

ECOLOGY AND PROTECTED SPECIES SURVEY

LAND OFF OLD MAIN ROAD, OLD LEAKE, LINCOLNSHIRE

OCTOBER 2017



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The findings of these surveys will remain valid for a period of 12 months.

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1 INTRODUCTION

Scarborough Nixon Associates Ltd has been commissioned by John Dowding of Neil Dowlman Architecture Ltd to undertake an ecology and protected species survey of a field to the north of Old Main Road, Old Leake in Lincolnshire. The survey is required in connection with plans to develop the land for residential use.

The site was surveyed on 18th September 2017 by Celia Commowick (registered to use Natural England Class Licence WML-CL08 to survey great crested newts; registration number 2016-25124-CLS-CLS) in dry and fine conditions.

During the initial appraisal of the site the protected species considered likely to occur on site were identified. These were:

- Bats
- Badger
- Water vole
- Common bird species

Certain protected species were scoped out of the survey due to lack of suitable habitat; in particular it was considered that, white-clawed crayfish *Austropotamobius pallipes*, common dormouse *Muscardinus avellanarius* and otter *Lutra lutra* (breeding) were highly unlikely to occur on the site.

The site was not considered suitable to provide nesting opportunities for Schedule 1 bird species, and the habitats present are not suitable to support a long term, significant population of common reptiles. Although there is a pond approximately 500m south-west of the site, it is located on the far side of several roads and residential areas, which would act as an effective barrier to dispersal of great crested newts *Triturus cristatus*.

A note was made of any species which are local or national Biodiversity Action Plan (BAP) species/species of principal importance.

This report details the methods used, describes the species found on the site, discusses the

results and makes recommendations for further work. English names of higher plants are used throughout the text and are those used by Stace (2010). A full plant list for the site is presented as Appendix 1.

2 METHODS

2.1 Data search

Lincolnshire Environmental Records Centre (LERC) was consulted and commissioned on 15th September 2017 to search for sites with statutory and non-statutory designation and records of protected species within 2km of the survey site.

2.2 Bats

2.2.1 Ground level roost assessment

A preliminary ground level roost assessment was carried out on all trees on the site, in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition (Collins J, 2016) Table 4.1 page 35. The trees were visually checked with the assistance of binoculars for potential roost features such as;

- Woodpecker holes
- Broken limbs, snag ends, cracks and splits in branches and rot holes
- Cankers with cavities
- Gaps between overlapping stems or branches
- Dense ivy, with stem diameters in excess of 50mm
- Flaking bark.

Any trees with roost potential were then assigned a measure of potential suitability to determine the extent of future survey work needed. The categories of potential suitability and further survey effort required are as follows;

- Negligible – Negligible potential roosting features on the tree – no further survey work
- Low – A tree of sufficient size and age to contain potential roost features but with none seen from the ground, or features seen with only very limited roosting potential – no further surveys necessary
- Moderate – One or more potential roost features that could be used by bats on a regular basis – further survey work required (roost feature inspections or emergence/ re-entry surveys)

- High – One or more potential roost features that are obviously suitable for use by larger numbers of bats on a regular basis and for longer periods of time – further survey work required (roost feature inspections or emergence/ re-entry surveys)

2.2.2 Assessment of commuting and foraging habitats

In accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition (Collins J, 2016), the survey site and adjacent areas were assessed for their potential suitability for commuting and foraging bats and categorised as follows;

- Negligible – Negligible habitat features on site or in surrounding area likely to be used by commuting or foraging bats
- Low – Habitat features that could be used by small numbers of commuting bats such as a gappy hedgerow or small numbers of foraging bats such as a patch of scrub, but that are isolated from other habitat features
- Moderate – Continuous habitat connected to the wider landscape such as lines of trees that could be used by commuting bats or trees, grassland or water features that could be used by foraging bats
- High – Continuous, high-quality habitat that is well connected to the wider landscape for use by commuting and foraging bats such as river valleys, woodland, grassland and parkland.

2.3 Badger

The site was searched for signs of use by badger *Meles meles* including setts, latrines, dung pits, pathways, hairs, footprints, snuffle holes and scratch marks on trees.

2.4 Water vole

The ditches were assessed for their potential to support water vole *Arvicola amphibius* in accordance with *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)* 2016. A search was made for signs of use by water voles including feeding stations, burrows, latrine sites, runs through the vegetation and cropped grass around burrow entrances.

2.5 Common bird species

The survey site was searched for signs of use by nesting birds, typically old and active nests and concentrations of faecal deposits associated with a breeding site. All bird species recorded

on site were noted.

2.6 Habitats and plant species

An extended ecological assessment survey was undertaken, not only to identify the habitats present on the survey site, but also to include more detailed information on hedgerows and plant species on site, and undertake a further appraisal of the area as habitat for legally protected species. Plant species on site were assessed against the Vascular Plant Red Data List for Great Britain, and the site was assessed against the Local Wildlife Site (LWS) criteria for Lincolnshire.

3 SITE ASSESSMENT

3.1 Location and grid reference

The survey site comprises a single semi-improved grassland field bounded by dry ditches, hedgerows and trees, to the north of Old Main Road in the village of Old Leake, Lincolnshire - central grid reference TF410503.

The habitats on site are described in detail below and representative photographs are included in the text. An aerial view of the site is provided in Figure 1 and a plant list included as Appendix 1.

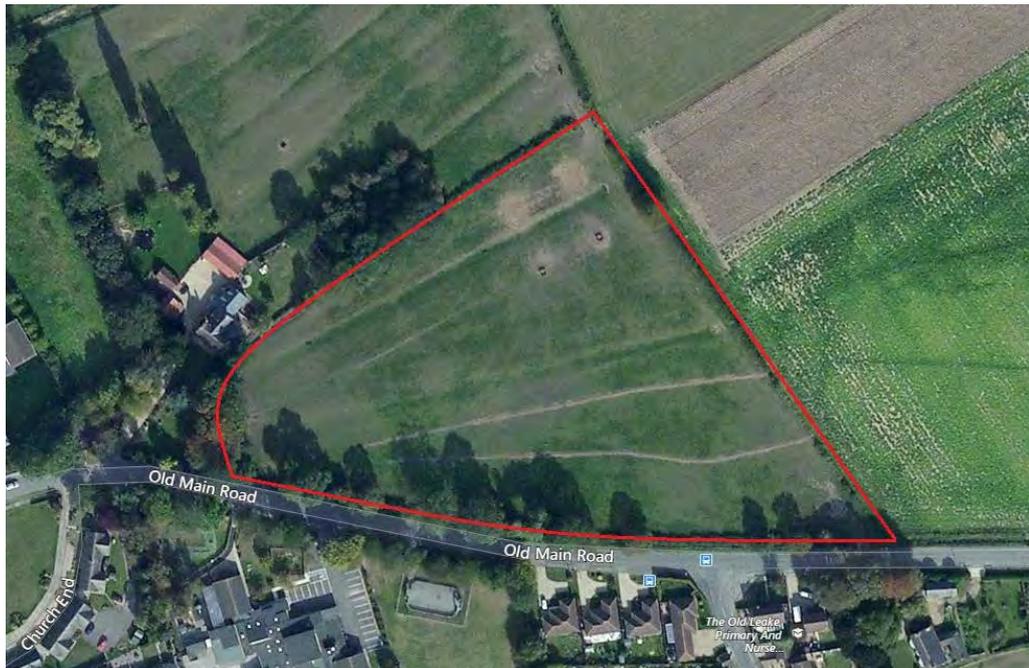


Figure 1: Aerial view of the survey site (outlined in red)

3.2 The semi-improved grass field

The field is currently grazed by horses, and is dominated by perennial rye-grass and white clover, with cock's-foot, creeping thistle, spear thistle, cow parsley, common nettle, Yorkshire-fog, dock species, creeping buttercup, hogweed, common mouse-ear, false oat-grass, common ragwort, smaller cat's-tail, prickly sow-thistle, yarrow, common field-speedwell, meadow buttercup, knotgrass, ground-ivy, common chickweed, greater plantain, daisy, swine-cress, pineappleweed, red dead-nettle, slender speedwell and groundsel. Barbed-wire fencing surrounds the field and there is a pile of dead wood within the field.



Photograph 1: View of the semi-improved grass field



Photograph 2: Further view of the field and the wood pile

3.3 Site boundaries and surrounding habitats

The north-eastern boundary comprises the barbed-wire fence, a gappy hedgerow and a dry ditch. The hedgerow is dominated by hawthorn, with elder, sycamore, dog-rose and bramble and the dry drain is dominated by common reed, with some water mint and common nettle. There is a semi-mature lime tree within the hedgerow.

The north-western boundary is made up of the barbed-wire fence, with a section of outgrown hedgerow and a dry ditch. The hedgerow comprises elder, cherry species, hawthorn, ash and dog-rose, with bramble, ivy, pendulous sedge and common nettle beneath the hedgerow and within the dry ditch. There are some mature and semi-mature ash trees along this boundary, although they are not within the survey site.

The southern boundary comprises an outgrown hedgerow with trees and a dry ditch. The hedgerow is dominated by hawthorn, with sycamore, elder, ash, English elm and dog-rose, and trees including ash, sycamore, lime and crack willow. The dry ditch is dominated by ivy, with common nettle, common reed, cleavers, white dead-nettle, redshank, ground elder and yellow iris.

There are two access points along the southern boundary from Old Main Road, and one on the north-western boundary into an adjacent field.

To the north of the site are further grass fields, with arable fields to the east and the village of Old Leake to the south and west. The wider landscape is dominated by arable fields.



Photograph 3: The gappy hedgerow along the north-eastern boundary



Photograph 4: The outgrown hedgerow and trees along the southern boundary



Photograph 5: The dry ditch and hedgerow along the southern boundary



Photograph 6: Grass field to the north of the site

4 RESULTS

4.1 Data search

According to the LERC data search results, there are no statutory or non-statutory sites within 2km of the survey site, and no areas of priority habitat.

There are records for several notable species within 2km of the survey site. The common amphibian species of smooth newt *Lissotriton vulgaris* has been recorded within the area as

recently as 2013 and grass snake *Natrix natrix* has also been recorded within the area, but not since 1977. There are no records for great crested newt within 2km of the survey site.

Water vole have been recorded in the area, most recently in 2017. There are several records for bats within 2km of the survey site, with brown long-eared *Plecotus auritus* and soprano pipistrelle *Pipistrellus pygmaeus* recorded in 2013, and common pipistrelle *Pipistrellus pipistrellus* in 2016. The biodiversity action plan (BAP) species of brown hare *Lepus europaeus* and west European hedgehog *Erinaceus europaeus* have both been recorded in the area in 1999 and 2007, respectively.

