

**David Leach Ecology Ltd.
Ecological Consultants**

**Norwood Cow Barn
Norwood Farm
Bath Road
Norton St Philip
Somerset**

Bat and Owl Survey

Date: September 2022

Report compiled by D. V. Leach. M.C.I.E.E.M

Mobile: 07756 855212

E-mail: dleach718@btinternet.com

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Registered Office: Arrowsmith Court, Station Approach, Broadstone,
Dorset, BH18 8AT

Company Reg. No. 8846666

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Executive summary

This survey was commissioned to check for bats, barn owls and nesting birds to accompany a planning application to convert a large barn to five dwellings.

Phase 1 surveys were undertaken in August 2018 and again in September 2019 which found no evidence of bats.

The building was of modern construction and had insignificant potential for bats due to a lack of roosting features.

Evidence of a roosting barn owl and a nesting pigeon was found in the building.

The building is unsuitable as a breeding site for barn owls.

The habitat on the site was hard standing and short grass and unsuitable to support reptiles.

No other signs of protected species were found around the site.

The grass around the site should be kept short (below 50mm) to keep the habitat unsuitable for reptiles.

The proposal to convert the barn is unlikely to have a significant impact on protected species but the potential for disturbing nesting birds must be considered when starting work on the barn.

A repeat survey was undertaken in August 2022 which found no significant change in the condition of the building.

As part of the development of the site, bat and bird boxes (including a barn owl box) will be installed on the site to enhance the site for wildlife.

In the event that a protected species is found during construction then work must stop and David Leach, an experienced ecologist or Natural England should be contacted for advice on how to proceed.

The survey and report can be considered valid for 18 months from the date of the survey unless there are changes to the condition of the site.

1.0 Introduction.

1.1 Background

Client: c/o Llewellyn Harker Ltd.

Property Surveyed: Norwood Cow Barn
Norwood Farm,
Bath Road
Norton St Philip
Somerset
BA2 7LP

Grid reference: ST 77774 57026

Dates of Survey: 27th February 2018
10th September 2019
16th August 2022

Lead Surveyor: David Leach BSc. (Hon), CBiol., M.R.S.B., M.C.I.E.E.M.
(Natural England WML CL18 registered bat worker).

1.2 Aims of the Survey.

David Leach Ecology Ltd was commissioned to undertake a survey and produce a report to accompany a planning application to convert a large modern cow barn to five residential units.

The survey was to check for signs of bats, owls and nesting birds that would be affected by the proposed work and recommend further surveys if there was potential for protected species on the site.

1.3 Site Description.

The site is located to the north of Norton St Philip in a rural area approximately 8 km south of Bath, Somerset,

The area a few residential and agricultural buildings within 500m of the site.

The surrounding area is predominantly pastures and cultivated field with a few small, wooded areas within 1300m to the north.

2.0 Methodology

2.1 Desk Study

The Magic.gov web site was accessed to determine whether there were any nature reserves or protected areas local to the site that could be affected by the proposed works. If signs of, or potential for, protected species was found then a data search may be undertaken to look for records of protected species in the area around the site.

An online search of maps was undertaken to look for ponds within 500m of the site which might have potential for great crested newts.

2.2 Site Survey

This consisted of a walkover survey of the application site and inspection of the building. The survey methodology included an assessment of the potential for habitats on or immediately adjacent to the site to support legally protected or conservation-notable species. The location and nature of any signs of the presence of protected species (such as droppings, footprints, burrows, etc.) were documented and mapped accordingly.

Indicative methods for protected species are outlined below following recognized guidelines: Chartered Institute of Ecology and Environmental Management (CIEEM), Bat Conservation Trust (BCT) and Joint Nature Conservation Committee (JNCC).

Bats.

The external and internal areas of any building or structure on site were inspected following guidelines set out in the BCT Bat Surveys for Professional Ecologists Good Practice Guidelines 3rd edn. Collins. J (2016) and the JNCC Bat Workers' Manual (Mitchell-Jones A. J). The presence of bats or signs of bats and possible entry points into buildings was looked for.

Extant trees were inspected for potential roosting areas that could support bats. Particular attention was paid to the following:

- Mature trees with ivy covering and/or crevices and peeling bark

Evidence searched for to indicate usage of bats included:

- Droppings

- Urine staining

- Worn entrances or claw marks around potential access points

- Insect feeding remains

- Oil staining left from bat fur

- Live/dead bats

Barn owls.

