

UPPER PARLIAMENT STREET

LOCATION

COMBINED BAT & HABITAT SURVEY



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1.0 Introduction

- 1.1.1 This extended Phase 1 Habitat Survey has been prepared by Anthony Nickson on behalf of Shape Consulting Engineers. The report will accompany the planning application for the development proposals.
- 1.1.2 The application site (ref. figure 1) is located in Liverpool (grid ref: SJ3636789362). The site is bound by Upper Parliament Street to the north, Princes Primary School to the east, Mulgrave Street to the west and residential properties to the south.
- 1.1.3 The habitats within the site comprise: amenity grassland; scattered trees; buildings; and hardstanding. The wider landscape is dominated by residential and commercial developments, green space and scattered trees.



Figure 1. Site location

- 1.1.4 Biodiversity is a material consideration to the planning process and consideration must be given to the protection, retention and improvement, of existing biodiversity features. As the proposed works at Upper Parliament Street may have possible impacts of wildlife and biodiversity, consideration should be given to protected and notable habitats and species which may be present within and/or adjacent to the application site prior to construction works commencing.
- 1.1.5 The survey was commissioned to establish the existing ecological value of the application site in order to support the planning application for the development proposals. The aim of the survey was to:
 - Describe and map the habitats present on the site
 - Assess any potential impact on protected species or sites
 - Identify where further survey may be required



2.0 Methodology

2.1 Desktop Study

2.1.1 A desk study was carried out to obtain and review ecological information held by the Local Records Centre. Merseyside Biobank, the local biological records centre covering Liverpool was asked to provide protected and notable habitat and species information for the site and an area within 1km radius of the site.

2.2 Phase 1 Habitat Site Survey

- 2.2.1 A Phase 1 Habitat Survey was undertaken to JNCC standards (Phase 1 Habitat Survey a technique for environmental audit, JNCC, updated 2007). Following this, a Phase 1 Habitat map describing each habitat and its boundary was produced. This report details each habitat category within the site. Please see Appendix A for the Phase 1 Habitat map.
- 2.2.2 A site survey was carried out on the 6th July 2017 in optimal conditions for botanical survey. Botanical nomenclature follows Stace, C. A., 2010, New Flora of the British Isles, 3rd Ed., Cambridge University Press.
- 2.2.3 The survey was carried out by Anthony Nickson who is experienced in Phase 1 Habitat and protected species work, and is also a full member of the Chartered Institute of Ecology and Environmental Management.
- 2.2.4 During the site survey evidence and/or potential of any other protected species was recorded. Based on the desktop study and habitat types present on the site, particular attention was paid to the following species:

Bats

- 2.2.5 All British bat species and their roosts are protected under European Law (The Conservation of Habitats and Species Regulations 2010) and UK Law (Wildlife and Countryside Act 1981, as amended). As such it is an offence to undertake the following acts;
 - Deliberately capture, injure or kill a bat
 - Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats
 - Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
 - Intentionally or recklessly obstruct access to a bat roost
- 2.2.6 As the project proposals suggest a major impact on the existing dining hall and trees surrounding the building, a specific assessment of the site for bats was undertaken.

Habitat Suitability

2.2.7 Initially, a review of publically accessible online mapping systems was undertaken to assess the habitats present on site and in the surrounding area. The review assessed the suitability of the habitats to support and provide connectivity for commuting and foraging bats.

Preliminary Roost Assessment

2.2.8 A preliminary roost assessment of the existing electricity sub-station and scattered trees was undertaken. An external inspection was undertaken to search for, and to assess the potential for, a bat roost to be present in each structure.



2.2.9 The existing electricity sub-station surrounding trees was then assessed in accordance with the guidelines for assessing the potential suitability of proposed development sites for bats (BCT, 2016).

Suitability	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low A structure with one or more potential roost sites that could be used bats opportunistically. However, these potential roost sites do not pro space, shelter, protection, appropriate conditions and/or suitable sur habitat to be used on a regular basis or by larger numbers of bats (i.e. be suitable for maternity or hibernation).	
	A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Table 1. Guidelines for assessing the potential suitability of proposed development sites for batsbased on the presence of suitable roosting features within a structure

2.2.10 A pair of close focussing binoculars, a high-powered torch and an endoscope were used (where required) to search for evidence of bats, externally and internally.

Transect Survey

- 2.2.11 As the site walkover and review of online mapping systems suggested that the site had potential for commuting and foraging bats a transect survey was carried out in order to determine the value of the habitats present within the application site for bats. The survey involved walking a predetermined transect route, using hand-held bat detectors, in order to record and observe (where possible) any bats foraging and commuting.
- 2.2.12 During the initial site walkover, habitats which would be affected by the proposed development were identified and an appropriate transect routes determined. The route ensured that all habitats were sampled, although the primary focus was on habitats with greater suitability for bats. The transect route is detailed in figure 2.
- 2.2.13 The transect survey was carried out on the 11/07/2017, starting at sunset and lasting for 2.5 hours. The transect was walked at a constant speed (so the sampling area was the same per unit time) along the planned route with stops of 5 minutes at seven predetermined vantage points along the route where we continued to observe and record bats. The transect route was walked three times during the survey. An Anabat Express bat detector was used in GPS Transect Mode to record each bat echolocation call and link it to a specific location (using GPS points) and time to enable the data to be easily mapped and presented.



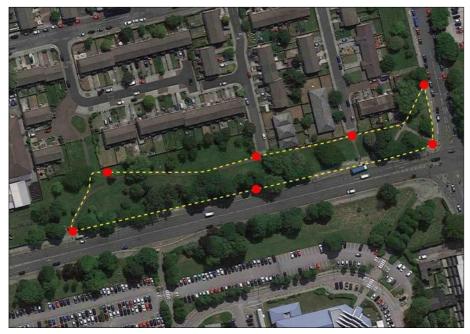


Figure 2. Bat transect route

Birds

- 2.2.14 All birds, their nests and eggs are protected at the nest under UK Law (Wildlife and Countryside Act 1981, as amended). As such it is an offence to intentionally undertake the following acts;
 - Kill, injure or take any wild bird
 - Take, damage or destroy the nest of any wild bird whilst it is in use or being built
 - Take or destroy the egg of any wild bird
- 2.2.15 Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird



3.0 Results

3.1 Desktop Study

- 3.1.1 Merseyside Biobank (Local Record Centre) provided the following information for the site and a 1km radius:
 - Statutory and Non-Statutory Sites
 - Protected and BAP Species
- 3.1.2 It should be noted that although the records provided by the Local Record Centre are based on current records, they do not represent an exhaustive list of all records.
- 3.1.3 The information from the data search was analysed and the relevant issues have been detailed below:

International/National Protected Sites

3.1.4 The desktop study search shows that there are no sites with European or National statutory designation within a 1km radius of the site boundary.

Local Nature Reserves

3.1.5 The desktop study search shows that there are no Local Nature Reserves (LNR) within a 1km radius of the site boundary.

Local Wildlife Sites

- 3.1.6 The desktop study search shows that there are no Local Wildlife Sites (LWS) within a 1km radius of the site boundary.
- 3.1.7 There is one potential Liverpool Local Wildlife Site; Princess Park approximately 775m south of the site boundary.

Protected Species

3.1.8 There were no records of protected species on the site. The following results are of protected species relevant to the local area:

Bats

3.1.9 The local record centre identified 22 bat records within a 1km radius of the site. All of the records are field records and the closest records have been summarised below:



Species	Number of Records	Location	Grid Ref	Distance from site	Date
Bat Species (<i>Chiroptera</i>)	2	Liverpool Anglican Cathedral,	SJ353894	750m west	1993
Brown long-eared bat (Plecotus auritus)	1	Liverpool Dental Hospital	SJ3590	1350m north-west	1991
Common pipistrelle (Pipistrellus pipistrellus)	1	Flat 23, 12 Sunnyside, Liverpool, L33TD	SJ366883	1050m south	2013
Pipistrelle spp. (Pipistrellus spp.)	1	Princes Avenue, Toxteth	SJ3688	480m south-west	1991
Mouse-eared bat (<i>Myotis</i> spp.)	1	Linnet House, Ullet Road, Sefton Park, Liverpool	SJ3788	1350m south-east	1992

Birds

3.1.10 The local record centre provided numerous bird records within the 1km search area including species which are known to nest in habitats present within or immediately adjacent to the site, such as: house sparrow (*Passer domesticus*) and dunnock (*Prunella modularis*).

3.2 Phase 1 Habitat Site Survey

Habitat Description

3.2.1 The site is approximately 0.74ha and comprises: amenity grassland; scattered trees; buildings; and hardstanding.

Amenity grassland

- 3.2.2 The predominant habitat within the site boundary is amenity grassland (ref. Plate 1) which is managed through a frequent mowing regime. The grassland species in this habitat are dominated by red fescue (*Festuca rubra*); and perennial rye-grass (*Lolium perenne*).
- 3.2.3 The herb species which were less frequent in the sward included: creeping buttercup (*Ranunculus repens*); dandelion (*Taraxacum officinale* agg.); greater plantain (*Plantago major*); selfheal (*Prunella vulgaris*) and yarrow (*Achillea millefolium*).

Scattered trees

3.2.4 There are numerous scattered trees (ref. Plates 2-6) which have been planted uniformly within the amenity grassland. The species are diverse and include: alder (*Alnus glutinosa*); cherry (*Prunus* spp.); horse-chestnut (*Aesculus hippocastanum*); poplar (*Populus* spp.); sycamore (*Acer pseudoplatanus*); and whitebeam (*Sorbus aria*)



Tall ruderal

3.2.5 Areas of tall ruderal habitat (ref. Plates 7-8) are present along the southern boundary of the site adjacent to the residential development. The species in the tall ruderal habitat include: common nettle (*Urtica dioica*); Field horsetail (*Equisetum arvense*); herb-Robert (*Geranium robertianum*); wall barley (*Hordeum murinum*) and willowherb (*Epilobium* spp.).

Buildings

3.2.6 There is a single building within the application site; a small single storey electricity sub-station (ref. Plates 9-11).

Hardstanding

3.2.7 Hardstanding within the site consists of tarmac pedestrian areas (ref. Plate 12).

Protected Species

Bats

3.2.8 All British bat species use buildings or trees to roost throughout the year; notably pipistrelle bats and brown long-eared bats, which have been recorded within 1km of the application site.

Habitat Suitability

3.2.9 The application site supports green space and scattered trees with pockets similar habitats in the wider landscape also present. The site and its surroundings therefore provide low suitability to support commuting and foraging bats.

Preliminary Roost Survey

3.2.10 The preliminary roost survey results for the existing dining hall is outlined in table 1 below.

Table 3. Preliminary Roost Assessment results

Building	Description	Bat Roost
Name		Suitability
Existing electricity sub-station	The existing electricity substation (ref. Plates 9-10) is a single storey brick building with a concrete slab roof; which has a bitumen covering.	Low
	There is some disrepair to the brickwork (ref. Plate 11) which could provide opportunities for roosting bats. No evidence of roosting bats was identified during the inspection of the substation.	

3.2.11 None of the trees within the application site provide roosting features for bats.



Transect surveys

3.2.12 The results of the transect survey are shown in figures 3-5 and table 5 below:



Figure 3. Bat contacts during transect survey

3.2.13 During the transect survey a total of twelve bat passes (contacts) were recorded; all of the bats recorded were common pipistrelle bats. The first bat was recorded on site 26 minutes after sunset. The bats were all recorded along the scattered trees on the northern and southern boundaries of the site which provide good foraging habitat for this species.

able 5. Data from transect survey					
Time Date		Grid Reference			
22:02:15	Common Pipistrelle	SJ3638989343			
22:06:31	Common Pipistrelle	SJ3638989343			
22:06:48	Common Pipistrelle	SJ3638989345			
22:07:04	Common Pipistrelle	SJ3638889347			
22:07:13	Common Pipistrelle	SJ3637089345			
22:07:28	Common Pipistrelle	SJ3635489344			
22:07:45	Common Pipistrelle	SJ3634689344			
22:12:14	Common Pipistrelle	SJ3629689337			
22:12:50	Common Pipistrelle	SJ3629689337			
22:39:55	Common Pipistrelle	SJ3630889357			
22:42:00	Common Pipistrelle	SJ3633589363			
23:00:47	Common Pipistrelle	SJ3629889338			

Table 5. Data from transect survey

Birds

3.2.14 The scattered trees provide suitable habitat within the application site for nesting birds during the nesting season (March to September).



