ECOLOGY AND PROTECTED SPECIES SURVEY

DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

JUNE 2016



Scarborough Nixon Associates Limited

www.scarboroughnixonassociates.co.uk

Brookfield House
Chapel Lane
Tattershall Thorpe
Lincolnshire
LN4 4PG

Telephone:01526 344726 or 01205 723342
E-mail:helen@scarboroughnixonassociates.co.uk

Company registration number:8087266
VAT registration number:994957340

Issued to:
G. R. Merchant Ltd
4 Wrights Mews
12a Park Road
Holbeach
Spalding
Lincolnshire
PE12 7EE

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DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

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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 G. R. Merchant Ltd to undertake an ecology and protected species survey of buildings at Dring's Farm, Hog's Gate, Moulton, Spalding, Lincolnshire. The survey is required in connection with plans to convert the existing buildings in to holiday lets.

The site was surveyed on 14th June 2016 by Ian Nixon (registered to use Natural England Class Licences WML-08 to survey great crested newts; registration number 2015-16823-CLS-CLS, WML-CL19 and WML-CL20 to survey bats; registration numbers 2015-12336-CLS-CLS, 2015-12338-CLS-CLS respectively and barn owl survey licence number 2014-2300-SCI-SCI) and Zac Hinchcliffe. At the time of the survey there were light winds and full cloud cover.

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

- Bats
- Common bird species
- Schedule 1 bird species

Certain protected species were scoped out of the survey; in particular it was considered that white-clawed crayfish *Austropotamobius pallipes*, great crested newt *Triturus cristatus*, common dormouse *Muscardinus avellanarius,* water vole *Arvicola amphibius*, common reptiles and otter *Lutra lutra* were highly unlikely to occur on the site due to lack of suitable habitat. No signs of use by badger *Meles meles* were noted on or near the survey site.

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. Plant names are those used by Stace (2010).

2 METHODS

2.1 Data search

Lincolnshire Environmental Records Centre (LERC) was consulted and commissioned on 15th June 2016 to search for sites with statutory and non-statutory designations and records of protected species within 1km of the proposed development site.

2.2 Bats

With the use of torches and binoculars, the barn buildings were searched thoroughly for any cracked tiles, gaps and dark corners with potential for roosting bats. Where accessible, all undisturbed surfaces were inspected for evidence of past and present occupation by bats. This includes droppings, urine or fur staining around possible access points and roost areas, lack of cobwebs, feeding remains such as moth wings or other insect parts and the bodily remains of bats (English Nature, 2004). The exterior walls to the buildings were investigated too for signs of past or present use by bats as well as suitability for roosting bats in cracks and the walls were checked for signs of droppings, urine and fur staining.

The site and adjacent areas were also assessed for potential foraging and commuting habitats for bats.

2.3 Birds

2.3.1 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.

2.3.2 Schedule 1 bird species

The buildings were inspected for the presence of barn owl *Tyto alba* and the signs indicative of their past or present use including regurgitated pellets, concentrated accumulations of flattened pellets indicative of a nest site, faecal encrustation, eggs or eggshell remains, surplus prey items, bodily remains of chicks or infant down feathers. The site was not considered to provide suitable opportunities for other Schedule 1 species.

2.4 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 gather more detailed information on hedgerows and

plant species on site, and to assess the potential of the surrounding habitat to support 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 site comprises former farm buildings at Dring's Farm, Hog's Gate, Moulton, Spalding, Lincolnshire - central grid reference TF313228.

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

3.2 The buildings

The survey site comprises three buildings in a varying state of repair.

The main building is single storey and constructed of solid brick walls supporting a pitched timber roof covered with unlined slates. There is a wooden door on the eastern elevation and glazed skylights in the roof covering. Internally a ceiling has been installed comprising painted hardboard panels with a thin covering of glass-fibre insulation, though this has come away in places leaving the void area draughty and with high ambient light levels from the skylights and holes where slates are missing.

Externally, there are several cracks in the brickwork whilst the internal brickwork is in very good condition with no large gaps or cracks noted. There is some ivy on the eastern elevation and evidence that the building was extensively covered with ivy particularly on the southern and western elevations.



Photograph 1: Western elevation of the main barn



Photograph 2: Eastern elevation of the main barn



Photograph 3: View of loft void and unlined roof slates



Photograph 4: Further view of the ceiling showing areas where it has collapsed

Adjacent to the main barn is a single storey barn constructed of a timber frame which supports a pitched timber roof covered with corrugated metal sheeting. The frame is covered with horizontal timber boarding on the southern and western elevation with a small section of boarding remaining on the northern elevation. There is no separate roof void with the building being open to the apex. There are large areas of the barn that are covered in ivy.



Photograph 5: Northern elevation of the Timber barn



Photograph 6: Southern elevation of the timber barn



Photograph 7: Eastern elevation of the timber barn



Photograph 8: Internal view of the roof

At the western end of the site is a collapsed barn constructed of solid brick walls, some of which remain though are covered in ivy. There is evidence of a former pitched timber roof and corrugated fibre-cement sheeting, which has also collapsed into the building and has since become overgrown with ivy, elder and common nettle.



Photograph 9: Collapsed barn overgrown with ivy, common nettle and elder



Photograph 10: Collapsed barn now overgrown

3.3 The site boundaries

Surrounding the buildings is an area of semi-improved grassland and rough ground mainly dominated by pineappleweed, hogweed, dandelion, ribwort plantain, cocksfoot, false oat-grass and perennial rye-grass.

To the east of the site, alongside Hog's Gate, is a hawthorn hedge with sycamore, elder, blackthorn and ivy. There are no mature trees within the survey area



Photograph 7: Semi improved grassland and rough ground covered most of the site



Photograph 8: Hawthorn dominated hedgerow to the south and east

3.4 Surrounding habitats

To the south of the site is Dring's Farm House which is bordered by a mature hawthorn hedge, whilst surrounding land comprises arable fields.



Photograph 9: Adjacent arable field



Photograph 10: Dring's Farm House and Hog's Gate



Figure 1: Aerial view of the site outlined in red

4 RESULTS

4.1 Data search

The results from Lincolnshire Environmental Records Centre (LERC) show that there are no statutory sites within 1km of the proposed development site.

There is one non-statutory site, Moulton Park and River, within 0.77km from the site. Moulton

Park and River is an Local Wildlife Site (LWS) with parkland, coarse grassland and river. The proposed development site will not impact this non-statutory site.

The records given for protected species within 1km of the proposed development site include many several non-specific bat records as recent as 2012 and brown long-eared bat *Plecotus auritus* in 2000 and two records of non-specific pipistrelle species in 2000 and 2006.

There is one record of barn owl *Tyto alba* in 1998. Please note that not all Schedule 1 birds listed in the data search may breed in Lincolnshire.

The full LERC report for the data search and species records is given in Appendix 2.

4.2 Bats

The main barn is considered to have negligible potential for use as a long-term, significant roost and negligible potential as a transient roost site for bats due to the limited number of roost spaces and the general condition of the building. Any cracks or holes found in the brickwork were generally filled with cobwebs and very shallow which is unsuitable for roosting bats. There was no evidence of roosting bats found on the site – no droppings or urine spotting were noted.

The other two buildings on the site have no potential for use as a long-term significant or transient roost site. The timber barn is in poor condition and open to the elements with no niches suitable for roosting bats. The building to the west of the site is in a state of ruin and is totally overgrown.

