moth	*Laothoe*	*populi*	Poplar Hawkmoth
Insect - Moth	*Macroglossum*	*stellatarum*	Orange-wing / Bedstraw Hummingbird-hawkmoth
Insect - Moth	*Sphinx*	*ligustri*	Privet Hawkmoth

Insect - Moth	*Monopis*	*laevigella*	Skin Moth
Insect - Moth	*Tinea*	*pellionella*	Common Case-bearing Clothes-moth
Insect - Moth	*Isotrias*	*rectifasciana*	Hedge Tortrix
Insect - Moth	*Celypha*	*lacunana*	Common Marble
Insect - Moth	*Dichrorampha*	*plumbagana*	Silver-lined Drill
Insect - Moth	*Ancylis*	*badiana*	Common Roller / Dark-saddle
Insect - Moth	*Eudemis*	*profundana*	Diamond-back Marble
Insect - Moth	*Gypsonoma*	*sociana*	White-cloaked Shoot
Insect - Moth	*Spilonota*	*ocellata*	Bud Moth
Insect - Moth	*Aethes*	*cnicana*	Thistle Conch
Insect - Moth	*Agapeta*	*harmana*	Common Yellow Conch
Insect - Moth	*Aphelia*	*paleana*	Timothy Tortrix
Insect - Moth	*Cochylidia*	*rupicola*	Eupatorium Tortix
Insect - Moth	*Syndemis*	*musculana*	
Insect - Moth	*Ypsolopha*	*dentella*	Honeysuckle Grass-moth
Insect - Moth	*Zygaena*	*filipendulae*	Six-spot Burnet
Insect - Moth	*Zygaena*	*trifolii*	(Broad-bordered) Five-spot Burnet
Insect - Moth	*Perizoma*	*albulata*	Grass Rivulet
Insect - Moth	*Saturnia*	*pavonia*	Emperor Moth
Insect - Moth	*Zygaena*	*filipendulae*	Six-spot Burnet
Insect - Netwing	*Micromus*	*variegatus*	
Insect - Orthoptera	*Chorthippus*	*brunneus*	Common Field Grasshopper
Insect - Orthoptera	*Omocestus*	*viridulus*	Common Green Grasshopper
Insect - Stonefly	Leuctridae		Needlefly
Insect - Stonefly	Perlodidae		Stripetail
Insect - Upwing-fly	*Procloeon*	*pennulatum*	Large Spurwing
Insect - Upwing-fly	*Ephemera*	*danica*	Green Drake
Insect - Upwing-fly	*Baetis*	*sp.*	Small Minnow sp.
Insect - Upwing-fly	*Serratella*	*ignita*	Blue-winged Olive
Insect - Upwing-fly	*Ephemera*	*danica*	Green Drake
Insect - Upwing-fly	*Ecdyonurus*	*venosus*	Late / False March Brown
Magnoliophyte	*Allium*	*vineale*	Crow Garlic
Magnoliophyte	*Narcissus*	*hispanicus 'Tenby'*	Tenby Daffodil (neophyte)
Magnoliophyte	*Narcissus*	*pseudonarcissus*	Wild Daffodil (native daffodil)
Magnoliophyte	*Angelica*	*sylvestris*	Wild Angelica
Magnoliophyte	*Conopodium*	*majus*	Pignut
Magnoliophyte	*Daucus*	*carota*	Wild Carrot
Magnoliophyte	*Heracleum*	*sphondylium*	Common Hogweed
Magnoliophyte	*Ilex*	*aquifolium*	European Holly
Magnoliophyte	*Arum*	*maculatum*	Lords-and-Ladies
Magnoliophyte	*Centaurea*	*nigra*	Lesser Knapweed
Magnoliophyte	*Cirsium*	*arvense*	Field / Creeping Thistle

Magnoliophyte	*Cirsium*	*palustre*	Marsh Thistle
Magnoliophyte	*Eupatorium*	*cannabinum*	Hemp Agrimony
Magnoliophyte	*Hypochaeris*	*radicata*	Common Cat's-ear
Magnoliophyte	*Jacobaea*	*vulgaris*	Common Ragwort
Magnoliophyte	*Lapsana*	*communis*	Nipplewort
Magnoliophyte	*Leontodon*	*hispidus*	Rough Hawkbit
Magnoliophyte	*Leucanthemum*	*vulgare*	Common Ox-eye Daisy
Magnoliophyte	*Pulicaria*	*dysenterica*	Common Fleabane
Magnoliophyte	*Senecio*	*vulgaris*	Common Groundsel
Magnoliophyte	*Sonchus*	*arvensis*	Field / Perennial Sowthistle
Magnoliophyte	*Sonchus*	*asper*	Prickly / Spiny Sowthistle, Rough Milk Thistle
Magnoliophyte	*Sonchus*	*oleraceus*	Smooth Sowthistle
Magnoliophyte	*Taraxacum*	*officinale*	Common Dandelion
Magnoliophyte	*Tragopogon*	*pratensis*	Jack-go-to-bed-at-noon
Magnoliophyte	*Tussilago*	*farfara*	Colt's-foot
Magnoliophyte	*Betula*	*pendula*	Silver Birch
Magnoliophyte	*Corylus*	*avellana*	European Hazel
Magnoliophyte	*Origanum*	*vulgare*	Marjoram
Magnoliophyte	*Cardamine*	*hirsuta*	Hairy Bittercress
Magnoliophyte	*Cardamine*	*pratensis*	Cuckooflower
Magnoliophyte	*Lonicera*	*periclymenum*	Yellow Woodland Honeysuckle
Magnoliophyte	*Cerastium*	*fontanum*	Common Mouse-ear
Magnoliophyte	*Silene*	*dioica*	Red Campion