Several Schedule 1 bird species have been recorded within 2km of the survey site including barn owl *Tyto alba* in 2015 and red kite *Milvus milvus* in 2011. Please note that not all Schedule 1 birds listed in the data search may breed in Lincolnshire, and the site is not deemed suitable for nesting by any of these Schedule 1 species. There are also records for BAP bird species including tree sparrow *Passer montanus* and house sparrow *Passer domesticus* from 2012, and starling *Sturnus vulgaris* from 2016.

Full details of the data search results are given as Appendix 2.

4.2 Bats

4.2.1 Ground level roost assessment

There are no trees on the site identified as having features with potential to support roosting bats.

4.2.2 Assessment of commuting and foraging habitats

A network of ditches connects the survey site with the wider area, which contains some grazed grassland, but is mainly comprised of arable fields.

The results of the assessment of the surrounding habitats appear in tabular form below:

Table 1: Assessment of surrounding habitats to support commuting and foraging bats

Feature	Description	Site value for bats
Immediate area (<500m)	Residential areas, some grazed grassland, ditches and arable fields.	Moderate potential for foraging bats and moderate potential for commuting bats

Feature	Description	Site value for bats
Wider surroundings (500m-3km)	Some residential areas. Large areas of arable fields. Ditches contribute to connectivity.	Low potential for commuting and low potential for foraging bats

4.3 Badger

A mammal run was noted beneath the barbed wire fence along the north-eastern boundary, with badger hair caught on the fence. Signs of badger foraging were also noted along this boundary line. No setts or latrines were noted within the survey site or within 30m of the site boundaries.



Photograph 7: Badger hair caught on the barbed wire fence



Photograph 8: Snuffle hole along the north-eastern boundary

4.4 Water vole

There was no evidence of water vole burrows, feeding or latrines noted within the dry ditches bounding the site. The ditches are likely to be dry for much of the year, and are considered to have low potential to support water vole. No further survey work or mitigation is required for this species.

4.5 Common bird species

A number of common birds were seen on or flying over the site during the survey. These are listed below along with their current status as BAP species or Birds of Conservation Concern 4 (Eaton et al, 2015):

Table 2: Common bird species seen on site

English name	Scientific name	BAP	BoCC
woodpigeon	<i>Columba palumbus</i>		Green
robin	<i>Erithacus rubecula</i>		Green
blackbird	<i>Turdus merula</i>		Green
blue tit	<i>Cyanistes caeruleus</i>		Green
magpie	<i>Pica pica</i>		Green
jackdaw	<i>Corvus monedula</i>		Green
rook	<i>Corvus frugilegus</i>		Green
chaffinch	<i>Fringilla coelebs</i>		Green

The trees and the hedgerows on the site boundaries all have high potential for use by nesting birds.

4.6 Habitats and plant species

The habitats and plant species recorded on the site are common and widespread in the local area and in the country.

The habitat with some local importance for nature conservation are as follows:

- Hedgerows
- Ditches

The proposed development is not expected to impact on the boundary hedgerows or ditches, as the two existing access points along the south boundary are to be used within the proposed plans.

The hedgerows on site do not meet the required criteria of 7 woody species within a 30m length to qualify as important under the Hedgerow Regulations 1997.

The site does not meet the required criteria to qualify as a Local Wildlife Site and there are no species that are listed in the Vascular Plant Red Data List for Great Britain.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Bats

5.1.1 Legal protection

Studies have shown that populations of bat species in both Britain and continental Europe have seriously declined in recent times as the result of the reduction in habitats providing their insect food and the disturbance to, exclusion from, or total loss of their roosting and hibernation sites. For this reason, in England, Scotland and Wales, all bats are strictly protected under the Wildlife and Countryside Act 1981 (and as amended); in England and Wales this legislation has been amended and strengthened by the Countryside and Rights of Way (CROW) Act 2000. Bats are also protected by European legislation; the EC Habitats Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 – often referred to as 'The Habitat Regs'. Taken together, all this legislation makes it an offence to:

- Deliberately capture (or take), injure or kill a bat
- Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly affect the ability of the animals to survive, breed, or nurture their young or likely to significantly affect the local distribution or abundance of the species whether in a roost or not.
- Damage or destroy the breeding or resting place of a bat
- Possess a bat (alive or dead) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost
- Sell (or offer for sale) or exchange bats (alive or dead) or parts of bats

A roost is defined as being 'any structure or place that is used for shelter or protection', and since bats regularly move roost site throughout the year, a roost retains such designation whether or not bats are present at the time.

5.1.2 Recommendations

Local bats will likely be using the survey area for foraging and commuting, and the development of the site may have an impact on the availability of foraging areas for bats within the local landscape. There will be no requirement for bat activity surveys providing measures are undertaken to ensure that there is no disturbance to foraging/commuting bats using the site during any development and post construction.

Precautionary measures for bats – Old Main Road, Old Leake

- Ensure that dark unlit corridors are maintained along the site boundaries, allowing bats to pass through the site unhindered by artificial light. Any lighting on the edges of the

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site may require shields or adaptations to minimise light spill.

- The existing trees, drains and hedgerows on site should be retained within the development where possible.
- In order to enhance the site for foraging bats, the landscaping scheme should be carefully planned to include night scented flowers in order to attract moths and other night flying insects (which will provide foraging opportunities for bats). Species should include evening primrose *Oenothera biennis*, sweet rocket *Hesperis matronalis*, honeysuckle species *Lonicera sp*, lavender *Lavendula sp*, white jasmine *Jasminum officinale*, sweetbriar *Rosa rubiginosa*, night-scented catchfly *Silene noctiflora*, night-scented stock *Matthiola longipetala* and soapwort *Saponaria officinalis*.

5.2 Badger

5.2.1 Legal protection

Badgers and their setts are fully protected under the Protection of Badgers Act 1992, which amended and incorporated previous legislation. This Act makes it an offence, inter alia, to:

- Wilfully kill, injure or take, or attempt to kill, injure or capture a badger
- Interfere with a badger sett by doing any of the following things, intending to do any of these things or be reckless as to whether one's actions would have any of these consequences:
 - Damaging a badger sett or any part of it
 - Destroying a badger sett
 - Obstructing access to, or any entrance of, a badger sett
 - Disturbing a badger when it is occupying a badger sett

A badger sett is defined in the Act as any structure or place which displays signs indicating use by a badger. Although a sett may be empty at a certain time it may be used as part of a regular cycle throughout the year, and may therefore be considered to be in use. A sett, which can be shown to have been disused for at least a full year, is considered to fall outwith the Act.

5.2.2 Recommendations

There were no setts identified on the survey site or within 30m of the site boundaries. However, evidence of badger presence and foraging activity was noted on the site.

It is recommended that precautionary working practices are adopted to ensure legal compliance and to safeguard the animals during the construction works and post development.

Precautionary working practices for badger – Old Main Road, Old Leake

- It is recommended that all site personnel stay vigilant for the presence of badgers. If the presence of badgers is suspected on site, further advice will be required from a consultant ecologist by calling 07833 674500, in order to ensure legal compliance.
- In order to safeguard ground mammals, including badgers and hedgehogs, during the development phase it is essential that no trenches or pipes are left uncovered overnight.

5.3 Common bird species

5.3.1 Legal protection

All common wild birds are protected under The Wildlife and Countryside Act 1981 (and as amended). Under this legislation it is an offence to:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while it is in use or being built
- Take or destroy the egg of any wild bird

Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

5.3.2 Recommendations

The trees and hedgerows on the site boundaries have high potential to be used for nesting by species of common bird.

Any site preparation/clearance work should commence outside the active nesting season which typically runs from March through to late August. If work commences during the bird breeding season, a search for nests should be carried out before they begin, and active nests should be protected until the young fledge.

5.4 Recommendations for ecological enhancement

In addition to the legislation which is in place to safeguard protected species, there is also legislation and policy which imposes duties to take account of statutorily protected species and also to undertake action to prevent loss of biodiversity and species/habitats which have been identified as priorities in the UK. In England and Wales, the Natural Environment and Rural

Communities (NERC) Act 2006, imposes a duty on all public bodies (including Local Authorities and statutory bodies) to conserve biodiversity – including restoring and enhancing a population or habitat. In addition, government planning policy guidance throughout the UK, provided in the National Planning Policy Framework and OPDM Circular 06/2005, requires local planning authorities to take account of protected species issues prior to determination of planning applications.

In order to enhance biodiversity and provide some 'ecological gain' on site and fulfil the Local Planning Authorities obligations under the NERC Act 2006, the following measures are recommended;

- The existing hedgerows will be retained within the current plans. Any new hedgerows to be planted should use native species such as blackthorn *Prunus spinosa*, common hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, field maple *Acer campestre*, midland hawthorn *Crataegus laevigata*, wild cherry *Prunus avium* and bird cherry *Prunus padus*. All hedgerows should be appropriately managed with traditional techniques where possible to maximise their benefit for wildlife using hedge-laying rather than flailing or trimming. If trimming is necessary, ensure it is carried out every 2 to 3 years and in sections so that not all parts of the hedgerow are cut at the same time.
- In order to provide suitable habitats on site to encourage high invertebrate activity, any proposed amenity grassland/lawn areas within the development should be seeded with a flowering lawn mixture, such as Emorsgate Seeds EL1 mix (www.wildseed.co.uk), which is resistant to regular mowing. Any areas of longer grass could be seeded with a general wildflower mix such as Emorsgate EM1 mix (basic all-purpose meadow mix). It is recommended that any wildflower areas are cut once a year, in late summer/early autumn and the arisings removed after 7 days to enable the wildflowers to flourish. Details of how to adequately prepare the ground prior to seeding, as well as ongoing management can be found on the Emorsgate website.
- As a positive conservation measure, at least two bat roost units should be installed on the site as part of the development, in order to maximise opportunities for bat species in the local area. Bat boxes should be placed on the northern and southern elevations of the new dwellings. Examples of bat roost units which could be used are given as Appendix 3. Avoid placing external lighting that illuminates the newly installed bat roost units.
- Consideration should also be given to the provision of nest boxes of various designs within the development, which would be a good conservation measure, and replace the

potential nesting habitats that will be lost through the development of the site. This could include those suitable for sparrow species erected on the external fabric of the new buildings. Details of nest boxes suitable for use by a range of common bird species can be obtained from www.wildcareshop.com.

- The wood pile on site should be carefully dismantled and searched before burning, to ensure no hedgehogs are taking shelter within it.
- It is considered likely that hedgehogs occur on site, and within the adjacent habitats. Hedgehog populations have declined by a third in the last 10 years and are a Biodiversity Action Plan (BAP) species. Gardens and green spaces in urban areas can support high densities of hedgehogs, however habitat fragmentation is thought to be a significant contributor to their decline. Simple solutions within the new development will ensure connectivity for this species between the site and the open countryside. To maintain commuting routes for hedgehogs between the newly created gardens and the surrounding countryside, any fences that are installed should have a small hole in the bottom, 13cmx13cm, or be raised off the ground. Ideally, hedges should be used instead of fencing. Hedgehog mitigation measures are provided in Appendix 4.

