Ecological Appraisal and Impact Assessment at

Croft Cottage, Penygelli Road,

Coedpoeth, Wrexham

LL11 3RW

Grid Ref. SJ 2846 5059

On 14th June and 8th July 2021

Report completed 25th July 2021
Ref: CRO140621

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1. Summary

The purpose of the report is to assess the potential ecological impacts of a proposed development at Croft Cottage, Coedpoeth and advise on any mitigation measures to comply with local planning policy and government legislation.

The proposed scheme entails the demolition of the building and removal of four trees and a section of hedge, and construction of a new dwelling.

The building and adjacent land were examined to establish the presence of or evidence of use by protected species of animals. A visual inspection was carried out to assess the potential or actual use by bats, of the interior and exterior of the building. One dusk emergence survey was carried out to determine use by bats. No bats were found to be using the building.

Impacts during the development should be low provided that no bird nests are constructed or occupied while work is taking place. Trees should not be felled or hedges removed between the beginning of March and the end of September to avoid destruction of nests which are in use. If birds are building nests or any are occupied at any stage of the development work in that area must stop until the young have left the nest. There is not considered to be any significant threat to the conservation status of bats or danger of harm to individuals as the building was not being used by roosting bats. However precautions must be taken to avoid harm to any transient bats which may roost there in future. No pointing or repairs of any gaps or crevices should take place which cannot be seen to be empty to minimise the possibility of incarcerating bats.
If bats are found at any stage of the development then work in that area must stop and a licensed bat worker contacted for advice.

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There is not considered to be any significant impact on any protected species or habitat as long as the recommended mitigation measures are followed.

2. Introduction

Susan Worsfold BSc (Hons) ACIEEM is an experienced wildlife surveyor, licensed bat and great crested newt worker and voluntary bat roost visitor. Registration number CLS0895 2015-12555-CLS-CLS (CL15 Bat Roost Visitor Level 1) and registration number CLS 0895 2015-12556-CLS-CLS (CL18 Bat Survey Level 2) (Natural England) and S089569-1 (Natural Resources Wales);
Great crested newt licence registration number 2016-19947-CLS-CLS (NE) and S089570-1 (NRW)
This report was commissioned by the clients, Kayne and Dawn Barber.
The site, at Croft Cottage, Coedpoeth, is a one storey garage/workshop surrounded by hard standing and domestic garden.
The proposed scheme involves demolition of the building and removal of some trees and construction of a new dwelling.
The purpose of the report is to identify and address any significant ecological effects which are likely to occur as a result of the proposed development. This is necessary to comply with local planning policy and government legislation and avoid any offence being committed. Also, to describe any compensation, mitigation and enhancement measures which should be taken.

3. Methodology

3.1. Scope of the Assessment

The report incorporates an preliminary bat roost and nesting bird assessment, while also searching for use or potential use by any rare, threatened, endemic and non-native invasive species which might be associated with such a site in accordance with:
The Conservation of Habitats and Species Regulations 2017 and listed in:
Schedule 2. European protected species of animals
Schedule 5. European protected species of plants
The protection of Badgers Act 1992
Protected species which might be associated with such a site include bats, owls and other breeding birds. The area around the site might be used by badgers, dormice, amphibians and reptiles, and might contain protected plant species.
One bat activity survey was carried out in accordance with *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)* (Collins 2016).

3.2. Desk Study

Wrexham Planning Portal was consulted for a review of previous ecological surveys carried out in the area. Magic Maps was consulted for the presence of designated sites and protected habitats. The nearest designated site is Ruabon/Llantysilio Mountains And Minera (SSSI) Berwyn and South Clwyd Mountains (SAC) 1.3 km west.

3.3. Field Survey

The building and trees to be affected were examined to establish the presence of or evidence of use by protected species of animals. A risk assessment was made before entering the building. A visual inspection was carried out to assess the potential or actual use by bats, of the interior and exterior of the building. It was searched systematically for any signs of bats, including droppings, rub marks and urine stains at entrances to roosts and insect remains, such as moth or butterfly wings. Crevices were checked where possible.

Powerful lamps (LED Lenser H14) were used for examination of interiors and under eaves. Binoculars were used to examine parts which were not otherwise accessible. Photographs were taken of all areas and those of relevance are shown in the appendices.

The preliminary assessment was carried out on 14th June 2020 by Susan Worsfold.

One dusk emergence survey was carried out on 8th August by Susan Worsfold (SW) and Craig Thomas (CT) in accordance with *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)* (Collins 2016).

Frequency division detectors were used to record any bat sounds around the building for later analysis on the computer. These were Peersonic RPA3.