Magnoliophyte	*Stellaria*	*graminea*	Lesser Stitchwort
Magnoliophyte	*Rabelera (syn. Stellaria)*	*holostea*	Greater Stitchwort
Magnoliophyte	*Hypericum*	*androsaemum*	Tutsan
Magnoliophyte	*Hypericum*	*perforatum*	Perforate St. John's-wort
Magnoliophyte	*Hypericum*	*tetrapterum*	Square-stemmed St. John's-wort
Magnoliophyte	*Ruscus*	*aculeatus*	Atlantic Butcher's-Broom
Magnoliophyte	*Calystegia*	*sepium*	Hedge Bindweed
Magnoliophyte	*Carex*	*flacca*	Glaucous Sedge
Magnoliophyte	*Carex*	*ovalis*	Oval Sedge
Magnoliophyte	*Carex*	*sylvatica*	Common Wood Sedge
Magnoliophyte	*Dioscorea (syn. Tamus)*	*communis*	Black Bryony
Magnoliophyte	*Dipsacus*	*fullonum*	Common / Fuller's Teasel
Magnoliophyte	*Knautia*	*arvensis*	Field Scabious
Magnoliophyte	*Scabiosa*	*columbaria*	Small Scabious
Magnoliophyte	*Lathyrus*	*pratensis*	Meadow Vetchling
Magnoliophyte	*Lotus*	*corniculatus*	Lesser Bird's-foot Trefoil
Magnoliophyte	*Lotus*	*pedunculatus*	Greater / Hollow- stemmed Bird's-foot Trefoil
Magnoliophyte	*Medicago*	*lupulina*	Black Medick

Magnoliophyte	*Trifolium*	*dubium*	Lesser Yellow / Lesser / Lesser Hop / Little HopTrefoil, Suckling Clover
Magnoliophyte	*Trifolium*	*micranthum*	Slender Trefoil
Magnoliophyte	*Trifolium*	*pratense*	Red Clover
Magnoliophyte	*Trifolium*	*repens*	White / Dutch Clover
Magnoliophyte	*Ulex*	*europaeus*	Common Gorse
Magnoliophyte	*Vicia*	*cracca*	Tufted Vetch
Magnoliophyte	*Vicia*	*sativa nigra*	Common Vetch
Magnoliophyte	*Quercus*	*robur*	Pedunculate Oak
Magnoliophyte	*Centaurium*	*erythraea*	Common Centaury
Magnoliophyte	*Geranium*	*robertianum*	Herb Robert
Magnoliophyte	*Ribes*	*uva-crispa*	Gooseberry
Magnoliophyte	*Hyacinthoides*	*non-scripta*	English / Atlantic / Nodding Bluebell
Magnoliophyte	*Juncus*	*articulatus*	Articulated Rush
Magnoliophyte	*Juncus*	*conglomeratus*	Compact Rush
Magnoliophyte	*Juncus*	*effusus*	Loose-flowered / Soft Rush
Magnoliophyte	*Luzula*	*campestris*	Field Woodrush
Magnoliophyte	*Betonica*	*officinalis*	Betony
Magnoliophyte	*Glechoma*	*hederacea*	Ground-ivy
Magnoliophyte	*Prunella*	*vulgaris*	Common Selfheal
Magnoliophyte	*Stachys*	*sylvatica*	Hedge Woundwort
Magnoliophyte	*Colchicum*	*autumnale*	Naked Ladies, Meadow Saffron
Magnoliophyte	*Malva*	*moschata*	Musk Mallow
Magnoliophyte	*Malva*	*sylvestris*	Common Mallow
Magnoliophyte	*Fraxinus*	*excelsior*	Great Ash
Magnoliophyte	*Epilobium (syn. Chamerion)*	*angustifolium*	Rosebay Willowherb, Fireweed
Magnoliophyte	*Circaea*	*lutetiana*	Common Enchanter's-nightshade
Magnoliophyte	*Epilobium*	*hirsutum*	Great Willowherb
Magnoliophyte	*Epilobium*	*montanum*	Broad-leaved Willowherb
Magnoliophyte	*Epilobium*	*parviflorum*	Hoary Willowherb
Magnoliophyte	*Epilobium*	*tetragonum*	Square-stemmed Willowherb
Magnoliophyte	*Dactylorhiza*	*fuchsii*	Common Spotted Orchid
Magnoliophyte	*Dactylorhiza*	*praetermissa*	Southern Marsh Orchid
Magnoliophyte	*Orchis*	*mascula*	Early Purple Orchid
Magnoliophyte	*Euphrasia*	*officinalis*	Common Eyebright
Magnoliophyte	*Odontites*	*verna*	Red Bartsia
Magnoliophyte	*Rhinanthus*	*minor*	Lesser Yellow Rattle
Magnoliophyte	*Oxalis*	*acetosella*	Wood Sorrel
Magnoliophyte	*Fumaria*	*capreolata*	Ramping Fumitory
Magnoliophyte	*Digitalis*	*purpurea*	Purple Foxglove
Magnoliophyte	*Linaria*	*vulgaris*	Yellow Toadflax

Magnoliophyte	*Plantago*	*lanceolata*	Ribwort Plantain
Magnoliophyte	*Plantago*	*major*	Great Plantain
Magnoliophyte	*Veronica*	*chamaedrys*	Germander / Bird's-eye Speedwell
Magnoliophyte	*Veronica*	*hederifolia hederifolia*	Ivy-leaved Speedwell
Magnoliophyte	*Veronica*	*montana*	Wood Speedwell
Magnoliophyte	*Veronica*	*persica*	Buxbaum's / Common Field Speedwell
Magnoliophyte	*Veronica*	*serpyllifolia*	Thyme-leaved Speedwell