The barns were assessed in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition (Collins J, 2016) Table 4.1 page 35. The results of the assessment appear in tabular form below:

Table 1: Assessment of survey site to support roosting, foraging and commuting bats

Building/ Feature	Description	Overall value for bats
The main barn	Limited number of cobweb free niches No field signs noted No bats noted	Negligible potential for long-term roosting, negligible potential for transitional roosting
Timber barn	Open to the elements, no niches No field signs noted No bats noted	No potential for long-term or transitional roosting
Collapsed barn	Totally overgrown No covered areas	No potential for long-term or transitional roosting
Surrounding habitats	Arable fields No mature trees in the immediate area to support roosting bats Adjacent Farm House holds potential bat roosting habitat Mature gardens at neighbouring properties	Low potential for roosting moderate potential for foraging

4.3 Birds

4.3.1 Common bird species

All birds seen in and around the buildings were recorded. These are listed below along with their current status as Schedule 1, BAP species or Birds of Conservation Concern 4 (Eaton et al, 2015):

Table 2: Common birds recorded on site

English name	Scientific name	BAP	BoCC
pheasant	*Phasianus colchicus*		Green
woodpigeon	*Columba palumbus*		Green
stock dove	*Columba oenas*		Green
robin	*Erithacus rubecula*		Green
skylark	*Alauda arvensis*	Y	Red
yellow wagtail	*Motacilla flava*	Y	Red
coal tit	*Periparus ater*		Green

Inside the main barn there was evidence of use by stock dove and several places where this species could nest, although there was no evidence of breeding during the survey. In the timber barn at the southern end of the site, there was evidence of an active stock dove nest. All of the ivy covered walls were checked where possible for nesting birds and there were many spaces with potential breeding habitat, but no active nests were found.



Photograph 11: Wooden barn with stock dove nest located above metal bars



Photograph 12: Overgrown brick cart shed with lots of suitable breeding habitat for common birds

4.3.2 Schedule 1 bird species

Inside the main barn, there were several areas of accumulated barn owl pellets amounting to about 200 in total varying from very fresh to very old along with associated faecal splashing suggesting prolonged occupation and usage. There were also several adult barn owl feathers found on the floor space. The loft void had areas with potential for breeding, however there was limited observation of the loft void given the condition of the ceiling and there was no evidence found to suggest current breeding e.g. discarded eggshells, calling chicks or adult birds,



Photograph 13: Barn owl pellets



Photograph 14: One of several barn owl feathers in the main barn



Photograph 15: Faecal splashing on hard board ceiling

4.4 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 plant species recorded on the site are not listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). There are no species on site that are listed as Near Threatened (NT), Vulnerable (VU), Endangered (EN), or Critically Endangered (CR) in the Vascular Plant Red Data List for Great Britain.

The site would not meet the required criteria to qualify as a Local Wildlife Site (LWS). There are no species classed as 'notable' for Lincolnshire.

A full plant list with scientific names is provided as an appendix.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Bats

5.1.1 Legal protection

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

The survey indicates that the buildings are very unlikely to be used as a transient roost site or a regular long term roost, and bats are not breeding on the site. No evidence was found to suggest bats use this site.

Due to no evidence of bat activity found, very low potential and the fact that the location of the buildings is isolated from other suitable habitat it is considered that no large scale mitigation for bats is required ahead of work to develop the site and there is no requirement for a Natural England European Protected Species licence. No further survey work is needed on the buildings and it is not considered necessary to work to a Method Statement for bats.

There is limited potential for bats to use the site to forage, so it is recommended that precautions are taken to ensure bats are not disturbed during the development work. These precautions, together with suggestions for enhancing ecological diversity of the site are

detailed below. Local Planning Authorities have an obligation to enhance biodiversity and ensure 'favourable conservation status' – the implementation of these measures will ensure legal compliance and ensure that obligations relating to biodiversity are fulfilled.

Precautionary working practices and enhancement measures for bats – Dring's Farm, Moulton

- A procedure to follow in the unlikely event of discovering bats is provided as Appendix 3. All site personnel must follow this procedure.

- Install two bat roost units or bat boxes on the barn in order to enhance the site for bats. These should be placed on the northern and southern elevations respectively. Examples of bat roost units and bat boxes which could be used are given in Appendix 4.

- Avoid placing external lighting that illuminates the newly installed bat roost units.

5.2 Birds

5.2.1 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.

5.2.2 Recommendations for common bird species

One active nest was found during the survey in the wooden barn showing there is breeding potential for common birds on the site. In addition, there are large areas of ivy covered walls that provide breeding habitat for birds. To reduce the chance of breeding bird presence during any working activity, the ivy and scrub should be removed outside of the breeding season. Any site preparation work should commence outside the active nesting season which typically runs from March through to late August. If works commence 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.

Erecting some nest features for common bird species, including sparrow terrace boxes, would be good conservation measures. Details of nest boxes/features for a range of bird species can be obtained from Wildcare, Eastgate House, Moreton Road, Longborough, Gloucestershire GL56 0QJ (01451 833181) www.wildcareshop.com.

5.2.3 Recommendations for Schedule 1 species

There are signs that barn owls have previously used the main barn to roost, and there is potential for breeding in the loft void. However, the roost sites being used by this species are very important to the breeding success and long term conservation of local barn owls.

It is important to implement mitigation measures as the planned works would cause disturbance to this specially protected species. It is expected that provision for barn owls may form the basis of a planning condition. Two alternative barn owl nest box/ features should be put in place as soon as possible before the works commence, to provide separate features for nesting and day roosting. This will allow the continued breeding success of this species in the area and to compensate for the eventual loss of the buildings as a nesting and roosting site. The type of provision and recommendations for location/installation are given below.

A Method Statement detailing the provision of features for barn owls and pre-works checks and measures is provided as Appendix 5. Provision for nesting barn owls forms part of the barn owl Method Statement. This provision should include one of the following:

- Barn owl tower – a brick built structure which should be constructed to overlook open countryside. The ideal position would be along the eastern boundary of the site facing over the open fields – this is the preferred option.

- Pole mounted boxes – these can be difficult to erect but if used the best position for them would be on the eastern boundary

Further advice relating to the positioning and installation of features for barn owls can be provided on request. Appendix 6 provides further details on some of these boxes/features. Further information about barn owl nest box designs and advice on installation can also be sourced from The Barn Owl Trust, Waterleat, Ashburton, Devon, TQ13 7HU (e-mail: info@barnowltrust.org.uk).

6 SUMMARY

The buildings have negligible/low potential as a transient or feeding roost site for bats. No further survey work is required in relation to bats, but precautionary working methods and enhancement measures should be adhered to.

The site has some potential for common species of nesting bird, so any site preparation works should avoid the active nesting season where possible. If works in this area are to take place during the bird breeding season, a search for nests should be carried out, and any nests found are to be protected until the young have fledged.

There was evidence of long term use by barn owls on site, a Method Statement in respect of barn owls is provided.