6 SUMMARY

There are no major ecological constraints associated with the proposals.

Precautionary measures for bats and badgers are recommended.

Some further precautionary measures and ecological enhancements are required in order to ensure legal compliance and no net loss to biodiversity. These are as follows:

- Appropriate timing with regards to nesting birds
- Best practice in relation to bats (lighting)
- Best practice in relation to hedgehogs within the development
- Provision of bird boxes
- Provision of bat roosting units
- Use of native species and wildflowers in the landscaping scheme

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**ECOLOGY AND PROTECTED SPECIES SURVEY
LAND OFF OLD MAIN ROAD, OLD LEAKE, LINCOLNSHIRE**

**APPENDIX 1
Plant Species List**

ECOLOGY AND PROTECTED SPECIES SURVEY

LAND OFF OLD MAIN ROAD, OLD LEAKE, LINCOLNSHIRE

ENGLISH NAME	SCIENTIFIC NAME
annual meadow-grass	<i>Poa annua</i>
ash	<i>Fraxinus excelsior</i>
bramble	<i>Rubus fruticosus</i>
cherry species	<i>Prunus spp.</i>
cleavers	<i>Galium aparine</i>
cock's-foot	<i>Dactylis glomerata</i>
common chickweed	<i>Stellaria media</i>
common field-speedwell	<i>Veronica persica</i>
common mouse-ear	<i>Cerastium fontanum</i>
common nettle	<i>Urtica dioica</i>
common ragwort	<i>Senecio jacobaea</i>
common reed	<i>Phragmites australis</i>
cow parsley	<i>Anthriscus sylvestris</i>
crack willow	<i>Salix fragilis</i>
creeping buttercup	<i>Ranunculus repens</i>
creeping thistle	<i>Cirsium arvense</i>
daisy	<i>Bellis perennis</i>
dandelion	<i>Taraxacum sp</i>
dock species	<i>Rumex spp.</i>
dog-rose	<i>Rosa canina</i>
elder	<i>Sambucus nigra</i>
English elm	<i>Ulmus minor</i>
false oat-grass	<i>Arrhenatherum elatius</i>
great plantain	<i>Plantago major</i>
ground elder	<i>Aegopodium podagraria</i>
groundsel	<i>Senecio vulgare</i>
ground-ivy	<i>Glechoma hederacea</i>
hawthorn	<i>Crataegus monogyna</i>
hogweed	<i>Heracleum sphondylium</i>
horse chestnut	<i>Aesculus hippocastanum</i>
ivy	<i>Hedera helix</i>
knotgrass	<i>Polygonum aviculare</i>
lime species	<i>Tilia sp.</i>
meadow buttercup	<i>Ranunculus acris</i>

ENGLISH NAME

perennial rye-grass
pineappleweed
pine species
prickly sow-thistle
red dead-nettle
redshank
slender speedwell
smaller cat's-tail
smooth sow-thistle
spear thistle
swine-cress
sycamore
white clover
white dead-nettle
yarrow
yellow iris
Yorkshire-fog

SCIENTIFIC NAME

Lolium perenne
Matricaria discoidea
Pinus sp.
Sonchus asper
Lamium purpureum
Persicaria maculosa
Veronica filiformis
Phleum bertolonii
Sonchus oleraceus
Cirsium vulgare
Coronopus squamatus
Acer pseudoplatanus
Trifolium repens
Lamium album
Achillea millefolium
Iris pseudacorus
Holcus lanatus

**ECOLOGY AND PROTECTED SPECIES SURVEY
LAND OFF OLD MAIN ROAD, OLD LEAKE, LINCOLNSHIRE**

**APPENDIX 2
Data search results**



Lincolnshire Environmental Records Centre data search report

Old Main Road, Old Leake
15 September 2017

Achieving more for nature



GLNP
GREATER LINCOLNSHIRE
NATURE PARTNERSHIP

Report details

Produced for	Celia Commowick, Scarborough Nixon Associates Ltd
Produced by	lhartley
Produced on	15/09/2017 (expires 15/09/2018)
LERC reference	ARq-0587
Aspects included in this report	Non-statutory sites <input checked="" type="checkbox"/> Statutory sites <input checked="" type="checkbox"/> Habitats <input checked="" type="checkbox"/> Species <input checked="" type="checkbox"/>
Search area (all aspects combined)	 <p>Centre of search area: E: 541049 N: 350350</p> <p><small>© Crown Copyright and Database Rights (2015) Ordnance Survey (100025370)</small></p>

Terms and conditions

1. Copyright of all records remains with the recorder, and of the collated data with LERC.
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6. Data provided is as held by LERC. Past records of presence of a species or habitat do not guarantee continued occurrence.

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About the Lincolnshire Environmental Records Centre

The Lincolnshire Environmental Records Centre (LERC) collates wildlife and geological information for Greater Lincolnshire from various sources and makes it available for various uses. This data is crucial to aid conservation management of sites, to help organisations prioritise action, and to understand the distribution of species and trends over time. For more information on LERC or to request a data search, visit the website at <http://glnp.org.uk/partnership/lerc/>



*Lincolnshire Environmental Records Centre is an ALERC accredited LRC, meeting the standard level criteria
For more information on accreditation, see the ALERC website at <http://www.alerc.org.uk/accreditation.html>*

Non-statutory sites

Site citation sheets are available for Local Wildlife Sites, Local Geological Sites, Sites of Nature Conservation Interest and Regionally Important Geological and Geomorphological Sites. GIS boundaries are available for Local Wildlife Sites, Local Geological Sites, Sites of Nature Conservation Interest, Regionally Important Geological and Geomorphological Sites, Lincolnshire Wildlife Trust nature reserves and Roadside Nature Reserves. Distance is given as the shortest distance in kilometres from the unbuffered search area to the site.

Local Wildlife Sites (LWSs)

LWSs, along with biological Sites of Special Scientific Interest (SSSIs), are the most important places for wildlife at a local level. The GLNP seeks to identify every site that satisfies the selection criteria presented in the LWS guidelines, thus recognising a comprehensive suite of sites. Sites are selected by the Nature Partnership, based on recommendations made by its expert working group known as the LWS Panel and then submitted for inclusion within local authority planning policy. Identifying these sites helps local authorities meet their obligations under legislation and government guidance, including reporting on the number of sites in positive management for Single Data List Indicator 160-00.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Local Geological Sites (LGSs)

LGSs, along with geological Sites of Special Scientific Interest (SSSIs) are the most important places for geodiversity and heritage in the county. They have substantive geoconservation value and their function is to protect and manage such interest and, where possible, provide educational opportunities. The GLNP seeks to identify every site that satisfies the selection criteria presented in the LGS guidelines. Sites are selected by the Nature Partnership, based on recommendations made by its expert working group known as the LGS Panel and then submitted for inclusion within local authority planning policy. Identifying these sites helps local authorities meet their obligations under legislation and government guidance, including reporting on the number of sites in positive management for Single Data List Indicator 160-00.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Sites of Nature Conservation Interest (SNClS)

The LWSs status supersedes that of Sites of Nature Conservation Importance (SNClS), which were identified on the basis of local knowledge and were selected without consideration of any formal criteria. In Greater Lincolnshire, the GLNP aims to assess all existing SNClS using the criteria outlined in LWS guidelines. To avoid confusion, until sites have been assessed against the LWS criteria they retain their SNClS status.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Regionally Important Geological and Geomorphological Sites (RIGSs)

The LGS status supersedes that of RIGS, which were identified on the basis of local knowledge and were selected without consideration of any formal criteria. In Greater Lincolnshire, the GLNP aims to assess all existing RIGSs using the criteria outlined in LGS guidelines. To avoid confusion, until sites have been assessed against the LGS criteria they retain their RIGS status.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Lincolnshire Wildlife Trust Reserves (LWT)

The Lincolnshire Trust for Nature Conservation, formed in 1948, (and now known as the Lincolnshire Wildlife Trust) is a charity dedicated to safeguarding the countryside and wildlife of the historic county. It is one of a network of Wildlife Trusts that together form the largest voluntary organisation in the UK devoted to all aspects of wildlife protection.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Roadside Nature Reserves (RNRs)

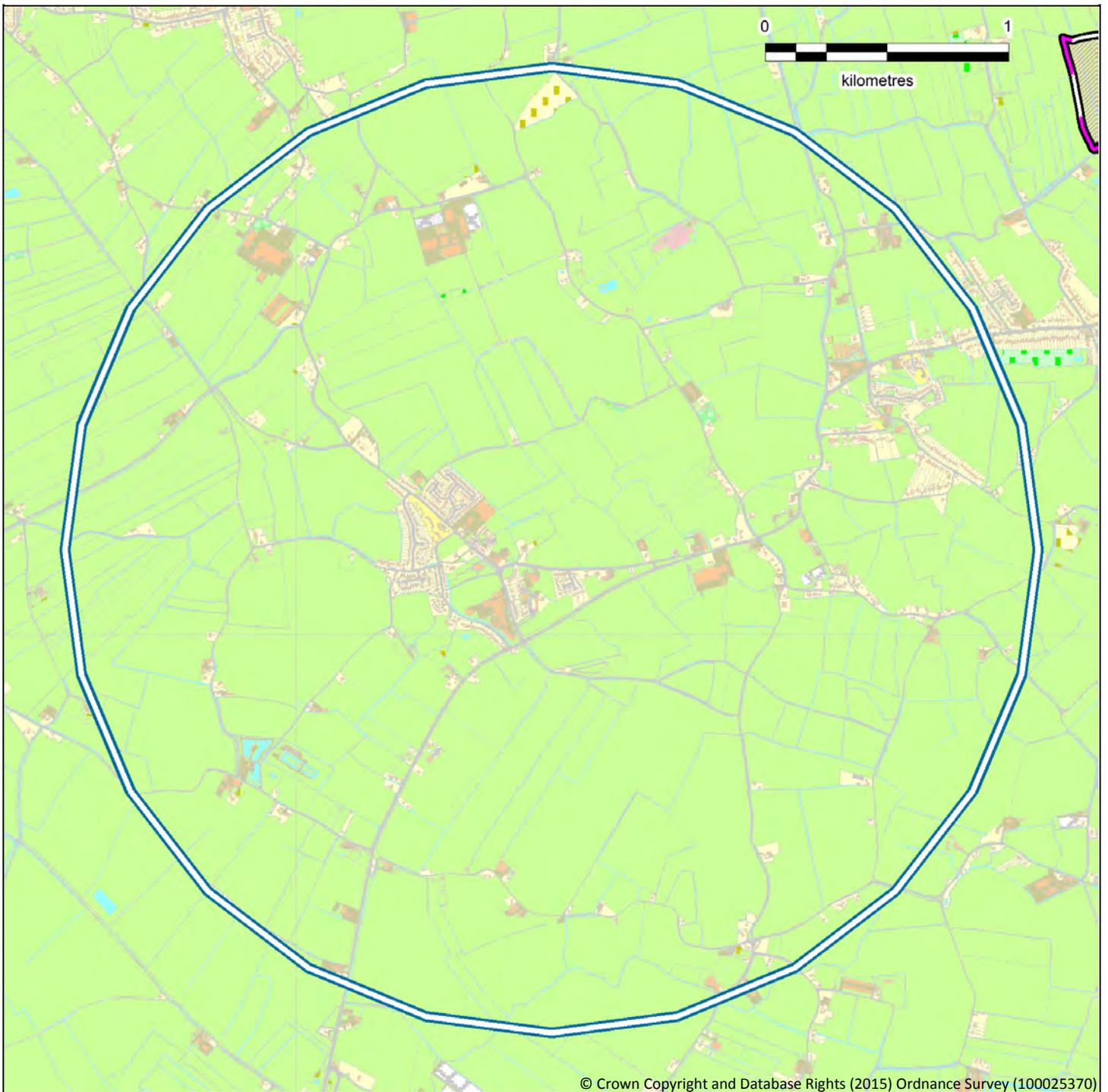
A scheme for the protection and management of roadside verges was set up in 1960 by the Lincolnshire Wildlife Trust and sites were originally termed "Protected Roadside Verges" (PRVs). Run in cooperation with Lincolnshire County Council, the Highways Division provides financial and advisory support with management is carried out by the Lincolnshire Wildlife Trust. There are 65 Roadside Nature Reserves, which total a distance of over 80 kilometres (50 miles). For each verge, the Trust appoints a voluntary 'Wayside Warden' to help look after the biological interest in liaison with the Divisional Surveyors and landowners.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Non-statutory sites within the search area