4.0 Evaluation

4.1 Desktop Study

International/National Protected Sites

4.1.1 There are no internationally or nationally statutory designated sites within the application site or within a 1km radius of the application site.

Local Nature Reserves

4.1.2 There are no Local Nature Reserves (LNR) within the application site or within a 1km radius of the application site.

Local Wildlife Sites

- 4.1.3 There are no Local Wildlife Sites (LWS) within the application site or within a 1km radius of the application site.
- 4.1.4 There is one potential Liverpoool Local Wildlife Site; Princess Park approximately 775m south of the site boundary.
- 4.1.5 Due to the habitats present within the application site, and the distance between the application site and Princess Park (potential Liverpoool Local Wildlife Site) it is considered the proposed development will not directly or indirectly affect Princes Park and no further assessment is required.

4.2 Phase 1 Habitat Site Survey

Habitats

4.2.1 The Phase 1 Habitats recorded within the application site are common throughout the UK. No nationally rare or locally rare plant species were documented during the extended Phase 1 Habitat Survey (Preston et al, 2002). The site is therefore considered to be of low ecological value.

Bats

Preliminary Roost Assessment

- 4.2.2 The preliminary roost assessment confirmed that the existing electricity sub-station has low potential to support roosting bats, however, although the sub-station is within the site boundary it will not be impacted by the design proposals for the site.
- 4.2.3 The preliminary roost assessment of the trees within the application site concluded that none of the trees supported roosting features for bats.

Transect surveys

4.2.4 The transect survey revealed that the habitats within the site, in particular the scattered trees and scrub in the north-east of the site provide foraging and commuting habitat for a small amount of common bat species (common pipistrelle and soprano pipistrelle). As there are similar examples of foraging/commuting habitat for bats in the local area, it is considered that the site provides foraging/commuting value for bats at a local level only.



Birds

4.2.5 The scattered trees provide suitable habitat for breeding birds. The site is considered to provide low value for breeding birds.



5.0 Recommendations

Other Protected Species

5.1.1 No additional protected species survey work is recommended.

Birds

- 5.1.2 All bird species are protected at their nest under the Wildlife and Countryside Act 1981. Due to the scattered trees present within the application site providing suitable habitat for breeding birds, it is recommended that any works to these habitats take place outside the peak bird breeding season.
- 5.1.3 If site works to these habitats will be undertaken within the nesting season then an appropriately qualified ecologist will be required to undertake a site walkover to visually assess potentially suitable nesting habitat for active nests. If active nests are discovered, then site works must cease until the nest is deemed inactive.

External Lighting

- 5.1.4 The impact of light to biodiversity within the site, and in particular bats and flying invertebrates should be mitigated through the implementation of a sensitive lighting strategy.
- 5.1.5 The boundaries of the site are considered to be the vulnerable to light pollution as the established gardens of the properties surrounding the site are likely to provide commuting habitat for the local bat populations. Any lighting specified along the boundaries or within the site should use downward directed lighting with a tightly controlled distribution to limit unwanted backwards spill to minimise the impact of light spill.
- 5.1.6 As numerous flying insects are attracted to ultra violet light the external lighting should use LED lighting sources which are UV filtered to limit the amount of UV light produced, this will minimise the attraction to insect from adjacent habitats and feeding areas and minimise unnatural behaviour stimulated by the lighting.

Biodiversity Enhancement

- 5.1.7 In line with the National Planning Policy Framework the planning system should contribute to and enhance the natural and local environment by providing net gains in biodiversity where possible. In order to comply with National Planning Policy Framework the following ecological enhancements should be incorporated into the development:
 - The increased structural integrity of modern developments reduces the potential for birds and bats to utilise modern buildings for nesting and roosting therefore any new developments should integrate a variety of bird and/or bat boxes.
 - Maximising native tree and other vegetation planting will provide recognizable fruit and nectar sources for local birds and invertebrates and will enhance the biodiversity of the development.



6.0 References

Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition, Bat Conservation Trust, J. Collins, 2016

Countryside and Wildlife Act, 1981

EU Habitats Directive, 1994

Institute of Environmental Assessment's 'Guidelines for Baseline Ecological Assessment', 1997

New Atlas of the British and Irish Flora. Oxford University Press, Preston, C.D., Pearman, D. & Dines, T. 2002

New Flora of the British Isles, 3rd Ed., Cambridge University Press, Stace, 2010

Phase 1 Habitat Survey – a technique for environmental audit, JNCC, Updated 2007

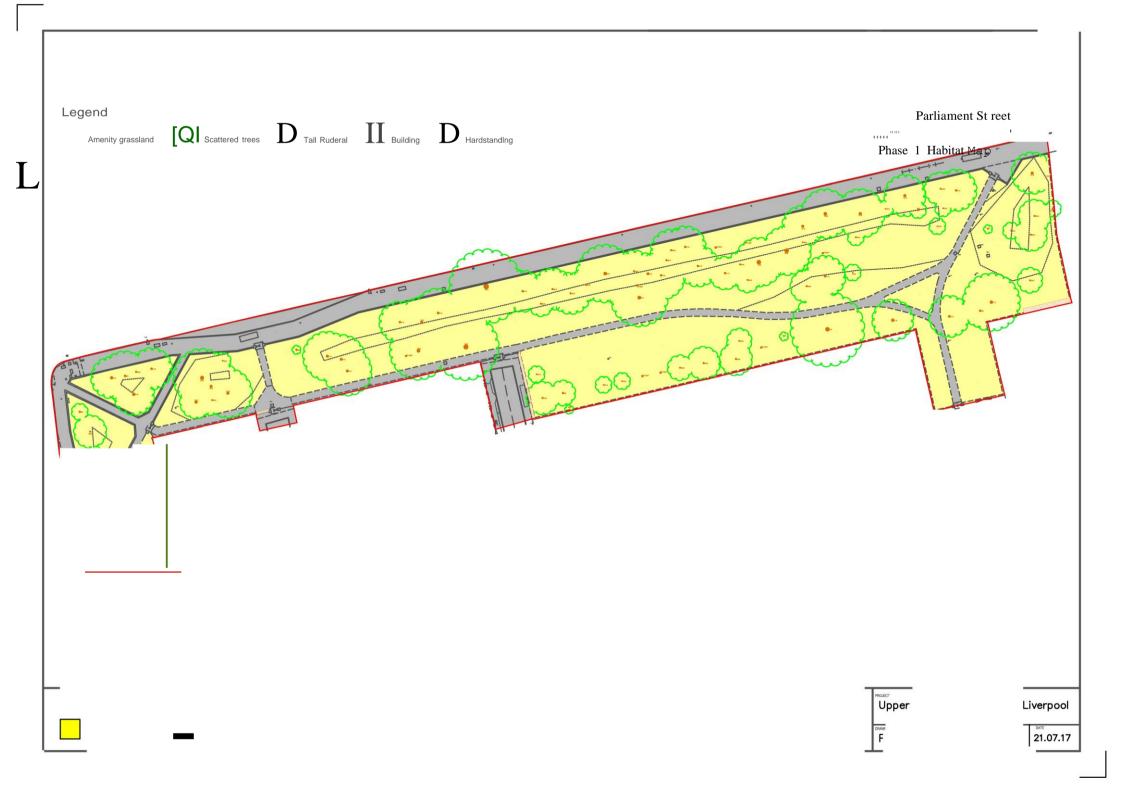
Upper Parliament Street [Ref: 2236], Merseyside Biobank, 12th July 2017



Appendix A - Phase 1 Habitat Map

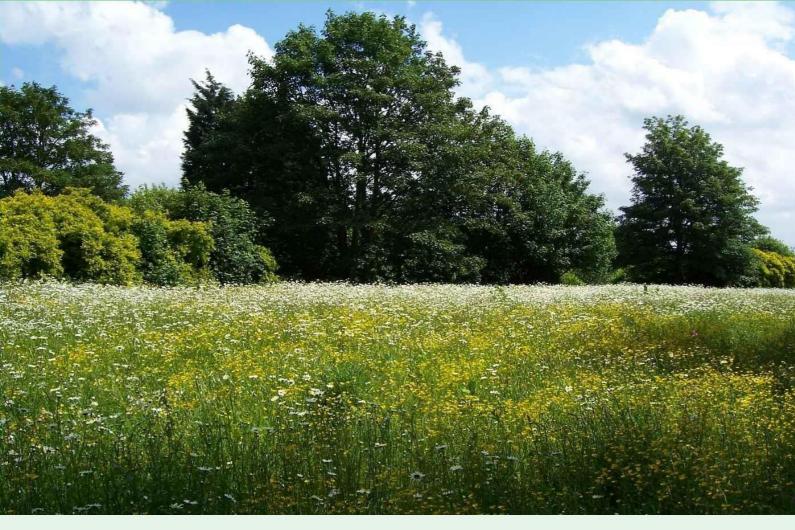








Appendix B - Ecological Data Search Records









Biodiversity Information Report 12/07/2017

MBB reference: 2236-EnviroSolution

Site: Upper Parliament Street



Your Ref: None supplied	MBB Ref: 2236-EnviroSolution	Date: 12/07/2017
Your contact: Anthony Nickson	MBB Contact: Ben Deed	

Merseyside BioBank biodiversity information report

These are the results of your data request relating to an area at Upper Parliament Street defined by a buffer of 1000 metres around the centre of grid reference SJ3636789362.

You have been supplied with the following:

- records of **protected** taxa that intersect the search area
- records of **BAP** taxa that intersect the search area
- records of **Red Listed** taxa that intersect the search area
- records of other '**notable**' taxa that intersect the search area
- records of WCA schedule 9 taxa (including 'invasive plants') that intersect the search area
- a map showing the location of monad and tetrad references that overlap the search area
- a list of all **designated sites** that intersect your search area
- citations, where available, for intersecting Local Wildlife Sites
- a list of other sites of interest (e.g. Ancient Woodlands) that intersect your search area
- a map showing such sites
- a list of all **BAP habitats** which intersect the search area
- a map showing BAP habitats
- a summary of the area for all available mapped **Phase 1 and/or NVC habitats** found within 500m of your site
- a map showing such habitats

Merseyside BioBank (MBB) is the Local Records Centre (LRC) for North Merseyside. We collect and collate biological and environmental information and make it available to people and organisations that have need to access such information in North Merseyside. We promote the North Merseyside Biodiversity Action Plan and wider participation in conservation through education, community involvement and by supporting the biological recording community of North Merseyside.

Merseyside BioBank is an information node of the National Biodiversity Network (NBN) and integrate records from our own databases with those of the NBN Gateway.

The handling charge for this data request is not a charge for the data themselves, but rather a partial charge for the staff time required to service the request. Our annual income from data requests is something less than 20% of our total running costs.

Species records

The biological records held by Merseyside BioBank come from a variety of sources; from large organisations to individual amateur naturalists. Merseyside BioBank operates as managers or custodians of these records but the individuals and groups, who provide their records free of charge, retain copyright on their data. Without their contribution, we would not be able to provide the records included in this report. Their efforts, expertise and goodwill make a substantial contribution to the protection of North Merseyside's biodiversity.