Magnoliophyte	*Agrostis*	*sp.*	Bent
Magnoliophyte	*Alopecurus*	*pratensis*	Meadow Foxtail
Magnoliophyte	*Anthoxanthum*	*odoratum*	Sweet Vernal-grass
Magnoliophyte	*Arrhenatherum*	*elatius*	False Oat-grass
Magnoliophyte	*Briza*	*media*	Common Quaking-grass, Doddering Dillies
Magnoliophyte	*Bromus*	*hordeaceus*	Soft Brome
Magnoliophyte	*Cynosurus*	*cristatus*	Crested Dog's-tail
Magnoliophyte	*Dactylis*	*glomerata*	Cock's-foot
Magnoliophyte	*Elytrigia*	*repens*	Common Couch
Magnoliophyte	*Festuca*	*pratensis*	Meadow Fescue
Magnoliophyte	*Festuca*	*rubra*	Red Fescue
Magnoliophyte	*Holcus*	*lanatus*	Yorkshire Fog
Magnoliophyte	*Leymus*	*arenarius*	Lyme-grass
Magnoliophyte	*Lolium*	*perenne*	Perennial Rye
Magnoliophyte	*Phleum*	*pratense*	Timothy
Magnoliophyte	*Poa*	*annua*	Annual Meadow-grass
Magnoliophyte	*Poa*	*pratensis*	Smooth Meadow-grass
Magnoliophyte	*Persicaria*	*maculosa*	Redshank
Magnoliophyte	*Rumex*	*acetosa*	Common Sorrel
Magnoliophyte	*Rumex*	*obtusifolius*	Broad-leaved Dock
Magnoliophyte	*Rumex*	*sanguineus*	Wood Dock
Magnoliophyte	*Primula*	*veris*	Cowslip
Magnoliophyte	*Primula*	*vulgaris*	Woodland Primrose
Magnoliophyte	*Anemone*	*nemorosa*	Wood Anemone
Magnoliophyte	*Ranunculus*	*acris*	Meadow Buttercup
Magnoliophyte	*Ranunculus*	*ficaria ficaria*	Lesser Celandine
Magnoliophyte	*Ranunculus*	*repens*	Creeping Buttercup
Magnoliophyte	*Crataegus*	*monogyna*	Common Hawthorn
Magnoliophyte	*Filipendula*	*ulmaria*	Meadowsweet
Magnoliophyte	*Fragaria*	*vesca*	Common / Wild / 'Alpine' Strawberry
Magnoliophyte	*Geum*	*urbanum*	Herb Bennet, Wood Avens
Magnoliophyte	*Malus*	*sylvestris*	Wild / Thorned / Glabrous Crab Apple
Magnoliophyte	*Potentilla*	*anserina*	Silverweed

Magnoliophyte	*Potentilla*	*erecta*	Tormentil
Magnoliophyte	*Potentilla*	*reptans*	Creeping Cinquefoil
Magnoliophyte	*Potentilla*	*sterilis*	Barren Strawberry
Magnoliophyte	*Prunus*	*avium*	Gean, Wild Cherry
Magnoliophyte	*Prunus*	*spinosa*	Atlantic Blackthorn
Magnoliophyte	*Rosa*	*arvensis*	Field Rose
Magnoliophyte	*Rosa*	*canina*	Dog Rose
Magnoliophyte	*Rubus*	*idaeus*	Raspberry
Magnoliophyte	*Rubus*	*caesius*	Dewberry
Magnoliophyte	*Rubus*	*fruticosus agg.*	Bramble, Blackberry
Magnoliophyte	*Sorbus*	*aucuparia*	Rowan
Magnoliophyte	*Galium*	*aparine*	Goosegrass
Magnoliophyte	*Galium*	*odoratum*	Sweet Woodruff
Magnoliophyte	*Galium*	*palustre*	Common Marsh Bedstraw
Magnoliophyte	*Salix*	*aurita*	Eared Willow
Magnoliophyte	*Salix*	*cinerascens*	Grey / Scrub Willow
Magnoliophyte	*Chrysosplenium*	*oppositifolium*	Opposite-leaved Golden-saxifrage
Magnoliophyte	*Scrophularia*	*auriculata*	Eared Figwort
Magnoliophyte	*Scrophularia*	*nodosa*	Common Figwort
Magnoliophyte	*Urtica*	*dioica*	Common Stinging Nettle
Magnoliophyte	*Valerianella*	*locusta*	Common Corn Salad, Lamb's Lettuce
Magnoliophyte	*Adoxa*	*moschatellina*	Moschatel
Magnoliophyte	*Sambucus*	*nigra*	Black Elder
Magnoliophyte	*Viola*	*odorata*	Sweet Violet
Magnoliophyte	*Viola*	*riviniana*	Common Dog-violet
Magnoliophyte	*Galanthus*	*nivalis*	Common Snowdrop
Magnoliophyte	*Aegopodium*	*podagraria*	Ground Elder
Magnoliophyte	*Lonicera*	*japonica*	Japanese Honeysuckle
Magnoliophyte	*Lonicera*	*nitida*	Shining / Wilson's Honeysuckle
Magnoliophyte	*Crocosmia*	*x crocosmiiflora*	Garden Montbretia
Magnoliophyte	*Cotoneaster*	*bullatus*	Holly-berried Cotoneaster
Magnoliophyte	*Malus*	*pumila*	Sweet Apple
Magnoliophyte	*Prunus*	*domestica institia 'Merryweather'*	Damson Plum
Magnoliophyte	*Viburnum*	*opulus*	Guelder Rose
Magnoliophyte	*Allium*	*triquetrum*	Three-cornered Leek
Magnoliophyte	*Allium*	*ursinum*	Ransoms, Wild Garlic
Magnoliophyte	*Chenopodium*	*album*	Fat Hen
Magnoliophyte	*Leucojum*	*verna*	Spring Snowflake