7 REFERENCES

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APPENDIX 1
Plant species list

ECOLOGY AND PROTECTED SPECIES SURVEY
DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

Plant list

ENGLISH NAME	SCIENTIFIC NAME
bramble	*Rubus fruticosus*
brassica species	*Brassica sp*
cherry species	*Prunus sp*
chickweed	*Stellaria media*
cleavers	*Galium aparine*
cock's-foot	*Dactylis glomerata*
comfrey	*Symphytum officinale*
common mayweed	*Anthemis sp*
common nettle	*Urtica dioica*
cow parsley	*Anthriscus sylvestris*
creeping buttercup	*Ranunculus repens*
creeping thistle	*Cirsium arvense*
dandelion	*Taraxacum officinale*
dock species	*Rumex sp*
dove's-foot crane's-bill	*Geranium molle*
elder	*Sambucus nigra*
false oat-grass	*Arrhenatherum elatius*
geranium species	*Geranium sp*
greater plantain	*Plantago major*
hawthorn	*Crataegus monogyna*
hogweed	*Heracleum sphondylium*
iris species	*Iris sp*
ivy	*Helix hedera*
pineappleweed	*Matricaria discoidea*
ragwort	*Jacobaea vulgaris*
red clover	*Trifolium pratense*
ribwort plantain	*Plantago lanceolata*
rosebay willowherb	*Chamerion angustifolium*
rough meadow-grass	*Poa trivialis*
shepherd's purse	*Capsella bursa-pastoris*
small nettle	*Urtica urens*
sow thistle	*Sonchus sp*
spear thistle	*Cirsium vulgare*
sycamore	*Acer pseudoplatanus*

ENGLISH NAME	SCIENTIFIC NAME
teasel	*Dipsacus fullonum*
upright hedge-parsley	*Torilis japonica*
white bryony	*Bryonia alba*
white clover	*Trifolium repens*
white dead-nettle	*Lamium album*
Yorkshire–fog	*Holcus lanatus*

ECOLOGY AND PROTECTED SPECIES SURVEY
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APPENDIX 2

Data search results

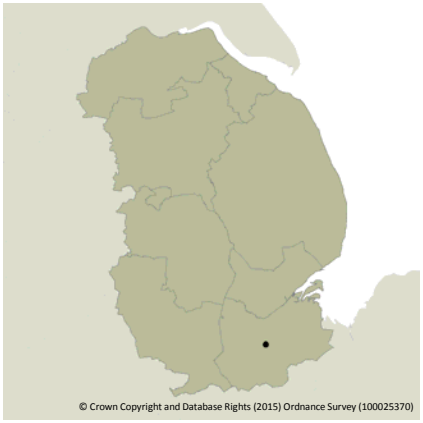
Lincolnshire Environmental Records Centre data search report

Dring's Farm, Moulton
17 June 2016

Achieving more for nature

GLNP
GREATER LINCOLNSHIRE NATURE PARTNERSHIP

Report details

Produced for	Zac Hinchcliffe, Scarborough Nixon Associates
Produced by	CB
Produced on	17/06/2016 (expires 17/06/2017)
LERC reference	1617-087
Aspects included in this report	Non-statutory sites ☑ Statutory sites ☑ Habitats ☑ Species ☑
Search area (all aspects combined)	 Centre of search area: E: 531349 N: 322850

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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/

an ALERC accredited LRC
Association of Local Environmental Records Centres

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 centre of the search 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
545	Moulton Park and River	Selected LWS	530788	324313	0.77

1 site(s) 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 (SNCIs)

The LWSs status supersedes that of Sites of Nature Conservation Importance (SNCIs), 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 SNCIs using the criteria outlined in LWS guidelines. To avoid confusion, until sites have been assessed against the LWS criteria they retain their SNCI 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)

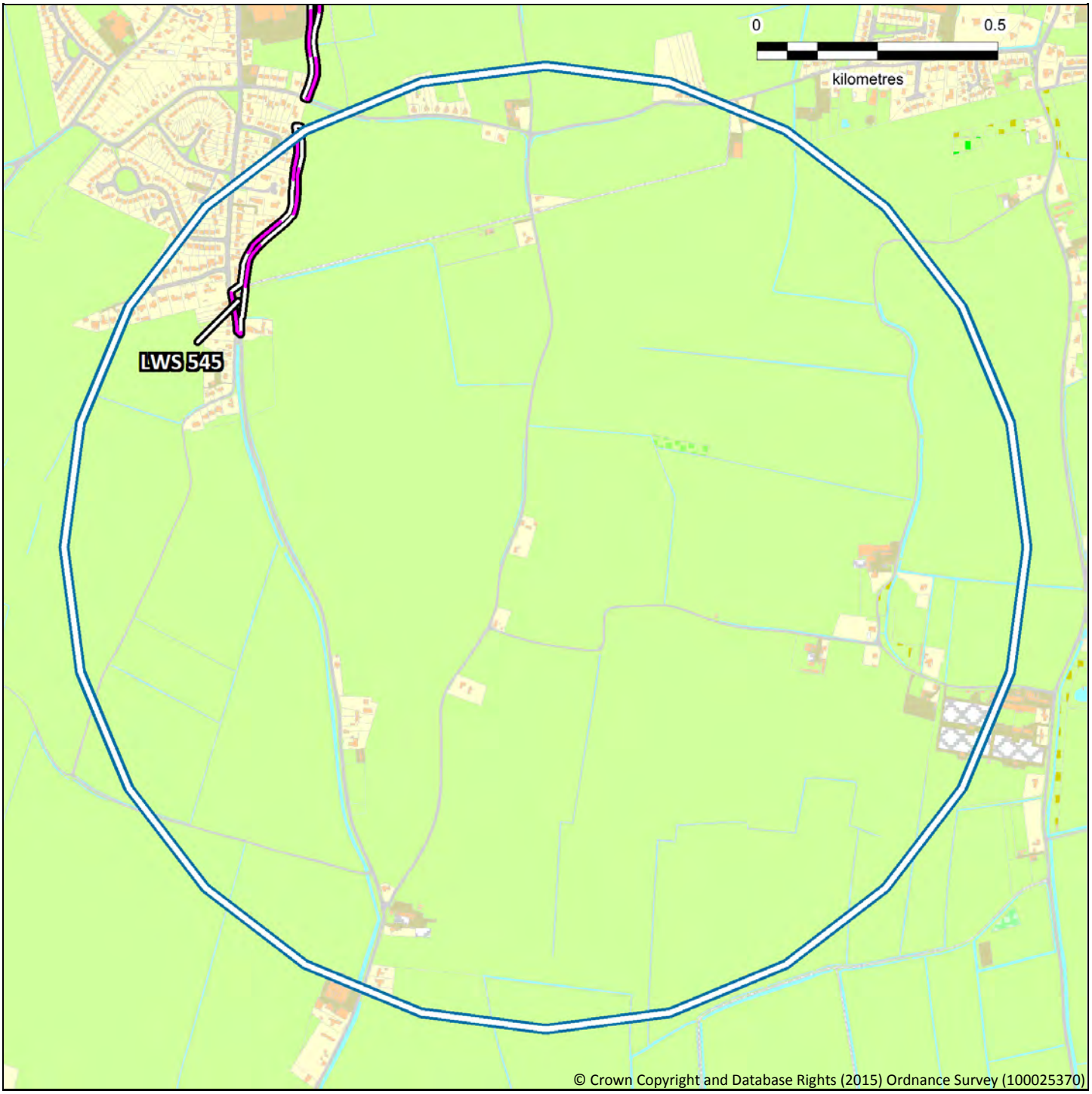
A scheme for the protection and management of roadside verges was set up in 1960 by the Lincolnshire Wildlife Trust and sites were originally termed "Protected Roadside Verges" (PRVs). Run in cooperation with Lincolnshire County Council, the Highways Division provides financial and advisory support with 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
- Local Geological Site (mine entrance)
- Local Geological Site
- Site of Nature Conservation Interest
- Regionally Important Geological/Geomorphological Site
- Lincolnshire Wildlife Trust Reserve
- Roadside Nature Reserve
- Search area
- LERC boundary

Statutory sites

Distance is given as the shortest distance in kilometres from the centre of the search 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)

