

BIODIVERSE CONSULTING

RISCA

PRELIMINARY ECOLOGICAL APPRAISAL

FOR: LIDL GB

REF: BIOC23-122 | V1.2



CLIENT	PROJECT		
Lidl GB	Project Name:	Lidl - Risca	
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DOCUMENT CONTROL

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EXECUTIVE SUMMARY

Biodiverse Consulting Ltd was commissioned to undertake a Preliminary Ecological Appraisal (PEA) of land near Commercial Street, Pontymister, Risca West, Newport, NP11 6EE. The Site is proposed to be developed into a retail store with associated infrastructure. This report presents the key ecological constraints and opportunities in relation to the development, as summarised in the table below.

ECOLOGICAL CONS	IDERATIONS FOR RISCA PROPOSAL
Designated Sites	One statutory designated site and seven non-statutory designated sites were identified within 1km of the Site. The River Ebbw SINC is located adjacent to the Site.
Habitats	The majority of the Site consists of urban habitats of negligible value. Scrub habitat present is of Low value.
Bats	The habitats on Site and immediately adjacent to the Site are considered to be of negligible suitability to foraging and commuting bats. No further surveys are required to assess value of the Site for bats.
Birds	Scrub and trees afford limited suitability for nesting and foraging. The adjacent River Ebbw provides good quality foraging habitat to a range of species. The Site is considered to be of local value for birds.
Otter	The terrestrial habitats within the Site offer poor suitability for otter. No activity or signs confirming otter presence were recorded.
Hedgehog	The Site has the potential to support hedgehog with habitats providing some limited suitability for foraging and resting.
Recommendations	Production of Construction Ecological Management Plan Production of a wildlife sensitive lighting scheme

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1 INTRODUCTION

1.1 SITE LOCATION & DESCRIPTION

The Site is located near Commercial Street, Pontymister, Risca West, Newport, NP11 6EE at an approximate central grid reference of ST 24404 89868 as illustrated in Figure 1. The ~1.0ha Site currently consists of a construction materials storage compound with scattered areas of boundary scrub. The surrounding area comprises industrial and residential areas, with the River Ebbw flowing northwest to southeast forming the south-western boundary of the Site.

<complex-block>

FIGURE 1: SITE LOCATION

1.2 REPORT OBJECTIVES

The aim of this report is to determine the potential ecological constraints and opportunities to development. The objectives of this report are to:

- Identify and describe ecological features/receptors that may be present on Site or within an identified Zone of Influence (ZoI).
- Outline potential mitigation, compensation or enhancement measures if required.
- Determine the need for and scope of further surveys.

Image reproduced from Open Str

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1.3 DEVELOPMENT PROPOSALS

The development proposal comprises a retail store with carpark and associated infrastructure based on current Proposed Setting Out Plan Drawing Number P402 Rev W (see Figure 2).



FIGURE 2: PROPOSED DEVELOPMENT PLANS



2 METHODOLOGY

2.1 SURVEY AREA

The survey area comprised the 'Site' (Figure 3) and, where access was available, an appropriate buffer.

FIGURE 3: SURVEY AREA





2.2 DESK STUDY

A desk study was undertaken to obtain pre-existing ecological information relevant to the assessment. The desk study included:

- An assessment of aerial imagery and Ordnance Survey mapping.
- A search of the DataMapWales website¹ for all statutory designated sites within 2km and any additional sites outside of this buffer that have the potential to be impacted by the development.
- A request to the Local Record Centre (LRC) for records of non-statutory designated sites within 1km and protected and priority habitats and species within 2km.

2.3 FIELD SURVEY

Table 1 provides a summary of the field surveys undertaken. Full details of each survey are provided in the subsequent sections. All surveys were undertaken by suitably experienced ecologists; full details are available on request.

TABLE 1: SURVEY SUMMARY

SURVEY TYPE	DATE	TEMPERATURE	CLOUD	PRECIPITATION	WIND ²
PEA	04/01/2024	9°C	85%	None	2 BF

2.3.1 Habitats/Protected Species

The Site was subjected to a Preliminary Ecological Appraisal (PEA) walkover survey during which habitats were assessed in line with the UK Habitat Classification (UKHab) methods³. As part of the survey, the Site was also checked for evidence of protected and priority species, and habitats were assessed for their potential to support them.

2.3.2 Bats

Survey methods and assessment are based on the Bat Conservation Trust (BCT) Good Practice Guidelines⁴. A Preliminary Bat Roost Assessment (PBRA) determined the value of trees and structures to roosting bats. A more general habitat assessment, based on features within the Site and surrounding landscape, determined the value of the Site to foraging and commuting bats.

¹ DataMapWales available at: <u>https://datamap.gov.wales/maps/new#/</u>

² Beaufort wind force scale available at: <u>https://www.metoffice.gov.uk/weather/guides/coast-and-sea/beaufort-scale</u>

³ UKHAB Ltd (2023) The UK Habitats Classification User Manual Version 2 at <u>http://www.ukhab.org/</u>

⁴ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). Bat Conservation Trust



Roosting, foraging and commuting features were classified as Negligible, Low, Moderate or High. This classification determines the need for and scope of follow-up surveys.

2.4 LIMITATIONS TO SURVEY

The survey was undertaken outside of the optimal botanical survey period; therefore, some plant species may not have been identifiable. This is not considered to have significant limitations on the majority of assessments made within this report due to the common and widespread habitats and species recorded during the survey.

2.5 ASSESSMENT

The PEA surveys may provide sufficient information to accurately determine the value of some features, whereas other features may require further study to allow this. Features for which sufficient information is available at this stage are assigned a value using a geographic frame of reference in line with guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM) (Appendix E).



3 RESULTS

3.1 DESK STUDY

3.1.1 Designated Sites

One statutory designated site was identified within 2km of the Site; a Site of Special Scientific Interest (SSSI). Seven non-statutory designated sites were identified within 1km of the Site; Sites of Importance for Nature Conservation (SINCs). A summary of statutory designated sites is provided in Table 2.

The SSSI is of national value and the SINCs are of up to district value.

DESIGNATION	SITE NAME	REASON FOR DESIGNATION	DISTANCE FROM SITE
Statutory Designat	ed Sites		
SSSI	Dan y Graig Quarry	Designated for its Geological and Geomorphological Value.	1300m
Non-statutory Des	ignated Sites		
SINC	River Ebbw	Designated for anadromous fish species and otter.	10m
SINC	Ochrwth Grassland	Designated for its species rich neutral grassland with waxcap species present.	590m
SINC	Monmouth to Brecon Canal	Designated for wetland and woodland habitats.	600m
SINC	Coed Mawr West	Designated for its ancient woodland.	600m
SINC	Coed y Mochyn	Designated for woodland and calcareous grassland.	840m
SINC	Mynydd machen	Designated for its acid and calcareous grassland habitats.	950m
SINC	Ty-Sign Meadows	Designated for its species rich neutral grassland.	990m

TABLE 2: DESIGNATED SITES



3.1.2 Priority Habitats

The River Ebbw, which runs adjacent to the south-western boundary of the Site, is designated as priority habitat. There are records of further Priority Habitats within 2km of the Site including: Purple Moor Grass and Rush Pastures, Lowland Dry Acid Grassland, Upland Calcareous Grassland, Traditional Orchard and Open Mosaic Habitat.

3.1.3 Protected and Priority Species

A summary of recent (2010–present) records of protected, priority or otherwise notable species was provided by the LRC and relevant records are discussed in the results sections below. The full LRC search results are available on request.