Magnoliophyte	*Angelica*	*sylvestris*	Wild Angelica
Magnoliophyte	*Anthriscus*	*cerefolium*	Chervil
Magnoliophyte	*Anthriscus*	*sylvestris*	Cow / Hedge Parsley, Queen Anne's Lace
Magnoliophyte	*Oenanthe*	*crocata*	Hemlock Water-dropwrt
Magnoliophyte	*Vinca*	*minor*	Lesser Periwinkle
Magnoliophyte	*Hedera*	*helix*	European Ivy
Magnoliophyte	*Hemerocallis*	*sp.*	Day-lily
Magnoliophyte	*Achillea*	*millefolium*	Yarrow
Magnoliophyte	*Achillea*	*ptarmica*	Sneezewort
Magnoliophyte	*Bellis*	*perennis*	Lawn / Common / Pasture Daisy
Magnoliophyte	*Gnaphalium*	*uliginosum*	Marsh Cudweed
Magnoliophyte	*Hypochaeris*	*radicata*	Cat's-ear
Magnoliophyte	*Jacobaea*	*vulgaris*	Common Ragwort
Magnoliophyte	*Lapsana*	*communis*	Nipplewort
Magnoliophyte	*Leontodon*	*hispidus*	Rough Hawkbit
Magnoliophyte	*Petasites*	*fragrans*	Winter Heliotrope
Magnoliophyte	*Pilosella*	*aurantiaca*	Orange Hawkbit, Fox-and-cubs
Magnoliophyte	*Pulicaria*	*dysenterica*	Common Fleabane
Magnoliophyte	*Solidago*	*virgaurea*	Common Golden-rod
Magnoliophyte	*Sonchus*	*asper*	Prickly / Spiny Sowthistle, Rough Milk Thistle
Magnoliophyte	*Sonchus*	*oleraceus*	Smooth Sowthistle
Magnoliophyte	*Taraxacum*	*officinale* agg.	Dandelion
Magnoliophyte	*Impatiens*	*glandulifera*	Himalayan Balsam
Magnoliophyte	*Alliaria*	*petiolata*	Hedge Garlic, Garlic Mustard
Magnoliophyte	*Cardamine*	*hirsuta*	Hairy Bittercress
Magnoliophyte	*Cochlearia*	*danica*	Danish Scurvy-grass
Magnoliophyte	*Hesperis*	*matronalis*	Rocket - Dame's, Dame's Violet, Damask-violet
Magnoliophyte	*Rorippa*	*palustris*	Marsh Yellow-cress
Magnoliophyte	*Jasione*	*montana*	Sheep's-bit
Magnoliophyte	*Lonicera*	*periclymenum*	Yellow Woodland Honeysuckle
Magnoliophyte	*Cerastium*	*fontanum*	Mouse-ear Chickweed, Common Mouse-ear
Magnoliophyte	*Rabelera*	*holostea*	Greater Stitchwort
Magnoliophyte	*Silene*	*dioica*	Red Campion
Magnoliophyte	*Silene (syn Lychnis)*	*flos-cuculi*	Ragged Robin
Magnoliophyte	*Calystegia*	*sepium*	Hedge Bindweed
Magnoliophyte	*Umbilicus*	*rupestris*	Wall Pennywort, Navelwort
Magnoliophyte	*Carex*	*divulsa*	Grey Sedge
Magnoliophyte	*Carex*	*flacca*	Glaucous Sedge

Magnoliophyte	*Carex*	*otrubae*	False Fox Sedge
Magnoliophyte	*Carex*	*remota*	Remote Sedge
Magnoliophyte	*Carex*	*sylvatica*	Wood Sedge
Magnoliophyte	*Dioscorea*	*communis*	Black Bryony
Magnoliophyte	*Knautia*	*arvensis*	Field Scabious
Magnoliophyte	*Succisa*	*pratensis*	Devil's-bit Scabious
Magnoliophyte	*Calluna*	*vulgaris*	Ling, Grug, Fraioch
Magnoliophyte	*Erica*	*cinerea*	Bell Heather
Magnoliophyte	*Vaccinium*	*myrtillus*	Biberry
Magnoliophyte	*Mercurialis*	*perenne*	Dog's Mercury
Magnoliophyte	*Lathyrus*	*pratensis*	Meadow Vetchling
Magnoliophyte	*Lotus*	*corniculatus*	Lesser Bird's-foot Trefoil
Magnoliophyte	*Lotus*	*pedunculatus*	Greater Bird's-foot (/ Hollow-stemmed Bird's- foot) Trefoil
Magnoliophyte	*Trifolium*	*dubium*	Lesser Yellow / Lesser / Lesser Hop / Little HopTrefoil, Suckling Clover
Magnoliophyte	*Trifolium*	*pratense*	Red Clover
Magnoliophyte	*Trifolium*	*repens*	White Clover
Magnoliophyte	*Vicia*	*cracca*	Tufted Vetch
Magnoliophyte	*Vicia*	*sativa*	Common Vetch
Magnoliophyte	*Vicia*	*sepium*	Bush Vetch
Magnoliophyte	*Geranium*	*dissectum*	Cut-leaved Crane'sbill
Magnoliophyte	*Geranium*	*lucidum*	Shining Crane'sbill
Magnoliophyte	*Geranium*	*molle*	Dove's-foot Crane'sbill
Magnoliophyte	*Geranium*	*robertianum*	Herb Robert
Magnoliophyte	*Geranium*	*X var.*	Geranium (Garden Escapee)
Magnoliophyte	*Hyacinthoides*	*non-scripta*	Atlantic / Nodding Bluebell
Magnoliophyte	*Hypericum*	*androsaemum*	Common Tutsan
Magnoliophyte	*Hypericum*	*perforatum*	Perforate St. John's-wort
Magnoliophyte	*Hypericum*	*pulchrum*	Slender St. John's-wort