Evidence searched for to indicate usage of barn owls included:

- Droppings/faecal splashes
- Owl pellets
- Feathers
- Down

This report was written by David Leach an experienced ecological surveyor who is a Natural England WML CL18 registered bat worker, a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Biologist.

David Leach is a Registered Consultant under the Bat Mitigation Class Licence - WML- CL21 annexes B, C & D and also holds a Natural Resources Wales bat survey licence.

3.0 Results.

3.1 Desk Study

A search of the MAGIC Map web site found one statutory site within 1km of the site Hinton Charterhouse Pit Sites of Special Scientific Interest (SSSI).

No ponds were found on or within 500m of the site.

3.2 Site Survey

Weather for initial survey:	Clear and dry at time of survey 11:30 The external temperature was 24°C.
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Survey Sept 2019	Clear and dry at time of survey 14:30 The external temperature was 22°C.
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Survey August 2022	Heavy rain at time of survey 16:30 Temperature 25°C.
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Habitats.

The building is surrounded by hard standing and short, regularly mown grass.

Buildings.

There was a single barn to be surveyed. This was a large modern timber framed barn with a corrugated asbestos roof with a number of skylights. The barn was mainly open at the ends. The sides of the barn were rendered block at the lower third and wooden slats at the upper third.

One section of the barn had been partitioned off for a store area. The remaining area of the barn was used for cattle and storage.

The interior was light and draughty and unsuitable as a habitat for bats. No evidence of bats was found in the building.

An old nest of a pigeon or collard dove was seen in the side storage area.

In the main barn area there was evidence of a roosting barn owl during the 2019 survey - owl pellets, faecal splashes on the roof timbers and floor and a few feathers. Some of the pellets were from the previous few days; some had been there for a number of months. There is no owl box and no area suitable for owls to breed. No recent evidence of use by barn owls was found in the main barn during the 2022 survey but evidence may have been

lost as the barn was in constant use. Evidence was found in the side store area that was not seen during the 2019 survey

A number of old, rotten and unused nest boxes were seen on the east elevation.

No other signs of protected species such as badger activity were found in or immediately around the barn.

4.0 Assessment.

No designated sites will be impacted by the proposed works.

The construction and style of the building made the interiors light and draughty and did not provide suitable roosting habitat for bats.

The buildings had insignificant potential for bats due to a lack of roosting features and no signs of bats were found.

The habitat around the buildings is mainly hard standing or close-cut grass and is unlikely to support a population of reptiles.

A barn owl has used the barn as an occasional roost in the past but no recent evidence was found in the main barn area. However as the barn was in use with number of cattle in part of the barn evidence may have been lost. Evidence was found in the side storage area which has appeared since the 2019 survey.

The proposed conversion of the barn will result in the loss of a former barn owl roost but will not affected bats or any other protected species.

The potential for active nesting birds must be taken into account when planning work to the barn.

No significant change was noted in the building or surrounding habitat between the initial survey in 2018 and the survey carried out in September 2022

5.0 Recommendations.

5.1 Bats

No further surveys are recommended.

In accordance with Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the built environment series, Bat Conservation Trust (London) & Institution of Lighting Professionals (Rugby) (2018) a suitable lighting schemes and regimes will be implemented which will include:

- Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate bat access points or flight paths around buildings with bat features or bat boxes or hedges and trees which could be used by foraging or commuting bats.
- There will be no lighting that will illuminate the strips of trees and hedges to the north, east and west of the site.
- Any lights will be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible.
- A shield or hood will be used to control or restrict the area to be lit and limit “light spillage” on the site.
- Security lights will be on motion sensors and on for a maximum of 1 minute.
- Lighting units will be of a maximum lighting colour temperature of 2700 K.

5.2 Birds

Birds’ nests, when occupied or being built, receive legal protection under the Wildlife and Countryside Act 1981 (as amended). It is highly advisable to undertake clearance of potential bird nesting habitat (such as hedges, scrub, trees, suitable outbuildings etc.) outside the bird nesting season, which is generally seen as extending from March to the end of August, although may extend longer depending on local conditions. If there is absolutely no alternative to doing the work in during this period then a thorough, careful and quiet examination of the affected area must be carried out by a qualified ecologist before clearance starts. If occupied nests are present then work must stop in that area, a suitable (approximately 5m) stand-off maintained, and clearance can only recommence once the nest becomes unoccupied of its own accord

5.3 Reptiles

Grass and vegetation around the site will be maintained below 50mm to keep the habitat suboptimal for reptiles.