You may only use the records in this document subject to our access terms and conditions which can be found in Appendix 1. Non-adherence to these terms and conditions will be viewed as a breach of contract, which may result in legal redress being sought.

This report also integrates records from the NBN Gateway. Some NBN data providers give us permission to download and integrate their records at a higher resolution than available through public access in order to contribute to the protection of North Merseyside's biodiversity.

Details of the biological records summarised in the following tables, and the sources from which they are derived, are included in appendix 2 of this report. Note that the date ranges in the summary tables (headed 'Dates') show the earliest and latest years for which records have been summarised for each taxon.

UK Protected Species

'UK Protected species' are those taxa specifically identified by UK legislation including: Wildlife & Countryside Act 1981 (as amended); Protection of Badgers Act 1992; Conservation of Habitats and Species Regulations 2010. The latter regulations enact the European Union's (EU) Habitats Directive (92/43/EEC) in the UK and supercede The Conservation Regulations 1994. In our list of protected species, you may see designations that refer to schedules in the 1994 regulations, but these remain unchanged under the 2010 regulations.

Some protected species may not be legally disturbed unless you are in possession of an appropriate license. If you are in any doubt as to whether or not a license is required, you should contact Natural England.

The following tables actual the protected species that					
Group	Common Name	Scientific Name	Records	Dates	Designations
amphibian	Common Frog	Rana temporaria	1	2006	WCA5/9.5a
bird	Black Redstart	Phoenicurus ochruros	2	1999	WCA1i
flowering plant	Bluebell	Hyacinthoides non-scripta	5	1983-1997	WCA8
terrestrial mammal	Bats	Chiroptera	2	1988-1993	HabRegs2,WCA5/9.4b,WCA5/9.5a,WC A5/9.4c
	Brown Long-eared Bat	Plecotus auritus	2	1991	HabRegs2,WCA5/9.4b,WCA5/9.5a,WC A5/9.4c
	Common Pipistrelle	Pipistrellus pipistrellus	1	2013	HabRegs2,WCA5/9.4b,WCA5/9.5a,WC A5/9.4c
	Eurasian Red Squirrel	Sciurus vulgaris	1	1970	WCA5/9.2,WCA5/9.4.a,WCA5/9.4b,WC A5/9.5a,WCA5/9.4c
	European Water Vole	Arvicola amphibius	1	1994	WCA5/9.4.a,WCA5/9.4b,WCA5/9.4c
	Pipistrelle Bat species	Pipistrellus	2	1991	HabRegs2,WCA5/9.4b,WCA5/9.5a,WC A5/9.4c
	Unidentified Bat	Myotis	1	1992	HabRegs2,WCA5/9.4b,WCA5/9.5a,WC A5/9.4c

The following tables detail the protected species that were recorded in the search area.

Desig. Code	Desig. Name	Designation Description			
WCA5/9.5a		Section 9.5 Animals which are protected from being sold, offered for sale or being hel transported for sale either live or dead, whole or part.			
WCA1i		Birds and their young, for which it is an offence to intentionally or recklessly disturb at, on or near an active nest. They are protected by special penalties at all times.			
WCA8		Plants which are protected from intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).			



HabRegs2	The Conservation (Natural Habitats, &c.) Regulations 2010 (Schedule 2)	Schedule 2- European protected species of animals.			
WCA5/9.4b		Section 9.4 Animals which are protected from intentional disturbance while occupying structure or place used for shelter or protection.			
WCA5/9.4c	Wildlife and Countryside Act 1981 (Schedule 5)	Animals which are protected from their access to any structure or place which they use for shelter or protection being obstructed.			
WCA5/9.2	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.2)	Section 9.2 Animals which are protected from being possessed or controlled (live or dead).			
WCA5/9.4.a	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.4, subdivision a)	Section 9.4 subdivision a - Animals which are protected from intentional damage or destruction to any structure or place used for shelter or protection.			

North Merseyside BAP Species

The North Merseyside Biodiversity Action Plan (NM BAP) was published in September 2001 and last reviewed in 2008. Like other Local Biodiversity Action Plans (LBAPs) its purpose is to focus local conservation on national priority species and habitats. However, LBAPs also embrace the idea of 'local distinctiveness' and species which are not considered UK conservation priorities can be catered for by LBAPs if they are of particular local significance. Such is the case with the NM BAP which currently names 74 species of which 57 are not conservation priority species but are included because their conservation is considered to be a priority in North Merseyside.

Group	Common Name	Scientific Name	Records	Dates	Designations
bird	House Martin	Delichon urbicum	1	1997	LBAP
	House Sparrow	Passer domesticus	10	1997-2006	LBAP
	Lapwing	Vanellus vanellus	2	1999	LBAP
	Song Thrush	Turdus philomelos	6	1997-1999	LBAP
	Starling	Sturnus vulgaris	4	1997-1998	LBAP
	Swift	Apus apus	2	1997	LBAP
flowering plant	Bluebell	Hyacinthoides non-scripta	5	1983-1997	LBAP
	Willow	Salix viminalis x repens = S. x friesiana	1	1981	LBAP
insect - dragonfly (Odonata)	Banded Demoiselle	Calopteryx splendens	2	2009	LBAP
	Black-tailed Skimmer	Orthetrum cancellatum	5	2001-2016	LBAP
	Blue-tailed Damselfly	Ischnura elegans	13	2006-2011	LBAP
	Broad-bodied Chaser	Libellula depressa	1	2009	LBAP
	Brown Hawker	Aeshna grandis	6	2006-2011	LBAP
	Common Blue Damselfly	Enallagma cyathigerum	2	2006-2010	LBAP
	Common Darter	Sympetrum striolatum	8	2007-2011	LBAP
	Emperor Dragonfly	Anax imperator	3	2006-2010	LBAP
	Migrant Hawker	Aeshna mixta	2	2008-2010	LBAP
	Southern Hawker	Aeshna cyanea	4	2006-2010	LBAP
terrestrial mammal	Bats	Chiroptera	2	1988-1993	LBAP
	Brown Long-eared Bat	Plecotus auritus	2	1991	LBAP
	Common Pipistrelle	Pipistrellus pipistrellus	1	2013	LBAP
	Eurasian Red Squirrel	Sciurus vulgaris	1	1970	LBAP
	European Water Vole	Arvicola amphibius	1	1994	LBAP
	Pipistrelle Bat species	Pipistrellus	2	1991	LBAP
	Unidentified Bat	Myotis	1	1992	LBAP

The following tables detail the North Merseyside BAP species that were recorded in the search area.



Desig. Code	Desig. Name	Designation Description
LBAP	North Merseyside BAP	Species that are incorporated within the North Merseyside Biodiversity Action Plan. These species may or may not also be UK BAP species. Some species have their own action plans within the NM BAP, others are members of group species action plans.

NM BAP species: Urban Birds (*Delichon urbicum; Passer domesticus; Sturnus vulgaris; Apus apus*) The four species covered by the NM BAP Urban Birds Species Action Plan (House Martin, Swift, House Sparrow and Starling) are considered to be in significant decline across the UK. In North Merseyside House Sparrows and Starlings currently breed in all urban areas, while House Martins are restricted to areas nearer sources of mud for nest-building. Swifts occurred in only 55 tetrads during 1997-2000.

Urban bird numbers are thought to relate strongly to the availability of prey species, and nesting opportunities.

Declines are most likely caused by the reduction in the diversity and abundance of invertebrate prey species resulting from increased 'tidiness' in our parks and gardens, the use of pesticides and other changes in farm practices. The exclusion of urban birds from breeding in or around modern buildings reduces nesting opportunities for urban birds.

NM BAP species: Lapwing (Vanellus vanellus)

Between 1987 and 1998 Lapwing declined by 48% in England and Wales with Wales and the SW of England showing greatest loss. Two thirds of the population is now resident in the N and NW of England.

Locally this species continues to breed in all suitable habitats and the 2002-03 surveys indicated a population of around 1,500 pairs with arable farmland and pockets of grassland being particularly favoured.

Local threats are thought to include development in nesting areas, increasing recreation and disturbance, scrub encroachments on coastal grassland and changes in farm practice towards silage production, livestock and agricultural intensification.

NM BAP species: Song Thrush (*Turdus philomelos*)

Although still widespread, Song Thrush declined sharply by around 73% in farmland (mid 1970s) and 49% in woodland (1968-1993), while overall UK numbers fell by 50% between 1970 and 2005. The North of the UK is thought to have been hit hardest.

In North Merseyside, though thinly distributed, Song Thrush still breed in most areas with an estimated 500 pairs during 1997-2000. Highest breeding concentrations were found to occur in suburban areas where abundant garden and parkland habitats were present.

Song Thrush are reliant on a variety of habitats to meet their needs at different times of the year and loss of these habitats is causes a reduction in numbers.

Local factors in the decline of the species include changes in farm practices that remove nesting habitat (hedgerows and dense scrub), limit the abundance of winter food (changes in sowing, cropping and use of herbicides/molluscicides) or cause the loss of feeding habitat (use of pesticides/herbicides and monocropping).



NM BAP species: Bluebell (*Hyacinthoides non-scripta*)

British Bluebells make up about 20% of the global population of *Hyacinthoides non-scripta* and are often found in humid woodland habitat, along hedgerows and on occasion along the coast. Locally there are a number of good colonies.

Local threats to the species include possible over-shading in un-managed woodlands, localised trampling by the public in popular areas and hybridisation with the Spanish Bluebell. On a national scale declines are cause by the loss of woodland habitat, grazing by introduced Muntjac, collection of plants and hybridisation with Spanish Bluebell.

NM BAP species: Sefton Coast Rare Plants (*Salix viminalis x repens = S. x friesiana*)

A number of rare plants of the Sefton Coast are recognised as declining on a national scale, with some found in very few other locations. They are all rare locally and in some cases declining. Threats include development causing loss of habitat and destruction of populations, encroachment of scrub which both out competes species and reduces suitable habitat. In dome cases rabbit grazing, sand-blow and other changes in the local conditions have detrimental affects.

Due to the small size of many of the populations they are highly vulnerable to any damage or disturbance.

NM BAP species: Dragonflies (*Calopteryx splendens; Orthetrum cancellatum; Ischnura elegans;* Libellula depressa; Aeshna grandis; Enallagma cyathigerum; Sympetrum striolatum; Anax imperator; Aeshna mixta; Aeshna cyanea)

Twentyone species of dragonfly and damselfly are included in the NM BAP Dragonflies Species Action Plan. These include vagrant species and some which are thought to be undergoing range expansions in the UK. Eighteen of these species are known to breed in our local area, with significant breeding sites in St Helens and Sefton.

Local causes of decline in this include the destruction or damage of essential wetland habitat through development, waste-tipping and agricultural run-off. Removal of nearby feeding habitats such as woodlands, hedgerows and tall vegetation is also detrimental.

NM BAP species: Bats (*Plecotus auritus; Pipistrellus pipistrellus*)

The NM BAP Bats Species Action Plan covers all species found in North Merseyside since all are considered to be locally threatened.

Bat Species are found throughout North Merseyside, with Pipistrelles (Common/Soprano) most often encountered and Brown Long-eared and Noctules less common. Daubenton's are also frequently encountered in suitable wetland habitat. Whiskered, Brandt's and Natterers are considered rare locally.

Bat species will roost in many locations that are warm, dark, sheltered and little undisturbed. Such places can include derelict buildings, barns, roof spaces and tree hollows.

Factors causing declines in these species include the loss of prey insects due to the increased use of pesticides and general park/garden 'tidiness', loss and fragmentation of habitat mosaics, loss of winter roosts in old trees and buildings and intentional exclusion from buildings by people.



NM BAP species: Red Squirrel (Sciurus vulgaris)

Over the last 100 years the UK range Red Squirrel has contracted massively. In most areas the species of Britain it has vanished and most populations are now restricted to areas of Scotland and North England. North Merseyside has a relatively stable population on the Sefton Coast with small numbers across Knowsley and St Helens.