Magnoliophyte	*Hypericum*	*tetrapterum*	Square-stemmed St. John's-wort
Magnoliophyte	*Crocosmia*	*X crocosmiiflora*	Garden Montbretia
Magnoliophyte	*Crocus*	*chrysantha*	Golden Crocus
Magnoliophyte	*Iris*	*pseudacorus*	Yellow Flag / Iris
Magnoliophyte	*Juncus*	*cf. acutus*	Sharp Rush
Magnoliophyte	*Juncus*	*conglomeratus*	Compact Rush
Magnoliophyte	*Juncus*	*effusus*	Soft Rush
Magnoliophyte	*Luzula*	*campestris*	Field Woodrush
Magnoliophyte	*Ajuga*	*reptans*	Common / Carpet Bugle
Magnoliophyte	*Betonica*	*officinalis*	Betony
Magnoliophyte	*Galeopsis*	*tetrahit*	Common Hemp-nettle
Magnoliophyte	*Glechoma*	*hederacea*	Ground-ivy, Creeping Charlie, Alehoof

Magnoliophyte	*Lamium*	*galeobdolon argentatum*	Garden (Marbled) Yellow Archangel
Magnoliophyte	*Prunella*	*vulgaris*	Common Self-heal, Heal-all
Magnoliophyte	*Stachys*	*sylvatica*	Hedge Woundwort
Magnoliophyte	*Teucrium*	*scorodonnia*	Wood Sage, Woodland Germander
Magnoliophyte	*Circaea*	*lutetiana*	Enchanter's Nightshade
Magnoliophyte	*Epilobium*	*angustifolium*	Rosebay Willowherb
Magnoliophyte	*Epilobium*	*hirsuta*	Great Willowherb
Magnoliophyte	*Epilobium*	*montanum*	Broad-leaved Willowherb
Magnoliophyte	*Dactylorhiza*	*fuschii*	Common Spotted Orchid
Magnoliophyte	*Neottia*	*ovata*	Common Twayblade
Magnoliophyte	*Orchis*	*mascula*	Early Purple Orchid
Magnoliophyte	*Euphrasia*	*officinalis* agg.	Eyebright
Magnoliophyte	*Odontites*	*verna*	Red Bartsia
Magnoliophyte	*Rhinanthus*	*minor*	Lesser Yellow Rattle
Magnoliophyte	*Oxalis*	*acetosella*	Wood Sorrel
Magnoliophyte	*Digitalis*	*purpurea*	Purple Foxglove
Magnoliophyte	*Plantago*	*lanceolata*	Ribwort Plantain
Magnoliophyte	*Plantago*	*major*	Great Plantain
Magnoliophyte	*Veronica*	*arvensis*	Field / Rock / Wall / Corn / Common Speedwell
Magnoliophyte	*Veronica*	*beccabunga*	Brooklime
Magnoliophyte	*Veronica*	*chamaedrys*	Germander Speedwell
Magnoliophyte	*Veronica*	*officinalis*	Heath Speedwell
Magnoliophyte	*Agrostis*	*stolonifera*	Creeping Bent
Magnoliophyte	*Alopecurus*	*pratensis*	Meadow Foxtail
Magnoliophyte	*Anthoxanthum*	*odoratum*	Sweet Vernal Grass
Magnoliophyte	*Arrhenatherum*	*elatius*	Onion Couch, False Oat Grass
Magnoliophyte	*Briza*	*media*	Common Quaking-grass, Doddering Dillies
Magnoliophyte	*Bromus*	*hordeaceus*	Soft / Common Brome
Magnoliophyte	*Bromus*	*sterilis*	Sterile Brome
Magnoliophyte	*Cynosurus*	*crestatus*	Crested Dog's-tail
Magnoliophyte	*Dactylis*	*glomerata*	Cocksfoot
Magnoliophyte	*Deschampsia*	*cespitosa*	Tufted Hair-grass
Magnoliophyte	*Deschampsia*	*flexuosa*	Wavy Hair-grass
Magnoliophyte	*Elymus*	*repens*	Common Couch
Magnoliophyte	*Festuca*	*sp.*	Fescue
Magnoliophyte	*Holcus*	*lanatus*	Yorkshire Fog
Magnoliophyte	*Lolium*	*perenne*	Perennial Ryegrass
Magnoliophyte	*Phleum*	*pratense*	Timothy
Magnoliophyte	*Poa*	*annua*	Annual Meadow-grass
Magnoliophyte	*Poa*	*pratensis*	Smooth Meadow-grass
Magnoliophyte	*Poa*	*trivialis*	Rough Meadow-grass
Magnoliophyte	*Polygala*	*vulgaris*	Common Milkwort
Magnoliophyte	*Rumex*	*acetosa*	Common Sorrel

Magnoliophyte	*Rumex*	*crispus*	Curled Dock
Magnoliophyte	*Rumex*	*obtusifolius*	Broad-leaved Dock
Magnoliophyte	*Lysimachia*	*nemorum*	Yellow Pimpernel
Magnoliophyte	*Lysimachua*	*nummularia*	Creeping Jenny
Magnoliophyte	*Primula*	*vulgaris*	Woodland Primrose
Magnoliophyte	*Aquilegia*	*vulgaris*	Purple Columbine
Magnoliophyte	*Ranunculus*	*acris*	Meadow Buttercup
Magnoliophyte	*Ranunculus*	*ficaria*	Lesser Celandine
Magnoliophyte	*Ranunculus*	*repens*	Creeping Buttercup
Magnoliophyte	*Argentina*	*anserina*	Silverweed
Magnoliophyte	*Filipendula*	*ulmaria*	Meadowsweet
Magnoliophyte	*Fragaria*	*vesca*	Common / Wild / 'Alpine' Strawberry
Magnoliophyte	*Geum*	*urbanum*	Wood Avens, Herb Bennet