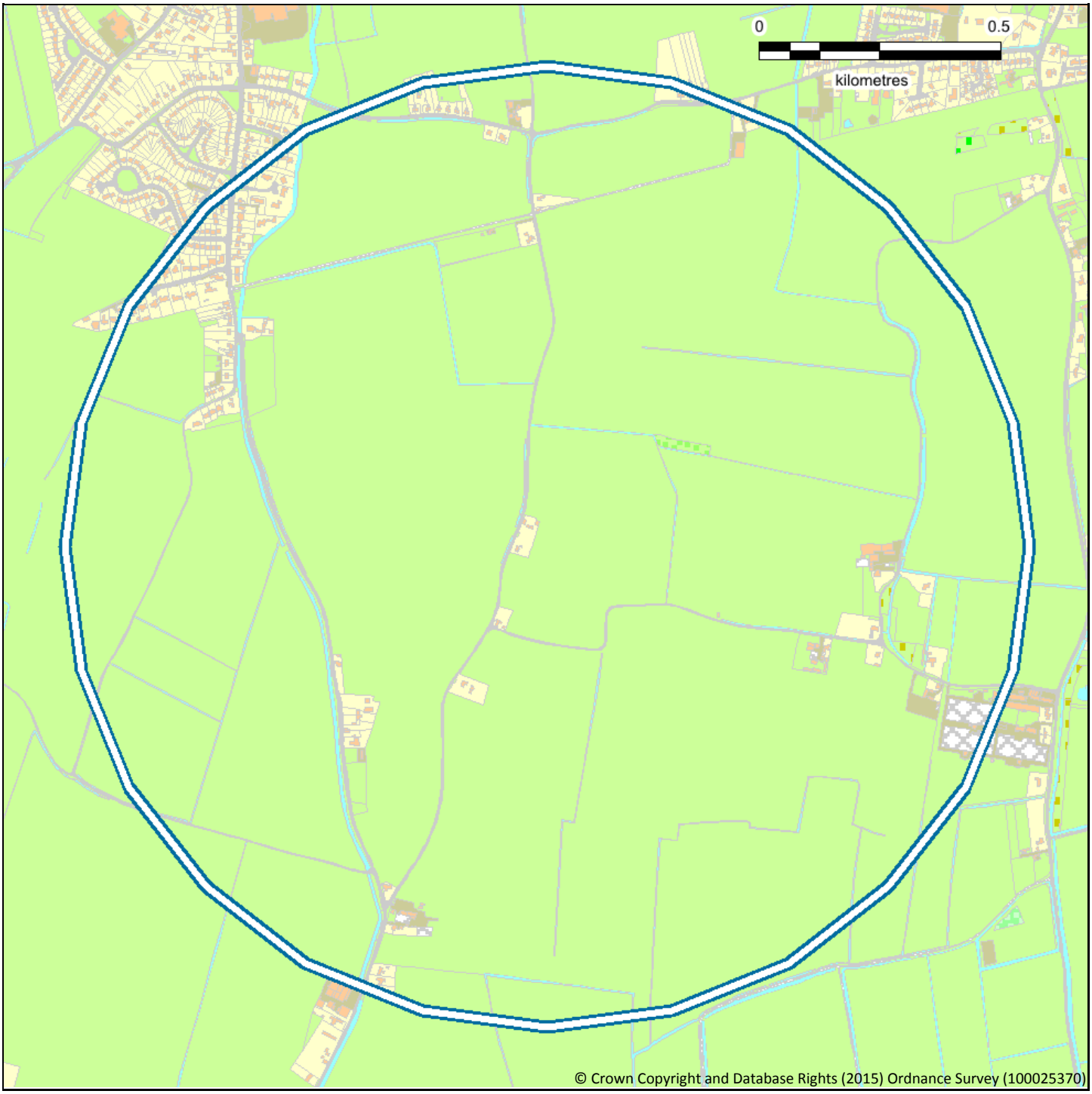
AONBs were created by legislation within the National Parks and Access to the Countryside Act of 1949. In Greater Lincolnshire there is one AONB, which is the Lincolnshire Wolds.

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

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).

Attribution statement: Ancient Woodland © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2016.

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



- Arable field margins
- Coastal and floodplain grazing marsh
- Coastal saltmarsh
- Coastal sand dunes
- Eutrophic standing waters
- Hedgerows
- Intertidal mudflats
- Lowland calcareous grassland
- Lowland dry acid grassland
- Lowland fens
- Lowland heathland
- Lowland meadows
- Lowland mixed deciduous woodland
- Lowland raised bog
- Open mosaic habitats on previously developed land
- Peat and clay exposures
- Ponds
- Purple moor-grass and rush pastures
- Reedbeds
- Rivers
- Sabellaria spinulosa reefs
- Saline lagoons
- Traditional orchards
- Wet woodland
- Wood-pasture and parkland
- Ancient Replanted Woodland
- Ancient & Semi-Natural Woodland
- Search area
- LERC boundary

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:

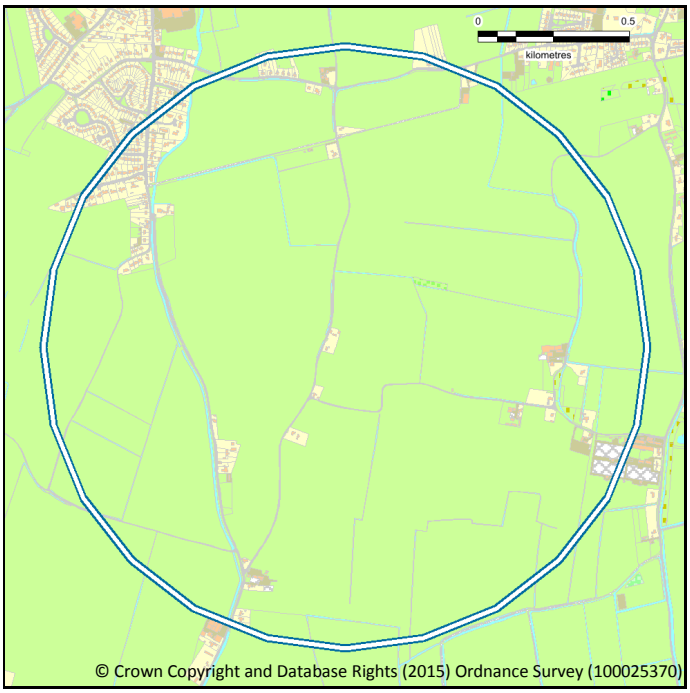
- Lincolnshire Bat Group
- Lincolnshire Bird Club

May contain public sector information licensed under the Open Government Licence v2.0.

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:
WACA-Sch1 Birds	Arvicola amphibius Chiroptera Meles meles Triturus cristatus	

Summary

Bird (4 taxa)	Number of records	Date range recorded	Designations
Barn Owl, *Tyto alba*	1	1998 - 1998	BAmb, Bern2, CITESA, FEP7/2, LBAP:3, LBCSchedule1, ScotBL, WCA1i, WCA9, WO1i
Brambling, *Fringilla montifringilla*	1	2008 - 2008	ScotBL, WCA1i
Fieldfare, *Turdus pilaris*	3	2005 - 2013	BD2.2, BoCC4-Red, BRed, WCA1i, WO1i
Redwing, *Turdus iliacus*	1	2005 - 2005	BD2.2, BoCC4-Red, BRed, ScotBL, WCA1i

Terrestrial Mammal (3 taxa)	Number of records	Date range recorded	Designations
Bats, Chiroptera	14	1992 - 2012	
Brown Long-eared Bat, *Plecotus auritus*	1	2000 - 2000	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, WCA5/9.5b
Pipistrelle Bat species, Pipistrellus	2	2000 - 2006	CMS_A2, HabRegs2, WCA5/9.4b, WCA5/9.4c, WCA5/9.5a, WCA5/9.5b

Greater Lincolnshire Nature Partnership
Banovallum House
Manor House Street
Horncastle
Lincolnshire
LN9 5HF

Tel: 01507 528398
Email: info@glnp.org.uk
Web: www.glnp.org.uk

Achieving more for nature

GLNP
GREATER LINCOLNSHIRE
NATURE PARTNERSHIP

ECOLOGY AND PROTECTED SPECIES SURVEY
DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

APPENDIX 3

Procedure to follow in the event of finding bats on site

ECOLOGY AND PROTECTED SPECIES SURVEY
DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

Procedure to follow if bats are discovered during works

- If at any point during the works, bats are discovered then contractors must stop work immediately and telephone Scarborough Nixon Associates; either Helen Scarborough on 01526 344726 or 07979833524 or Ian Nixon on 01205 723342 or 07833 674500.