Threats include the Grey Squirrel which carries the squirrel pox virus that appears to have been the main cause of the red squirrel decline in Britain. In addition the fragmentation of woodland has reduced suitable habitat and increased road mortality as individuals try to move between pockets of habitats. Locally, over-maturation of trees will soon greatly reduce the Red Squirrels food source.

NM BAP species: Water Vole (*Arvicola amphibius*)

This species is found throughout Britain but localised to areas of suitable habitat near water. Previously common this species has undergone severe range and population reductions, with a national survey showing a decline of around 89% since 1939, estimated to increased to a loss of 94% by 2000. Merseyside appears to be a stronghold for the species with 75% of sites surveyed having Water Voles present in 1989-90. Though they may still be in decline locally, it is thought to be at a lower level than nationally.

Local declines in the species are caused by inappropriate management of bank-side habitats and waterside developments as well as predation by invasive species such as mink. The use of rodenticides and loss of habitat connectivity may also be factors in population declines.

NERC Act Section 41 Species

Known also as 'Species of Principle Importance in England' and the 'England Biodiversity List' this list was developed to meet the requirements of Section 40 of the Natural Environment and Rural Communities Act (2006). The list is derived, almost wholly, from the 2007 revised list of UK BAP priority species. (So called 'research only' moth species have been excluded from the report.) The section 41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions. In particular:

- Regional Planning Bodies and Local Planning Authorities must use it to identify the species that should be afforded priority when applying the requirements of National Planning Policy Framework (NPPF) to maintain, restore and enhance species and habitats.
- Local Planning Authorities must use it to identify the species that require specific consideration in dealing with planning and development control, recognising that under NPPF the aim of planning decisions should be to minimise impacts on biodiversity and geodiversity.
- All Public Bodies must use it to identify species that should be given priority when implementing the NERC Section 40 duty.

Group	Common Name	Scientific Name	Records	Dates	Designations
bird	Dunnock	Prunella modularis	5	1997-1999	Sect.41.suppl
	Herring Gull	Larus argentatus	3	1997-1998	Sect.41.suppl
	House Sparrow	Passer domesticus	10	1997-2006	Sect.41
	Lapwing	Vanellus vanellus	2	1999	Sect.41
	Linnet	Linaria cannabina	2	1997-2000	Sect.41.suppl

The following tables detail the NERC Section 41 species that were recorded in the search area.



	Song Thrush	Turdus philomelos	6	1997-1999	Sect.41.suppl
	Starling	Sturnus vulgaris	4	1997-1998	Sect.41.suppl
flowering plant	Cornflower	Centaurea cyanus	1	2004	Sect.41
	Darnel	Lolium temulentum	2	1977	Sect.41
	Marsh Stitchwort	Stellaria palustris	1	1987	Sect.41
terrestrial mammal	Bats	Chiroptera	2	1988-1993	Sect.41
	Brown Long-eared Bat	Plecotus auritus	2	1991	Sect.41
	Eurasian Red Squirrel	Sciurus vulgaris	1	1970	Sect.41
	European Water Vole	Arvicola amphibius	1	1994	Sect.41
	Pipistrelle Bat species	Pipistrellus	2	1991	Sect.41
	Unidentified Bat	Myotis	1	1992	Sect.41
	West European Hedgehog	Erinaceus europaeus	6	1981-2016	Sect.41

Desig. Code	Desig. Name	Designation Description
		Bird species corresponding to British sub-species listed in section 41 (England) of the NERC Act (2006).
Sect.41	Communities Act 2006. Species of Principal Importance in	Species "of principal importance for the purpose of conserving biodiversity" covered under section 41 (England) of the NERC Act (2006) and therefore need to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity.

IUCN Red-listed Species

The IUCN Red List of Threatened Species (sometimes called 'Red Data Book' species) indicates the conservation status of plants and animals that have been globally evaluated using the IUCN Red List Categories and Criteria. The system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those plants and animals that are facing a higher risk of global extinction (i.e. those listed as Critically Endangered, Endangered and Vulnerable). The IUCN Red List also includes information on plants and animals that are categorized as 'Extinct' or 'Extinct in the Wild'; on taxa that cannot be evaluated because of insufficient information ('Data Deficient'); and on plants and animals that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme ('Near Threatened').

Group	Common Name	Scientific Name	Records	Dates	Designations
flowering plant	Corn Marigold	Glebionis segetum	6	2004-2007	RLGB.VU
	Corn Spurrey	Spergula arvensis	4	1977-2007	RLGB.VU
	Darnel	Lolium temulentum	2	1977	RLGB.CR
	Field Woundwort	Stachys arvensis	1	1977	RLGB.Lr(NT)
	Goldenrod	Solidago virgaurea	1	1987	RLGB.Lr(NT)
	Heath Speedwell	Veronica officinalis	1	1987	RLGB.Lr(NT)
	Marsh Stitchwort	Stellaria palustris	1	1987	RLGB.VU
	Prickly Poppy	Papaver argemone	2	2007	RLGB.EN,RLGB.VU
	Weasel's-snout	Misopates orontium	1	1977	RLGB.VU
	Wood-sorrel	Oxalis acetosella	1	1987	RLGB.Lr(NT)
	Yellow Vetchling	Lathyrus aphaca	1	1987	RLGB.VU
mollusc	Large Black Slug	Arion (Arion) ater	4	1998-2007	RLGB.DD

The following tables detail the IUCN Red-listed species that were recorded in the search area.



Desig. Code	Desig. Name	Designation Description
RLGB.VU	IUCN (2001) - Vulnerable	A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future.
	IUCN (2001) - Critically endangered	A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria A to E.
	IUCN (2001) - Lower risk - near threatened	Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
RLGB.EN	IUCN (2001) - Endangered	A taxon is Endangered when it is not Critically endangered but is facing a very high risk of extinction in the wild in the near future.
RLGB.DD	IUCN (2001) - Data Deficient	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat or Lower Risk. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that a threatened category is appropriate.

Nationally Notable Species

These are plants and animals which do not fall within red-list categories but which are none-the-less uncommon in Great Britain.

Group	Common Name	Scientific Name	Records	Dates	Designations
flowering plant	Darnel	Lolium temulentum	2	1977	NR-excludes
	Large-leaved Lime	Tilia platyphyllos	1	1987	NS-excludes
	Medlar	Mespilus germanica	1	2012	NS-excludes
	Northern Yellow-cress	Rorippa islandica	2	1977	NS-excludes
	Yellow Vetchling	Lathyrus aphaca	1	1987	NS-excludes
insect - beetle (Coleoptera)	Anommatus duodecimstriatus	Anommatus duodecimstriatus	1	2007	Na
		Polydrusus (Chrysophis) formosus	1	2006	Na

The following tables detail the Nationally Notable species that were recorded in the search area.

Desig. Code	Desig. Name	Designation Description
NS-excludes	Nationally Scarce. Excludes Red Listed taxa	Nationally Scarce - Occurring in 16-100 hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria
NR-excludes	Nationally Rare. Excludes Red Listed taxa	Nationally Rare - Occurring in 15 or fewer hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
Na	Nationally Notable A	Taxa which do not fall within RDB categories but which are none-the-less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid or, for less well-recorded groups, within seven or fewer vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.

WCA schedule 9 species (including non-native invasive plants)

Schedule 9 of the Wildlife & Countryside Act (amended 2010) lists species of plants and animals for which it is a specific offence to plant or otherwise cause to grow in the wild (plants) or release or allow to escape into the wild (animals). Many of these are invasive non-native plants and animals, but there are also a number of native animals on the list (e.g. Barn Owl) which cannot be released into the wild in England without a license from Natural England.

The following tables detail the WCA Schedule 9 species recorded in the search area.

Group	Common Name	Scientific Name	Records	Dates	Designations
bird	Canada Goose	Branta canadensis	1	1997	MBB-WCA-S9
flowering plant	Canadian Waterweed	Elodea canadensis	1	1977	MBB-WCA-S9
	Indian Balsam	Impatiens glandulifera	9	1977-1987	MBB-WCA-S9



	Japanese Knotweed	Fallopia japonica	18	1977-2007	MBB-WCA-S9
	Rhododendron ponticum	Rhododendron ponticum	3	1987-2017	MBB-WCA-S9
	Three-cornered Garlic	Allium triquetrum	1	2017	MBB-WCA-S9
terrestrial mammal	Black Rat	Rattus rattus	7	1889-1986	MBB-WCA-S9
	Eastern Grey Squirrel	Sciurus carolinensis	12	2007-2015	MBB-WCA-S9

Desig. Code	Desig. Name	Designation Description
MBB-WCA-S9	(Variation of Schedule 9)	Species on Schedule 9 (part 2) as revised 2010. Under section 14 of the Act it is illegal to release into the wild any animal or allow to grow in the wild any plant which is not ordinarily resident in GB or which is a known threat and is listed on Schedule 9 of the Act.

BAP priority habitats

In 2007 the Local Biodiversity Manager (responsible for the North Merseyside Biodiversity Action Plan) undertook a review of the extent of UK BAP priority habitats in North Merseyside and produced GIS layers to show their extents. In most cases these inventories were derived from two main sources: the latest Phase 1 habitat surveys which were conducted for the four North Merseyside local authorities between 1996 and 2007; and an NVC survey of the Sefton Coast carried out between 2003 and 2004. A separate NVC survey of the Ribble estuary carried out in 2002 (which also included saltmarsh at the Alt) was also useful as were one or two other sources. Because of the diverse nature of habitat classifications, it was not always possible to produce inventories with a one-to-one correspondence with UK BAP priority habitats. The table below shows the BAP habitat inventories for North Merseyside and their correspondence with UK BAP priority habitats.

North Merseyside habitat inventory	Correspondence with UK BAP priority habitats
Lowland Acid Grassland	Lowland Dry Acid Grassland
Lowland Heathland	Lowland Heathland
Lowland Raised Bog	Lowland Raised Bog
Neutral Grassland	Incorporates the UK BAP habitat Lowland Meadows but also, in North Merseyside, includes a lot of amenity grassland, road verges etc.
Calcareous Grassland	Calcareous Grassland
Ponds	Ponds
Lakes	Eutrophic lakes
Reedbeds	Reedbeds
Hedgerows	Hedgerows
Saltmarsh	Coast Saltmarsh
Sand Dune	Coastal Sand Dune
All Woodland	It was not possible, from the available data, to produce separate inventories for different woodland types in North Merseyside, so this inventory incorporates elements of several UK BAP priority habitats such as Lowland Mixed Deciduous Woodland, Wet Woodland and Wood Pasture & Parkland.

Note that the 'Ponds' BAP inventory was derived locally using water bodies less than two hectares in extent from Ordnance Survey data. The 'Lakes' BAP inventory is a nationally supplied inventory, but the lakes are only represented in this as points. Therefore any water body over two hectares in extent will only be represented on our habitat maps by a point and will not show the extent of the lake. However, ponds will be indicated by polygons showing their extent. Occasionally a large pond – though still less than two hectares in extent – will be represented in both the 'Lake' and 'Pond' inventories.

Habitat	Amount	Units
Hedgerows	0.51	kilometres
All Woodland	4.53	hectares



The table above indicates the extent of each of the BAP habitat inventories (see previous table) occuring within your search area (see appendix 3 for maps).

Detailed habitat mapping

Merseyside BioBank collates and maintains detailed habitat mapping – normally Phase 1 or NVC – for the North Merseyside area. This includes both historic data and the most up-to-date habitat survey data available. Here we report on the detailed habitat mapping we hold for your search area.