4. Baseline Ecological Conditions/Results

4.1 Designated Sites

The nearest designated site is Ruabon/Llantysilio Mountains And Minera (SSSI) Berwyn and South Clwyd Mountains (SAC) 1.3 km west.

4.2 Habitats

Site: Semi rural location in a village 3 km west of the town of Wrexham. The building is surrounded by garden and hard standing, with some trees. It is of one storey with a loft space and single storey lean to extension. Walls are of breeze block. Some roof slates are loose or missing and the remaining roof and bitumastic hessian felt covered with plastic sheeting. The roof has a timber frame. The roof of the lean to section is lined with wood and also covered with plastic sheeting. There are no windows in the main section but the lean to section has glazed, intact windows with wood frames. Doors are of metal, sealed and intact. There are some gaps in the exterior wood and also a small gap between the wooden fascia board and building at the east side.
None of the trees due to be removed had any potential roost features.
Adjacent land: The nearest area of woodland is 130 m west. The river Clywedog is 170 m west. There are no ponds apparent within 500 m. There are several hedgerows surrounding the site, with some trees, some domestic and some agricultural.

4.3 Species and Species Groups

Plants
The only vegetation to be affected is domestic garden, predominantly closely mown lawn.

Amphibians and Reptiles
None seen during the survey. There are no ponds apparent within 500 m so there is not considered to be any threat of harm or effect on the conservation status of great crested newts. There was limited shelter and foraging potential.

Birds
No bird nests were found in or on the building or on site. No evidence of use by owls was seen in the building and it was not considered suitable for use by them.

Bats
There was considered to be low potential for use of the building by bats. The site is suitable for use by foraging and commuting bats. No evidence of use of the building as a roost or resting place by bats was found.

Badgers
There were no badger setts, tracks or latrines found on the site or within 30 m of the site.

Dormice
No hazelnuts were found which indicated gnawing by dormice and the site was not favourable for use by them.

No species of conservation value or Schedule 9 species were seen on site.

5. Description of the Development

The proposed scheme involves demolition of the building and construction of a dwelling. This involves the removal of a section of domestic garden, including three mature conifer trees at the south side of the drive and approximately 25 m of non-native ornamental hedge on the north side of the drive due to requirement from WBC to widen the drive. One mature conifer adjacent to the building will also need to be removed.

6. Assessment of Effects and Mitigation Measures

Designated Sites:
It is not considered that the development will have any significant impact on the SAC due to the small scale of the development and distance from the site.

Habitats:
No priority habitat is affected by the proposal and no net loss of potential roosting or nesting sites should occur if enhancements are provided.

Species:

Birds
The impacts which the proposed work might have on birds will be small, providing that no nests are occupied or being built at the time the work is done. If birds should gain access to the building and begin building nests during the work, then the work in that area must stop until the young have left the nests. Trees should not be felled or hedges removed between the beginning of March and the end of September to avoid destruction of nests which are in use.

Bats
There is not considered to be any threat to the conservation status of bats or danger of harm to individuals as the building was not being used by roosting bats. However, it is possible that transient bats may temporarily roost in the building in the future, therefore precautions must be taken. No pointing or repairs of any gaps or crevices should take place which cannot be seen to be empty to minimise the possibility of incarcerating bats. If bats are found at any stage of the development then work in that area must stop and a licensed bat worker contacted for advice.
A lighting plan should be designed in accordance with the Bat Conservation Trust guidelines: https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/

Reptiles and amphibians
Is is highly unlikely that the development would harm any individual GCN, or affect their conservation status, since there were no ponds within 500 m of the site.

Residual Effects
No significant residual effects anticipated.

7. Compensation

Four trees should be planted to replace those to be felled to allow for access. The following trees are not too big and would be attractive to birds and insects and also to humans: bird cherry (*Prunus padus*), wild cherry (*Prunus avium*), crab apple (*Malus sylvestris*), rowan (*Sorbus aucuparia*), hazel (*Corylus avellana*) and hawthorn (*Cratageous monogyna*). A 30 m length of hedge should be planted to replace the amount required to be removed, this should comprise at least four native species e.g. guelder rose (*Viburnum opulus*), spindle (*Euonymus europaeus*), hawthorn, hazel, holly (*Ilex aquifolium*), alder buckthorn (*Rhamnus frangula*), dogwood (*Cornus sanguinea*) or dog rose (*Rosa canina*)
These would be of higher value to wildlife than the existing trees and hedge, thus increasing the biodiversity net gain of the site.