- Scarborough Nixon Associates will either provide an appropriately licensed bat worker to the site or provide a member of staff who will liaise directly with Natural England. Actions will then be taken following advice given. This may include removal of bats, but only where direct written or verbal permission is gained from Natural England.

- Only when Natural England is satisfied that there is no further risk to bats will works recommence.

- Should it transpire that the operation being carried out is of more risk to bats than was originally thought, then works will be stopped until they can be supervised by an appropriately licensed bat worker.

- If a bat is found under a tile or any other aperture, works will stop immediately (as above). If the bat does not voluntarily fly out, then the aperture will be carefully covered over to protect the bat(s) from the elements, leaving a small gap for the bat to escape voluntarily. Any covering should be free from grease or other contaminants, and should not be a fibreglass-based material.

- Any injured bats should be gently placed in a secure ventilated box in a cool, quiet dark place (e.g. cardboard box with a sealed lid) by the contractor for the bat's protection whilst awaiting the arrival of the licensed person.

ECOLOGY AND PROTECTED SPECIES SURVEY
DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

APPENDIX 4

Bat roost units/boxes

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.

IBSTOCK
innovators in clay
ideas into action
eco habitats for bats
Eco Habitats for Bats - Technical Data: A
Sizes 215mm x 215mm or 215mm x 290mm
Durability F2 S2 - Fully Frost Resistant
Eco Habitats for Bats - Technical Data: B
Sizes 215mm x 215mm or 215mm x 290mm
Durability F2 S2 - Fully Frost Resistant
Eco Habitats for Bats - Technical Data: C
Size 215mm x 65mm
Durability F2 S2 - Fully Frost Resistant
IBSTOCK
innovators in clay
ideas into action
eco habitats for bats
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
• Maintenance free as the entrance is at the bottom
• Ideal for new build & conservation work
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
www.ibstock.com
contact numbers
sales office 0870 903 4010
design advice 0870 903 4018
technical services 0870 903 4017
literature and samples 0870 903 4030

CAVITY BAT ROOST
Wild-x
Dimensions
A Height 448mm
B Width 420 mm
C Depth (at base) 140mm
Weight: 12kg
Material:
Cement/woodpulp mix
Internal:
Internally there is approx 350 square centimetres of roosting space. This space is divided up to form crevices ranging from 1cm to 2.5cm which also create places to hide and spots where it is warmer or cooler
Distributor:
KEY FEATURES
Incorporates into structure using standard face materials
Supplied with lintel and DPM for the cavity tray
Creates a permanent bat roost that cannot be removed by subsequent occupiers
Unobtrusive 'self-sets' entrance makes little impact on building appearance
Suitable for a wide range of bat species
Cavity Tray
Lintel
75mm min cavity
The entrance is 420mm wide by 60mm high with is basically the width of 2 normal house bricks. The gap at the top of the entrance ramp is approx 20-25mm which is ideal for the smaller bat species.
Wienerberger
Bulding Value
Bat Boxes. To protect and conserve.
ecoSurv
Further details information on Wienerberger bat boxes and bat conservation is available at www.brick.co.uk/batbox or contact Design Services on 0161 491 8200

ECOLOGY AND PROTECTED SPECIES SURVEY
DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

APPENDIX 5
Barn owl Method Statement

ECOLOGY AND PROTECTED SPECIES SURVEY
DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

Barn Owl Method Statement

Prior to starting work on the building (and ideally as soon as possible) the following works must be undertaken:

- Erect a barn owl feature in the area identified earlier in this report, either a purpose built barn owl tower or pole-mounted barn owl box. These features should be placed facing open farmland (or as otherwise directed by an ecologist).

- Ideally, prior to any of the building works there should be a search for evidence that the features have been visited by the barn owls.

Any works should commence outside of the breeding period. In advance of the works the following works will be undertaken:

- An ecologist will inspect the buildings to ensure that no breeding attempt is underway

- If the ecologist is happy that there has been no breeding attempt in the buildings, and that the barn owls have used the newly erected nesting features, then work can proceed.

The architect/project manager will consult with an ecologist over any requirement to deviate from the agreed working methods where barn owls might be affected in advance of any such deviation in order that legal compliance can be maintained.

ECOLOGY AND PROTECTED SPECIES SURVEY
DRING'S FARM, HOG'S GATE, MOULTON, SPALDING, LINCOLNSHIRE

APPENDIX 6

Barn owl features

Barn Owl Towers

Creative Conservation

An advisory leaflet for farmers, developers and local authorities

Why are Barn Owls vulnerable?

Causes of their decline

By the mid 1980's agricultural intensification, urbanisation and road building had led to the loss of rough grassland and the fragmentation of this habitat on a nation-wide scale.

In England and Wales alone, Barn Owls declined from an estimated 12,000 breeding pairs in 1932 to just 3,800 breeding pairs by 1985. By the mid 1990's the population had begun to stabilise and in recent years has increased where special conservation efforts have been made.

The Barn Owl remains a scarce bird in many parts of the UK. It is both 'Amber Listed' and a Red Data Book species listed in Category 5, which means there is cause for concern for its declining numbers. As such the Barn Owl is also a Priority Species in over 40 Local/Regional Biodiversity Action Plans.

Legislation

Barn Owls like all wild birds, are protected by law in the UK making it an offence to intentionally kill, injure or take them or damage, take or destroy their nest or eggs. The Barn Owl is protected further making it unlawful to intentionally or recklessly disturb it while preparing to breed or is at a nest with eggs or young, or to disturb its dependent young.

Breach of this legislation can give rise to a criminal offence, a maximum fine of £5000 and/or a custodial sentence of up to six months.

Local plan policy and guidance (PPS9)

Because Barn Owls are specially protected while breeding the use of owl towers, owl lofts and nestboxes often form part of a Planning Condition or Obligation. The purpose of these are to prevent harm to Barn Owls from any adverse effects of a development.

What are we doing to help?

Habitat enhancement and creation

A programme to conserve Barn Owls throughout the UK was instigated in 1988 when we set up Priority Protection Areas.

As a result, habitat restoration work, coupled with the introduction of Government agri-environment schemes, has led to the widespread restoration of rough-grassland, a habitat whose importance to Barn Owls and many other species, had previously gone unrecognised.

We specifically targeted field margins and the banks of watercourses for our habitat restoration programme in order to provide a countywide network of prey-rich grassland corridors to help repair the fragmentation and isolation of Barn Owl communities.

These new and extensive networks of natural and semi-natural habitats have helped restore Barn Owl numbers not only by creating new feeding places, but most importantly by providing habitat connectivity, aiding the successful dispersal of young owls, farm to farm and county to county.

As these feeding habitats have increased, nesting sites have continued to decline. Because of this, concerted efforts are made every year to install more artificial nest sites, protect and conserve traditional breeding sites and compensate for those which are being lost to development or decay.

Design Specifications

Barn Owl tower using reclaimed bricks and pantiles.

Dimensions are approximate and depend upon the type of bricks used. Reclaimed 9" x 4¼" x 2¼" bricks (1200 No.) in this example.

Wildlife Conservation Partnership
Email: colinshawyer@aol.com
Tel: 01582 832182

All rights reserved. Copyright August 2006.
Bob Sheppard and Gus Grant (concept and design).
Bob Sheppard, Colin Shawyer, Graham Gomer, and Alan Ball (photographs and drawings).