Ref: Liverpoo	Ref: Liverpool-2006-07					
Source: Liverp	Source: Liverpool Space for Nature project - phase 1 habitat survey 2006-2007					
Survey date: 2	006 - 2007					
Notes: This is	the 'default' baseline mapping used by the Council. It is the most recent complete coverage	for the borough.				
Woodland and	scrub					
A1.1.2	Broadleaved woodland - plantation	0.79 ha				
Tall herb and f	ern					
C1.1	Bracken - continuous	0.27 ha				
Miscellaneous						
J1.2	Cultivated/disturbed land - amenity grassland	5.13 ha				

Habitat maps themselves are produced at the end of the report. You can cross-reference the figures in the tables below to the maps by means of the reference which appears on each map. A map with the reference 'Composite' is a special map made on-the-fly at the time of this report production by merging data from all available sources and using the most up-to-date mapping available at any given point in your search area.

Designated Areas

There are a number of types of 'designated areas' in North Merseyside. These types are shown in the table below together with the total number of North Merseyside sites for each.

Type of area	No. of sites
Site of Special Scientific Interest	6
Special Protection Area (Natura 2000)	3
Marine Special Protection Area	1
Special Area of Conservation (Natura 2000)	1
RAMSAR (wetland of international importance)	3
National Nature Reserve	3
Local Nature Reserve	57
Knowsley Local Wildlife Site	23
Sefton Local Wildlife Site	55
St Helens Local Wildlife Site	121
Liverpool Local Wildlife Site (current)	28
Liverpool Local Wildlife Site (proposed)	30
Merseyside Ancient Woodland Inventory	11
RSPB/LWT Windfarm Alert Map	1
Red Squirrel Protection Area	1



The following table indicates the results of the intersection between the search area and designated areas detailed above (see appendix 3 for maps).

Name	Туре
Princes Park	Liverpool Local Wildlife Site (potential)
St James Cemetery, Liverpool Anglican Cathedral	Liverpool Local Geological Site
Wapping Railway Cutting, Chatsworth Street	Liverpool Local Geological Site

Citations¹ for Local Wildlife Sites are supplied separately.

¹ In Knowsley, some Local Wildlife Site citations do not include lists of species and habitats for which they are designated and where this is the case a separate list is supplied for the site. No Local Wildlife citations are available for Liverpool Local Wildlife Sites (current or potential). No citations for LNRs are available. Citations for national and internationally designated sites (SSSI, SPA etc) are publicly available.



Interpretation and caveats

Merseyside BioBank records included

All relevant non-confidiential records managed by Merseyside BioBank which intersect the search area are included in this report, except where excluded by one or more of the conditions described in the rest of this section.

NBN Gateway records included

All relevant records available to Merseyside BioBank from the NBN Gateway are included in this report, except where excluded by one or more of the conditions described in the rest of this section. NBN Gateway records are accessed live *via* web-services at the time of report generation.

Merseyside BioBank often has access to NBN records at higher resolution than the standard 'public' access. These records have been downloaded and used with the permission of the data providers, but are subject to normal NBN Gateway terms and conditions. You must not use them beyond the specific purposes for which this report was provided to you and you must adhere, at all times, to the NBN Gateway terms and conditions.

Record location and dates

If a record can only be located to a relatively low precision (e.g. 1 km or 2 km square), then it is possible that the unrecorded precise location of the animal or plant might have been outside of the search area. Sometimes the location name column can be useful in deciding whether or not this was likely to have been the case. In records from our own database, we have replaced all digits with the '#' character in the location field to people's privacy where addresses have been used as location names.

Records which are only available to us at less than 2 km square (tetrad) precision are excluded from the report. We report dates at the highest precision available to us. Records for which no date is available are excluded from the report.

Absence of records and 'negative records'

The absence of biological records for an area, or the presence of 'negative records', is not proof that taxa are not present.

Duplicate records

Although we do our very best to avoid reporting the same record more than once ('duplicate records') this is sometimes unavoidable for records that have entered the biological records network *via* more than one route. In particular, there may be some record duplication between records from Merseyside BioBank's database and records from the NBN Gateway datasets (though, of course, we do not report on NBN Gateway records which originate from Merseyside BioBank).

Validity of records

Whilst Merseyside BioBank continually strives to verify the records that we manage, we accept no responsibility for any errors subsequently discovered. Merseyside BioBank accepts no responsibility for errors in data derived from the NBN Gateway.

Bird records

Only bird records with a recorded status of proven, probable and possible breeding have been included in this data search. Bird records with other statuses are not included. The most recent bird records for North Merseyside included, e.g. those generated for the ongoing breeding and wintering atlas projects, since these data have yet to undergo verification by the County Bird Recorder. It is possible for you to



contact the County Bird Recorder independently for his interpretation of the most recent data with respect to your search area. The contact details are:

Steve White stevewhite102@btinternet.com

Please note that if this is a commercial data request you will be invoiced by **Sefton Borough Council**, which is the hosting authority for Merseyside BioBank LRC.



Appendix 1: Terms and conditions of use

Merseyside BioBank receives data from a variety of sources, from large organisations to amateur naturalists. With Merseyside BioBank operating as custodians, these individuals and groups, who provide their records free of charge, retain copyright on their data.

All data passed to a third party (users) by Merseyside BioBank are subject to these access terms and conditions. Non-adherence to these terms and conditions will be viewed as a breach of contract, which may result in legal redress being sought.

1. Users agree that data released by Merseyside BioBank, in any format and on any media, will only be used for the purpose for which it was originally requested and for any time period originally agreed upon (See note 3 below).

2. Users agree that data released by Merseyside BioBank will not be added to any permanent database system (electronic or paper based) unless by written agreement with Merseyside BioBank.

3. Users understand that following the end of the agreed time period, or 12 months from the enquiry date, the received data must be deleted from any electronic system (See note 2 above). Use of the data beyond this period must be preceded by a further request to Merseyside BioBank.

4. Users agree that data retrieved from Merseyside BioBank will not be passed on to or communicated with third parties except as aggregated data within reports, or as anonymised data in the form of maps etc., which constitute a part of the agreed reason for the original enquiry.

5. Merseyside BioBank disclaims any responsibility for the accuracy of the information within its reports and accepts no liability for any result of using these data.

6. Any biological record is specific to the date of the recording and does not necessarily imply the continuance of the species at that site.

7. The lack of species and/or habitat information for a geographically defined area does not necessarily imply a low biodiversity value for that area. It may simply be unrecorded.

8. While the information from Merseyside BioBank in itself will remain free, Merseyside BioBank reserves the right to charge a reasonable fee to cover administration and a proportion of overheads as detailed in our charging policy.

9. A copy of any report, or other product, produced using the data from Merseyside BioBank would be gratefully received if provided without cost.

10. Merseyside BioBank must be acknowledged within any report, or other product produced, using data provided by Merseyside BioBank.



Appendix 2: Full species records

The following records for protected, BAP, red-listed, notable and invasive species were found to intersect the search area. (Appendix 3 includes a map to show the location of 1 km and tetrad grid references.) The source of each record is shown in the final column (BioBank = Merseyside BioBank; NBN = NBN Gateway).

GridRef	Location Name	Common Name	Scientific Name	Group	Abundance or Status	Date	Comment	Source
SJ354895	Anglican Cathedral Cemetery, Liverpool	Common Frog	Rana temporaria	amphibian		18/04/2006	Spawn in the ornamental pond	1
SJ39K		Black Redstart	Phoenicurus ochruros	bird	1 Count of Possible breeding	1999	Singing male, same as SJ39F	2
SJ39K		Black Redstart	Phoenicurus ochruros	bird	1 Count of Possible breeding	1999		2
SJ39Q	Newsham Park	Canada Goose	Branta canadensis	bird	1 Count of Possible breeding	1997		2
SJ38P		Dunnock	Prunella modularis	bird	1 Count of Confirmed breeding	1998		2
SJ38U	Princes Park	Dunnock	Prunella modularis	bird	1 Count of Confirmed breeding	1997		2
SJ39K		Dunnock	Prunella modularis	bird	1 Count of Confirmed breeding	1998		2
SJ39Q	Newsham Park	Dunnock	Prunella modularis	bird	1 Count of Confirmed breeding	1997		2
SJ39Q		Dunnock	Prunella modularis	bird	1 Count of Confirmed breeding	1999		2
SJ38P		Herring Gull	Larus argentatus	bird	1 Count of Confirmed breeding	1998		2
SJ38U		Herring Gull	Larus argentatus	bird	1 Count of Confirmed breeding	1998		2
SJ39K	Liverpool City Centre	Herring Gull	Larus argentatus	bird	1 Count of Confirmed breeding	1997		2
SJ39Q	Newsham Park	House Martin	Delichon urbicum	bird	1 Count of Confirmed breeding	1997		2
SJ354895		House Sparrow	Passer domesticus	bird	2 Proven Count of Confirmed breeding	2001		2
SJ356896		House Sparrow	Passer domesticus	bird	2 Proven Count of Confirmed breeding	2001		2
SJ363897	Project Rosemary	House Sparrow	Passer domesticus	bird	1 Count of Confirmed breeding	2006		2
SJ363901	Nelson Mandela Close	House Sparrow	Passer domesticus	bird	1 Count of Confirmed	2006		2



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					breeding		
SJ365883		House Sparrow	Passer domesticus	bird	1 Proven Count of Confirmed breeding	07/06/2001	2
SJ369902		House Sparrow	Passer domesticus	bird	1 Proven Count of Confirmed breeding	25/05/2001	2
SJ38P		House Sparrow	Passer domesticus	bird	1 Count of Confirmed breeding	1998	2
SJ38U	Princes Park	House Sparrow	Passer domesticus	bird	1 Count of Confirmed breeding	1997	2
SJ39K		House Sparrow	Passer domesticus	bird	1 Count of Confirmed breeding	1998	2
SJ39Q	Newsham Park	House Sparrow	Passer domesticus	bird	1 Count of Confirmed breeding	1997	2
SJ38U		Lapwing	Vanellus vanellus	bird	1 Count of Confirmed breeding	1999	2
SJ39Q		Lapwing	Vanellus vanellus	bird	4 Count of Possible breeding	1999	2
SJ38P		Linnet	Linaria cannabina	bird	1 Count of Confirmed breeding	2000	2
SJ39Q	Newsham Park	Linnet	Linaria cannabina	bird	1 Count of Possible breeding	1997	2
SJ38P		Song Thrush	Turdus philomelos	bird	1 Count of Confirmed breeding	1998	2
SJ38P		Song Thrush	Turdus philomelos	bird	2 Count of Confirmed breeding	1999	2
SJ39K		Song Thrush	Turdus philomelos	bird	1 Count of Confirmed breeding	1998	2
SJ39K		Song Thrush	Turdus philomelos	bird	2 Count of Confirmed breeding	1999	2
SJ39Q	Newsham Park	Song Thrush	Turdus philomelos	bird	1 Count of Confirmed breeding	1997	2
SJ39Q		Song Thrush	Turdus philomelos	bird	2 Count of Confirmed breeding	1999	2
SJ38P		Starling	Sturnus vulgaris	bird	1 Count of Confirmed breeding	1998	2
SJ38U	Princes Park	Starling	Sturnus vulgaris	bird	1 Count of Confirmed breeding	1997	2
SJ39K		Starling	Sturnus vulgaris	bird	1 Count of Confirmed breeding	1998	2
SJ39Q	Newsham Park	Starling	Sturnus vulgaris	bird	1 Count of Confirmed breeding	1997	2
SJ38U	Princes Park	Swift	Apus apus	bird	1 Count of Possible breeding	1997	2