Space restrictions on the map may result in some sites not being labelled. Please refer to the GIS layers or site citations for details.

- | | | | |
|---|---|--|-------------------------------------|
|  | Local Wildlife Site |  | Lincolnshire Wildlife Trust Reserve |
|  | Local Geological Site (mine entrance) |  | Roadside Nature Reserve |
|  | Local Geological Site |  | Search area |
|  | Site of Nature Conservation Interest |  | LERC boundary |
|  | Regionally Important Geological/Geomorphological Site | | |

Statutory sites

Distance is given as the shortest distance in kilometres from the unbuffered search area to the site.

Sites of Special Scientific Interest (SSSIs)

SSSIs are part of the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. These sites are also used to underpin other national and international nature conservation designations, and are currently designated under the Wildlife and Countryside Act 1981 (as amended in the Countryside Rights of Way Act 2000).

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

National Nature Reserves (NNRs)

NNRs represent many of the finest wildlife and geological sites in the country. They are selected from the Sites of Special Scientific Interest (SSSIs) and so each NNR has at least two designations.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Local Nature Reserves (LNRs)

LNRs are areas designated by the local authority, and protected through the Local Plan as of special wildlife interest that enhance public enjoyment of wildlife. The local authority either has ownership or a legal interest in the land.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Special Protection Areas (SPAs)

SPAs are areas of the most important habitat for rare (listed on Annex I of the Birds Directive) and migratory birds within the European Union. SPAs, together with SACs, form the Natura 2000 network. SPA designation is underpinned by SSSI designation in the UK.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Special Areas of Conservation (SACs)

SACs are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II of the Habitats Directive. SACs, together with SPAs, form the Natura 2000 network. SAC designation is underpinned by SSSI designation in the UK.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Ramsar Sites (Ramsars)

Ramsar Sites are wetlands of international importance designated under the Ramsar Convention. Most Ramsar Sites are also classified as SPAs, with all terrestrial Ramsar Sites also notified as SSSIs.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Areas of Outstanding Natural Beauty (AONBs)

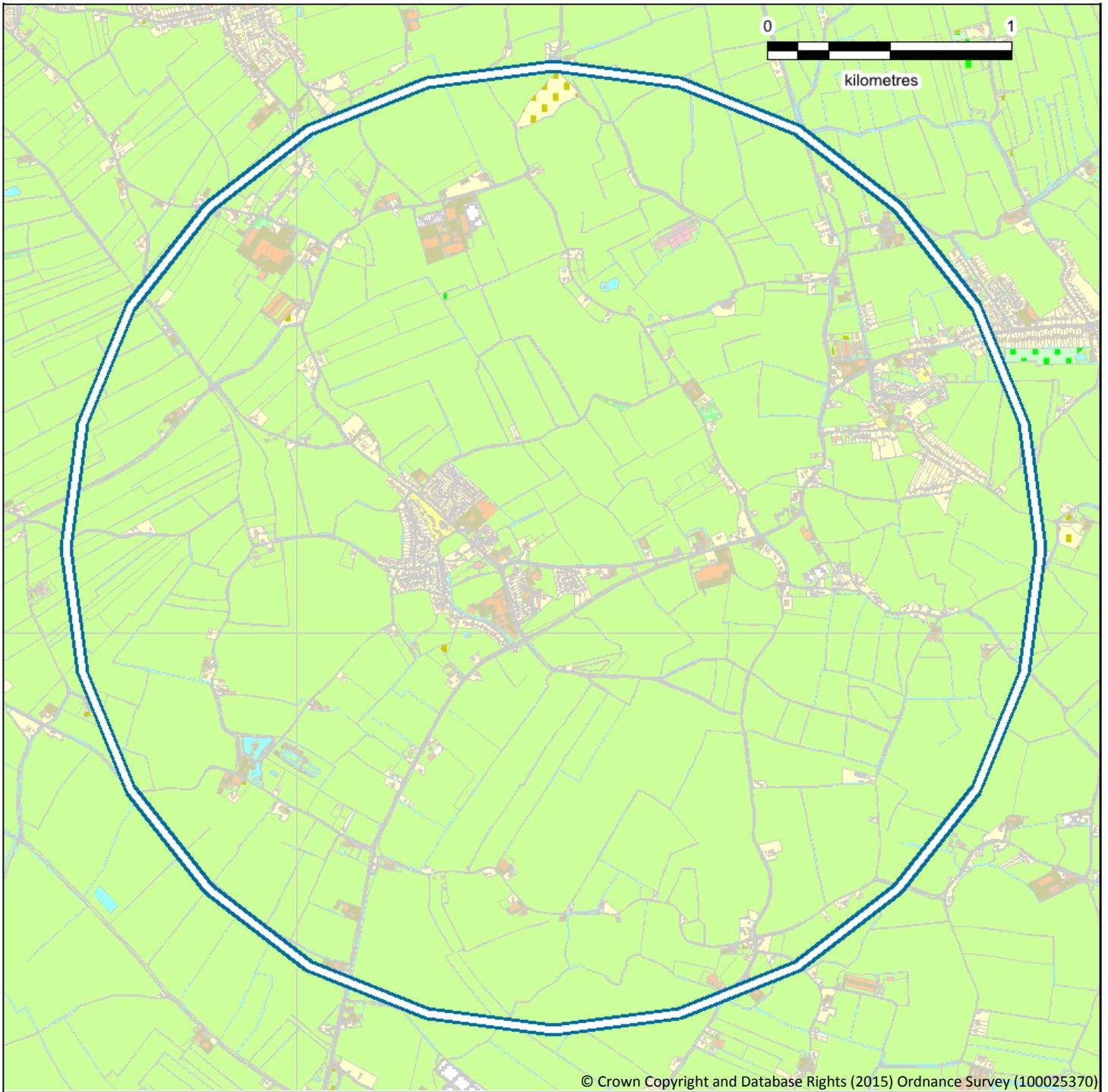
AONBs were created by legislation within the National Parks and Access to the Countryside Act of 1949. In Greater Lincolnshire there is one AONB, which is the Lincolnshire Wolds.

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CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE

no sites found in the search area

Statutory sites within the search area



Space restrictions on the map may result in some sites not being labelled. Please refer to the GIS layers or site citations for details.

- | | | | |
|---|-------------------------------------|---|------------------------------------|
|  | Site of Special Scientific Interest |  | Ramsar |
|  | National Nature Reserve |  | Area of Outstanding Natural Beauty |
|  | Local Nature Reserve |  | Search area |
|  | Special Protection Area |  | LERC boundary |
|  | Special Area of Conservation | | |

Habitats

Ancient Woodland Sites

The Ancient Woodland Inventory (AWI), maintained by Natural England, is a provisional list of woodland sites over 2ha in size that have had continuous woodland cover since at least 1600AD. This includes ancient semi-natural woodland (ASNW) and ancient replanted woodland (ARW - also known as plantation on ancient woodland sites or PAWS).

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HABITAT	Area (ha)

no polygons found in the search area

Priority Habitats

Priority habitats are those identified as being the most threatened and requiring conservation action in the UK. The data presented is the most up-to-date of the data collated by the GLNP; further historic data and non-Priority habitat data may also be available.

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HABITAT	Area (ha)

no polygons found in the search area

Habitats within the search area



Species

Lincolnshire Environmental Records Centre holds records on the following species within or overlapping the search area. Data shown is as held by LERC; past records of presence of a species does not guarantee continued occurrence and absence of records does not imply absence of a species, merely that no records are held. Depending on the parameters of the data search, additional records may be available. Confidential data, data at poorly defined geographic resolutions and data pending validation and/or verification may also be excluded from this report.

Grid references are limited to 100m accuracy, although higher resolutions may be available. Location data for the following record types are further limited to avoid environmental harm: badger setts, bat roosts. Release of enhanced data is dealt with on a case-by-case basis and confidential records are provided separately.

The following organisations have contributed data to this report:

- Environment Agency
- Greater Lincolnshire Nature Partnership
- Lincolnshire Bat Group
- Lincolnshire Bird Club
- Lincolnshire Naturalists' Union
- Lincolnshire Wildlife Trust
- People's Trust for Endangered Species
- Royal Society for the Protection of Birds

Data is converted for use in the LERC database and may not exactly match the source data.

The results of the species search have been broken down into 1 separate data output(s), which are summarised on the following pages. Zero abundance records are excluded from these summaries, but are included in the spread sheets (these can be identified by having abundance values of '0 Present (Count: Exact)').