Design and installation of nestboxes

Our research over the last 25 years has led to the manufacture of three different styles of Barn Owl nestbox and owl loft for installation in or on buildings, trees or poles. Our large nestboxes have been specifically designed to maximise this bird's chances of breeding successfully.



Our nestboxes are used by leading conservationists, farmers and landowners and are designed to be installed easily and safely and allow inspection and maintenance. They use non-metallic fixings and are made of marine-grade plywood. This material is used exclusively because it is durable, biodegradable and has low thermal conductivity, thereby maintaining consistent temperatures and humidity within the nestbox.



About owl towers

In response to farmers, landowners and planning authorities for artificial nest structures of a permanent nature, Barn Owl specialist Bob Sheppard and a local farmer, Gus Grant, designed an owl tower which could be constructed in brick or stone.



Accommodating Little Owls, Kestrels and other species

The owl tower incorporates nest sites for Little Owls and Kestrels. Small cavity nesting birds such as tits, sparrows and flycatchers as well as bats can also be accommodated (contact us for advice).

Our experience has shown that these species will breed and roost happily alongside one another inside their own self-contained nestboxes.





Please Remember:

- On agricultural units of land of 5 hectares or more, the erection of a building for agricultural purposes is permitted. If in doubt, seek guidance from your local authority.
- Build the owl tower in the open a kilometre or more from a major road, close to a field margin or watercourse.
- Line all nest chambers with 1" of wood chippings.

Let us know about the success of your owl tower or other Barn Owl nestbox, it helps us to determine the value of our conservation initiatives.

Providing an innovative and permanent nest site for Barn Owls

This was the dream of a farmer who wanted a purpose-made structure which would complement the surrounding farmland, attract Barn Owls and provide a long-lasting monument to a lifetime's devotion to farming and wildlife.

This became a reality in 2003 when the first owl tower was used by breeding Barn Owls.



Since then owl towers have now not only attracted the interest of farmers and other conservationists but also developers and local authorities, keen to use this new concept within their farm plans for Environmental Stewardship and as a permanent means of mitigating for the loss of traditional breeding sites following, for example, the demolition or development of farm buildings.

What do Barn Owls need?

Feeding and hunting

Barn Owls feed on small mammals, primarily field voles, shrews and woodmice. They usually breed in the same place every year feeding and roosting, within 1.5 km of the nest and up to 5 km in winter.

To breed successfully a pair of owls and their young need to find about 10,000 small mammals a year. To achieve this they require extensive lengths (15 km long and 3 m to 6 m wide) of rank, tussocky grassland along field margins or the banks of rivers, streams and ditches. Fields of largely unmanaged grass, totalling 35 ha, are also used when prey-rich field edges are the preferred places for hunting.



Nesting and roosting

Barn Owls nest in old farm buildings, hay stacks, large tree hollows and occasionally in the cavities of cliffs and quarries. Since 1988 and the instigation of our national conservation strategy for this bird, nestboxes in trees and on poles, have become the most common breeding sites in the UK.



The Barn Owl Trust
Waterleat, Ashburton
Devon TQ13 7HU
Tel 01364 653026
email info@barnowltrust.org.uk

Nestboxes for use on vertical tree trunks

LEAFLET No 2

Reg. Charity No 299 835

This leaflet describes how to make and erect a Barn Owl nestbox suitable for erection on a vertical tree trunk. This box design can also be used on the outside wall of a building or on a tall pole, but this is not recommended unless there is no other option available.

The information includes plans, dimensions, materials and safety advice.

Suitability of the area

The Barn Owl is not a woodland bird. It hunts mainly by flying over areas of rough grassland, ditches, hedgerows, young tree plantations etc. that support a high population of small mammals. In areas with an abundance of food but a shortage of suitable sites, nestboxes can be of great benefit. They should always be placed in areas with some good Barn Owl habitat or they are unlikely to be used. For further information, see *Habitat Management* (leaflet no.1).

Most nestboxes for Barn Owls are provided within buildings; see *Nestboxes for use in Barns and other Buildings* (leaflet no.3). However, where a suitable location for an indoor box is not available, outdoor nestboxes are often the next-best option.

Construction

The basic box should be built using rot-resistant or treated sheet material. The Barn Owl Trust uses 9 or 12mm tanalised (⅜"-½") softwood ply, 25 x 50mm (2" x 1") tanalised batten and 30mm (1¼ ") rust resistant screws. Please avoid using hardwood ply, unless it is stamped "FSC Approved". You may use any type of preservative on the box where tanalised ply is not available, but always follow the product instructions and always ensure the box is completely dry before erection. The dimensions are given as a guide, variations of + or - 10% are quite acceptable.

The front of the box should have an access panel to enable nest debris to be cleared out periodically. Under the Wildlife and Countryside Act 1981, it is an offence to disturb breeding Barn Owls so nestboxes should only be cleaned out between November and January. The top of the box should be covered with heavy duty roofing felt and it is advisable to use a waterproof sealant in all the wood joints to increase weather protection. Do ensure that large drainage holes (20mm - ¾" - diameter) are drilled in the floor of the box. The front, back and sides **MUST** overhang the floor of the box.

Selecting a suitable tree

Having found a suitable area and gained the landowner's consent, you should carefully select the most suitable tree. Do not rush this. The success of your nestbox will depend partly on the size and shape of the tree, its position, and the position of the box when erected.

An isolated tree near an area of good habitat is ideal. Whenever possible, choose a tree with rough bark to enable owlets to climb back up to the box should they fall out. A tree on the outside of a copse is acceptable but avoid trees within woodland. Avoid siting your box within 1km (½ mile) of a dual-carriageway, motorway or similar modern road. If possible, choose a deciduous tree or a Scots Pine. Often there is no choice, but do have a good look around. Time spent in reconnaissance is seldom wasted.

The ideal tree is old and very big. Pick a tree where the box will be visible below the crown (twigs/leaves) of the tree so that Barn Owls can see it and can fly in and out from various directions without having to negotiate small branches in the dark. Old Oak trees and Scots Pines are particularly accommodating in this respect.

If ivy is growing on the tree, it will probably obscure the entrance hole to the box within a few years. Anything that makes the hole less visible will reduce the chances of the box being used.

Old-style boxes with a low entrance (such as that shown in leaflet no. 4) must be situated within the branches of the tree. The box design in this leaflet (with the entrance hole high above the nest level) has a number of advantages over the low entrance boxes, as they can be attached either within the tree branches or on the side of a vertical tree trunk.

The main advantage of the box described in this leaflet is that it's fairly difficult for the young to get out. This reduces the chances of them falling from the box before they can fly and dying as a result of neglect or predation.

Another advantage of this style of box over some other designs, is that it provides an exercise area outside the box for the young and the flat roof allows the young to hop from the tray to the roof and then to the tree to exercise, and the reverse if they fall and need to climb back up. Many nestbox designs are impossible for the young to get back into unless they are already able to fly.

Siting the nestbox

Having found an area of good habitat and a suitable tree for your box, again take your time in deciding where in the tree you are going to put it. Several factors need to be considered. The box must face open ground so that the entrance hole is obvious to a passing owl. Do not hide it behind the tree - if the hole cannot be seen the box is unlikely to be used. Try to avoid facing the entrance into the prevailing wind and rain. Generally this means avoiding the west or south-west. South-east is generally a good direction. If you have no option but to face the entrance to the west/south-west, try to find another tree!

Barn Owls have used hollows entered from the top of the trunk down to ground level, so from the owl's point of view height may not be very important. However, an important consideration is that the nestbox is safe from interference by man. If a ladder is required in order to reach the box this will help deter the inquisitive passer-by. A height in the region of 4.5-7 metres (14'-24') may be achieved depending on the tree concerned. It is a good idea to ensure that, when erected, the box is slightly lower at the front. This will help prevent rain water splashing in through the entrance hole.