Building materials etc. will be stored away from any long grass and vegetation to prevent them being used by reptiles as a refuge or for basking.

5.4 Good practice precautions.

All construction and building materials must be stored on areas of hard standing or on raised pallets or sealed-based containers at least 5m away from suitable reptile habitat to prevent reptile colonisation during works

Any deep holes or footings must be back-filled overnight or if this isn't possible then earth ramps must be left in the trench to allow wildlife such as reptiles and hedgehogs to easily climb out. Alternatively, any foundation excavations left open at the end of a day will be covered over with plywood and the edges sealed with sand or soil.

The site manager must check the footings at the start of each day to look for reptiles (and other wildlife) which could not get out of the footings. If any are found and ecologist must be informed and they will advise on how to proceed.

5.5 Enhancements.

In accordance with Section 40 of the Natural Environment and Rural Communities Act 2006 and paragraph 118 of the National Planning Policy Framework a number of measures should be implemented to enhance the biodiversity on site. These will include:

5.5.1 Bats

Two woodcrete bat boxes or similar will be installed on each gable as high as possible but at a minimum of 3m on the south and north wall of the building, (see Appendix 10).

Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate the bat access points or flight paths used by foraging or commuting bats. The light will be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. A shield or hood will be used to control or restrict the area to be lit and limit "light spillage" on the site.

5.5.2 Birds

A barn owl nest box purchased from the Barn Owl Trust will be installed in a suitable building or on a suitable tree within the clients' ownership as agreed with an ecologist. The new box will be in place at least 30 days before work to the main barn starts.

Bird nesting features will be included on the new properties in the form of swift boxes which must be placed as high as possible on the north and the south gables (three on each gable) (see Appendix 4).

6.0 Limitations of the survey.

A survey of this type only provides a snapshot of what was found at the time of the survey and it is sometimes necessary to carry out a number of surveys to show the presence or absence of protected species.

In the event that a protected species is found during construction then work must stop and David Leach, an experienced ecologist or Natural England should be contacted for advice on how to proceed.

The survey and report can be considered valid for 18 months from the date of the survey unless there are changes to the condition of the site.

Appendices

Appendix 1) Legislation.

Under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way (CroW) Act 2000, all bats have legal protection. In addition any structure which shows signs of use by bats either currently or in the past, for shelter or protection, is classed as a bat roost and both the roost and any bats using it are protected by law which makes it an offence to:

Intentionally or recklessly kill or injure or take any bat.

Intentionally or recklessly damage or destroy any bat roost and to obstruct access to that roost.

Intentionally or recklessly to disturb any bat using a structure as a roost.

Protection is also afforded to bats under the Conservation (Natural Habitats & c.) Regulations 1994 (the Habitats Regulations) Amended 2007

Annex IV lists all bats

Regulation 39 makes it an offence to:

Deliberately kill or capture a bat.

Deliberately disturb a bat.

Damage or destroy a resting place or breeding site of any bat.

If any proposed development would result in the otherwise illegal acts above, a licence must be obtained from Natural England prior to any work being carried out. A licence will only be granted if there is no satisfactory alternative and the authorised action will not be detrimental to the maintenance of the population of the species concerned.

The Wildlife and Countryside Act 1981 (as amended) also protects all reptiles from killing, injury and sale.

The Wildlife and Countryside Act 1981 (as amended) makes it an offence to damage or destroy the nests of birds of breeding birds (with the exception of certain pest species). The bird nesting season is generally defined as being between mid-February and August inclusive although nesting outside of the period is not unusual if conditions are favorable.

Appendix 2) References

Collins, J. (Ed.) 2016. *Bat Surveys for Professional Ecologists - Good Practice Guidelines: 3rd edition.* Bat Conservation Trust, London, United Kingdom.

English Nature 2004. *Bat Mitigation Guidelines.*

IEEM 1995. Institute of Environmental Assessment: Guidelines for Baseline Ecological Assessment. E & FN Spon, London.