8. Enhancement Recommendations

A bat box e.g. Schwegler 1FF to be fitted externally to the new building. Further information is given in the bat box information pack available at http://www.bats.org.uk/index.php.
Bat boxes should be placed in a south east to south west facing position if possible.
Two woodcrete nests suitable for small birds such as robin, blackbird, tit species and sparrow and one artificial swallow nest to be incorporated into the new/converted building.
House Sparrow Terrace - Wooden (or woodcrete) nest box with 3 sub-divisions to support 3 nesting pairs. To be placed under the eaves of buildings or incorporated into walls. Entrance holes: 32mm diameter. Dimensions: H310 x W370 x D185mm. Also suitable for tits, redstarts and spotted flycatchers. Place at least 2 m from the ground.
Swallow nests - H110mm x W250mm x D140mm. This should be placed at the eaves, leaving a gap of at least 6 cm between the top of the nest and the roof.

9. Ecological Constraints

None identified

10. Monitoring

None recommended

11. Conclusions

Since the first bat to be seen did not come from the building and no bats were seen to emerge from itlater, it is reasonable to conclude that bats were not using the building. This is supported by the lack of any signs or evidence of use by bats in the building.
If the recommended mitigation, compensation and enhancement measures are taken the overall ecological impacts of the proposed development will be low due to its small scale and lack of evidence of any rare or threatened species or priority habitat.

12. Bibliography

Bat Conservation Trust available at: http://www.bats.org.uk

BCT and ILP Guidance Note 8 Bats and Artificial Lighting available at: https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/

Collins J. (Ed) (2016) *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)*. The Bat Conservation Trust, London

Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora available at: jncc.defra.gov.uk

Google Maps available at: https://maps.google.com/maps

Magic Maps available at: http://magic.defra.gov.uk

Mitchell-Jones, A. J. and McLeish, A. P. (2004) *Bat Worker's Manual,* Peterborough: Joint Nature Conservation Committee

Natural Resources Wales available at: https://naturalresources.wales/?lang=en

UK BAP Priority Habitats available at: jncc.defra.gov.uk

Wildlife and Habitat Conservation available at: https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation

Wrexham Council Planning Portal available at: http://planning.wrexham.gov.uk/Planning/lg/GFPlanningSearch.page

Appendix 13.1: Activity Surveys

8/7/21

Number of observers: 2
Observer 1: Susan Worsfold (SW); equipment: Peersonic RPA3; Station: south east corner of building
Observer 2: Craig Thomas (CT); equipment : Peersonic RPA3; Station: north west corner of building

Bat species seen and/or recorded:

First bat recorded:

Common pipistrelle (*Pipistrellus pipistrellus*)
Time: 21.52; *Location*: both stations
Subsequently: Occasionally, both stations

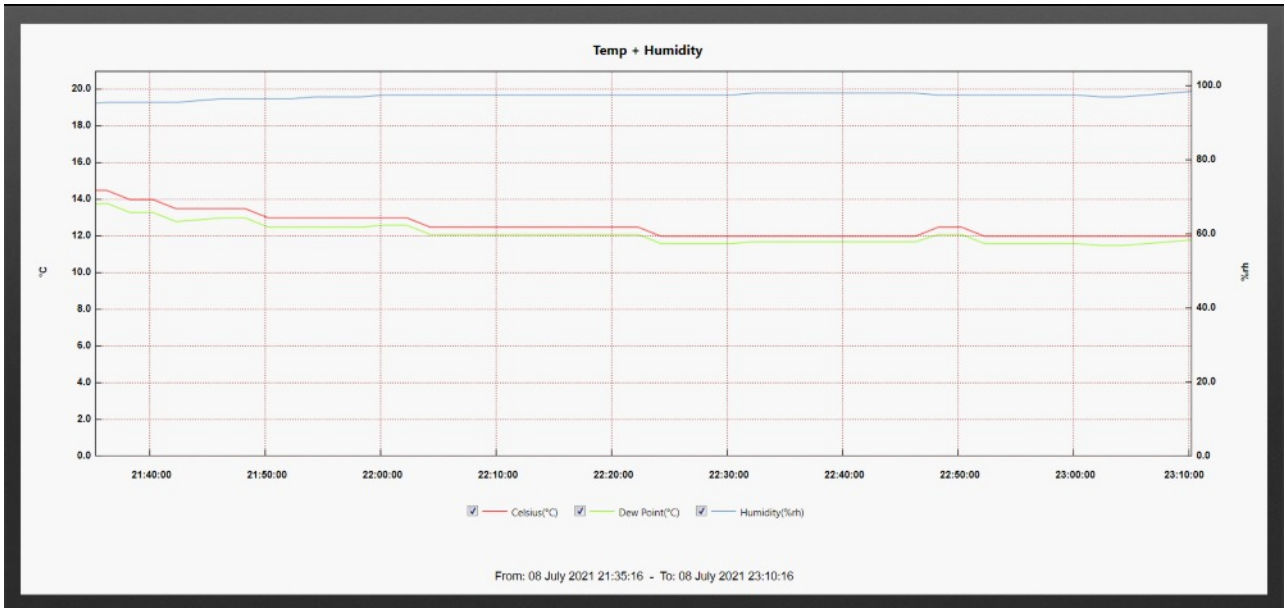
Other species recorded:

Myotis, probably Natterer's bat (*Myotis natterreri*)
Time: 22.58; *Location*: SW station
Subsequently: None

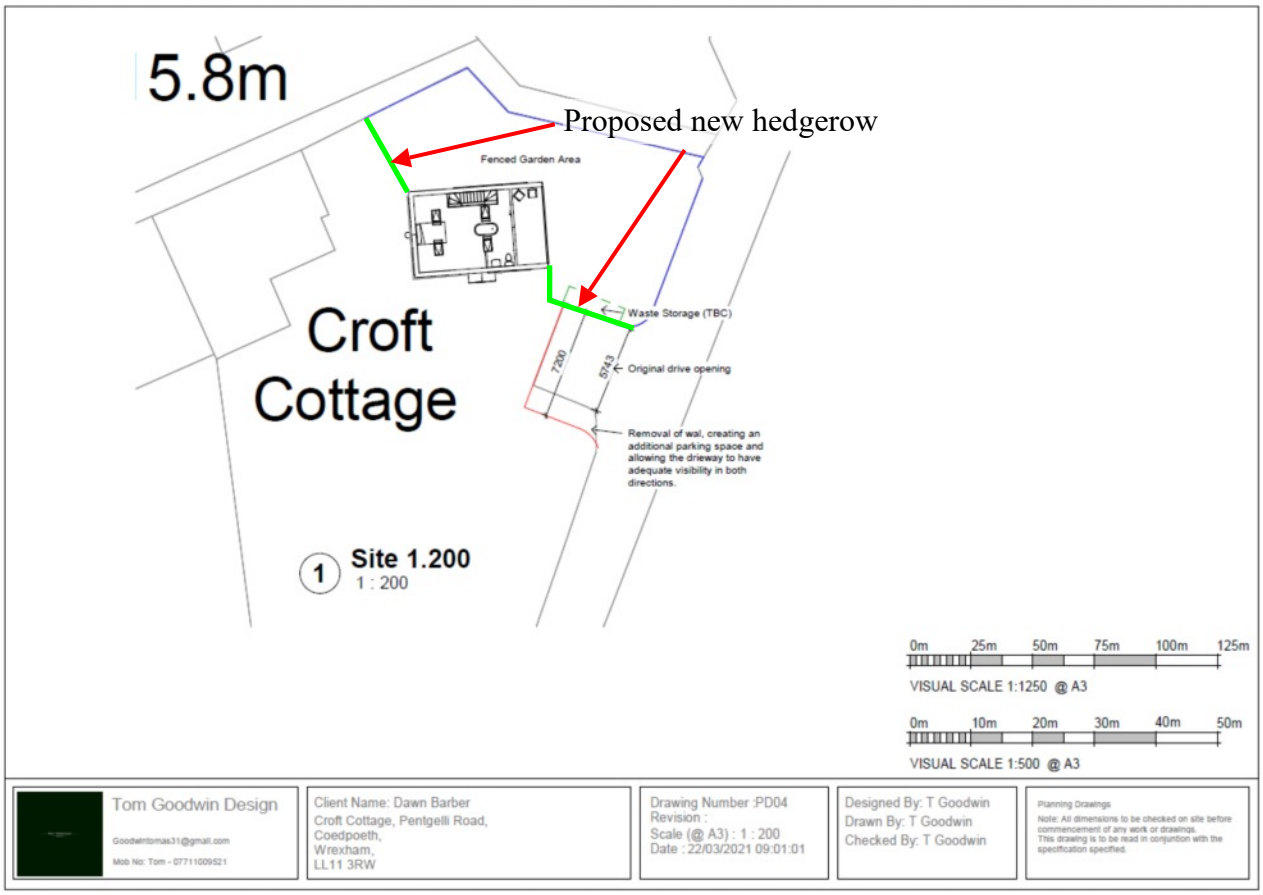
A bat was occasionally seen at both stations from 21.52 but no bats were seen to emerge from the building during the survey. The first bat seen was a common pipistrelle at 21.52 and was seen to come from the west and fly round the building before heading north east.