Magnoliophyte	*Potentilla*	*erecta*	Tormentil
Magnoliophyte	*Potentilla*	*repens*	Creeping Cinquefoil
Magnoliophyte	*Potentilla*	*sterilis*	Barren Strawberry
Magnoliophyte	*Prunus*	*laurocerasus*	Cherry Laurel
Magnoliophyte	*Rosa*	*arvensis*	Field Rose
Magnoliophyte	*Rubus*	*fruticosus agg.*	Bramble
Magnoliophyte	*Spiraea*	*douglasii*	Western Spirea
Magnoliophyte	*Galium*	*aparine*	Goosegrass, Cleavers, Sticky Willy
Magnoliophyte	*Galium*	*mollugo*	Hedge Bedstraw
Magnoliophyte	*Galium*	*verum*	Lady's Bedstraw
Magnoliophyte	*Scrophularia*	*auriculata*	Water Figwort
Magnoliophyte	*Scrophularia*	*nodosa*	Common Figwort
Magnoliophyte	*Typha*	*latifolia*	Common Reedmace
Magnoliophyte	*Urtica*	*dioica*	Stinging Nettle
Magnoliophyte	*Centranthus*	*ruber*	Red Valerian
Magnoliophyte	*Viola*	*riviniana*	Common Dog-violet
Millipede	*Polydesmus*	*angustus*	Common Flat / Armoured Millipede
Millipede	*Tachypodoiulus*	*niger*	Black Snake-millipede
Mollusc - Bivalve	*Acanthocardia*	*echinata*	Prickly Cockle
Mollusc - Bivalve	*Cerastoderma*	*edule*	Common Cockle
Mollusc - Bivalve	*Mytilus*	*edulis*	Common Mussel
Mollusc - Bivalve	*Ensis*	*ensis*	Common Razorshell
Mollusc - Bivalve	*Paphia*	*rhomboides*	Banded Carpetshell
Mollusc - Gastropod	*Deroceras (Deroceras)*	*reticulatum*	Netted Slug
Mollusc - Gastropod	*Arion (Arion)*	*fasciatus*	Banded Slug
Mollusc - Gastropod	*Cepaea (Cepaea)*	*hortensis*	White-lipped Snail, Garden Cepaea / Grove- snail
Mollusc - Gastropod	*Cepaea (Cepaea)*	*nemoralis*	Black-lipped Snail / Grove-snail
Mollusc - Gastropod	*Trochulus (= Trichia)*	*hispidus*	Hairy Snail

Mollusc - Gastropod	*Lehmannia*	*marginata*	Tree Slug
Mollusc - Gastropod	*Succinea*	*putris*	Common Amber-shell
Mollusc - Gastropod	*Oxychilus (Oxychilus)*	*cellarius*	Cellar Glass-snail
Mollusc - Gastropod	*Cornu (= Helix)*	*aspersa*	Garden Snail
Mollusc - Gastropod	*Arion (Arion)*	*ater*	Black / Great Slug
Mollusc - Gastropod	*Acteon*	*tornatilis*	Sand-mason Hunter
Mollusc - Gastropod	*Bithynia*	*tentaculata*	Faucet Snail
Mollusc - Gastropod	*Buccinum*	*undatum*	Common Whelk
Mollusc - Gastropod	*Littorina*	*littorea*	Edible Winkle, Common Periwinkle
Mollusc - Gastropod	*Littorina*	*saxatilis*	Rough Periwinkle
Mollusc - Gastropod	*Peregriana (syn. Lymnaea / Radix)*	*peregra*	Wandering Pond-snail
Mollusc - Gastropod	*Nucella*	*lapillus*	Common Dogwhelk
Mollusc - Gastropod	*Patella*	*vulgata*	Common Limpet
Mollusc - Gastropod	*Ancylus*	*fluviatilis*	Freshwater Limpet
Mollusc - Gastropod	*Pomatopyrgus*	*antipodarum*	Jenkin's Spire-shell
Mollusc - Gastropod	*Gibbula*	*umbilicalis*	Flat / Purple Topshell
Mollusc - Polyplacophoran	*Lepidochitona*	*cinerea*	Common Coat-of-mail-shell
Pteridophyte - Fern	*Asplenium (syn. Phyllitis)*	*scolopendrium*	Hart's-tongue Fern
Pteridophyte - Fern	*Blechnum*	*spicant*	Hard Shield Fern
Pteridophyte - Fern	*Pteridium*	*aquilinum*	Bracken
Pteridophyte - Fern	*Dryopteris*	*aemula*	Hay-scented Buckler-fern
Pteridophyte - Fern	*Dryopteris*	*filix-mas*	Male Fern
Pteridophyte - Fern	*Polypodium*	*interjectum*	Hybrid Polypody
Pteridophyte - Fern	*Athyrium*	*filix-femina*	Lady Fern
Pteridophyte - Fern	*Asplenium*	*adiantum-nigrum*	Black Spleenwort
Pteridophyte - Fern	*Dryopteris*	*dilatata*	Broad Buckler-fern
Pteridophyte - Fern	*Polypodium*	*sp.*	Polypody
Pteridophyte - Horsetail	*Equisetum*	*arvense*	Field Horsetail
Seaweed - Chlorophyte	*Blidingia*	*minima*	Blidingia, Dwarf / Carpet Gutweed
Seaweed - Chlorophyte	*Ulva*	*lactuca*	Sea Lettuce
Seaweed - Chlorophyte	*Ulva (syn. Enteromorpha)*	*linza*	Thin Gut-weed / Ribbonweed
Seaweed - Phaeophyte	*Fucus*	*serratus*	Toothed Wrack
Seaweed - Phaeophyte	*Fucus*	*spiralis*	Spiral Wrack