3.2 FIELD SURVEY

3.2.1 Habitats

The ~1.0ha Site predominantly contains artificial, sparsely vegetated urban habitats and hardstanding. Pockets of scrub are located within the boundaries of the Site. Detailed accounts of the UKHab habitats are provided below. A map of the UKHab habitats is provided in Appendix A with Target Notes in appendix B.

IMAGE 1 - ARTIFICIAL UNVEGETATED UNSEALED SURFACE

IMAGE 2 - MIXED SCRUB







IMAGE 3 - SPARSELY VEGETATED URBAN LAND



3.2.1.1 h3h – Mixed Scrub

The Site contained two distinct areas of Mixed Scrub within its boundaries.

S1 – This area is dominated by a mix of young to semi-mature willow *Salix* sp. and gorse with an understory of bramble and ivy *Hedera helix* (see Image 2).

S2 – This area contains Mixed Scrub comprised of bramble and buddleia *Buddleia davidii* with an understory of ivy.

These habitats are considered to be of low value due to their low diversity which supports a range of locally and nationally common species.

3.2.1.2 u1f - Sparsely Vegetated Urban Land

An area of predominantly unvegetated land comprising gravel with building materials being stored on it. The area contains approximately 10% vegetation with early successional species present such as dandelion *Taraxacum sp.* and bryophytes.

This habitat is considered to be of low value due to its low diversity which supports a range of locally and nationally common species.

3.2.1.3 u1b – Developed Land; Sealed Surface & u1c – Artificial Unvegetated; Unsealed Surface

An area of Developed Land; Sealed Surface is present on Site in the form of a concrete/tarmac access track.

This habitat is considered to be of negligible value.



3.2.2 Protected Species

Protected species are afforded a level of legal protection which means that their presence may pose a constraint to development. A summary of relevant legislation and associated species is provided in Appendix C.

The following sections describe the results of the field surveys and an appraisal of desk study data. Species not addressed below are considered extremely unlikely to be present and/or affected by the development and so are scoped out of further assessment.

3.2.2.1 Great Crested Newt (GCN) (Triturus cristatus)

Six records for GCN were returned within 2km, with all record locations considered to have poor connectivity to the Site.

No waterbodies suitable for breeding GCN were identified on Site or within 500m. Connectivity to the Site from areas of suitable habitat within the local area is considered very poor due to dense urban development to the north and the Ebbw River acting as a natural barrier to the south.

Due to lack of connectivity to suitable breeding habitats this species is considered to be absent from the Site and is scoped out of further assessment.

3.2.2.2 Reptiles

Records for slow worm *Anguis fragilis*, grass snake *Natrix helvetica*, adder *Vipera berus* and common lizard *Zootoca vivipara* were identified in areas considered to have poor connectivity to the Site.

The majority of the Site is considered to provide low suitability habitat for common reptile species due to a lack of vegetation leading to poor foraging resources. The scrub within the Site boundary and the adjacent grassland within the riparian zone could provide limited suitability habitat due to their structural variation.

An area of derelict land to the adjacent northwestern boundary of the Site appears to provide good quality habitat for common reptiles. Connectivity to suitable habitat in the wider landscape is considered to be poor due to dense urban development to the north and the Ebbw River acting as a natural barrier to the south.

It is unlikely that an important assemblage of reptiles is present on Site, and they are therefore scoped out of further assessment, however a precautionary approach will be adopted to safeguard this taxa during construction.



3.2.2.3 Bats

The desk study identified 131 records of the following bat species within 2km of the Site: common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Nathusius's pipistrelle *Pipistrellus nathusii*, greater horseshoe bat *Rhinolophus ferrumequinum*, lesser horseshoe bat *Rhinolophus hipposideros*, brown long-eared *Plecotus auratus*, western barbastelle *Barbastella barbastellus*, Brandt's bat *Myotis brandtii*, Daubenton's bat *Myotis daubentoniid*, Whiskered bat *Myotis mystacinus*, Natterer's bat *Myotis nattereri*, lesser noctule *Nyctalus leisler* and noctule *Nyctalus noctule*.

A steel footbridge crosses the River Ebbw and contained no Potential Roost Features (PRFs). Trees on Site also contained no PRFs. Therefore, no roosting opportunities are present on Site and suitability for roosting bats is considered negligible.

The Site and the immediate surroundings offer some limited foraging habitat for bats via the on-Site scrub and via the grassland and open water habitats along the adjacent River Ebbw, though the northern boundary of the River Ebbw is devoid of woody species and is, therefore, of limited value to commuting bats.

The habitats on Site and immediately adjacent to the Site are considered to be of negligible suitability to foraging and commuting bats. No further surveys are required to assess value of the Site for bats.

3.2.2.4 Birds

Numerous bird records were returned from within 2km of the Site including Schedule 1 and Red/Amber-Listed⁵ bird species such as kingfisher *Alcedo atthis*, swift *Apus apus* and dipper *Cinclus cinclus*.

The Site affords limited suitability for nesting and foraging within the grassland, scrub and trees on Site for a range of locally common species. The River Ebbw provides good quality foraging habitat to a range of riparian species. The Site is considered to provide unsuitable nesting habitat for Schedule 1 species such as kingfisher. Table 3 provides a summary of the bird species recorded on Site during the walkover survey.

Overall, the Site is considered to be of local value for birds and further surveys are not recommended. A precautionary approach to safeguard birds during construction, together with post development compensation measures, is recommended.

⁵ Birds of Conservation Concern 5 (Dec 2021) Summary – <u>bocc-5-a5-4pp-single-pages.pdf (bto.org)</u>



TABLE 3: BIRD SPECIES RECORDED

SPECIES	COMMENT	CONSERVATION STATUS
Wren	Observed in scrub	Amber listed
Magpie	Observed in tree	Green listed
Cormorant	Multiple resting on bridge off Site.	Green listed

3.2.2.5 Badger (Meles meles)

The desk study returned eight recent records from within 2km of the Site, with the closest being 480m to the south on the other side of the River Ebbw.

The majority of habitats within the Site offer limited potential for foraging and sett creation due to the small area of vegetation on Site. Connectivity to areas of suitable habitat within the wider landscape is limited by dense urban development to the north and the River Ebbw to the south. No activity or signs confirming badger presence, such as setts, latrines, footprints or hairs were recorded.

Due to lack of connectivity to suitable habitats this species is considered to be absent from the Site and is scoped out of further assessment.

3.2.2.6 Hazel Dormouse (Muscardinus avellanarius)

The desk study returned no records within 2km of the Site.

The majority of habitats within the Site offer limited potential for foraging and nesting due to small areas of vegetation. Connectivity to areas of suitable habitat within the wider landscape is very poor due to lack of woodland and hedgerows.

Due to the lack of connectivity to suitable habitats this species is considered to be absent from the Site and is scoped out of further assessment.

3.2.2.7 Otter (Lutra lutra)

The desk study returned fourteen recent records within 2km of the Site, with the closest being recorded 490m to the south near to the River Ebbw.

The terrestrial habitats within the Site offer poor suitability for otter due to the small areas of vegetation and high levels of disturbance. The habitats along the River Ebbw are largely unsuitable for otter. The vegetation along the banks was not considered dense enough to offer sufficient cover, and the banks of the river lacked suitable holt or den creation opportunities and were likely to be subject to significant disturbance from human activity.



No activity or signs confirming otter presence, such as spraint, footprints or slides were recorded during the survey.

Overall, the habitats within the Site are considered to be of negligible value to otter and habitats adjacent to the Site are considered to be of local value to otter.