IEEM 2006. Guidelines for Ecological Impact Assessment in the United Kingdom (version 7 July 2006), Institute of Ecology and Environmental Management [online]. Available: <http://www.ieem.org.uk/ecia/index.html> [accessed February 2011]

JNCC 2004. *Common Standards Monitoring Guidance for Mammals.* Joint Nature Conservation Committee, Peterborough.

JNCC 2007. *Handbook for Phase 1 habitat survey: A technique for environmental audit.* Joint Nature Conservation Committee, Peterborough.

Mitchell-Jones A. J. & McLeish, 2004. *Bat Workers' Manual.* Joint Nature Conservation Committee, Peterborough.

Natural England and Countryside Council for Wales, 2007. *Disturbance and protected species: understanding and applying the law in England and Wales. – A view from Natural England and the Countryside Council for Wales.* United Kingdom

Stebbing R.E., 1986. *Which bat is it?* The Mammal Society and The Vincent Wildlife Trust, London.

Appendix 3) Photographs.



Plate 1. View of barn from the north 2019.



Plate 2. View of barn from the north west 2019.



Plate 3. View of east side of the barn 2019.



Plate 4. View of east side of the barn 2022.



Plate 5. West side of the barn 2019.



Plate 6. West side of the barn 2022



Plate 7. Side section of the barn 2019.



Plate 8. Side section of the barn 2022.



Plate 9. Nest in the side section of the barn.



Plate 10. Interior of the barn 2019.



Plate 11. Interior of the barn 2022.



Plate 12. Evidence of roosting barn owl on roof timbers 2019



Plate 13. Barn owl faecal slashes under roof timber 2019.



Plate 14. Barn owl faecal slashes under roof timber 2022.



Plate 15. Barn owl pellet 2019.



Plate 16. Barn owl pellet 2022.

Appendix 4) Suitable bat and bird boxes for site enhancement

EXAMPLES OF BAT BOXES

BAT BOXES



Double cavity bat box

<https://www.greenwoodsecohabitats.co.uk/shop>



Triple cavity bat box

<https://www.greenwoodsecohabitats.co.uk/shop>



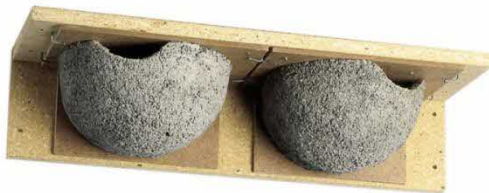
Vincent Pro Bat Box

Vincent Pro Bat Box

The box features three vertical chambers of different sizes, providing ideal roosting space for a variety of species. Beneath the crevice entrances is a ladder which provides a rough surface for bats to land. Limited cleaning is required for these boxes as the droppings will fall out of the bottom of the chambers. Manufactured from FSC timber with a recycled plastic top. The front and top of the box are black which helps the box to absorb heat.

Proven with seven UK species: Barbastelle, Leisler's, common pipistrelle, soprano pipistrelle, brown long-eared, Natterer's and whiskered bat.

- * Height: 720mm
- * Width: 180mm
- * Depth: 235mm
- * Weight: 4.1kg



House Martin Terrace

This **House Martin Terrace** means you can now provide house martin nesting sites on any external wall regardless of whether it has eaves or not. Made using Schwegler's patented wood-concrete (an exceedingly durable, rot-proof and breathable natural material designed to mimic the properties of natural nest sites and last up to 25 years), this contemporary design is an attractive addition to urban areas.

Ensure the nest is located at least 2 m above the ground. The nest can be installed on any unobstructed facade without an overhanging roof, or alternatively directly under overhanging eaves. Ensure the nest is on the outside of the building (rather than inside the roof) on the sheltered side. Each individual nest can be removed separately for cleaning and inspection.



Swifts are notoriously picky when it comes to choosing their nest site.

This new design conforms to all the dimensions required by swifts and has been refined to exact specifications with an expert in swifts. This box is the solution for many of us looking to 'retro-fit' our homes and gardens to be more wildlife friendly. However, if you are embarking on any kind of new build, such as an extension or new house, then a swift brick, built into the fabric of the wall is the preferred option. For advice on bricks, email our conservation team at conservation-advice@rspb.org.uk and include 'swift bricks' in the subject line.

Refined design

The RSPB Swift nest box fits directly beneath even the narrowest of eaves, and its sloping roof improves durability and makes it hard for predators to gain purchase. Its entry hole measures 28 x 65mm and is designed to keep starlings out, while its internal nest cup will encourage any swift inspecting the box to take up residence.