Seaweed - Phaeophyte	*Sargassum*	*muticum*	Japweed
Seaweed - Rhodophyte	*Porphyra*	*umbilicalis*	Purple Laver
Seaweed - Rhodophyte	*Catenella*	*caespitosa*	Cushion Sea-moss

Seaweed - Rhodophyte	*Corallina*	*officinalis*	Knuckle-moss
Seaweed - Rhodophyte	*Dilsea*	*carnosa*	Red Rags, Dilse
Seaweed - Rhodophyte	*Chondrus*	*crispus*	Caragheen
Seaweed - Rhodophyte	-	*sp.*	Lithothamnia
Symphylan	*Scutigerella*	*immaculata*	
Vertebrate - Amphibian	*Bufo*	*bufo*	Common Toad
Vertebrate - Amphibian	*Rana*	*temporaria*	Common / Pond Frog
Vertebrate - Amphibian	*Lissotriton*	*helveticus*	Palmate Newt
Vertebrate - Bird	*Acanthis*	*flammea*	Redpoll
Vertebrate - Bird	*Accipiter*	*gentilis*	Eurasian Goshawk
Vertebrate - Bird	*Accipiter*	*nisus*	Eurasian Sparrowhawk
Vertebrate - Bird	*Acrocephalus*	*schoenobaenus*	Sedge Warbler
Vertebrate - Bird	*Aegithalos*	*caudatus*	Long-tailed Tit
Vertebrate - Bird	*Alauda*	*arvensis*	Western Skylark
Vertebrate - Bird	*Alectoris*	*rufa*	Red-legged Partridge
Vertebrate - Bird	*Anas*	*platyrhynchos*	Mallard
Vertebrate - Bird	*Anser*	*anser*	Greylag Goose
Vertebrate - Bird	*Anthus*	*petrosus*	(European) Rock Pipit
Vertebrate - Bird	*Anthus*	*pratensis*	Meadow Pipit
Vertebrate - Bird	*Apus*	*apus*	Common Swift
Vertebrate - Bird	*Ardea*	*cinerea*	Grey Heron
Vertebrate - Bird	*Branta*	*canadensis*	Canada Goose
Vertebrate - Bird	*Buteo*	*buteo*	Eurasian Buzzard
Vertebrate - Bird	*Calidris*	*canuta*	Red Knot
Vertebrate - Bird	*Carduelis*	*carduelis*	Eurasian Goldfinch
Vertebrate - Bird	*Certhia*	*familiaris*	Common Treecrreeper
Vertebrate - Bird	*Chloris*	*chloris*	Western Greenfinch
Vertebrate - Bird	*Chroiocephalus*	*ridibundus*	Common Black-headed Gull
Vertebrate - Bird	*Coloeus*	*monedula*	Western Jackdaw
Vertebrate - Bird	*Columba*	*oenas*	European Stock Dove
Vertebrate - Bird	*Columba*	*palumbus*	Western Wood-pigeon
Vertebrate - Bird	*Columba*	*livia domestica*	Feral Pigeon
Vertebrate - Bird	*Corvus*	*frugilegus*	Western Rook
Vertebrate - Bird	*Corvus*	*corax*	Great Raven
Vertebrate - Bird	*Corvus*	*corone*	Carrion Crow
Vertebrate - Bird	*Corvus*	*monedula*	Jackdaw
Vertebrate - Bird	*Cuculus*	*canorus*	European Cuckoo
Vertebrate - Bird	*Curruca*	*communis*	Common Whitethroat
Vertebrate - Bird	*Curruca*	*curruca*	Lesser Whitethroat
Vertebrate - Bird	*Cyanistes*	*caeruleus*	Blue Tit
Vertebrate - Bird	*Delichon*	*urbicum*	European House Martin
Vertebrate - Bird	*Dendrocopos*	*major*	Greater Spotted Woodpecker

Vertebrate - Bird	*Emberiza*	*schoeniclus*	Common Reed-bunting
Vertebrate - Bird	*Erithacus*	*rubecula*	European Robin
Vertebrate - Bird	*Falco*	*aesalon*	Eurasian Merlin
Vertebrate - Bird	*Falco*	*tinnunculus*	Common Kestrel
Vertebrate - Bird	*Falco*	*peregrinus*	Peregrine
Vertebrate - Bird	*Falco*	*subbuteo*	Northern Hobby
Vertebrate - Bird	*Falco*	*peregrinus*	Peregrine
Vertebrate - Bird	*Fringilla*	*coelebs*	Northern Chaffinch
Vertebrate - Bird	*Fulica*	*atra*	Eurasian Coot
Vertebrate - Bird	*Fulmarus*	*glacialis*	Northern Fulmar
Vertebrate - Bird	*Gallinago*	*gallinago*	Common Snipe
Vertebrate - Bird	*Gallinula*	*chloropus*	Common Moorhen
Vertebrate - Bird	*Garrulus*	*glandarius*	Eurasian Jay
Vertebrate - Bird	*Hirundo*	*rustica*	Barn Swallow
Vertebrate - Bird	*Larus*	*argentatus*	European Herring Gull
Vertebrate - Bird	*Larus*	*fuscus*	Lesser Black-backed Gull
Vertebrate - Bird	*Larus*	*marinus*	Great Black-backed Gull
Vertebrate - Bird	*Larus*	*argentatus*	European Herring Gull
Vertebrate - Bird	*Linaria*	*cannabina*	Common Linnet
Vertebrate - Bird	*Locustella*	*naevia*	Common Grasshopper-warbler
Vertebrate - Bird	*Melanitta*	*nigra*	Common Scoter
Vertebrate - Bird	*Milvus*	*milvus*	Red Kite
Vertebrate - Bird	*Milvus*	*milvus*	Red Kite