3.2.2.8 West European Hedgehog (Erinaceus europaeus)

The Site has the potential to support the priority species hedgehog, with habitats providing some limited suitability for foraging and resting. However, no evidence of this species was found at the time of survey.



4 RECOMMENDATIONS

4.1 POTENTIAL IMPACTS

The development has the potential to adversely impact valuable ecological features and some of these impacts may also constitute legal offences. The broad impacts include:

- Direct harm of animal species
- Disturbance of animal species
- Loss and degradation of valuable habitats
- Loss and degradation of habitats that support protected/priority species.

Impacts can be adequately addressed at this stage and therefore a range of good practice avoidance, mitigation and compensation measures are recommended below.

4.2 FURTHER SURVEY AND ASSESSMENT

No further surveys are necessary to inform the assessment of the potential ecological impacts of the development. A range of good practice avoidance, mitigation and compensation measures are recommended to address ecological impacts and reduce the likelihood of legal offences.

4.3 AVOIDANCE

The following measures should be incorporated into the design of the development, including the construction phase, to avoid and reduce impacts on wildlife:

- Construction Ecological Management Plan (CEcMP) to be produced, to avoid harm to ecological features during Site clearance and construction, particularly the River Ebbw SINC.
- Avoid site clearance works during the nesting bird season (March to August inclusive) unless the Site is checked by a Suitably Qualified Ecologist (SQE) and active nests are confirmed to be absent no later than 48 hours before works commence.
- All construction activities will be programmed to daytime hours to reduce disturbance to sensitive nocturnal species, such as bats and roosting bird species.

4.4 MITIGATION

Mitigation is proposed to reduce the impacts on wildlife that cannot be avoided through design:



- External lighting will be designed in line with BCT guidance⁶ to reduce impacts on bats and a range of other wildlife, including otter and other riparian species, associated with retained and off-Site habitats, particularly the River Ebbw SINC located adjacent to the Site.
- Gaps of at least 13cm x 13cm will be created within boundaries to facilitate movement of hedgehogs and other small animals through the Site.

4.5 COMPENSATION/ENHANCEMENT

Compensation is proposed to address the impacts on habitats which cannot be avoided or mitigated:

- A buffer zone should be created between the River Ebbw SINC and the development by
 planting up the boundary with a native species rich hedgerow alongside other native
 vegetation. These created habitats will aim to reduce the impact of light pollution and
 disturbance on the SINC whilst also enhancing habitat and increasing connectivity within the
 riparian zone.
- The incorporation of opportunities for roosting bats and nesting birds within the development.

⁶ Bat Conservation Trust (2023) Guidance Note 08/23: Bats and artificial lighting in the UK



APPENDICES



APPENDIX A - UKHAB MAP



24 January 2024 | FOR: LIDL GB



APPENDIX B - TARGET NOTES

TARGET NOTE	РНОТО
TN1 – Pile of rubble/spoil that could prove refugia to a range of species.	<image/>