- Hand crafted by UK joiners, this swift nest box is made from FSC[®] certified softwood.
- Overall measurements are 44cm wide, 21.7cm tall (at the back), 12cm tall (at the front) and 20.2cm deep at the deepest point.
- Weight is approximately 3.5kg.
- Supplied with instructions and more details to help you make this an ideal breeding home for these epic adventurers as they seek a safe place in summer.

Where to put the nest box

Swift nests need to have at least **5m clearance from the ground and in front of the box** to give a clear flight path to and from the nest. Please ensure your house is able to provide this clearance. Being secured tight beneath the eaves means aspect is not particularly critical and they can face any direction from NE through S to NW.

Full fitting instructions (with siting advice) are provided and you can download a copy here for your reference:



The Ecosurv Swift brick can be customised to match any brickwork. The materials include slate.

URL: <http://www.ecosurv.co.uk/product/bird-box-range>



An attractive brick, designed to encroach minimally on the cavity. It is thus one of the narrowest boxes on the market. The materials are frost resistant.

URL: <http://www.ibstock.com/literature/eco-products/>



CJ Wildlife Woodstone



Built-in Visible Swift box
Number 90068



Built-in Visible Swift box
Number 90059



Built-in hidden Swift box
Number 90060

These nest boxes are made of WoodStone®, a robust, durable mix of cement and wood fibres which offers protection from predators and a more consistent internal temperature.

URL: <http://www.vivarapro.com/brochure/#p=23> or <http://www.vivarapro.co.uk/Swallows-and-Swifts>

Owl boxes can be purchased below

<https://www.barnowltrust.org.uk/product/barn-owl-nestbox-barns-buildings/>

The Barn Owl Trust
Conserving the Barn Owl and its Environment

Home > Products > Nestboxes > Barn Owl nestbox for buildings

Barn Owl nestbox for buildings

£65.00

Our deep indoor Barn Owl nestbox is a much safer home for owlets than some designs due to a 455mm (17 3/4") drop from the entrance hole to the bottom. Hand built to last, from environmentally friendly FSC-approved 9mm plywood. Approximate size (mm) 610H x 510W x 410D. Weight 14kg.

More about Barn Owl nestboxes for inside buildings
Indoor boxes are best – find out why

During busy periods nestboxes may not be available for immediate dispatch. Please contact us on 01364 653026 for more information.

Please contact the office for availability.

Please see [Delivery Information](#) below.

Delivery to UK MAINLAND only.

1 ADD TO BASKET

The Barn Owl Trust
Conserving the Barn Owl and its Environment

Home > Products > Nestboxes > Barn Owl box for a tree

Barn Owl box for a tree

£160.00

Our outdoor Barn Owl box is a much safer home for owlets than some designs due to a 460mm (18") drop from the entrance hole to the bottom.

Made from sustainable FSC-approved pressure treated 9mm plywood and torch-on roofing felt. Sealed joints throughout. Approximate size (mm) 740W x 710H x 500D. Weight 18kg. Designed for fixing to an exposed tree trunk, this Barn Owl box can also be positioned in a fork provided that the entrance is visible to birds flying past.

A **Nestbox Hanging Kit** is included.

More about Barn Owl nestboxes for trees.
[Where's the best place for your Barn Owl box?](#)