Search #1

Search parameters

Designations:	Taxonomic groups:	Geographic area:
Badgers-1992 BAP-2007 GBNSIP HabReg-Sch2 HabReg-Sch4 HabReg-Sch5 LBAP:3 WACA-Sch1_part1 WACA-Sch1_part2 WACA-Sch5_sect9.1(kill/injuring) WACA-Sch5_sect9.1(taking) WACA-Sch5_sect9.2 WACA-Sch5_sect9.4.a WACA-Sch5_sect9.4b WACA-Sch5_sect9.5a WACA-Sch5_sect9.5b WACA-Sch5Sect9.4A* WACA-Sch5Sect9.4c WACA-Sch8	<i>all taxonomic groups</i>	

Summary

Amphibian (3 taxa)	Number of records	Date range recorded	Designations
Common Frog, <i>Rana temporaria</i>	7	1977 - 1995	Bern3, HSD5, WCA5/9.5a
Common Toad, <i>Bufo bufo</i>	6	1977 - 1977	Bern3, ScotBL, Sect.41, Sect.42, UKBAP, WCA5/9.5a
Smooth Newt, <i>Lissotriton vulgaris</i>	1	2013 - 2013	Bern3, LBAP:3, WCA5/9.5a, WO5

Bird (68 taxa)	Number of records	Date range recorded	Designations
Arctic Skua, <i>Stercorarius parasiticus</i>	1	2011 - 2011	BoCC4-Red, BRed, ScotBL, UKBAP
Barn Owl, <i>Tyto alba</i>	12	2005 - 2015	Bern2, CITESA, FEP7/2, LBAP:3, LBCSchedule1, ScotBL, WCA1i, WCA9, WO1i
Barnacle Goose, <i>Branta leucopsis</i>	6	2001 - 2009	BD1, Bern2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, FEP7/2, GBNSIP, Non-native, ScotBL, WCA9
Bean Goose, <i>Anser fabalis</i>	1	2004 - 2004	BAmb, BD2.1, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, GBNSIP, ScotBL
Bearded Tit, <i>Panurus biarmicus</i>	1	2010 - 2010	Bern2, LBCSchedule1, ScotBL, WCA1i, WO1i
Bewick's Swan, <i>Cygnus columbianus subsp. bewickii</i>	1	2015 - 2015	BAmb, BD1, Bern2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, ScotBL, Sect.41, Sect.42, UKBAP, WCA1i, WO1i
Black-tailed Godwit, <i>Limosa limosa</i>	8	1999 - 2012	BD2.2, BoCC4-Red, CMS_A2, CMS_AEWA-A2, FEP7/2, LBCSchedule1, RLGLB.NT, ScotBL, WCA1i, WO1i
Brambling, <i>Fringilla montifringilla</i>	6	2005 - 2011	ScotBL, WCA1i
Brent Goose, <i>Branta bernicla</i>	2	2010 - 2011	BD2.2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, FEP7/2, GBNSIP
Bullfinch, <i>Pyrrhula pyrrhula</i>	8	2006 - 2012	BoCC4-Amber, FEP7/2, LBAP:3, ScotBL
Canada Goose, <i>Branta canadensis</i>	88	2003 - 2012	BD2.1, CMS_A2, GBNSIP, Non-native, WCA9
Collared Dove, <i>Streptopelia decaocto</i>	60	2005 - 2012	BD2.2, GBNSIP
<i>Columba livia 'feral'</i>	49	2010 - 2012	BD2.1, CITESA, GBNSIP, Non-native
Common Scoter, <i>Melanitta nigra</i>	11	1999 - 2011	BD2.2, BoCC4-Red, BRed, CMS_A2, CMS_AEWA-A2, ScotBL, Sect.41, Sect.42, UKBAP, WCA1i, WO1i
Corn Bunting, <i>Emberiza calandra</i>	9	2010 - 2015	BoCC4-Red, FEP7/2, LBAP:3, ScotBL, WO1i

Cuckoo, <i>Cuculus canorus</i>	5	2005 - 2007	BoCC4-Red, BRed, ScotBL, Sect.41, Sect.42, UKBAP
Curlew, <i>Numenius arquata</i>	156	1998 - 2012	BD2.2, BoCC4-Red, CMS_A2, CMS_AEWA-A2, FEP7/2, LBAP:3, RLGLB.NT, ScotBL, Sect.41, Sect.42, UKBAP
Dark-bellied Brent Goose, <i>Branta bernicla subsp. bernicla</i>	42	1998 - 2005	BD2.2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, FEP7/2, GBNSIP, Sect.41, Sect.42, UKBAP
European Greater White-fronted Goose, <i>Anser albifrons subsp. albifrons</i>	1	2011 - 2011	BD2.2, BoCC4-Red, BRed, CMS_A2, CMS_AEWA-A2, GBNSIP, ScotBL, Sect.41, UKBAP
Fieldfare, <i>Turdus pilaris</i>	21	2004 - 2011	BD2.2, BoCC4-Red, BRed, WCA1i, WO1i
Gadwall, <i>Anas strepera</i>	3	2005 - 2010	BAmb, BD2.1, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, GBNSIP, Non-native, WO1ii
Goldeneye, <i>Bucephala clangula</i>	11	1998 - 2003	BAmb, BD2.2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, Non-native, WCA1ii, WO1ii
Great Northern Diver, <i>Gavia immer</i>	1	2014 - 2014	BAmb, BD1, Bern2, BoCC4-Amber, CMS_AEWA-A2, ScotBL, WCA1i
Green Sandpiper, <i>Tringa ochropus</i>	36	1998 - 2012	BAmb, Bern2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, ScotBL, WCA1i
Greenshank, <i>Tringa nebularia</i>	27	1998 - 2012	BAmb, BD2.2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, WCA1i, WO1i
Grey Partridge, <i>Perdix perdix</i>	21	2005 - 2012	BD2.1, BoCC4-Red, FEP7/2, GBNSIP, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP
Greylag Goose, <i>Anser anser</i>	63	2003 - 2012	BAmb, BD2.1, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, Non-native, WCA1ii
Hawfinch, <i>Coccothraustes coccothraustes</i>	2	2005 - 2006	Bern2, BoCC4-Red, BRed, ScotBL, Sect.41, Sect.42, UKBAP
Helmeted Guineafowl, <i>Numida meleagris</i>	1	2015 - 2015	GBNSIP, Non-native
Hen Harrier, <i>Circus cyaneus</i>	5	2010 - 2015	BD1, BoCC4-Red, CITESA, CMS_A2, FEP7/2, LBCSchedule1, ScotBL, Sect.41, Sect.42, WCA1i, WO1i
Hobby, <i>Falco subbuteo</i>	1	2011 - 2011	Bern2, CITESA, CMS_A2, LBCSchedule1, ScotBL, WCA1i
Hoopoe, <i>Upupa epops</i>	1	2004 - 2004	Bern2, WCA1i
House Sparrow, <i>Passer domesticus</i>	59	1977 - 2012	BoCC4-Red, BRed, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP
Kingfisher, <i>Alcedo atthis</i>	16	2005 - 2012	BD1, Bern2, BoCC4-Amber, FEP7/2, LBCSchedule1, ScotBL, WCA1i, WO1i
Lapwing, <i>Vanellus vanellus</i>	78	1998 - 2012	BD2.2, BoCC4-Red, CMS_A2, CMS_AEWA-A2, FEP7/2, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP
Linnet, <i>Linaria cannabina</i>	45	2005 - 2012	Bern2, BoCC4-Red, FEP7/2, LBAP:3, ScotBL
Little Gull, <i>Hydrocoloeus minutus</i>	1	2002 - 2002	BD1, Bern2, CMS_AEWA-A2, WCA1i
Little Owl, <i>Athene noctua</i>	2	2005 - 2011	Bern2, CITESA, GBNSIP, Non-native
Marsh Harrier, <i>Circus aeruginosus</i>	13	2003 - 2012	BD1, BoCC4-Amber, CITESA, CMS_A2, FEP7/2, LBCSchedule1, ScotBL, WCA1i, WO1i
Merlin, <i>Falco columbarius</i>	7	1998 - 2011	BD1, Bern2, BoCC4-Red, CITESA, CMS_A2, FEP7/2, ScotBL, WCA1i, WO1i
Mute Swan, <i>Cygnus olor</i>	87	2002 - 2012	BAmb, BD2.2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, GBNSIP
Peregrine, <i>Falco peregrinus</i>	3	2003 - 2012	BD1, Bern2, CITESA, CMS_A2, LBCSchedule1, ScotBL, WCA1i, WO1i
Pheasant, <i>Phasianus colchicus</i>	112	2004 - 2012	BD2.1, GBNSIP
Pink-footed Goose, <i>Anser brachyrhynchus</i>	14	1998 - 2009	BAmb, BD2.2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, GBNSIP, Non-native
Pintail, <i>Anas acuta</i>	5	1999 - 2005	BAmb, BD2.1, BoCC4-Amber, CITESC, CMS_A2, CMS_AEWA-A2, GBNSIP, WCA1ii, WO1ii
Pyrrhula pyrrhula subsp. pyrrhula	1	2011 - 2011	BoCC4-Amber, FEP7/2, LBAP:3, ScotBL
Quail, <i>Coturnix coturnix</i>	1	2009 - 2009	BAmb, BD2.2, BoCC4-Amber, LBCSchedule1, WCA1i, WO1i
Red Kite, <i>Milvus milvus</i>	1	2011 - 2011	BD1, CITESA, CMS_A2, FEP7/2, LBCSchedule1, Non-native, RLGLB.NT, ScotBL, WCA1i, WCA9
Red-legged Partridge, <i>Alectoris rufa</i>	12	2005 - 2012	BD2.1, GBNSIP, Non-native
Redshank, <i>Tringa totanus</i>	100	1998 - 2012	BD2.2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, FEP7/2, LBAP:3
Redwing, <i>Turdus iliacus</i>	30	2004 - 2012	BD2.2, BoCC4-Red, BRed, ScotBL, WCA1i
Reed Bunting, <i>Emberiza schoeniclus</i>	98	2005 - 2012	Bern2, BoCC4-Amber, FEP7/2, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP

Ring Ouzel, <i>Turdus torquatus</i>	2	2007 - 2008	Bern2, BoCC4-Red, FEP7/2, ScotBL, Sect.41, Sect.42, UKBAP, WO1i
Rock Dove, <i>Columba livia</i>	2	2009 - 2009	BD2.1, CITESA, GBNNSIP, Non-native
Ruff, <i>Calidris pugnax</i>	3	1998 - 2008	BD1, BD2.2, BoCC4-Red, CMS_A2, CMS_AEWA-A2, FEP7/2, LBCSchedule1, ScotBL, WCA1i, WO1i
Scaup, <i>Aythya marila</i>	1	2002 - 2002	BD2.2, BoCC4-Red, BRed, CMS_A2, CMS_AEWA-A2, ScotBL, Sect.41, UKBAP, WCA1i, WO1ii
Skylark, <i>Alauda arvensis</i>	78	2005 - 2012	BD2.2, BoCC4-Red, FEP7/2, LBAP:3, ScotBL, Sect.41
Snipe, <i>Gallinago gallinago</i>	36	1999 - 2012	BD2.1, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, FEP7/2, LBAP:3
Song Thrush, <i>Turdus philomelos</i>	45	2004 - 2012	BD2.2, BoCC4-Red, FEP7/2, LBAP:3, ScotBL
Starling, <i>Sturnus vulgaris</i>	70	1977 - 2016	BD2.2, BoCC4-Red, FEP7/2, LBAP:3
Swift, <i>Apus apus</i>	7	2006 - 2012	BAmb, BoCC4-Amber, LBAP:3, ScotBL
Tree Sparrow, <i>Passer montanus</i>	48	2005 - 2012	BoCC4-Red, FEP7/2, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP
Turtle Dove, <i>Streptopelia turtur</i>	22	2002 - 2012	BD2.2, BoCC4-Red, CITESA, FEP7/2, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP, WO1i
Whimbrel, <i>Numenius phaeopus</i>	22	1998 - 2014	BD2.2, BoCC4-Red, BRed, CMS_A2, CMS_AEWA-A2, WCA1i, WO1i
Whooper Swan, <i>Cygnus cygnus</i>	6	1998 - 2012	BD1, Bern2, BoCC4-Amber, CMS_A2, CMS_AEWA-A2, FEP7/2, GBNNSIP, Non-native, ScotBL, WCA1i, WO1i
Wigeon, <i>Anas penelope</i>	29	1998 - 2005	BAmb, BD2.1, BoCC4-Amber, CITESC, CMS_A2, CMS_AEWA-A2, GBNNSIP, WO1ii
Yellow Wagtail, <i>Motacilla flava</i>	11	2006 - 2015	Bern2, BoCC4-Red, FEP7/2, LBAP:3, ScotBL, WO1i
Yellowhammer, <i>Emberiza citrinella</i>	46	2004 - 2012	Bern2, BoCC4-Red, FEP7/2, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP

Conifer (6 taxa)	Number of records	Date range recorded	Designations
Deodar, <i>Cedrus deodara</i>	1	2009 - 2009	GBNNSIP, Non-native
European Larch, <i>Larix decidua</i>	2	2009 - 2011	GBNNSIP, Non-native
Lawson's Cypress, <i>Chamaecyparis lawsoniana</i>	1	2009 - 2009	GBNNSIP, Non-native
Leyland Cypress, <i>Cupressus macrocarpa</i> x <i>Xanthocyparis nootkatensis</i> = <i>X Cuprocypris</i>	7	2009 - 2016	GBNNSIP, Non-native
Monkey-puzzle, <i>Araucaria araucana</i>	1	2010 - 2010	GBNNSIP, Non-native
Sawara Cypress, <i>Chamaecyparis pisifera</i>	1	2009 - 2009	GBNNSIP, Non-native

Crustacean (1 taxa)	Number of records	Date range recorded	Designations
<i>Crangonyx pseudogracilis</i>	3	2011 - 2011	GBNNSIP, NE_EA_INNS, Non-native

Flowering Plant (144 taxa)	Number of records	Date range recorded	Designations
Alpine Squill, <i>Scilla bifolia</i>	1	2011 - 2011	GBNNSIP
American Willowherb, <i>Epilobium ciliatum</i>	7	2003 - 2016	GBNNSIP, Non-native
Apple, <i>Malus pumila</i>	6	2003 - 2016	GBNNSIP, Non-native
<i>Arum italicum</i> subsp. <i>italicum</i>	2	2011 - 2016	GBNNSIP, Non-native
<i>Ballota nigra</i> subsp. <i>meridionalis</i>	2	2015 - 2016	GBNNSIP
Barren Brome, <i>Bromus sterilis</i>	11	1995 - 2016	GBNNSIP
Beaked Hawk's-beard, <i>Crepis vesicaria</i>	3	2009 - 2015	GBNNSIP
Black Bent, <i>Agrostis gigantea</i>	1	2015 - 2015	GBNNSIP, Non-native
Black Horehound, <i>Ballota nigra</i>	2	1987 - 2015	GBNNSIP
Black Mulberry, <i>Morus nigra</i>	1	2009 - 2009	GBNNSIP
Black-bindweed, <i>Fallopia convolvulus</i>	6	2003 - 2015	GBNNSIP, Non-native, ScotBL
Black-grass, <i>Alopecurus myosuroides</i>	6	2011 - 2016	GBNNSIP, Non-native, ScotBL
Bluebell, <i>Hyacinthoides non-scripta</i> x <i>hispanica</i> = <i>H. x massartiana</i>	2	2009 - 2009	GBNNSIP, Non-native
Box-leaved Honeysuckle, <i>Lonicera pileata</i>	1	2012 - 2012	GBNNSIP, Non-native
Bramble, <i>Rubus armeniacus</i>	1	2015 - 2015	GBNNSIP, Non-native
Bread Wheat, <i>Triticum aestivum</i>	5	2007 - 2016	GBNNSIP
Bristly Oxtongue, <i>Picris echioides</i>	9	1995 - 2016	GBNNSIP
Bullate Cotoneaster, <i>Cotoneaster rehderi</i>	1	2010 - 2010	GBNNSIP, Non-native
Butterfly Stonecrop, <i>Sedum spectabile</i>	1	2011 - 2011	GBNNSIP, Non-native

Butterfly-bush, <i>Buddleja davidii</i>	3	2011 - 2015	GBNNSIP, NE_EA_INNS, Non-native
Canadian Fleabane, <i>Conyza canadensis</i>	4	2009 - 2015	GBNNSIP, Non-native
Charlock, <i>Sinapis arvensis</i>	11	1995 - 2016	GBNNSIP, ScotBL
Cherry Laurel, <i>Prunus laurocerasus</i>	5	2009 - 2015	GBNNSIP
Common Field-speedwell, <i>Veronica persica</i>	13	1995 - 2016	GBNNSIP, Non-native
Common Fumitory, <i>Fumaria officinalis</i>	4	2003 - 2009	GBNNSIP
Common Mallow, <i>Malva sylvestris</i>	15	1995 - 2016	GBNNSIP
Common Poppy, <i>Papaver rhoeas</i>	8	2007 - 2016	GBNNSIP
Common Vetch, <i>Vicia sativa</i> subsp. <i>segetalis</i>	5	2009 - 2016	GBNNSIP, Non-native
<i>Crepis vesicaria</i> subsp. <i>taraxacifolia</i>	2	2011 - 2015	GBNNSIP
Cut-leaved Crane's-bill, <i>Geranium dissectum</i>	10	1995 - 2016	GBNNSIP
Cut-leaved Dead-nettle, <i>Lamium hybridum</i>	8	1995 - 2016	GBNNSIP, Non-native
Druce's Crane's-bill, <i>Geranium endressii</i> x <i>versicolor</i> = <i>G. x oxonianum</i>	1	2011 - 2011	GBNNSIP, Non-native
Dwarf Mallow, <i>Malva neglecta</i>	2	2010 - 2016	GBNNSIP, Non-native
Early Goldenrod, <i>Solidago gigantea</i>	1	2015 - 2015	GBNNSIP, Non-native
Equal-leaved Knotgrass, <i>Polygonum arenastrum</i>	4	2010 - 2015	GBNNSIP, Non-native
Evergreen Oak, <i>Quercus ilex</i>	2	2009 - 2015	GBNNSIP
Evergreen Spindle, <i>Euonymus japonicus</i>	1	2009 - 2009	GBNNSIP, Non-native
False-acacia, <i>Robinia pseudoacacia</i>	1	2009 - 2009	GBNNSIP, WCA9
Feverfew, <i>Tanacetum parthenium</i>	5	2009 - 2016	GBNNSIP, Non-native
Field Forget-me-not, <i>Myosotis arvensis</i>	3	2011 - 2016	GBNNSIP
Field Pansy, <i>Viola arvensis</i>	1	2015 - 2015	GBNNSIP, Non-native
Field Penny-cress, <i>Thlaspi arvense</i>	13	1987 - 2016	GBNNSIP
Fig-leaved Goosefoot, <i>Chenopodium ficifolium</i>	4	2009 - 2016	GBNNSIP, Non-native
Flowering Currant, <i>Ribes sanguineum</i>	1	2010 - 2010	GBNNSIP, Non-native
Fox and Cubs, <i>Pilosella aurantiaca</i> subsp. <i>carpathicola</i>	1	2015 - 2015	GBNNSIP, Non-native
Fox-and-cubs, <i>Pilosella aurantiaca</i>	4	2009 - 2015	GBNNSIP, Non-native
Garden Arabis, <i>Arabis caucasica</i>	1	2011 - 2011	GBNNSIP, Non-native
Garden Lady's-mantle, <i>Alchemilla mollis</i>	1	2009 - 2009	GBNNSIP, Non-native
Garden Privet, <i>Ligustrum ovalifolium</i>	5	2009 - 2015	GBNNSIP, Non-native
Greater Periwinkle, <i>Vinca major</i>	4	2009 - 2016	GBNNSIP
Green Nightshade, <i>Solanum physalifolium</i>	1	2010 - 2010	GBNNSIP, Non-native
Grey Alder, <i>Alnus incana</i>	1	2009 - 2009	GBNNSIP
Ground-elder, <i>Aegopodium podagraria</i>	4	2011 - 2015	GBNNSIP
Hedge Mustard, <i>Sisymbrium officinale</i>	14	1987 - 2016	GBNNSIP
Hedgerow Crane's-bill, <i>Geranium pyrenaicum</i>	1	2011 - 2011	GBNNSIP, Non-native
Hemlock, <i>Conium maculatum</i>	4	2009 - 2016	GBNNSIP
Henbit Dead-nettle, <i>Lamium amplexicaule</i>	1	1995 - 1995	GBNNSIP
Hoary Cress, <i>Lepidium draba</i>	2	1995 - 2016	GBNNSIP
Hoary Cress, <i>Lepidium draba</i> subsp. <i>draba</i>	1	2011 - 2011	GBNNSIP, Non-native
Honesty, <i>Lunaria annua</i>	2	2009 - 2009	GBNNSIP
Horse-chestnut, <i>Aesculus hippocastanum</i>	16	2003 - 2016	GBNNSIP
Horse-radish, <i>Armoracia rusticana</i>	10	1995 - 2016	GBNNSIP, Non-native
Hybrid Balsam-poplar, <i>Populus trichocarpa</i> x <i>balsamifera</i> = <i>P. 'Balsam Spire'</i>	1	2015 - 2015	GBNNSIP, Non-native
Hybrid Black-poplar, <i>Populus nigra</i> x <i>deltoides</i> = <i>P. x canadensis</i>	5	2010 - 2016	GBNNSIP, Non-native
Indian Balsam, <i>Impatiens glandulifera</i>	2	2009 - 2010	GBNNSIP, NE_EA_INNS, Non-native, WCA9
Italian Rye-grass, <i>Lolium multiflorum</i>	8	2007 - 2016	GBNNSIP, Non-native
Ivy-leaved Speedwell, <i>Veronica hederifolia</i>	1	2011 - 2011	GBNNSIP
Ivy-Leaved Speedwell, <i>Veronica hederifolia</i> subsp. <i>hederifolia</i>	2	2011 - 2016	GBNNSIP, Non-native
Ivy-Leaved Speedwell, <i>Veronica hederifolia</i> subsp. <i>lucorum</i>	1	2009 - 2009	GBNNSIP, Non-native
Japanese Rose, <i>Rosa rugosa</i>	2	2009 - 2015	FEP1, GBNNSIP, Non-native, WCA9
Laburnham, <i>Laburnum anagyroides</i>	2	2009 - 2016	GBNNSIP, Non-native
Large Bindweed, <i>Calystegia silvatica</i>	3	2009 - 2015	GBNNSIP, Non-native
Least Yellow-sorrel, <i>Oxalis exilis</i>	1	2015 - 2015	GBNNSIP, Non-native
Lesser Swine-cress, <i>Lepidium didymum</i>	12	1994 - 2016	GBNNSIP, Non-native
Lilac, <i>Syringa vulgaris</i>	2	2009 - 2011	GBNNSIP
Lombardy-Poplar, <i>Populus nigra</i> 'Italica'	2	2016 - 2016	GBNNSIP, ScotBL
Long-headed Poppy, <i>Papaver dubium</i>	1	2007 - 2007	GBNNSIP
Lucerne, <i>Medicago sativa</i> subsp. <i>sativa</i>	2	2009 - 2015	GBNNSIP, Non-native
Maize, <i>Zea mays</i>	1	2009 - 2009	GBNNSIP
Milk Thistle, <i>Silybum marianum</i>	1	2015 - 2015	GBNNSIP, Non-native, ScotBL
Mind-your-own-business, <i>Soleirolia soleirolii</i>	1	2015 - 2015	GBNNSIP, Non-native
Mugwort, <i>Artemisia vulgaris</i>	4	2010 - 2016	GBNNSIP
Narrow-leaved Pepperwort, <i>Lepidium ruderale</i>	2	2010 - 2010	GBNNSIP