APPENDIX C - LRC DATA SEARCH

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Common ScoterMelanitan ingraCommon TernSerna hirundoCotorFulca tartaComorantPulca corox carboCosbillCorol consonCuckooCuclus canorusCurlewNumenius arquataDipperCiclus cinclusDinnockPunello modularisFieldareTardus pilanisGolderestReguls gincipilaGolderestReguls gincipilaGolderestSeconda GualGoldeneyeSick viridisGreenfundCircle cinclusFierdandCircle cinclusGoldeneyeReserviridisGreenfundCircle cinclusGreenfundSick viridisGreenfundSick viridisFierdandSick viridisGreenfundSick viridisHouse SparrowSick viridisKender SparrowSick viridisKinglisherSick viridisKinglisher <td>Common Gull</td> <td>Larus canus</td>	Common Gull	Larus canus
ControlDefend onCommon TemStem hundoCoto <i>fulca ata</i> Comorant <i>kola caroux carbo</i> Cuckoo <i>caulux canorux carba</i> Cuckoo <i>Caulux canorux carba</i> Curlew <i>Numenius arquata</i> Dipper <i>Caclus cancus</i> Dipper <i>Caclus cancus</i> Dunnock <i>Punella modularis</i> Fieldrare <i>Regulus ignicapilla</i> Goldrest <i>Regulus ignicapilla</i> Goldrest <i>Regulus regulus</i> Goldreye <i>Receptada cargua</i> Solawk <i>Caclus cargua</i> Greenfich <i>Chris cholis</i> Greenfich <i>Aloris cholis</i> Fierest <i>Reco arguatus</i> Greenfich <i>Reco arguatus</i> Greenfich <i>Reco arguatus</i> Herring Guli <i>Macal cargenatus</i> Hoby <i>Reco arguatus</i> Horting Ling <i>Reco arguatus</i> Kota <i>Reco arguatus</i> Kota <i>Reco arguatus</i> Horting Card <i>Reco arguatus</i> Ling Sparow <i>Reco arguatus</i> Kota <i>Reco arguatus</i> Kota <i>Reco arguatus</i> Kota <i>Reco arguatus</i> Kota <i>Reco arguatus</i> Kotal <i>Reco arguatus</i> Kotal<	Common Sandpiper	Actitis hypoleucos
CodFulca ariaConcorantPhalcarcoar acaboCorsobillLoxia curiostraCockooCuclus canorusCuckoaCuclus canorusCurlewNumenius arguataDunockCinclus cinclusFiedraneTardas pilarisFiedraneRegulus ignicapilloGoldene PoverBueynaloGoldeneyDunockGoldeneyDiris choirsGoldenekerPierestiGoldenekerScipiter gentilisGoldenekerDiris choirsGrenthondNate cinereGoldenekerScipiter gentilisGrenthondScipiter gentilisGrenthondNate cinereGrenthondScipiter gentilisGoldenekerScipiter gentilisGrenthondScipiter gentilis<	Common Scoter	Melanitta nigra
CromorantPhalacrocara carboCorsobillLoaia curvirostraCuckooCuculus canorusCurlewNumenius arquataDipperCinclus cinclusDunockPrinella modularisFieldareRaguis rapillaFieldareReguis rapillaGoldeneyeBuchalo cangulaGoldeneycaAica fieldiaGrenefinchPicus rapillaGrenefinchAica fieldiaGrenefinchAica fieldiaGreny WangAica fieldiaGreny BartonAica fieldiaHortonAica fieldiaGreny BartonAica fieldiaGreny BartonAica fieldiaHortonAica fieldiaHortonAica fieldiaHortonAica fieldiaGreny BartonAica fiel	Common Tern	Sterna hirundo
Cossbillcivia curvinstraCuckoocuclus canorusCurlewNumenius arquataDipperCinclus cinclusDiponckRonella modularisFieldraTardus pilarisFieldraRegulus ignicapiliaSoldcrestRegulus regulusGolden PoverBuchala congulaSoldensekReceptala congulaSoldensekReceptala congulaGoldensekReceptala congulaSoldensekReceptala congula<	Coot	Fulica atra
CkooCuclus canousCurlewNumenius arquataDipperCinclus cinclusDunockPrunella modularisFieldraTurdus pilarisFiererstRegulus gnicapillaSolderstRegulus gnicapillaSolden PloverBucephalo clangulaSoldensyBucephalo clangulaSoldensySociapilaSoldensyBucephalo clangulaSoldensySociapi	Cormorant	Phalacrocorax carbo
CurlewNumenias arquataDipperCinclus cinclusDunnockPrunella modularisFieldranTurdus pilorisFieldranRegulus galicapillaGolderstRegulus arguitariaGoldeneyBuephalo clangulaGoldeneyeScephalo clangulaGorstaftPicu viridisGreenfunchPicu viridisGreenfunchAccipiter gentilisGreenfunchChoirs choirsGrey WagtallAcida cinereaHoring SulfAcida cinereaHoring SulfScephalo cinereaHouse SparrowPicus viridisJack SnipeFico tinnuculusKingfisherFico tinnuculusKingfisherCaloin scentusLingfisherCaloin scentusLingfisherScentusLingfisherCaloin scentusLingfisherCaloin scentusLingfisherCaloin scentusLingfisherScentusLingfisherCaloin scentusLingfisherCaloin scentus<	Crossbill	Loxia curvirostra
DipperCinclus cinclusDunockPrunella modularisFieldracVardus pilarisFiedractRegulus gincapillaGolderestRegulus regulusGoldeneyeBucephola clangulaGoshawkAccipiter gentilisGreen WoodpeckerPicus viridisGrey HeronAcdaiter gentilisGrey HeronActaiter gentilusGrey BayanMactila cinereaHering GullLacus argentausHobbySasawkLackspireSasawanaKestelSaco substrationKingisherSaco damisticusKing SanaAced attinuculusKing SanaAced attinuculusKing SanaSaco damisticusKing SanaSaco damisticusSanaSaco damisticusSanaSaco damisticusKing SanaSaco damisticusSana<	Cuckoo	Cuculus canorus
DunnockPrunella modularisFieldfareTurdus pilarisFiederatRegulus gnicapillaGoldcrestRegulus gnicapillaGolden PloverPluvialis apricariaGolden eguBucephala clangulaGolden eguBucephala clangulaGoshawkAccipiter gentilisGreen WoodpeckerFicus viridisGreen HoronArdea cinereaGrey WagtailArdea cinereaHorbyFaco subtueHobySparrowJosse SparrowPasser domesticusKatelIson unulusKatelAcido antunulusKingfisherAcido antusKnotCaldris canutusLapwingVanella sundulusLapwingVanella sundulusKingt SparrowSied sundulusKingt SherAcido antusKingt SherAcido antusKingt SherSied sundulusKingt SherSied sundulusSied SherSied sundulusSied SherSied sundulusSied SherSied sundulusSied SherSied	Curlew	Numenius arquata
FieldFare Turdus pilaris FiedFare Regulus ignicapilla FiedFare Regulus ignicapilla Goldcrest Regulus regulus Golden Plover Pluvialis apricaria Goldeneye Bucephala clangula Goshawk Accipiter gentilis Green Woodpecker Fucu viridis Green Woodpecker Acta cinerea Green Yagtail Actacinerea Grey Wagtail Matcolla cinerea Herring Gull Falco subtueto Hobby Falco subtueto House Sparrow Passer domesticus Kestrel Falco turnuculus Knot Caldiris canutus Lipping Vanellus vanellus	Dipper	Cinclus cinclus
FirecrestRegulus ignicapilaGoldcrestRegulus regulusGolden PloverPlovialis apricariaGoldeneyeBucephala clangulaGoshawkAcipiter gentilisGreen WoodpeckerPlous viridisGreen finchChloris chlorisGreen YagtailMata cinereaHerring GullCarus argentausHobyPasser domesticusHose SparrowPasser domesticusKatrelLymocryptes minimusKestrelAlce oatthisKingfisherAlcelo atthisKnotCalidris canutusLapwingCalidris canutusLapwingCalidris canutusLapwingCalidris canutusKestrel GullCalidris canutusLapwingCalidris canutusLapwingCalidris canutusLapwingCalidris canutusKestrel GullCalidris canutusLapwingCalidris canutusLapwingCalidris canutusLapwingCalidris canutusKestrel GullCalidris canutusLapwingCalidris canutus	Dunnock	Prunella modularis
GoldcrestRegulus regulusGoldcrestRegulus regulusGolden PloverPluvialis apricariaGoldeneyeBucephala clangulaGoshawkAccipiter gentilisGoshawkRegulus regulusGreen WoodpeckerPlcus viridisGreen flinchChloris chlorisGreen HeronArdea cinereaGrey WagtailMatacilla cinereaHerring GullLarus argentatusHobyFalco subbuteoHouse SparrowPasser domesticusJack SnipeLymocryptes minimusKestrelFalco tinnunculusKingfisherAlcedo atthisLapwingVanellus vanellusLapwingVanellus vanellusLapwingLarus fuscuHouse SparceStatusKotCalidris canutusKotStatusLapwingVanellus vanellusLapwingLarus fuscuKestrelStatusLapwingLarus fuscuLapwingLarus fuscuKestrelStatusLapwingLarus fuscuLapwingLarus fuscuLapwingLarus fuscuLapwingLarus fuscuLapwingLarus fuscuLapwingLarus fuscuLapwingLarus fuscuLapwingLarus fuscuLapwingLarus fuscuLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwing	Fieldfare	Turdus pilaris
Golden PloverPluvialis apricariaGoldeneyeBucephala clangulaGoshawkAccipiter gentilisGoren WoodpeckerPicus viridisGreen MoodpeckerChloris chlorisGreen HeronArdea cinereaGrey HeronMatcilla cinereaGrey WagtailLarus argentatusHobbyFalco subbuteoHouse SparrowPasser domesticusJack SnipeSick of thinsKestrelFalco suthursKingfisherAiced antitusKotCaldrits canutusLapwingLairus canutusLapwingSinellus vanellusLapwingLairus canutusLapwingLairus canutus<	Firecrest	Regulus ignicapilla
GoldeneyeBucephala clangulaGoshawkAccipiter gentilisGreen WoodpeckerPicus viridisGreen MoodpeckerChloris chlorisGreen HinchArdea cinereaGrey HeronMatcailla cinereaGrey WagtailMotacilla cinereaHorbyFalco subbuteoHobbyPasser domesticusHouse SparrowSace domesticusKestrelFalco subbuteoKingfisherAccida cinuculusKnotCalidiris canutusLapwingVanellus canutusLapwingKanellus canutusLapwingKanellus canutusLapwingKanellus canutusLapwingKanellus canutusKestrelKanellus canutusKnotCalidiris canutusLapwingKanellus canutusLapwingKanellus canutusKestrel CalilKanellus canutusKnotCalidiris canutusLapwingKanellus canutusLapwingKanellus canutusKestrel CalilKanellus canutusKnotCalidiris canutusLapwingKanellus canutusKanel Calilus canutusKanellus canutusKanel Calilus canutusKa	Goldcrest	Regulus regulus
GoshawkAccipiter gentilisGreen WoodpeckerPicus viridisGreen finchChloris chlorisGrey HeronArdea cinereaGrey WagtailMotacilla cinereaHerring GullLarus argentatusHobbyFalco subbuteoHouse SparrowPasser domesticusJack SnipeLymnocryptes minimusKestrelScoto anti-scotoKingfisherAlcedo atthisKnotCalidris canutusLapwingVanellus vanellusLapwingLarus fuscusLapwingLarus fuscusLapwing	Golden Plover	Pluvialis apricaria
Green WoodpeckerPicus viridisGreen MoodpeckerPicus viridisGreen finchChloris chlorisGrey HeronArdea cinereaGrey WagtailMotacilla cinereaHerring GullLarus argentatusHobbyFalco subbuteoHouse SparrowPasser domesticusJack SnipeLymnocryptes minimusKestrelAlced oatthisKingfisherAlced oatthisLapwingVanellus vanellusLapwingLarus fuscusLapwingLarus fuscusLapwingLarus fuscusKingtischer GullLarus fuscusLapwingLarus fuscusLapwing	Goldeneye	Bucephala clangula
GreenfinchChloris chlorisGrey HeronArdea cinereaGrey WagtailMotacilla cinereaHerring GullLarus argentatusHobbyFalco subbuteoHouse SparrowPaser domesticusJack SnipeJumorzytes minimusKestrelAcdo atthisKingfisherAlcedo atthisLapwingVanellusLapwingSing SubuscoLapwingLanus and LanusLapwingLanus antellusLapwingLanus functionsLapwingLanus functionsLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwingLapwing	Goshawk	Accipiter gentilis
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Grey WagtailMotacilla cinereaHerring GullLarus argentatusHobbyFalco subbuteoHouse SparrowPasser domesticusJack SnipeLymocryptes minimusKestrelFalco tinnunculusKingfisherAlcedo atthisLowingCaldiris canutusLapwingLanus fullus vanellusLesser Black-backed GullLanus fuscus	Greenfinch	Chloris chloris
Herring GullLarus argentatusHobyFalco subbuteoHouse SparrowPasser domesticusJack SnipeLymocryptes minimusKestrelFalco tinnuculusKingfisherAlcedo atthisLopwingVanellus vanellusLapwingLarus fuscusLaser Black-backed GullLarus fuscus	Grey Heron	Ardea cinerea
HobbyFalco subbuteoHouse SparrowPasser domesticusJack SnipeLymocryptes minimusKestrelFalco tinnunculusKingfisherAlcedo atthisKnotCalidris canutusLapwingVanellus vanellusLesser Black-backed GullLarus fuscus	Grey Wagtail	Motacilla cinerea
House SparrowPasser domesticusJack SnipeLymocryptes minimusKestrelFalco tinnunculusKingfisherAlcedo atthisKnotCalidris canutusLapwingVanellus vanellusLesser Black-backed GullLarus fuscus	Herring Gull	Larus argentatus
Jack Snipe Lymnocryptes minimus Kestrel Falco tinnunculus Kingfisher Alcedo atthis Knot Calidris canutus Lapwing Vanellus vanellus Lesser Black-backed Gull Larus fuscus	Hobby	Falco subbuteo
Kestrel Falco tinnuculus Kingfisher Alcedo atthis Knot Calidris canutus Lapwing Vanellus vanellus Lesser Black-backed Gull Larus fuscus	House Sparrow	Passer domesticus
Kingfisher Alcedo atthis Knot Calidris canutus Lapwing Vanellus vanellus Lesser Black-backed Gull Larus fuscus	Jack Snipe	Lymnocryptes minimus
Knot Calidris canutus Lapwing Vanellus vanellus Lesser Black-backed Gull Larus fuscus	Kestrel	Falco tinnunculus
Lapwing Vanellus vanellus Lesser Black-backed Gull Larus fuscus	Kingfisher	Alcedo atthis
Lesser Black-backed Gull Larus fuscus	Knot	Calidris canutus
	Lapwing	Vanellus vanellus
	Lesser Black-backed Gull	Larus fuscus
Lesser Redpoll Acanthis cabaret	Lesser Redpoll	Acanthis cabaret