Vertebrate - Bird	*Morus*	*bassanus*	North Atlantic Gannet
Vertebrate - Bird	*Motacilla*	*cinerea*	Grey Wagtail
Vertebrate - Bird	*Motacilla*	*alba yarelli*	Pied Wagtail
Vertebrate - Bird	*Parus*	*major*	Great Tit
Vertebrate - Bird	*Passer*	*domesticus*	House Sparrow
Vertebrate - Bird	*Periparus*	*ater*	Coal Tit
Vertebrate - Bird	*Phalacrocorax*	*carbo*	Common / Great Cormorant
Vertebrate - Bird	*Phasianus*	*colchicus*	Northern / Ring-necked Pheasant
Vertebrate - Bird	*Phylloscopus*	*trochilus*	Willow Warbler
Vertebrate - Bird	*Phylloscopus*	*collybita*	Northern Chiffchaff
Vertebrate - Bird	*Pica*	*pica*	Common Magpie
Vertebrate - Bird	*Picus*	*viridis*	Green Woodpecker
Vertebrate - Bird	*Pluvialis*	*apricaria*	Eurasian Golden-plover
Vertebrate - Bird	*Podiceps*	*cristatus*	Great Crested Grebe
Vertebrate - Bird	*Poecile*	*montana*	Willow Tit
Vertebrate - Bird	*Poecile*	*palustris*	Marsh Tit
Vertebrate - Bird	*Prunella*	*modularis*	Dunnock
Vertebrate - Bird	*Pyrrhula*	*pyrrhula*	European Bullfinch
Vertebrate - Bird	*Regulus*	*regulus*	European Goldcrest
Vertebrate - Bird	*Saxicola*	*rubetra*	Whinchat
Vertebrate - Bird	*Saxicola*	*rubicola*	European Stonechat
Vertebrate - Bird	*Scolopax*	*rusticola*	Eurasian Woodcock
Vertebrate - Bird	*Sitta*	*europaea*	Woodland Nuthatch

Vertebrate - Bird	*Spinus*	*spinus*	Siskin
Vertebrate - Bird	*Streptopelia*	*decaocto*	Collared Dove
Vertebrate - Bird	*Strix*	*aluco*	Tawny Owl
Vertebrate - Bird	*Sturnus*	*vulgaris*	(Spangled) Starling
Vertebrate - Bird	*Sylvia*	*borin*	Garden Warbler
Vertebrate - Bird	*Sylvia*	*atricapilla*	Blackcap
Vertebrate - Bird	*Troglodytes*	*troglodytes*	Common Wren
Vertebrate - Bird	*Turdus*	*pilaris*	Fieldfare
Vertebrate - Bird	*Turdus*	*viscivorus*	Mistle Thrush
Vertebrate - Bird	*Turdus*	*iliacus*	Redwing
Vertebrate - Bird	*Turdus*	*merula*	European Blackbird
Vertebrate - Bird	*Turdus*	*philomelos*	European Song Thrush
Vertebrate - Bird	*Tyto*	*alba*	Common Barn-owl
Vertebrate - Bird	*Vanellus*	*vanellus*	Northern Lapwing
Vertebrate - Mammal	*Erinaceus*	*europaeus*	Western Hedgehog
Vertebrate - Mammal	*Micromys*	*minutus*	Eurasian Harvest-mouse
Vertebrate - Mammal	*Mustela*	*erminea*	Stoat
Vertebrate - Mammal	*Vulpes*	*vulpes*	Red Fox
Vertebrate - Mammal	*Myodes (= Clethrionomys)*	*glareolus*	Bank / Red-backed Vole
Vertebrate - Mammal	*Apodemus*	*sylvaticus*	Wood Mouse
Vertebrate - Mammal	*Microtus*	*agrestis*	Field Vole
Vertebrate - Mammal	*Meles*	*meles*	European Badger
Vertebrate - Mammal	*Mustela*	*putorius*	European Polecat
Vertebrate - Mammal	*Neomys*	*fodiens*	Water Shrew
Vertebrate - Mammal	*Sorex*	*araneus*	Common Shrew
Vertebrate - Mammal	*Sorex*	*minutus*	Pygmy Shrew
Vertebrate - Mammal	*Talpa*	*europaea*	European Mole
Vertebrate - Mammal	*Nyctalus*	*noctula*	Noctule
Vertebrate - Mammal	*Pipistrellus*	*pipistrellus*	Pipistrelle
Vertebrate - Mammal	*Pipistrellus*	*pygmaeus*	Soprano Pipistrelle
Vertebrate - Mammal	*Plecotus*	*auritus*	Brown Long-eared Bat
Vertebrate - Mammal	*Sciurus*	*carolinensis*	Eastern Grey Squirrel
Vertebrate - Mammal	*Rattus*	*norvegicus*	Brown Rat
Vertebrate - Mammal	*Oryctolagus*	*cuniculus*	European Rabbit
Vertebrate - Mammal	*Lutra*	*lutra*	Eurasian Otter
Vertebrate - Mammal	*Mustela*	*erminea*	Eurasian Stoat
Vertebrate - Mammal	*Talpa*	*europaea*	European Mole
Vertebrate - Reptile	*Vipera*	*berus*	Adder
Vertebrate - Reptile	*Zootaca*	*vivipara*	Viviparous Lizard
Vertebrate -Fish	*Anguilla*	*anguilla*	Atlantic Eel
Vertebrate -Fish	*Pomatoschistus*	*microps*	Common Goby
Vertebrate -Fish	*Pomatoschistus*	*minutus*	Sand Goby
Vertebrate -Fish	*Liparis*	*montagui*	Montague's Sea-snail

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