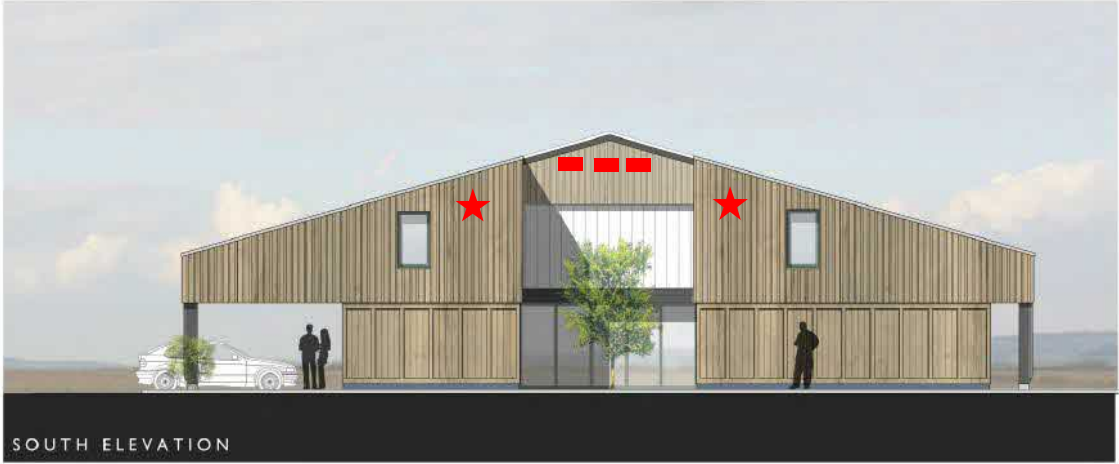
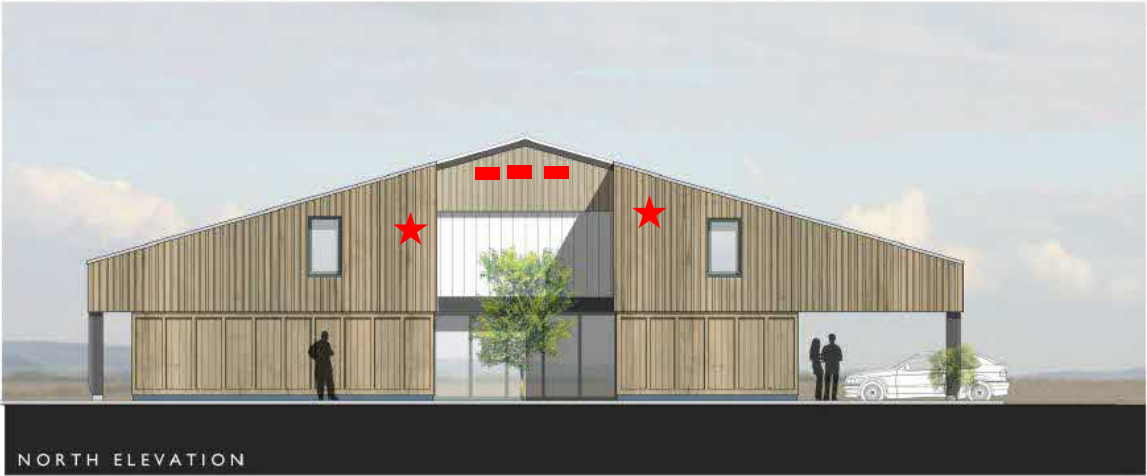
During busy periods nestboxes may not be available for immediate dispatch. Please contact us on 01364 653026 for more information.

Standard delivery to mainland Britain only via ParcelForce. All ParcelForce deliveries must be signed for.

DELIVERY TO UK MAINLAND ONLY.

1 ADD TO BASKET

Appendix 5. Location of enhancement features



Bat features ★

Swift features ■

David Leach BSc (Hons) CBiol. MSB MCIEEM. David is a professional ecologist with over forty years' research and fieldwork experience in many aspects of ecology and for the past nine years in environmental consultancy work.

David is an experienced bat surveyor with competency in activity surveys, bat roost assessments, daytime surveys for bat field signs, assessments of trees as potential bat roosts and the production of reports providing advice on best practice, mitigation and compensation works relating to bats as may be required.

He holds a Natural England licence to disturb bats for the purposes of science and education or conservation and is also a **Registered Consultant** for the Bat Low Impact Class Licence. Registered Consultants are now able to apply to register individual sites to undertake licensable activities under this licence.

David has been involved in obtaining over 140 Protected Species Licenses to permit development works affecting bats and also badgers.

David also has experience in surveying for birds, reptiles, great crested newts, barn owls and badgers and also carries out extended Phase 1 habitat surveys, BREEAM and Code for Sustainable Homes assessments.



David Leach BSc. (Hons), C.Biol., M.R.S.B., M.C.I.E.E.M.

Disclaimer.

All reasonable effort has been made to provide accurate information at the time of the survey. However weather conditions and the timing of surveys can affect the results. Some species or signs of that species will only be visible at certain times of the year e.g. the nesting season for birds is usually between March and September. The absence of certain species or signs of use at the time of a survey does not mean that they are not present at other times of the year and does not imply that a species might not use the site at some time in the future.

Mobile: 07756 855212

E-mail: dleach718@btinternet.com