COMMON NAME	SCIENTIFIC NAME
Linnet	Linaria cannabina
Long-tailed Tit	Aegithalos caudatus
Mallard	Anas platyrhynchos
Marsh Tit	Poecile palustris
Meadow Pipit	Anthus pratensis
Merlin	Falco columbarius
Mistle Thrush	Turdus viscivorus
Nightjar	Caprimulgus europaeus
Osprey	Pandion haliaetus
Peregrine	Falco peregrinus
Pochard	Aythya ferina
Red Kite	Milvus milvus
Redstart	Phoenicurus phoenicurus
Redwing	Turdus iliacus
Reed Bunting	Emberiza schoeniclus
Sand Martin	Riparia riparia
Sitta europaea caesia	Sitta europaea caesia
Skylark	Alauda arvensis
Snipe	Gallinago gallinago
Song Thrush	Turdus philomelos
Spotted Flycatcher	Muscicapa striata
Starling	Sturnus vulgaris
Swallow	Hirundo rustica
Swift	Apus apus
Teal	Anas crecca
Tree Pipit	Anthus trivialis
Tree Sparrow	Passer montanus
Tufted Duck	Aythya fuligula
Wheatear	Oenanthe oenanthe
Whimbrel	Numenius phaeopus
Whinchat	Saxicola rubetra
Whitethroat	Curruca communis
Willow Tit	Poecile montanus
Willow Warbler	Phylloscopus trochilus
Wood Warbler	Phylloscopus sibilatrix
Woodcock	Scolopax rusticola
Yellow Wagtail	Motacilla flava
Yellowhammer	Emberiza citrinella
FISH	
Bullhead	Cottus gobio
European Eel	Anguilla anguilla
BRYOPHYTES	