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	[1						
SJ39Q	Newsham Park	Swift	Apus apus	bird	1 Count of Confirmed breeding	1997		2
SJ354894	St. James' Cemetery (Anglican Cathedral, Liverpool)	Bluebell	Hyacinthoides non-scripta	flowering plant	1 Count	01/07/1983		3
SJ354894	St James Cemetery Gardens, Anglican Cathedral, Liverpool	Bluebell	Hyacinthoides non-scripta	flowering plant		01/07/1983		3
SJ370588 85	Otterspool Park North	Bluebell	Hyacinthoides non-scripta	flowering plant	O DAFOR	22/06/1987		3
SJ38U		Bluebell	Hyacinthoides non-scripta	flowering plant	1 Count of Present	1997		4
SJ39K		Bluebell	Hyacinthoides non-scripta	flowering plant	1 Count of Present	1997		4
	Fern Grove, Lodge Lane, Liverpool - wasteland, roadsides and gardens	Canadian Waterweed	Elodea canadensis	flowering plant		1977		3
SJ354895	Anglican Cathedral Cemetery, Liverpool	Corn Marigold	Glebionis segetum	flowering plant	1 Count	15/06/2007		1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Corn Marigold	Glebionis segetum	flowering plant		15/10/2004	Still in flower	1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Corn Marigold	Glebionis segetum	flowering plant	1 Count	23/07/2007	Alongside footpath	1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Corn Marigold	Glebionis segetum	flowering plant		23/11/2004	In flower	1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Corn Marigold	Glebionis segetum	flowering plant		27/07/2004	In the cemetery: probably introduced and was flowering, attracting numerous small bees and hoverflies	1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Corn Marigold	Glebionis segetum	flowering plant		28/07/2004	Several bees on this plant which was flowering still	1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Corn Spurrey	Spergula arvensis	flowering plant	1 Count	15/06/2007	Common on Upper Parliament Street	1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Corn Spurrey	Spergula arvensis	flowering plant		17/08/2004	Lots on Upper Parliament Street	1
SJ355891	Upper Parliament Street (1km square), L8	Corn Spurrey	Spergula arvensis	flowering plant	1 Count	1977		3
SJ359896	Liverpool Falkner Nursery (1km square)	Corn Spurrey	Spergula arvensis	flowering plant	1 Count	1977		3
SJ354895	Anglican Cathedral Cemetery, Liverpool	Cornflower	Centaurea cyanus	flowering plant		27/07/2004	In the cemetery: probably introduced and was flowering	1
SJ3589	Falkner Nursery - waste ground, grassland	Darnel	Lolium temulentum	flowering plant		1977		3
SJ359896	Liverpool Falkner Nursery (1km square)	Darnel	Lolium temulentum	flowering plant	1 Count	1977		3
SJ355891	Upper Parliament Street (1km square), L8	Field Woundwort	Stachys arvensis	flowering plant	1 Count	1977		3
SJ370588 85	Otterspool Park North	Goldenrod	Solidago virgaurea	flowering plant	LF DAFOR	22/06/1987		3



SJ370588 85	Otterspool Park North	Heath Speedwell	Veronica officinalis	flowering plant	R DAFOR	22/06/1987	3
SJ357089 25	Rialto, Princes St (now built over)	Indian Balsam	Impatiens glandulifera	flowering plant	1 Count	1982	3
SJ357893	Catherine Street/Berry Street, waste site, Liverpool	Indian Balsam	Impatiens glandulifera	flowering plant	1 Count	February 1982	3
SJ357893	Catherine Street/Berry Street waste sites	Indian Balsam	Impatiens glandulifera	flowering plant		February 1982	3
SJ3589	Falkner Nursery - waste ground, grassland	Indian Balsam	Impatiens glandulifera	flowering plant		1977	3
SJ359894	Parliament Place/Berry Street waste sites, Liverpool	Indian Balsam	Impatiens glandulifera	flowering plant		February 1982	3
SJ359894	Parliament Place/Berry Street, Liverpool	Indian Balsam	Impatiens glandulifera	flowering plant	1 Count	February 1982	3
SJ359896	Liverpool Falkner Nursery (1km square)	Indian Balsam	Impatiens glandulifera	flowering plant	1 Count	1977	3
SJ360894	Upper Parliament Street, waste site, Liverpool	Indian Balsam	Impatiens glandulifera	flowering plant	1 Count	February 1982	3
SJ370588 85	Otterspool Park North	Indian Balsam	Impatiens glandulifera	flowering plant	R DAFOR	22/06/1987	3
SJ354893	Cathedral Grounds	Japanese Knotweed	Fallopia japonica	flowering plant	LA DAFOR	19/09/1995	5
SJ354894	St James Cemetery Gardens, Anglican Cathedral, Liverpool	Japanese Knotweed	Fallopia japonica	flowering plant		01/07/1983	3
SJ354895	Anglican Cathedral Cemetery, Liverpool	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	15/06/2007	1
SJ355891	Upper Parliament Street (1km square), L8	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	1977	3
SJ357893	Catherine Street/Berry Street waste sites	Japanese Knotweed	Fallopia japonica	flowering plant		February 1982	3
SJ357893	Catherine Street/Berry Street, waste site, Liverpool	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	February 1982	3
SJ3589	Falkner Nursery - waste ground, grassland	Japanese Knotweed	Fallopia japonica	flowering plant		1977	3
SJ358900	Bedford Street South / Back of Mullberry Street, Liverpool	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	February 1982	3
SJ3590	Prescot Road/Pembroke Place	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	02/07/1981	3
SJ359894	Parliament Place/Berry Street waste sites, Liverpool	Japanese Knotweed	Fallopia japonica	flowering plant		February 1982	3
SJ359894	Parliament Place/Berry Street, Liverpool	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	February 1982	3
SJ359896	Liverpool Falkner Nursery (1km square)	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	1977	3



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SJ360894	Upper Parliament Street, waste site, Liverpool	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	February 1982		3
SJ363888	Princess Avenue	Japanese Knotweed	Fallopia japonica	flowering plant	LD DAFOR	19/09/1995		5
SJ367589 50	Upper Parliament St/Embledon St	Japanese Knotweed	Fallopia japonica	flowering plant	1 Count	11/10/1983		3
SJ367902	Gladstone Road, (Edge Hill), Liverpool, South Lancashire	Japanese Knotweed	Fallopia japonica	flowering plant	Present Count	12/11/2007	near the junction of marmaduke Street and Wavertree Road. Two large strands were present in an area of cleared ground between the housing	6
	Fern Grove, Lodge Lane, Liverpool - wasteland, roadsides and gardens	Japanese Knotweed	Fallopia japonica	flowering plant		1977		3
85	Otterspool Park North	Japanese Knotweed	Fallopia japonica	flowering plant	R DAFOR	22/06/1987		3
SJ370588 85	Otterspool Park North	Large-leaved Lime	Tilia platyphyllos	flowering plant	R DAFOR	22/06/1987		3
SJ370588 85	Otterspool Park North	Marsh Stitchwort	Stellaria palustris	flowering plant	O DAFOR	22/06/1987		3
SJ360886	Maud street	Medlar	Mespilus germanica	flowering plant	1 Count	22/04/2012		7
SJ355891	Upper Parliament Street (1km square), L8	Northern Yellow-cress	Rorippa islandica	flowering plant	1 Count	1977		3
SJ359896	Liverpool Falkner Nursery (1km square)	Northern Yellow-cress	Rorippa islandica	flowering plant	1 Count	1977		3
SJ354895	Anglican Cathedral Cemetery, Liverpool	Prickly Poppy	Papaver argemone	flowering plant	1 Count	15/06/2007		1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Prickly Poppy	Papaver argemone	flowering plant	1 Count	23/07/2007	Alongside footpath	1
	St James Mount and Gardens, Upper Duke Street, Liverpool, South Lancashire	Rhododendron ponticum	Rhododendron ponticum	flowering plant	local Count	27/02/2015	Record GUID (from Gilbert 21): 080747	9
SJ366788 41	Princes Park, Liverpool	Rhododendron ponticum	Rhododendron ponticum	flowering plant	Present Count	05/01/2017		8
SJ370588 85	Otterspool Park North	Rhododendron ponticum	Rhododendron ponticum	flowering plant	LF DAFOR	22/06/1987		3
SJ354489 20	St. James Cemetery, Liverpool	Three-cornered Garlic	Allium triquetrum	flowering plant		13/05/2017	Found in the southern section.	10
SJ355891	Upper Parliament Street (1km square), L8	Weasel's-snout	Misopates orontium	flowering plant	1 Count	1977		3
SJ3590	Prescot Road/Pembroke Place	Willow	Salix viminalis x repens = S. x friesiana	flowering plant	1 Count	02/07/1981		3
SJ370588 85	Otterspool Park North	Wood-sorrel	Oxalis acetosella	flowering plant	O DAFOR	22/06/1987		3



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SJ370588 85	Otterspool Park North	Yellow Vetchling	Lathyrus aphaca	flowering plant	O DAFOR	22/06/1987		3
SJ354895	Anglican Cathedral Gardens, Liverpool	Anommatus duodecimstriatus	Anommatus duodecimstriatus	insect - beetle (Coleoptera)	2 Count of Adult	12/03/2007	2 on a piece of Elder wood at south end near entrance. This is a rare species in Britain	1
SJ354895	Anglican Cathedral Cemetery, Liverpool		Polydrusus (Chrysophis) formosus	insect - beetle (Coleoptera)	3 Count	04/07/2006		1
SJ3788	Sefton Park	Banded Demoiselle	Calopteryx splendens	insect - dragonfly (Odonata)	1 Count of Total	11/07/2009		11
SJ3788	Sefton Park	Banded Demoiselle	Calopteryx splendens	(Odonata)	1 Count of Male; 1 Count of Total	12/07/2009		11
SJ3688	Princes Park	Black-tailed Skimmer	Orthetrum cancellatum		1 Count of Male; 1 Count of Total	05/07/2011		11
SJ3688	Princes Park, Liverpool	Black-tailed Skimmer	Orthetrum cancellatum	insect - dragonfly (Odonata)		08/06/2016	Male: 3	12
SJ3688	Princes Park	Black-tailed Skimmer	Orthetrum cancellatum	insect - dragonfly (Odonata)	1 Count of Male; 1 Count of Female; 1 Count of Copulating Pair; 2 Count of Total	09/07/2001		11
SJ3688	Princes Park	Black-tailed Skimmer	Orthetrum cancellatum	insect - dragonfly (Odonata)	1 Count of Total	27/07/2008		11
SJ3688	Princes Park, Liverpool	Black-tailed Skimmer	Orthetrum cancellatum	(Odonata)	1 Count of Copulating Pair	July 2005		11
SJ3688	Princes Park	Blue-tailed Damselfly	Ischnura elegans	insect - dragonfly (Odonata)	3 Count of Total	06/06/2007		11
SJ3688	Princes Park	Blue-tailed Damselfly	lschnura elegans	insect - dragonfly (Odonata)	present Count	08/08/2008		11
SJ3688	Princes Park	Blue-tailed Damselfly	lschnura elegans	insect - dragonfly (Odonata)	present Count	14/06/2009		11
SJ3688	Princes Park	Blue-tailed Damselfly	Ischnura elegans	insect - dragonfly (Odonata)	present Count	15/07/2009		11
SJ3788	Sefton Park	Blue-tailed Damselfly	Ischnura elegans	(Odonata)		03/07/2009		11
SJ3788	Sefton Park	Blue-tailed Damselfly	Ischnura elegans	insect - dragonfly (Odonata)	1 Count of Copulating Pair; 2 Count of Total	11/07/2009		11
SJ3788	Sefton Park	Blue-tailed Damselfly	lschnura elegans	insect - dragonfly (Odonata)	present Count	13/08/2008		11
SJ3788	Sefton Park	Blue-tailed Damselfly	lschnura elegans	(Odonata)	present Count	23/06/2010		11
SJ3788	Sefton Park	Blue-tailed Damselfly	lschnura elegans	insect - dragonfly (Odonata)	2 Count of Total	25/06/2009		11
SJ3788	Sefton Park	Blue-tailed Damselfly	lschnura elegans	insect - dragonfly (Odonata)	2 Count of Total	27/07/2009		11