Although young Barn Owls do not start to fly until eight weeks old, they begin to walk at only three weeks. There is often an age difference of two weeks between the oldest and the youngest owlet. As the oldest ones become more and more mobile they emerge from the nestbox to stretch, flap their wings and attempt short flights within the tree. It is at this stage that an owlet is most likely to fall to the ground. The chances of this can be reduced by positioning the box so that the owlet can jump easily from the tray or roof of the box into nearby branches The box may need to be inspected or cleaned out in future so position the box so that this can be done safely.

Erecting the box

An outdoor box is quite heavy to lift single-handed and using ladders is potentially dangerous. The most important thing when erecting the box is your own safety (for which you are responsible). Please do not work alone and consider using two ladders. Tanalised 50mm x 50mm (2"x2") timber and galvanised nails can be used to secure the box; often this is the only practical option. Alternatively you can drill holes and use nylon bolts.

A piece of tanalised timber 50mm x 50mm x 750mm (2" x 2" x 30") should be attached to the trunk of the tree, making sure that it is level and VERY secure. This should have 'hooks' made out of 25mm x 50mm (1"x 2") tanalised timber attached to each end. These should be approximately 75mm (3") long and the top 25mm (1") will protrude above the top of the ends of the 50mm x 50mm timber (see diagram). The purpose of this is to enable the box to be placed so that it is held in place by the hooks, allowing the person erecting the box to have both hands free whilst attaching it.

A second piece of 50mm x 50mm tanalised timber should be attached firmly to the back of the box approximately 200mm (8") from the top (see diagram). This should be attached from the inside of the box through to the timber, not through the timber into the box! This joint will take all the weight of the box so it needs to be very secure. The piece that is attached to the box will rest on the piece that is attached to the tree. Holes should be drilled to enable the two pieces to be nailed or screwed together when the box is in position. Bear in mind that it will be difficult to get at some parts of the timber to hammer or screw once the box is in position so drill the holes close to each end.

Safety

Before you erect your nestbox take time to consider the hazards you might face and what steps you could take to minimise the risks. Hazards might include an injury at a remote location; falling from a ladder; injury from heavy lifting; dropping a nestbox onto another person; or poor positioning of a box resulting in additional hazards for anyone monitoring the box at a later date. The following are examples of precautions you should take to reduce the risks.

1. Ideally take a companion. If erecting your nestbox at an isolated site alone, let someone know where you are going and when you expect to be back before you set off. Carry a mobile phone if you have one.
2. Time spent in reconnaissance and preparation is seldom wasted. Never carry a box up into position until all preparatory work is complete. Double-check your measuring to confirm that the box will fit.
3. Ensure that your ladder is secure before climbing it. If possible tie it off at the top and bottom before climbing up with a nestbox.
4. Avoid over-reaching - never attempt to carry out any task up a ladder if you cannot reach comfortably.
5. When planning how to position, support and fix a nestbox, try to create a situation where the box can rest in position without being held. This will allow you to have both hands free to fix it safely.
6. When carrying a nestbox up a ladder, ensure that it is kept low relative to your body (ideally not above waist height). This will keep your centre of gravity down. Try to keep the box in front of both you and the ladder so that it pulls you towards the ladder - never hold a nestbox behind or above you.
7. You are responsible for your own safety - assess all the risks and be careful.

Nestboxes on poles

In areas with plenty of good habitat but no suitable trees or buildings it is possible to provide boxes on poles. It is illegal (and dangerous) to erect a box on an operational telegraph/electricity pole without the express permission of the pole owner. Erecting your own pole is a lot of work and can be expensive. With this type of project the boxes used are normally much bigger and of an entirely different design incorporating two separate cavities in one box.

Occupation by other species

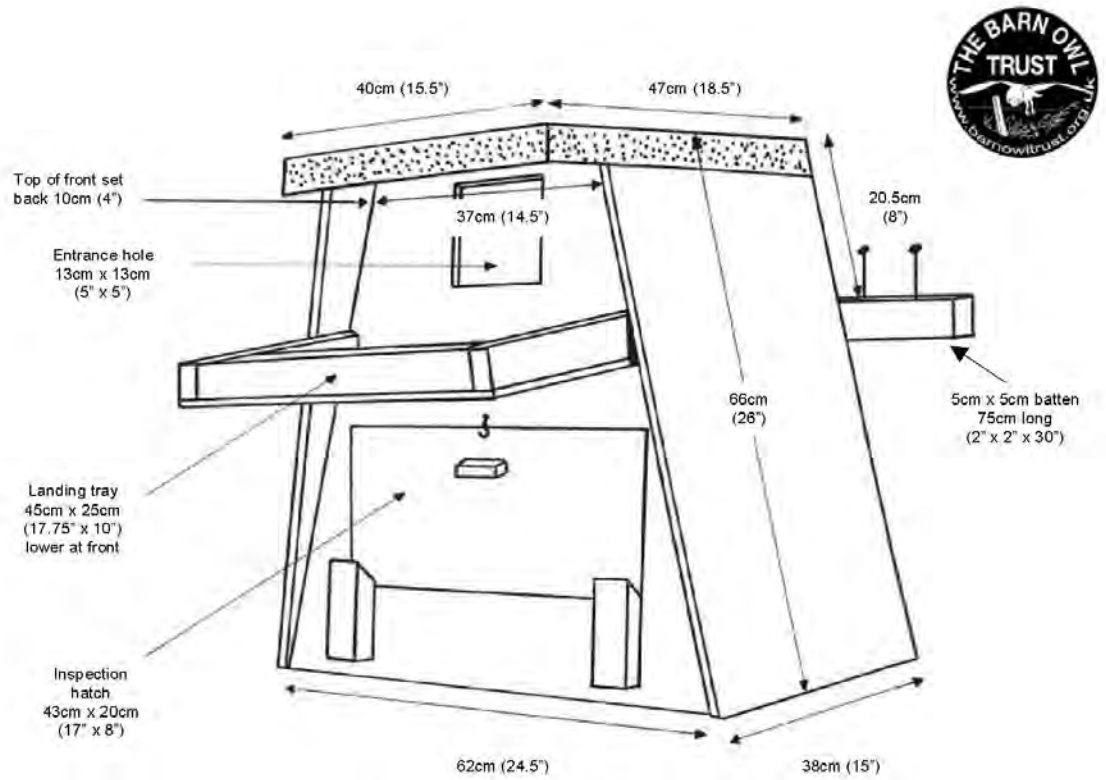
The outdoor box described in this leaflet is designed specifically for Barn Owls but it is possible that jackdaws, stock doves, tawny owls, little owls or some other species could use it. Jackdaws can be a problem in some areas as they tend to take over all available sites, and can fill boxes with sticks. These should be cleaned out before the following February.

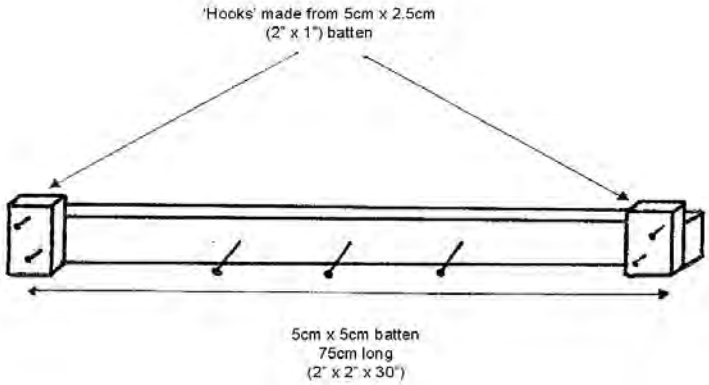
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tel 01364 653026 - email info@barnowltrust.org.uk
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2/2


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40cm (15.5")
47cm (18.5")
Top of front set back 10cm (4")
37cm (14.5")
20.5cm (8")
Entrance hole 13cm x 13cm (5" x 5")
66cm (26")
5cm x 5cm batten 75cm long (2" x 2" x 30")
Landing tray 45cm x 25cm (17.75" x 10") lower at front
Inspection hatch 43cm x 20cm (17" x 8")
62cm (24.5")
38cm (15")


'Hooks' made from 5cm x 2.5cm (2" x 1") batten
5cm x 5cm batten 75cm long (2" x 2" x 30")

2/3

The Barn Owl Trust
Waterleat, Ashburton
Devon TQ13 7HU
Tel 01364 653026
email info@barnowltrust.org.uk

Erecting your nestbox

LEAFLET No 45

Reg. Charity No 299 835

This leaflet provides information on how and where to place Barn Owl nestboxes, including advice on trees, buildings and safety.