COMMON NAME	SCIENTIFIC NAME
Common Pocket-moss	Fissidens taxifolius
Creeping Feather-moss	Amblystegium serpens
Curled Hook-moss	Palustriella commutata
Delicate Tamarisk-moss	Thuidium delicatulum
Dwarf Feather-moss	Microeurhynchium pumilum
Fragile Fork-moss	Dicranum tauricum
Heterocladium flaccidum	Heterocladium flaccidum
Lesser Striated Feather-moss	Plasteurhynchium striatulum
Pointed-leaved Stubble-moss	Weissia rutilans
Slender Ditrichum	Flexitrichum gracile
Small Hairy Screw-moss	Syntrichia laevipila
Tall Aloe-moss	Aloina ambigua
Top Notchwort	Mesoptychia turbinata
Wall Feather-moss	Rhynchostegium murale
Wall Screw-moss	Tortula muralis
Weissia brachycarpa var. obliqua	Weissia brachycarpa var. obliqua
INVERTEBRATES (INSECT)	
Anomalous	Stilbia anomala
Atypophthalmus inustus	Atypophthalmus inustus
August Thorn	Ennomos quercinaria
Autumnal Rustic	Eugnorisma glareosa
Azure Damselfly	Coenagrion puella
Banded Demoiselle	Calopteryx splendens
Beaded Chestnut	Agrochola lychnidis
Beautiful Demoiselle	
	Calopteryx virgo
Black-fringed Moss-snipefly	Calopteryx virgo Ptiolina obscura
Black-fringed Moss-snipefly	Ptiolina obscura
Black-fringed Moss-snipefly Black-tailed Skimmer	Ptiolina obscura Orthetrum cancellatum
Black-fringed Moss-snipefly Black-tailed Skimmer Bleached Pug	Ptiolina obscura Orthetrum cancellatum Eupithecia expallidata
Black-fringed Moss-snipefly Black-tailed Skimmer Bleached Pug Blomer's Rivulet	Ptiolina obscura Orthetrum cancellatum Eupithecia expallidata Venusia blomeri
Black-fringed Moss-snipefly Black-tailed Skimmer Bleached Pug Blomer's Rivulet Blood-vein	Ptiolina obscura Orthetrum cancellatum Eupithecia expallidata Venusia blomeri Timandra comae
Black-fringed Moss-snipefly Black-tailed Skimmer Bleached Pug Blomer's Rivulet Blood-vein Blue-tailed Damselfly	Ptiolina obscura Orthetrum cancellatum Eupithecia expallidata Venusia blomeri Timandra comae Ischnura elegans
Black-fringed Moss-snipefly Black-tailed Skimmer Bleached Pug Blomer's Rivulet Blood-vein Blue-tailed Damselfly Brachyopa pilosa	Ptiolina obscura Orthetrum cancellatum Eupithecia expallidata Venusia blomeri Timandra comae Ischnura elegans Brachyopa pilosa
Black-fringed Moss-snipefly Black-tailed Skimmer Bleached Pug Blomer's Rivulet Blood-vein Blue-tailed Damselfly Brachyopa pilosa Brindled Beauty	Ptiolina obscura Orthetrum cancellatum Eupithecia expallidata Venusia blomeri Timandra comae Ischnura elegans Brachyopa pilosa Lycia hirtaria Libellula depressa Ceramica pisi
Black-fringed Moss-snipefly Black-tailed Skimmer Bleached Pug Blomer's Rivulet Blood-vein Blue-tailed Damselfly Blue-tailed Damselfly Brachyopa pilosa Brindled Beauty Broad-bodied Chaser Broom Moth Broom-tip	Ptiolina obscura Orthetrum cancellatum Eupithecia expallidata Venusia blomeri Timandra comae Ischnura elegans Brachyopa pilosa Lycia hirtaria Libellula depressa Ceramica pisi Chesias rufata
Black-fringed Moss-snipeflyBlack-tailed SkimmerBleached PugBlomer's RivuletBlood-veinBlue-tailed DamselflyBrachyopa pilosaBrindled BeautyBroad-bodied ChaserBroom MothBroom-tipBrown-spot Pinion	Ptiolina obscuraOrthetrum cancellatumEupithecia expallidataVenusia blomeriTimandra comaeIschnura elegansBrachyopa pilosaLycia hirtariaLibellula depressaCeramica pisiChesias rufataAnchoscelis litura
Black-fringed Moss-snipefly Black-tailed Skimmer Bleached Pug Blomer's Rivulet Blood-vein Blue-tailed Damselfly Blue-tailed Damselfly Brachyopa pilosa Brindled Beauty Broad-bodied Chaser Broom Moth Broom-tip Brown-spot Pinion Buff Ermine	Ptiolina obscuraOrthetrum cancellatumEupithecia expallidataVenusia blomeriTimandra comaeIschnura elegansBrachyopa pilosaLycia hirtariaLibellula depressaCeramica pisiChesias rufataAnchoscelis lituraSpilosoma lutea
Black-fringed Moss-snipeflyBlack-tailed SkimmerBleached PugBlomer's RivuletBlood-veinBlue-tailed DamselflyBrachyopa pilosaBrindled BeautyBroad-bodied ChaserBroom MothBrown-spot PinionBuff ErmineBulrush Veneer	Ptiolina obscuraOrthetrum cancellatumEupithecia expallidataVenusia blomeriTimandra comaeIschnura elegansBrachyopa pilosaLycia hirtariaCeramica pisiChesias rufataAnchoscelis lituraSpilosoma luteaCalamotropha paludella
Black-fringed Moss-snipeflyBlack-tailed SkimmerBleached PugBlomer's RivuletBlood-veinBlue-tailed DamselflyBrachyopa pilosaBrindled BeautyBroad-bodied ChaserBroom MothBroom-tipBrown-spot PinionBuff ErmineBulrush VeneerCentre-barred Sallow	Ptiolina obscuraOrthetrum cancellatumEupithecia expallidataVenusia blomeriTimandra comaeIschnura elegansBrachyopa pilosaLycia hirtariaCeramica pisiChesias rufataAnchoscelis lituraSpilosoma luteaCalamotropha paludellaAtethmia centrago
Black-fringed Moss-snipeflyBlack-tailed SkimmerBleached PugBlomer's RivuletBlood-veinBlue-tailed DamselflyBrachyopa pilosaBrindled BeautyBroad-bodied ChaserBroom MothBroom-tipBrown-spot PinionBuff ErmineBulrush VeneerCentre-barred SallowCinnabar	Ptiolina obscuraOrthetrum cancellatumEupithecia expallidataVenusia blomeriTimandra comaeIschnura elegansBrachyopa pilosaLycia hirtariaCeramica pisiChesias rufataAnchoscelis lituraSpilosoma luteaCalamotropha paludellaAtethmia centragoTyria jacobaeae
Black-fringed Moss-snipeflyBlack-tailed SkimmerBleached PugBlomer's RivuletBlood-veinBlue-tailed DamselflyBrachyopa pilosaBrindled BeautyBroad-bodied ChaserBroom MothBroom-tipBrown-spot PinionBuff ErmineBulrush VeneerCentre-barred Sallow	Ptiolina obscuraOrthetrum cancellatumEupithecia expallidataVenusia blomeriTimandra comaeIschnura elegansBrachyopa pilosaLycia hirtariaCeramica pisiChesias rufataAnchoscelis lituraSpilosoma luteaCalamotropha paludellaAtethmia centrago



COMMON NAME	SCIENTIFIC NAME
Common Darter	Sympetrum striolatum
Common Hawker	Aeshna juncea
Dark Brocade	Mniotype adusta
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata
Dasiops trichosternalis	Dasiops trichosternalis
Deep-brown Dart	Aporophyla lutulenta
Devon Carpet	Lampropteryx otregiata
Dicranomyia aquosa	Dicranomyia aquosa
Dicranomyia lucida	Dicranomyia lucida
Dingy Skipper	Erynnis tages
Dot Moth	Melanchra persicariae
Double Dart	Graphiphora augur
Dusky Brocade	Apamea remissa
Dusky Thorn	Ennomos fuscantaria
Ear Moth	Amphipoea oculea
Emperor Dragonfly	Anax imperator
Ernodes articularis	Ernodes articularis
Feathered Gothic	Tholera decimalis
Flounced Chestnut	Anchoscelis helvola
Forester	Adscita statices
Galium Carpet	Epirrhoe galiata
Garden Dart	Euxoa nigricans
Garden Tiger	Arctia caja
Ghost Moth	Hepialus humuli
Golden-ringed Dragonfly	Cordulegaster boltonii
Grass Rivulet	Perizoma albulata
Grayling	Hipparchia semele
Green-brindled Crescent	Allophyes oxyacanthae
Grey Dagger	Acronicta psi
Heath Rustic	Xestia agathina
Hedge Rustic	Tholera cespitis
Hill Soldier	Oxycera pardalina
Holly Blue	Celastrina argiolus britanna
Keeled Skimmer	Orthetrum coerulescens
Knot Grass	Acronicta rumicis
Lackey	Malacosoma neustria
Large Red Damselfly	Pyrrhosoma nymphula
Large Wainscot	Rhizedra lutosa
Latticed Heath	Chiasmia clathrata
Lesne's Earwig	Forficula lesnei
Limonia trivittata	Limonia trivittata
Little Thorn	Cepphis advenaria
Liverwort Snipefly	Spania nigra