SJ3788	Sefton Park	Blue-tailed Damselfly	lschnura elegans	insect - dragonfly (Odonata)		28/06/2011	11
SJ3788	Sefton Park	Blue-tailed Damselfly	lschnura elegans		2 Count of Total	28/07/2010	11
SJ39K	Leeds & Liverpool Canal Walk - Burlington Street to Stanley Road	Blue-tailed Damselfly	lschnura elegans	insect - dragonfly (Odonata)		24/07/2006	11
SJ3788	Sefton Park	Broad-bodied Chaser	Libellula depressa	insect - dragonfly (Odonata)	1 Count of Total	25/06/2009	11
SJ3788	Sefton Park	Brown Hawker	Aeshna grandis		2 Count of Total	05/08/2007	11
SJ3788	Sefton Park	Brown Hawker	Aeshna grandis		1 Count of Total	05/08/2009	11
SJ3788	Sefton Park	Brown Hawker	Aeshna grandis	insect - dragonfly (Odonata)		06/08/2009	11
SJ3788	Sefton Park	Brown Hawker	Aeshna grandis		1 Count of Total	20/08/2011	11
SJ3788	Sefton Park	Brown Hawker	Aeshna grandis		1 Count of Total	25/08/2011	11
SJ39K	Leeds & Liverpool Canal Walk - Burlington Street to Stanley Road	Brown Hawker	Aeshna grandis	insect - dragonfly (Odonata)		24/07/2006	11
SJ3788	Sefton Park South end lake	Common Blue Damselfly	Enallagma cyathigerum	insect - dragonfly (Odonata)	3 Count of Total	26/06/2010	11
SJ39K	Leeds & Liverpool Canal Walk - Burlington Street to Stanley Road	Common Blue Damselfly	Enallagma cyathigerum	insect - dragonfly (Odonata)		24/07/2006	11
SJ3589	Liverpool Anglican Cathedral	Common Darter	Sympetrum striolatum		1 Count of Total	09/10/2010	11
SJ3688	Princes Park	Common Darter	Sympetrum striolatum	insect - dragonfly (Odonata)		30/07/2011	11
SJ3788	Sefton Park	Common Darter	Sympetrum striolatum	insect - dragonfly (Odonata)	present Count	05/08/2007	11
SJ3788	Sefton Park	Common Darter	Sympetrum striolatum	insect - dragonfly (Odonata)		16/08/2010	11
SJ3788	Sefton Park	Common Darter	Sympetrum striolatum	insect - dragonfly (Odonata)	1 Count of Total	18/09/2011	11
SJ3788	Sefton Park	Common Darter	Sympetrum striolatum	insect - dragonfly (Odonata)	Copulating Pair	23/09/2008	11
SJ3788	Sefton Park	Common Darter	Sympetrum striolatum	insect - dragonfly (Odonata)	1 Count of Total	30/08/2010	11
SJ3788	Sefton Park	Common Darter	Sympetrum striolatum	insect - dragonfly (Odonata)	2 Count of Total	31/07/2007	11
SJ3788	Sefton Park	Emperor Dragonfly	Anax imperator	insect - dragonfly (Odonata)	1 Count of Male; 1 Count of Female; 2 Count of Total	23/06/2010	11



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SJ3788	Sefton Park	Emperor Dragonfly	Anax imperator	insect - dragonfly (Odonata)	1 Count of Total	27/07/2009		11
SJ39K	Leeds & Liverpool Canal Walk - Burlington Street to Stanley Road	Emperor Dragonfly	Anax imperator	(Odonata)	1 Count of ovipositing; 1 Count of Female; Several Count of Total; Several Count of Male	24/07/2006		11
SJ3588	Toxteth	Migrant Hawker	Aeshna mixta	insect - dragonfly (Odonata)	1 Count of Total	20/09/2008		11
SJ3688	Toxteth	Migrant Hawker	Aeshna mixta	insect - dragonfly (Odonata)	1 Count of Total	12/09/2010		11
SJ3788	Sefton Park	Southern Hawker	Aeshna cyanea	insect - dragonfly (Odonata)	T Count of Total	05/08/2007		11
SJ3788	Sefton Park	Southern Hawker	Aeshna cyanea	insect - dragonfly (Odonata)	1 Count of Total	23/08/2008		11
SJ3788	Sefton Park	Southern Hawker	Aeshna cyanea	insect - dragonfly (Odonata)	1 Count of Total	30/08/2010		11
SJ39K	Leeds & Liverpool Canal Walk - Burlington Street to Stanley Road	Southern Hawker	Aeshna cyanea	insect - dragonfly (Odonata)	present Count	24/07/2006		11
SJ353892	Anglican Cathedral Cemetery, Liverpool	Large Black Slug	Arion (Arion) ater	mollusc		23/12/1998		14
SJ354895	Anglican Cathedral Cemetery, Liverpool	Large Black Slug	Arion (Arion) ater	mollusc	1 Count of Adult	15/06/2007	1 rufous form was under a stone	1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Large Black Slug	Arion (Arion) ater	mollusc	1 Count	25/06/2007		1
SJ354895	Anglican Cathedral Cemetery, Liverpool	Large Black Slug	Arion (Arion) ater	mollusc	1 Count of Adult	30/06/2005		1
SJ353894	Liverpool Anglican Cathedral, St. James Mount, Liverpool	Bats	Chiroptera	terrestrial mammal		02/08/1993	Bat found crawling up the aisle, planned to let it go at dusk, but it died. Might have droppings present.	15
SJ3790	Liverpool, Wavertree Park	Bats	Chiroptera	terrestrial mammal		1988		16
SJ3590	Birkenhead Docks, Birkenhead	Black Rat	Rattus rattus	terrestrial mammal	17073 Count	1924		17
SJ3590	Birkenhead Docks, Birkenhead	Black Rat	Rattus rattus	terrestrial mammal	16300 Count	1930		17
SJ3590	Birkenhead Docks, Birkenhead	Black Rat	Rattus rattus	terrestrial mammal	15813 Count	1931		17
SJ3590	Birkenhead Docks, Birkenhead	Black Rat	Rattus rattus	terrestrial mammal	14975 Count	1932		17
SJ3590	Birkenhead Docks, Birkenhead	Black Rat	Rattus rattus	terrestrial mammal	1 Count	1986		17
SJ3590	Birkenhead Docks, Birkenhead	Black Rat	Rattus rattus	terrestrial mammal	1 Count	26/01/1889		17



SJ363900	Corporation stables, smithdown lane	Black Rat	Rattus rattus	terrestrial mammal		06/05/1930	1 collected	18
SJ3590	Merseyside,Liverpool,City CentreLiverpool Dental Hospital	Brown Long-eared Bat	Plecotus auritus	terrestrial mammal	1 Count of Roosting	26/11/1991	Telephone record to Martin Mere W.W.T of what sounded very much like a grounded Long-Eared bat but it crawled off and they lost it	19
SJ3590	Liverpool Dental Hospital	Brown Long-eared Bat	Plecotus auritus	terrestrial mammal		26/11/1991		16
SJ366883	Flat 23, 12 Sunnyside, Liverpool L33TD	Common Pipistrelle	Pipistrellus pipistrellus	terrestrial mammal	P 1 Count	21/08/2013		20
SJ354893	St James park/gardens. Anglican cathedral., South Lancashire	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	Present Count	21/09/2012		24
SJ354895	Anglican Cathedral Cemetery, Liverpool	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	4 Count of Adult	27/01/2007	4 together foraging in the leaf litter	1
SJ361897	Grove Street, Liverpool	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	1 Count	24/09/2011		21
SJ363898	Minster Court	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	1 Count	11/06/2012		4
SJ363898	Minster Court	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	1 Count	11/06/2012		4
SJ363898	Minster Court, Liverpool 7	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	1 Count	12/09/2015		26
SJ363898	Minster Court	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	1 Count	27/07/2014		22
SJ365588 37	Princes Park, Liverpool	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	1 Count	17/09/2014		25
SJ3688	Princes Park	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	9 Count	08/01/2014		22
SJ3688	Princes Park	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	2 Count	19/01/2014		22
SJ3688	Prince's Park, South Lancashire	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	1 Count of Present	31/03/2008		23
SJ3788	Sefton Park	Eastern Grey Squirrel	Sciurus carolinensis	terrestrial mammal	Present Count	06/02/2015		22
SJ3590	Liverpool City Centre, Merseyside	Eurasian Red Squirrel	Sciurus vulgaris	terrestrial mammal	1 Count of Present	1970		17
SJ369885	Princes Park Lake, Liverpool	European Water Vole	Arvicola amphibius	terrestrial mammal		10/11/1994	Compiled by AP	18
SJ3688	Merseyside,liverpool,Toxteth,Princes avenue	Pipistrelle Bat species	Pipistrellus	terrestrial mammal	1 Count of dead	11/07/1991	pipistrelle bat,died in captivity,found 11.7.91.donated to museum on 7.7.93, accession number 1994.101.	19
SJ3688	Toxteth, Princes Avenue	Pipistrelle Bat species	Pipistrellus	terrestrial mammal		11/07/1991		16



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SJ3788	Merseyside,Liverpool,Sefton Park,Ullet Rd,Linnet House	Unidentified Bat	Myotis	terrestrial mammal	1 Count of in flight	1992	Early summer 1992, large numbers of bats seen flying behind the flats, appeared to be whiskered bats, could not see where they emerged from	19
SJ363898	Minster Court	West European Hedgehog	Erinaceus europaeus	terrestrial mammal	1 Count	01/06/2015		26
SJ363898	Minster Court, Liverpool 7	West European Hedgehog	Erinaceus europaeus	terrestrial mammal	1 Count	05/05/2016		26
SJ363898	Minster Court	West European Hedgehog	Erinaceus europaeus	terrestrial mammal	1 Count	09/08/2014	Juvenile	22
SJ363898	Minster Court, Liverpool 7	West European Hedgehog	Erinaceus europaeus	terrestrial mammal	1 Count	10/11/2015		26
SJ364896	Crown Street, Liverpool 7	West European Hedgehog	Erinaceus europaeus	terrestrial mammal	1 Count	09/07/2011	Dead on road	4
SJ3788	Sefton Park - road next to the park	West European Hedgehog	Erinaceus europaeus	terrestrial mammal	1 Count of Adult	18/07/1981	Road casualty.	18

The following NEGATIVE RECORDS were found within the search area. Negative records show where particular species were actively searched for but no evidence of them was found. Negative records do not prove absence. Negative records may be contradicted by positive records. The source for all negative records in the Merseyside BioBank database.

GridRef	Location Name	Common Name	Scientific Name	Group	Abundance or Status	Date	Comment	Source
SJ367903	Gladstone road	Bats	Chiroptera	terrestrial mammal	0 Count of Roost	17/06/2008	No evidence of roosting found.	27
SJ368902	Dorothy street	Bats	Chirobtera	terrestrial mammal	0 Count of Roost	07/02/2008	No evidence of roosting found.	27
SJ368901	Wavertree road	Bats	Chiroptera	terrestrial mammal	0 Count of Roost	07/02/2008	No evidence of roosting found.	27

Data sources/providers for the records in the table(s) above are given below. For records that are sourced from Merseyside BioBank's database, the type is 'BioBank' and the name of the dataset is given. For records that are sourced from the NBN Gateway, the type is 'NBN' and the name of the data provider is given.