Norway Maple, <i>Acer platanoides</i>	2	2010 - 2015	GBNNSIP
Oil-seed Rape, <i>Brassica napus subsp. oleifera</i>	5	2009 - 2016	GBNNSIP, Non-native
Olive Willow, <i>Salix elaeagnos</i>	1	2009 - 2009	FEP1, GBNNSIP, Non-native
Opium Poppy, <i>Papaver somniferum</i>	6	2007 - 2016	GBNNSIP
Orange-ball-tree, <i>Buddleja globosa</i>	1	2009 - 2009	GBNNSIP, Non-native
Osier, <i>Salix viminalis</i>	1	2016 - 2016	FEP1, GBNNSIP
Pear, <i>Pyrus communis sens.lat.</i>	2	2003 - 2009	GBNNSIP, Non-native
Petty Spurge, <i>Euphorbia peplus</i>	5	2009 - 2016	CITESB, GBNNSIP
Pineappleweed, <i>Matricaria discoidea</i>	13	1987 - 2016	GBNNSIP, Non-native
Pink-sorrel, <i>Oxalis articulata</i>	1	2009 - 2009	GBNNSIP, Non-native
<i>Populus nigra 'Italica'</i>	7	2003 - 2015	GBNNSIP, ScotBL
Pot Marigold, <i>Calendula officinalis</i>	1	2009 - 2009	GBNNSIP
Potato, <i>Solanum tuberosum</i>	2	2010 - 2016	GBNNSIP
Prickly Lettuce, <i>Lactuca serriola</i>	3	2011 - 2015	GBNNSIP
Primrose-peerless, <i>Narcissus tazetta x poeticus = N. x medioluteus</i>	1	2016 - 2016	GBNNSIP, Non-native
<i>Prunus cerasifera var. pissardii</i>	1	2009 - 2009	GBNNSIP, Non-native
Purple Toadflax, <i>Linaria purpurea</i>	4	2007 - 2015	GBNNSIP, Non-native
Rape, <i>Brassica napus</i>	1	2007 - 2007	GBNNSIP
Red Dead-nettle, <i>Lamium purpureum</i>	18	1987 - 2016	GBNNSIP
Red Valerian, <i>Centranthus ruber</i>	1	2009 - 2009	GBNNSIP
Red-osier Dogwood, <i>Cornus sericea</i>	1	2015 - 2015	GBNNSIP
Reflexed Stonecrop, <i>Sedum rupestre</i>	2	2009 - 2011	GBNNSIP
Rhubarb, <i>Rheum palmatum x rhaponticum = R. x hybridum</i>	1	2003 - 2003	GBNNSIP, Non-native
Root Beet, <i>Beta vulgaris subsp. vulgaris</i>	3	2015 - 2016	GBNNSIP, Non-native
Russell Lupin, <i>Lupinus arboreus x polyphyllus = L. x regalis</i>	1	2011 - 2011	GBNNSIP, Non-native
Russian Comfrey, <i>Symphytum officinale x asperum = S. x uplandicum</i>	6	2003 - 2015	GBNNSIP, Non-native
Russian-vine, <i>Fallopia baldschuanica</i>	1	2009 - 2009	GBNNSIP, NE_EA_INNS, Non-native
Scented Mayweed, <i>Matricaria chamomilla</i>	7	1995 - 2016	GBNNSIP
Scentless Mayweed, <i>Tripleurospermum inodorum</i>	12	1987 - 2016	GBNNSIP, Non-native
Sea Barley, <i>Hordeum marinum</i>	1	1984 - 1984	NS-excludes, RLGB.VU, Sect.41, Sect.42, UKBAP
Shepherd's-purse, <i>Capsella bursa-pastoris</i>	19	1995 - 2016	GBNNSIP, Non-native
Slender Speedwell, <i>Veronica filiformis</i>	3	2009 - 2011	GBNNSIP, Non-native
Small Nettle, <i>Urtica urens</i>	13	1987 - 2016	GBNNSIP
Snowberry, <i>Symphoricarpos albus</i>	5	2007 - 2012	GBNNSIP, Non-native
Snowdrop, <i>Galanthus nivalis</i>	9	2009 - 2016	CITESB, GBNNSIP
Spanish Bluebell, <i>Hyacinthoides hispanica</i>	4	1995 - 2012	GBNNSIP, Non-native
Spotted Dead-nettle, <i>Lamium maculatum</i>	2	2009 - 2011	GBNNSIP, Non-native
Spotted-laurel, <i>Aucuba japonica</i>	1	2009 - 2009	GBNNSIP, Non-native
Spurge, <i>Euphorbia amygdaloides subsp. robbiae</i>	2	2009 - 2015	CITESB, GBNNSIP, Non-native
Stag's-horn Sumach, <i>Rhus typhina</i>	2	2009 - 2011	GBNNSIP
Sun Spurge, <i>Euphorbia helioscopia</i>	8	1987 - 2016	CITESB, GBNNSIP, ScotBL
Sunflower, <i>Helianthus annuus</i>	1	2009 - 2009	GBNNSIP
Swedish Whitebeam, <i>Sorbus intermedia</i>	2	2011 - 2015	FEP1, GBNNSIP, Non-native
Sweet Alison, <i>Lobularia maritima</i>	1	2009 - 2009	GBNNSIP
Sweet Chestnut, <i>Castanea sativa</i>	3	2009 - 2011	GBNNSIP, Non-native
Swine-cress, <i>Lepidium coronopus</i>	9	1995 - 2016	GBNNSIP, Non-native, ScotBL
Sycamore, <i>Acer pseudoplatanus</i>	15	1995 - 2016	GBNNSIP
Turkey Oak, <i>Quercus cerris</i>	2	2009 - 2011	GBNNSIP
Wall Barley, <i>Hordeum murinum</i>	9	2003 - 2016	GBNNSIP
Walnut, <i>Juglans regia</i>	1	2009 - 2009	FEP1, GBNNSIP, Non-native
Weeping Willow, <i>Salix alba x babylonica = S. x sepulcralis</i>	1	2016 - 2016	FEP1, GBNNSIP, Non-native
Weld, <i>Reseda luteola</i>	1	2011 - 2011	GBNNSIP
Weyer's Butterfly-bush, <i>Buddleja davidii x globosa = B. x weyeriana</i>	1	2015 - 2015	GBNNSIP, Non-native
White Champion, <i>Silene latifolia</i>	1	2007 - 2007	GBNNSIP, Non-native
White Dead-nettle, <i>Lamium album</i>	15	1987 - 2016	GBNNSIP
White Poplar, <i>Populus alba</i>	1	2016 - 2016	FEP1, GBNNSIP
White Rocket, <i>Diplotaxis erucoides</i>	4	2010 - 2016	GBNNSIP
White Willow, <i>Salix alba</i>	2	2009 - 2015	FEP1, GBNNSIP
Wild Plum, <i>Prunus domestica</i>	11	1960 - 2016	GBNNSIP
Wild-oat, <i>Avena fatua</i>	8	1995 - 2016	GBNNSIP
Winter Heliotrope, <i>Petasites fragrans</i>	1	2015 - 2015	GBNNSIP, NE_EA_INNS, Non-native

Insect - Beetle (coleoptera) (1 taxa)	Number of records	Date range recorded	Designations
Churchyard Beetle, <i>Blaps mucronata</i>	1	2017 - 2017	GBNNSIP

Insect - Butterfly (2 taxa)	Number of records	Date range recorded	Designations
Small Heath, <i>Coenonympha pamphilus</i>	1	1985 - 1985	RLGB.Lr(NT), ScotBL, Sect.41, Sect.42, UKBAP
Wall, <i>Lasiommata megera</i>	10	1974 - 1992	RLGB.Lr(NT), ScotBL, Sect.41, Sect.42, UKBAP

Mollusc (1 taxa)	Number of records	Date range recorded	Designations
Jenkins' Spire Snail, <i>Potamopyrgus antipodarum</i>	6	1987 - 2011	GBNNSIP, Non-native

Reptile (1 taxa)	Number of records	Date range recorded	Designations
Grass Snake, <i>Natrix natrix</i>	6	1977 - 1977	Bern3, Sect.41, Sect.42, UKBAP