Good Barn Owl habitat

Nestboxes are best placed close to areas of good habitat. Food supply and therefore habitat is one of the main factors governing Barn Owl numbers. The best habitat for Barn Owls is rough grassland supporting a high Field Vole population. Damp, tussocky grassland in fallow or lightly grazed pasture is ideal. Ditch sides, hedge banks, young tree plantations, forest rides and (unfortunately) roadside verges and railway embankments are often good hunting grounds. Some areas are good at certain times of year, such as hay meadows in summer.

The creation of new woodlands is beneficial to Barn Owls in the short term due to the rough grass which develops between the new plantings. However, some benefit is lost as the trees grow. The Barn Owl is not a woodland bird, so don't put your box in a wood.

Where do Barn Owls roost and breed?

Barn Owls will use both isolated buildings and barns in busy yards. The ideal building will have access high above the ground, have a level place for egg-laying and afford good shelter. Most modern barns are unsuitable for Barn Owls unless a nestbox is installed. Many traditional barns are also far from ideal and Barn Owls will benefit from a nestbox.

Tree hollows are also used by Barn Owls. Boxes can be placed in trees, but outdoor boxes are more likely to be used by other species than those in buildings. Barn Owls look for holes not boxes - when making an entry into a building or positioning a nestbox in a tree, make sure the hole is visible to any passing owl.

Privacy

Barn Owls like to roost out of sight of humans and are much less inclined to be flushed from a building if they have a box to hide in (it is amazing how much "disturbance" Barn Owls will tolerate at sites with a suitable nestbox). Almost any tall rural building can become an ideal roosting and nesting site when a nestbox is provided.

PLEASE NOTE that it is illegal to disturb wild Barn Owls whilst they are breeding. It is not even permitted for the provider of the nestbox or the site owner to look in a nest unless they have a current nest inspection licence (see *Safeguarding Wild Sites* leaflet no 28).

Positioning an indoor nestbox

1. Fix it up as high as possible; however, remember that fully enclosed modern barns with little ventilation can become very hot in fine weather - in this type of building the box should be placed below the apex but at least 3 metres above ground level. Bear in mind that you also need to place the box to allow removal of the lid.
2. Position the box so that an owl coming into the building using the most likely entrance will see the entrance hole and have an easy flight path to it.
3. If possible, position the box so that emerging nestlings can walk on beams or other flat surfaces.
4. Consider your own safety (for which you are responsible). Try to position the box where it can be easily and safely inspected at a later date.
5. The box must stay totally dry if it is to last for years.
6. It is generally best to avoid placing boxes within 1km (½ mile) of a motorway, dual-carriageway or other modern A road with rough grass verges (due to the high risk of road mortality).
7. Avoid buildings subject to irregular loud disturbance, for example sheds used for night-time lambing in January/February are less favoured. Bales stores, covered yards, silage stores are normally OK.
8. For hygiene reasons avoid buildings used for grain storage.

There is no need to line the nestbox. The eggs are normally laid on a layer of the birds' own pellet debris which is a wonderfully absorbent material - much better than anything people can provide!

Permenant access into the building for the owls is obviously essential. If there is no hole you can create one using the following guidelines:

1. Make the entrance hole about 12cm (5") wide x 25cm (10") high (minimum 4" x 6").
2. The hole should be at least 3 metres (10 feet) up and as visible as possible to any passing owl rather than screened by trees or other buildings
3. When making access into an attic of an occupied dwelling or barn undergoing conversion please refer to *Barn Conversions* (leaflet no. 22) or our booklet *Barn Owls On Site - A Guide for Developers and Planners*.
4. In the case of an occupied house, converted barn or busy farmyard, the entrance hole into the building should, if possible, be situated on the side of the building with the least disturbance, with direct access to an open area of good habitat. Avoid facing the entrance hole into the prevailing wind.

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Positioning an outdoor nestbox

1. Carefully select the best tree. A large, old and isolated tree near an area of good habitat is ideal. Choose a tree that has little or no foliage in the lower part so that the box entrance is very likely to be noticed by any passing owl (rather than screened by foliage).
2. Try to avoid facing the box west or southwest (avoiding the prevailing wind and rain).
3. Place the box so as to deter interference by inquisitive passers-by. A height of 4.5-7 metres (14'-24') may be achieved depending on the tree concerned.
4. Ensure that, when erected, the box is slightly lower at the front. This will help prevent rain water running or splashing in through the entrance hole.
5. It is preferable for the nestbox to be within the body of a rough-barked tree so that any nestlings that fall down have a better chance of being able to climb up and get back inside. Bear in mind that the box may need to be inspected or cleaned out in future so position the box so that this can be done safely.
6. It is generally best to avoid placing boxes within 1km (½ mile) of a motorway, dual-carriageway or other modern A road.
7. Tanalised 50 x 50mm (2" x 2") timber and galvanised nails can be used to secure the box. If you don't wish to nail into the tree you can try lashing timber onto the tree using rot-proof cord and nailing the box to that. Alternatively, you can drill holes and use nylon bolts.

What are the chances of my box being used?

This depends upon what is limiting the species in your area. If there is an ample food supply but a shortage of suitable roosting and breeding sites then your box could be occupied very quickly. Conversely, if there are plenty of potential sites but a severe shortage of food then your box may never be used. Providing that habitat in your area is reasonably good or there is potential for improvement in the future it is always worth erecting a box. If you own land, think about creating Barn Owl habitat yourself. Habitat in any area may well improve in years to come as public demand leads to more wildlife-friendly food production.

Safety

Before you erect your nestbox take time to consider the hazards you might face and what steps you could take to minimise the risks. Hazards might include an injury at a remote location; falling from a ladder; masonry falling from unsound buildings; injury from heavy lifting; dropping a nestbox onto another person; or poor positioning of a box resulting in additional hazards for others using the building or monitoring the box at a later date.

The following are examples of precautions you should take to reduce the risk of accident.

1. If possible take a companion. However if erecting your nestbox at an isolated site on your own, let someone know where you are going and when you expect to be back before you set off. Carry a mobile phone if you have one
2. Time spent in preparation is seldom wasted. Never carry a box up into position until all necessary preparatory work is complete. Double-check your measuring to confirm that the box will fit
3. Ensure that your ladder is secure before climbing it. If possible tie it off at the bottom and always tie the top before ascending with your nestbox
4. Avoid over-reaching - never attempt to carry out any task up a ladder if you cannot reach comfortably
5. When planning how to position, support and fix a nestbox, try to create a situation where the box can rest in position without being held. This will allow you to have both hands free to fix it safely
6. When carrying a nestbox up a ladder, ensure that it is kept low relative to your body (ideally not above waist height). This will keep your centre of gravity down. Try to keep the box in front of both you and the ladder so that it pulls you towards the ladder - never hold a nestbox behind or above you
7. You are responsible for your own safety - assess the risks and be careful.

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