Source key	Dataset or data provider	Туре
1	Chris Felton's Notebooks 1993-2007	BioBank
2	BIRDS - LCFS Records	BioBank
3	Liverpool Musuem	BioBank
4	Lancashire Wildlife Trust Dataset	BioBank



5	Phase 1 surveys 1995	BioBank
6	RODIS Harvested 2013 04-06	BioBank
7	MBB Online - General	BioBank
8	Gilbert21 Mark Pritchard	BioBank
9	RODIS General Steve McWilliam	BioBank
10	MBB Online General	BioBank
11	Lancashire and Cheshire Fauna Society Odonata	BioBank
12	British Dragonfly Society	BioBank
13	Lancashire Moth Group macro-moths	BioBank
14	Ad hoc before 2010	BioBank
15	Louise Wisniewski Bats	BioBank
16	Liverpool Museum Bats	BioBank
17	Cheshire rECOrd Overlap	BioBank
18	Mammal Society	BioBank
19	Merseyside & West Lancs Bat Group	BioBank
20	Report Harvest 2014	BioBank
21	Red Squirrel Project	BioBank
22	Lancashire and Cheshire Fauna Society	BioBank
23	Dave Earl Mammals to May 2010	BioBank
24	RODIS Admin	BioBank
25	Gilbert21 Ben Deed General	BioBank
26	Steve White Lunt Meadows	BioBank
27	Report Harvest 2010 07-09	BioBank



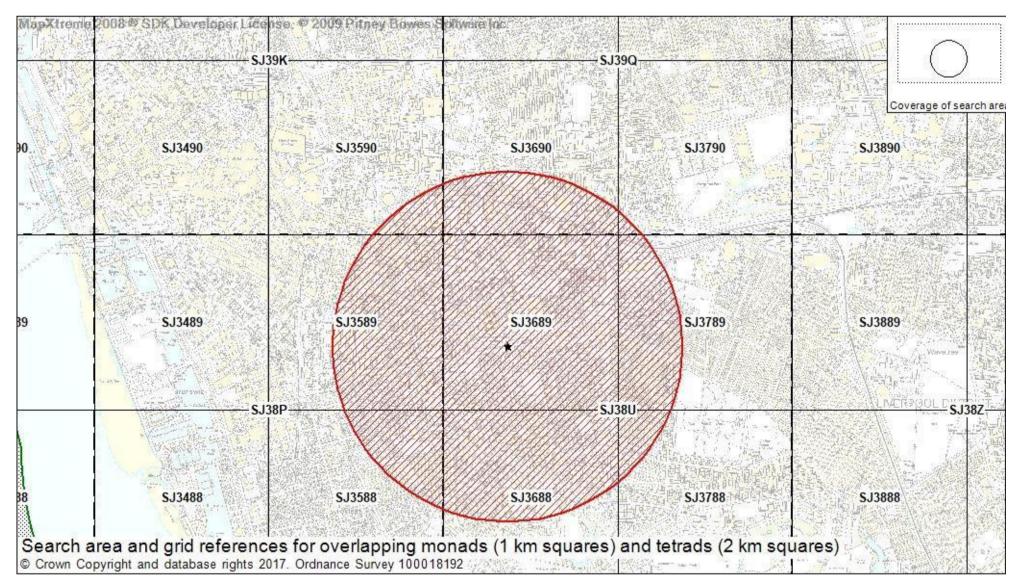
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Appendix 3: Maps

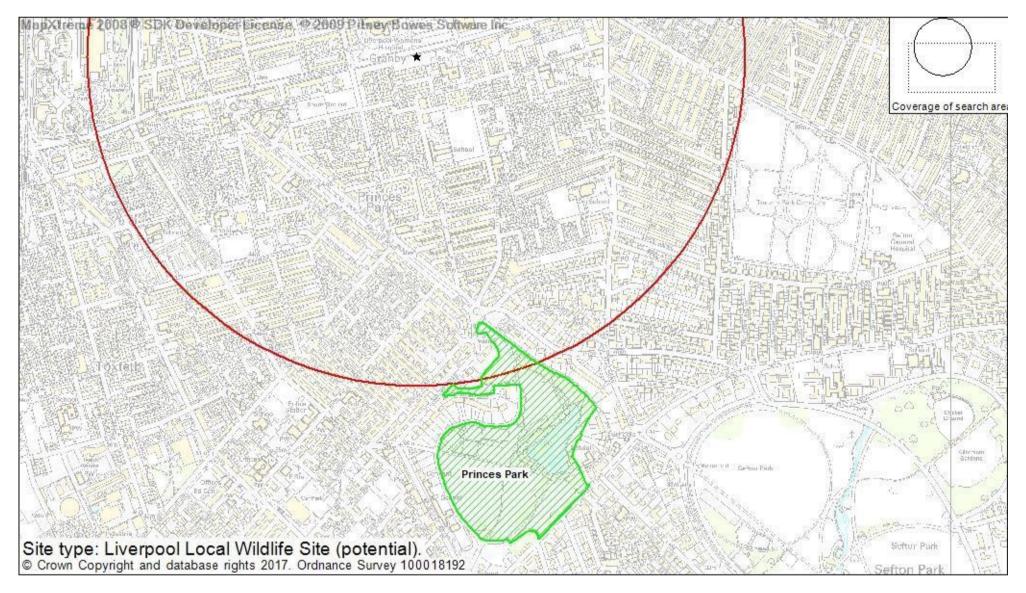
The following page(s) include maps to illustrate some of the results of your data request. They should be viewed in the context of the results supplied in the main body of the report.

The Ordnance Survey mapping included in the maps provided by Merseyside BioBank under Sefton Council's licence from Ordnance Survey. These maps are provided to assist decision-makers in the effective and sustainable management of land, species and habitats. Ordnance Survey should be contacted directly if any of these maps are to be used in another document.

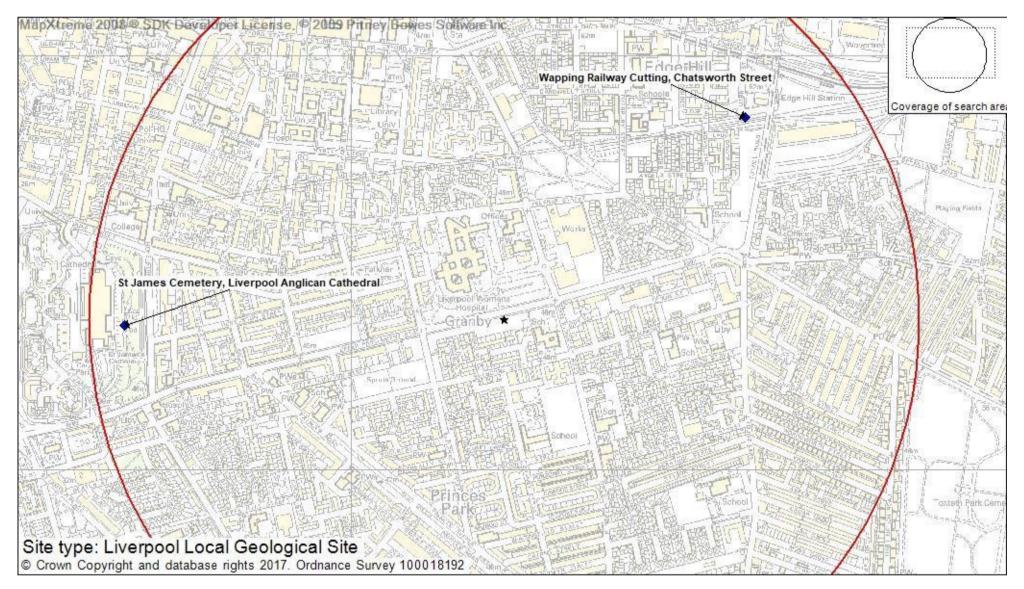




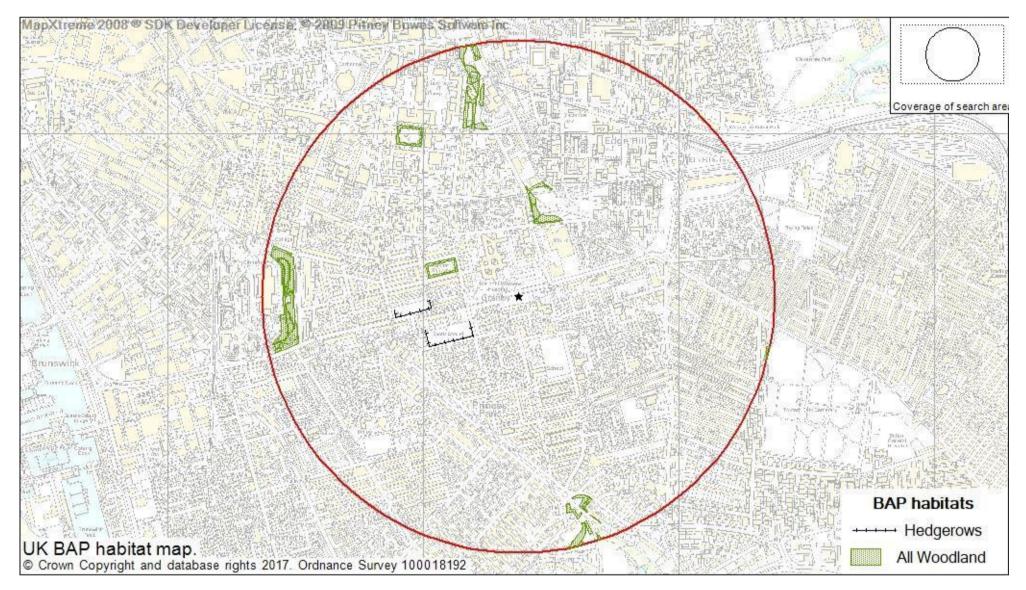




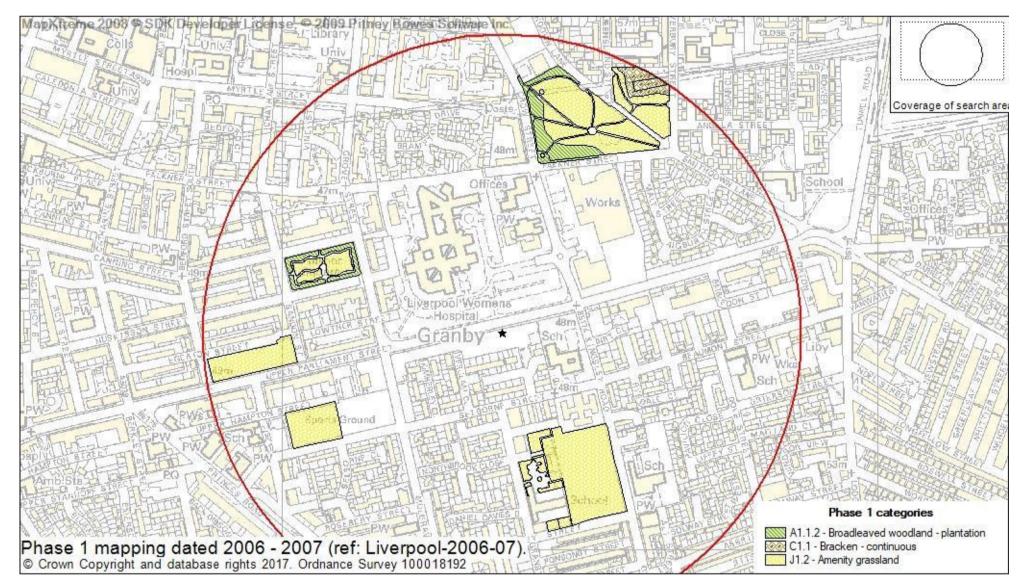












Appendix C - Photograph Plates

Plate 1. Amenity grassland



Plate 2. Scattered trees



Plate 3. Scattered trees





Plate 5. Scattered trees



Plate 6. Scattered trees





Plate 7. Tall ruderal



Plate 9. Existing electricity sub-station



Plate 11. Existing electricity sub-station



Plate 8. Tall ruderal



Plate 10. Existing electricity sub-station



Plate 12. Hardstanding