Terrestrial Mammal (11 taxa)	Number of records	Date range recorded	Designations
Bats, Chiroptera	40	1975 - 2014	Bern2, Bern3, CMS_A2, CMS_EUROBATS-A1, FEP7/2, HabRegs2, HSD2p, HSD4, LBAP:3, RLGLB.NT, ScotBL, Sect.41, Sect.42, UKBAP, WCA5/9.4b, WCA5/9.4c, WCA5/9.5a
Brown Hare, <i>Lepus europaeus</i>	9	1977 - 1999	FEP7/2, ScotBL, Sect.41, Sect.42, UKBAP
Brown Long-eared Bat, <i>Plecotus auritus</i>	8	1977 - 2013	Bern2, CMS_A2, CMS_EUROBATS-A1, FEP7/2, HabRegs2, HSD4, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP, WCA5/9.4b, WCA5/9.4c, WCA5/9.5a
Brown Rat, <i>Rattus norvegicus</i>	4	1977 - 2014	GBNNSIP, Non-native
Common Pipistrelle, <i>Pipistrellus pipistrellus sensu stricto</i>	4	2004 - 2016	CMS_A2, CMS_EUROBATS-A1, HabRegs2, LBAP:3, WCA5/9.4b, WCA5/9.4c, WCA5/9.5a
European Rabbit, <i>Oryctolagus cuniculus</i>	8	1977 - 2007	GBNNSIP, Non-native
European Water Vole, <i>Arvicola amphibius</i>	9	1977 - 2017	FEP7/2, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP, WCA5/9.4.a, WCA5/9.4b, WCA5/9.4c
House Mouse, <i>Mus musculus</i>	2	1977 - 1977	GBNNSIP, Non-native
Pipistrelle Bat species, <i>Pipistrellus</i>	7	1997 - 2014	Bern2, Bern3, CMS_A2, CMS_EUROBATS-A1, FEP7/2, HabRegs2, HSD4, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP, WCA5/9.4b, WCA5/9.4c, WCA5/9.5a
Soprano Pipistrelle, <i>Pipistrellus pygmaeus</i>	1	2013 - 2013	Bern2, CMS_A2, CMS_EUROBATS-A1, HabRegs2, HSD4, LBAP:3, ScotBL, Sect.41, Sect.42, UKBAP, WCA5/9.4b, WCA5/9.4c, WCA5/9.5a
West European Hedgehog, <i>Erinaceus europaeus</i>	11	1977 - 2007	Bern3, ScotBL, Sect.41, Sect.42, UKBAP

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**APPENDIX 3
Bat roost units**



ideas into action

eco habitats for bats



A



B



C

Eco Habitats for Bats - Technical Data: A	
Sizes	215mm x 215mm or 215mm x 255mm
Durability	F2, S2 - fully frost resistant

Eco Habitats for Bats - Technical Data: B	
Sizes	215mm x 215mm or 215mm x 255mm
Durability	F2, S2 - fully frost resistant

Eco Habitats for Bats - Technical Data: C	
Size	215mm x 65mm
Durability	F2, S2 - fully frost resistant



ideas into action

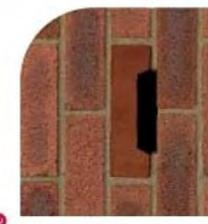
eco habitats for bats



A



B



C

Features & Benefits

Enclosed bat box (A & B)

- Designed with the Pipistrelle Bat in mind
- Available in all brick types
- Attractive motif
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the Bat Box itself

Free Access Option (C)

- Discrete Single Bat brick
- Easy to install
- Allows bats to create a natural home habitat within the cavity of the building

contact numbers
 sales office 0870 903 4010
 design advice 0870 903 4018
 technical services 0870 903 4017
 literature and samples 0870 903 4030

www.ibstock.com

3 Boxes for Bats

BAT ACCESS PANEL 1FE

This maintenance-free access panel can be installed in the outer skin of most cavity wall constructions due to its slim 80mm depth. The open rear also allows access into the building cavity so that bats can continue to use an existing roost space.

Size: 300x300x80mm
Weight: 7.8kg



BAT TUBE 1FR

The Bat Tube 1FR requires no maintenance or cleaning, the sloping entrance area allows droppings to simply fall out of the chamber. The 1FR mimics the cavities that species such as the pipistrelles favour and the wooden back panel helps maintain the optimum climatic conditions and also provides surface on which the bats can cling. The depth of this box (125mm) makes it ideal for use in 9" solid walls or where the outer skin of a property is of stone. The box can also be recessed into the wall and rendered over, just leaving the access section clear.

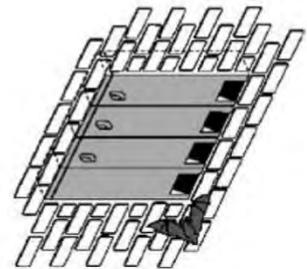
Size: 470x200x125mm
Weight: 9.5kg



BAT TUBE 2FR

This is a slightly updated version of the 1FR and several can be installed next to each other to create a larger roost. The tubes include an internal panel to increase the roost space and also an optional passage at the rear allowing access into existing cavities.

Size: 470x200x125mm
Weight: 9.5kg



BAT BRICK TYPE 27

The Type 27 Bat Brick is designed to be built into the structure of buildings and includes a removable front panel for monitoring purposes. An internal roughened wood panel increases the available roost space.

Size: 265x180x240
Weight: 9.5kg



BAT ROOST 1FQ

This is the latest in bat boxes. Designed to fit to the outside of buildings, the shape and design of the box make it equally attractive as a roost or nursery.

Size: 600x350x90mm
Weight: 15kgs

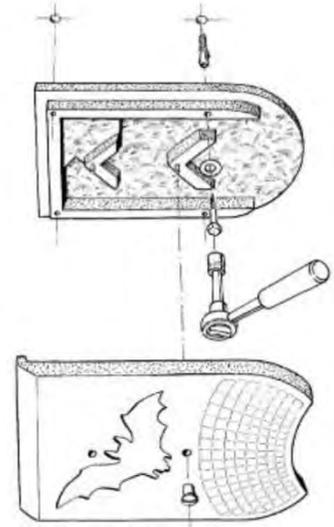


WINTER BAT ROOST 1WQ

Based on the successful 1FQ, this box has better insulation properties for use as a winter roost by bats

Size: 580x380x115
Weight: 21kg

Both of the above boxes are easily fixed to the outside of a building with two screws and a galvanised bracket as shown below.



CAVITY BAT ROOST

Wild-x

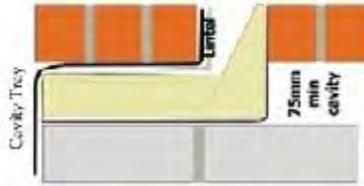


Dimensions
 A Height: 440mm
 B Width: 420mm
 C Depth: (at base) 170mm

Weight:
 12kg

KEY FEATURES

- Incorporates into structures using standard face materials
- Supplied with ureth and DPM for the cavity tray
- Creates a permanent bat roost that cannot be removed by subsequent occupiers
- Unobtrusive 'retainers' entrance makes little impact on building appearance
- Suitable for a wide range of bat species



Material:
 Cement/wood/pulp mix

Internal:
 Internally there is approx. 350 square centimetres of roosting space. This space is divided up to form crevices ranging from 10 to 2.5cm which also creates places for Hiko and spits where it is warmer or cooler

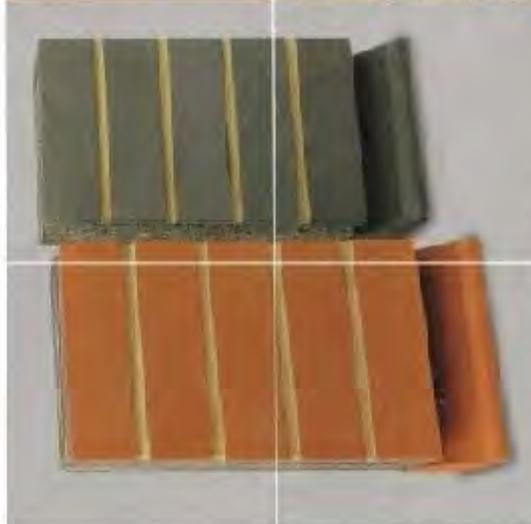
Distributor:



The entrance is 420mm wide by 60mm high which is basically the width of 2 normal house bricks. The gap of the top of the entrance ramp is approx 20-25mm which is ideal for the smaller bat species.

Wienerberger
 Building Value

Bat Boxes.
 To protect and conserve.



Wienerberger has worked closely with the UK's leading bat conservationists to create a world first range of eco-friendly bat boxes, designed to attract and protect bat species on the ground. The Wienerberger bat box is larger and features an innovative laminated structure which makes it ideal for use in a wide range of environments and weather conditions.

The bat box is designed to encourage bats to roost in the UK's natural habitats, urban areas, villages and countryside. Our bat box is also available for other products to support sales.

Wienerberger is part of our natural landscape. The latest legislation to protect bat species and their habitats has now brought the UK in line with the EU's nature and climate law. Our bat boxes are now available on the new building project where bats may live.

Our bat boxes can help increase your building's energy efficiency and meet the requirements of the Code for Sustainable Homes.

Our bat boxes are currently available in 32 countries across the world and 8 months later can also be installed in any other part of the world.



Further detailed information on Wienerberger bat boxes and bat conservation is available at www.brick.co.uk/batbox or contact Design Services on 0161 461 8200

**ECOLOGY AND PROTECTED SPECIES SURVEY
LAND OFF OLD MAIN ROAD, OLD LEAKE, LINCOLNSHIRE**

**APPENDIX 4
Hedgehog mitigation**

Hedgehogs will travel through a number of gardens in one night looking for food and nest sites. To allow a hedgehog access into the gardens, all it takes is a 130mm - 130mm square gap in a fence panel, under a gate or alternatively using native hedges in place of fences.

Having a series of hedgehog gaps across the site will encourage the creation of hedgehog friendly routes between gardens and other habitat, removing the need for hedgehogs to wander out onto our busy roads.

Ensure that garden ponds have at least one side that slopes gently, to allow any hedgehog to get out, or form a ramp to create an escape route.



Gap under a gate



Hole in a timber fence panel



Hole in a plastic fence panel

A nesting option for hedgehogs can also be provided, by creating a natural feature such as a compost heap or log pile. Artificial hedgehog houses may also be used by hedgehogs, and are widely available. Choose a shady, quiet area of the garden to site the hedgehog house, and ensure that there are plenty of leaves near to the box, or leave out straw and hay which can be used.



Wooden hedgehog house



Schwegler hedgehog dome

More information on how you can make your garden hedgehog-friendly can be found on the Hedgehog Street campaign website, run by the People's Trust for Endangered Species (PTES) and British Hedgehog Preservation Society: www.hedgehogstreet.org