COMMON NAME	SCIENTIFIC NAME
Migrant Hawker	Aeshna mixta
Minor Shoulder-knot	Brachylomia viminalis
Mordellistena neuwaldeggiana	Mordellistena neuwaldeggiana
Mottled Rustic	Caradrina morpheus
Mouse Moth	Amphipyra tragopoginis
Neglected Rustic	Xestia castanea
Northern Drab	Orthosia opima
Oak Hook-tip	Watsonalla binaria
Oak Lutestring	Cymatophorina diluta
Orchesia minor	Orchesia minor
Pearl-bordered Fritillary	Boloria euphrosyne
Platypalpus luteolus	Platypalpus luteolus
Plectrocnemia brevis	Plectrocnemia brevis
Polydrusus formosus	Polydrusus formosus
Powdered Quaker	Orthosia gracilis
Pretty Chalk Carpet	Melanthia procellata
Red-tailed (Hill) Cuckoo Bee	Bombus rupestris
Rosy Minor	Litoligia literosa
Rosy Rustic	Hydraecia micacea
Rustic	Hoplodrina blanda
Sallow	Cirrhia icteritia
Satin Lutestring	Tetheella fluctuosa
Scallop Shell	Rheumaptera undulata
Scarce Grass-veneer	Crambus pratella
Scarce Yellow Splinter	Lipsothrix nobilis
September Thorn	Ennomos erosaria
Shaded Broad-bar	Scotopteryx chenopodiata
Shoulder-striped Wainscot	Leucania comma
Silver-washed Fritillary	Argynnis paphia
Slender Ground-hopper	Tetrix subulata
Small Emerald	Hemistola chrysoprasaria
Small Heath	Coenonympha pamphilus
Small Pearl-bordered Fritillary	Boloria selene
Small Phoenix	Ecliptopera silaceata
Small Square-spot	Diarsia rubi
Southern Hawker	Aeshna cyanea
Southern Yellow Splinter	Lipsothrix nervosa
Speckled Bush-cricket	Leptophyes punctatissima
Spinach	Eulithis mellinata
Streak	Chesias legatella
Suillia dumicola	Suillia dumicola
Swollen-thighed Blood Bee	Sphecodes crassus
Tachyura parvula	Tachyura parvula



COMMON NAME	SCIENTIFIC NAME
Thaumastoptera calceata	Thaumastoptera calceata
Thyme Pug	Eupithecia distinctaria
Tinodes unicolor	Tinodes unicolor
V-moth	Macaria wauaria
Wall	Lasiommata megera
White Ermine	Spilosoma lubricipeda
White-line Dart	Euxoa tritici
White-marked	Cerastis leucographa
White-speckled Clothes	Nemapogon koenigi
MAMMALS (TERRESTRIAL)	
Bat	Chiroptera
Brandt's Bat	Myotis brandtii
Brown Hare	Lepus europaeus
Brown Long-eared Bat	Plecotus auritus
Common Pipistrelle	Pipistrellus pipistrellus
Daubenton's Bat	Myotis daubentonii
Eurasian Badger	Meles meles
Eurasian Common Shrew	Sorex araneus
Eurasian Otter	Lutra lutra
Eurasian Water Shrew	Neomys fodiens
Greater Horseshoe Bat	Rhinolophus ferrumequinum
Hazel Dormouse	Muscardinus avellanarius
Lesser Horseshoe Bat	Rhinolophus hipposideros
Lesser Noctule	Nyctalus leisleri
Myotis Bat species	Myotis
Nathusius's Pipistrelle	Pipistrellus nathusii
Natterer's Bat	Myotis nattereri
Noctule Bat	Nyctalus noctula
Pipistrelle	Pipistrellus pipistrellus
Pipistrelle Bat species	Pipistrellus
Polecat	Mustela putorius
Soprano Pipistrelle	Pipistrellus pygmaeus
West European Hedgehog	Erinaceus europaeus
Western Barbastelle	Barbastella barbastellus
Whiskered Bat	Myotis mystacinus
Whiskered/Brandt's Bat	Myotis mystacinus/brandtii
Yellow-necked Mouse	Apodemus flavicollis
REPTILES & AMPHIBIANS	
Adder	Vipera berus
Common Frog	Rana temporaria
Common Lizard	Zootoca vivipara
Common Toad	Bufo bufo
Grass Snake	Natrix helvetica



COMMON NAME	SCIENTIFIC NAME
Great Crested Newt	Triturus cristatus
Palmate Newt	Lissotriton helveticus
Slow-worm	Anguis fragilis
VASCULAR PLANTS	
Alder Buckthorn	Frangula alnus
Alternate Water-milfoil	Myriophyllum alterniflorum
an Eyebright	Euphrasia tetraquetra
Arrowhead	Sagittaria sagittifolia
Autumn Gentian	Gentianella amarella
Autumn Lady's-tresses	Spiranthes spiralis
Basil Thyme	Clinopodium acinos
Bee Orchid	Ophrys apifera
Bird's-nest Orchid	Neottia nidus-avis
Black Horehound	Ballota nigra
Bluebell	Hyacinthoides non-scripta
Butcher's-broom	Ruscus aculeatus
Charlock	Sinapis arvensis
Common Reed	Phragmites australis
Common Rock-rose	Helianthemum nummularium
Common Spotted-orchid	Dactylorhiza fuchsii
Corn Marigold	Glebionis segetum
Cornflower	Centaurea cyanus
Cowslip	Primula veris
Crested Hair-grass	Koeleria macrantha
Crowberry agg.	Empetrum nigrum
Dactylorhiza maculata subsp. ericetorum	Dactylorhiza maculata subsp. ericetorum
Dark-red Helleborine	Epipactis atrorubens
Dwarf Thistle	Cirsium acaule
Ficaria verna var. bulbifer	Ficaria verna var. bulbifer
Gentianella amarella subsp. amarella	Gentianella amarella subsp. amarella
Grape-hyacinth	Muscari neglectum
Greater Duckweed	Spirodela polyrhiza
Greater Knapweed	Centaurea scabiosa
Green Field-speedwell	Veronica agrestis
Grey Field-speedwell	Veronica polita
Hairy St John's-wort	Hypericum hirsutum
Hairy Violet	Viola hirta
Hawkweed Oxtongue	Picris hieracioides
Heath False-brome	Brachypodium pinnatum
Hoary Plantain	Plantago media
Horned Pondweed	Zannichellia palustris
Ivy-leaved Duckweed	Lemna trisulca
Meadow Barley	Hordeum secalinum



COMMON NAME	SCIENTIFIC NAME
Meadow Brome	Bromus commutatus
Mistletoe	Viscum album
Mountain Currant	Ribes alpinum
Narrow-leaved Everlasting-pea	Lathyrus sylvestris
Narrow-leaved Water-plantain	Alisma lanceolatum
Pyramidal Orchid	Anacamptis pyramidalis
Red Hemp-nettle	Galeopsis angustifolia
Rigid Hornwort	Ceratophyllum demersum
River Water-crowfoot	Ranunculus fluitans
Round-leaved Crane's-bill	Geranium rotundifolium
Silene latifolia subsp. alba	Silene latifolia subsp. alba
Slender Sandwort	Arenaria serpyllifolia subsp. leptoclados
Small Pondweed	Potamogeton berchtoldii
Southern Marsh-orchid	Dactylorhiza praetermissa
Sparganium erectum subsp. neglectum	Sparganium erectum subsp. neglectum
Spiked Water-milfoil	Myriophyllum spicatum
Stinking Hellebore	Helleborus foetidus
Stinking Iris	Iris foetidissima
Stone Parsley	Sison amomum
Thin-spiked Wood-sedge	Carex strigosa
Tree-mallow	Malva arborea
Unbranched Bur-reed	Sparganium emersum
Upright Brome	Bromopsis erecta
Various-leaved Water-starwort	Callitriche platycarpa
Water Chickweed	Myosoton aquaticum
Wayfaring-tree	Viburnum lantana
Welsh Poppy	Meconopsis cambrica
White Bryony	Bryonia dioica
White Water-lily	Nymphaea alba
Yellow Water-lily	Nuphar lutea
Yellow-rattle	Rhinanthus minor
Yellow-wort	Blackstonia perfoliata



APPENDIX D - POLICY AND LEGISLATION

The Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 19817, as amended by the Countryside and Rights of Way Act (CRoW) 2000⁸ and the Natural Environment and Rural Communities Act (NERC) 2006⁹, is the main legislation that protects wildlife in Great Britain and is the mechanism for defining and protecting nationally important Sites of Special Scientific Interest (SSSI). The legislation makes it offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection; and
- Pick or uproot any wild plant listed under Schedule 8 of the Act. Schedule 9, Part II of the Act also lists many species for which it is an offence to plant, or otherwise cause to grow, in the wild. Any material containing Japanese knotweed is also identified as controlled waste under the Environmental Protection Act 1990¹⁰ and must be disposed of properly at licenced landfill according to the Environmental Protection Act (Duty of Care) Regulations 1991¹¹.

The Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species a Regulations 2017¹² (the 'Habitat Regulations'), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019¹³, establish the requirements for protecting sites that are internationally important for threatened habitats and species – the National Site Network – and thus the requirement for a 'Habitat Regulations Assessment' of plans or developments with potential to affect them.

https://www.legislation.gov.uk/ukpga/2000/37/contents

https://www.legislation.gov.uk/ukpga/2006/16/contents

- ¹⁰ The Environmental Protection Act 1990. Available from:
- https://www.legislation.gov.uk/ukpga/1990/43/contents

 ⁷ Wildlife and Countryside Act 1981. Available from: <u>https://www.legislation.gov.uk/ukpga/1981/69</u>
 ⁸ The Countryside and Rights of Way Act 2000. Available from:

⁹ Natural Environment and Rural Communities Act 2006. Available from:

¹¹ The Environmental Protection Act (Duty of Care) Regulations 1991. Available from: <u>https://www.legislation.gov.uk/uksi/1991/2839/made</u>

¹² The Conservation of Habitats and Species Regulations 2017. Available from: https://www.legislation.gov.uk/uksi/2017/1012/contents/made

¹³ The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 Available from: <u>https://www.legislation.gov.uk/ukdsi/2019/9780111179512/contents</u>



The Habitat Regulations also establish the strict protection of some species – European Protected Species – and make it an offence to deliberately capture, kill or disturb certain wild animals, and to damage or destroy a breeding site or resting place of such an animal even if the animal is not present at the time.

Natural Environment & Rural Communities (NERC) Act 2006

The NERC Act 2006⁹ places a duty on local planning authorities to have due regard for biodiversity and nature conservation during their operations, and thus ensures that biodiversity is a key consideration in the planning process. The Act also establishes a list of species and habitats of principal importance ('Priority' Species and Habitats) for the conservation of biodiversity.

The Environment (Wales) Act 2021¹⁴

The Environment Act 2021 provides a framework for environmental protection in the UK. It is a wide-ranging piece of legislation affecting many aspects of the natural environment, including biodiversity. The act sets clear targets to halt the decline in wildlife populations through a legally binding target for species abundance by 2030 and a requirement to increase species populations by 10% by 2042.

Ramsar Convention

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (the 'Ramsar Convention'¹⁵) provides the only international mechanism for protecting internationally important wetlands; such sites are designated as Ramsar sites. It is government policy that Ramsar sites are afforded the same level of protection as sites in the National Site Network and so they are also subject to HRA.

Protection of Badgers Act 1992

Badgers receive strict protection under the Protection of Badgers Act 1992¹⁶, which prohibits the taking, injuring, selling, possessing or killing of badgers and makes it an offence to ill-treat any badger, damage, destroy, disturb or cause a dog to enter a badger sett.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997¹⁷ establishes the legal protection of important countryside hedgerows, principally ancient and species-rich hedgerows. The Hedgerow Regulations also

¹⁴ The Environment Act 2021. Available from: <u>https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted</u>

¹⁵ The Ramsar Convention <u>https://www.ramsar.org/</u>

 ¹⁶ Protection of Badgers Act 1992. Available from: <u>https://www.legislation.gov.uk/ukpga/1992/51/contents</u>
 ¹⁷ The Hedgerow Regulations 1997. Available from:

http://www.legislation.gov.uk/uksi/1997/1160/contents/made



provide arrangements for planning authorities to protect important hedgerows in the countryside by controlling their removal through a system of notification.

Planning Policy Wales

Planning Policy Wales¹⁸ sets out the Welsh Government's requirement for the planning system in Wales and in doing so establishes the framework within which local planning authorities can develop their own planning policies.

Biodiversity Action Plans

The UK Biodiversity Action Plan (UK BAP) was developed to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. The UK Post-2010 Biodiversity Framework'¹⁹ succeeded the UKBAP and expired in 2019, but the UKBAP priority species and habitats are retained through the NERC Act 2006. Regional and local BAPs have also been developed for species/habitats of nature conservation importance at regional and local levels.

¹⁸ Planning Policy Wales 2021 (edition 11). Available from:

https://www.gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf ¹⁹ UK Post-2010 Biodiversity Framework. Available from: <u>https://hub.jncc.gov.uk/assets/587024ff-864f-4d1d-a669-f38cb448abdc</u>



APPENDIX E - VALUE OF ECOLOGICAL FEATURES

VALUE	EXAMPLES
International	 An internationally designated site or candidate site (SPA, pSPA, SAC, cSAC, pSAC, Ramsar site) or an area which meets the designation criteria for such sites. Internationally significant and viable areas of a habitat type listed in Annexe 1 of the Habitats Directive, or smaller areas of such habitat, which are essential to maintain the viability of a larger whole. Any regularly occurring, globally threatened species. A regularly occurring population of an internationally important species, which is threatened or rare in the UK, of uncertain conservation status A regularly occurring, nationally significant population/number of any internationally important species.
National	 A nationally designated site (e.g. SSSI, NNR) or a discrete area which meets the published selection criteria for national designation (e.g. SSSI selection guidelines) irrespective of whether or not it has yet been notified. A viable area of a UK BAP priority habitat, or smaller areas of such habitat which are essential to maintain the viability of a larger whole. A regularly occurring significant number/population of a nationally important species e.g. listed on the Wildlife and Countryside Act 1981 (as amended). A regularly occurring population of a nationally important species that is threatened or rare in the county or region. A feature identified as being of critical importance in the UK BAP.
Regional / County	 Viable areas of key habitat identified in the Regional or County BAP or smaller areas of such a habitat, which are essential to maintain the viability of the larger whole. Regional/county significant and viable areas of key habitat identified as being of regional value. A regularly occurring significant population/number of any important species important at a regional/county level. Any regularly occurring, locally significant population of a species which is listed in a Regional/County Red Data Book or BAP on account of its regional rarity or localisation. Sites of conservation importance that exceed the district selection criteria but that fall short of SSSI selection guidelines.
City/District/ Borough	 Areas of habitat identified in a District/City/Borough BAP or in the relevant Natural Area profile. Sites that the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves selected on District/City/Borough ecological criteria. Sites/features that are scarce within the District/City/Borough or which appreciably enrich the District/City/Borough habitat resource. A diverse and/or ecologically valuable hedgerow network.



VALUE	EXAMPLES
	 A population of a species that is listed in a District/City/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation. A regularly occurring, locally significant number of a District/City/Borough important species during key phases of its life cycle.
Parish	• A feature considered scarce within a Parish or which appreciably enriches the Parish resource.
Local	 Areas identified in a Local BAP or the relevant natural area profile. Sites/features which area scarce in the locality or which are considered to appreciably enrich the habitat resource within the local context, e.g. species-rich hedgerows. Local Nature Reserves selected on Parish/Local ecological criteria. Significant numbers/population of a locally important species <u>e.g.</u> one which is listed on the Local BAP. Any species, populations or habitats of local importance.
Low	• Habitats of moderate to low diversity which support a range of locally and nationally common species, the loss of which can be easily mitigated.



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