Appendix 13.2: Survey Conditions

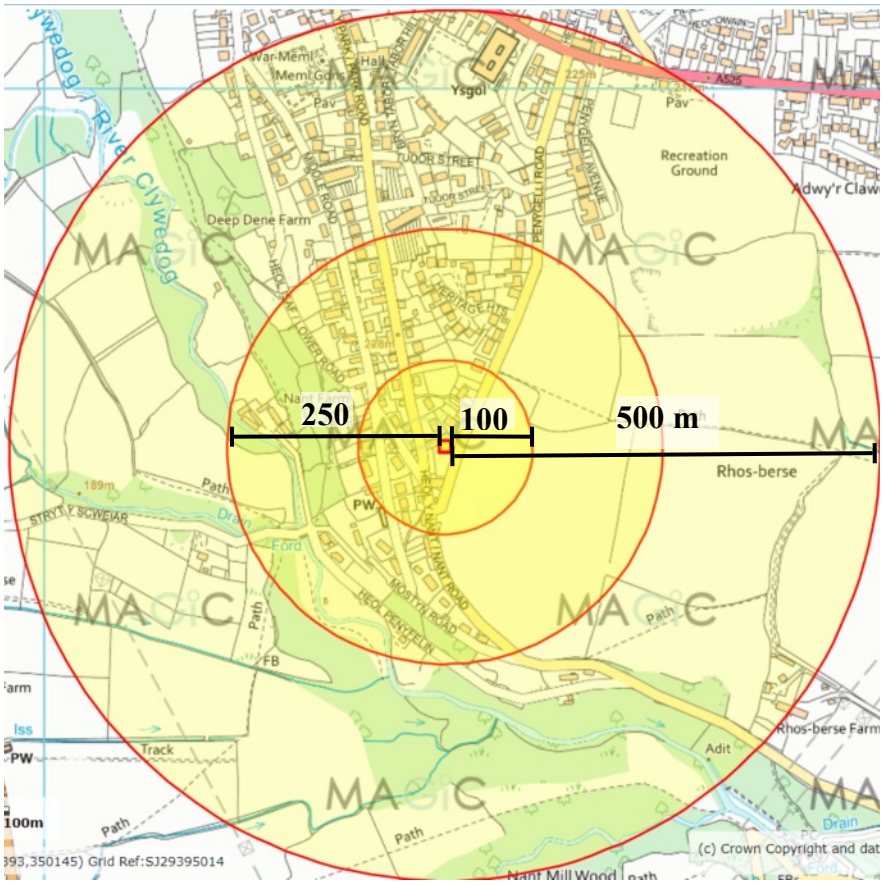
Date	Sunset/ Sunrise	Start Time	End Time	Temp. Start °C	Relative Humidity Start %	Temp. End °C	Relative Humidity End %	Cloud %	Wind 0-6
8/7/21	21.38	21.20	23.15	17	95	12	97	10	0



Appendix 13.3: Site Plan as Proposed



Appendix 13.4: Location Map, Designated Sites and Zones of Influence



Appendix 13.5: Aerial Photograph

Bat detector and observer

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Appendix 13.6: Photographs of the Site

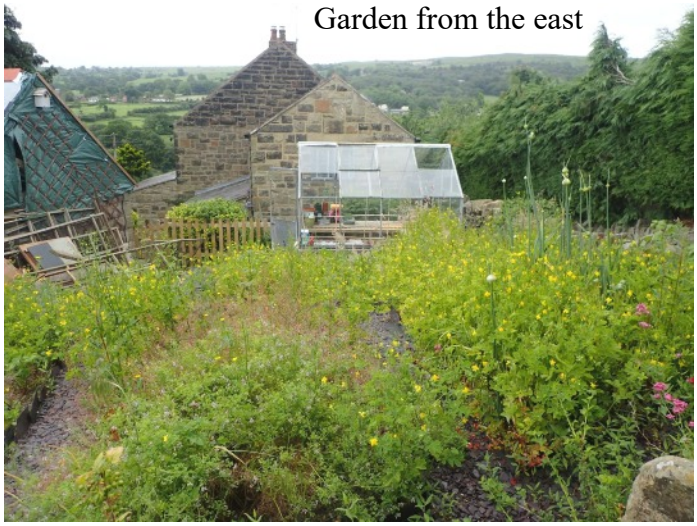
Conifers to be removed
(view from the north east)



Garden from the north west
showing hedge to be removed



Garden from the east





Building from the north east

Building
from the
north west



Building from the south east



Appendix 13.6: Photographs of the Site



Eaves of lean to section



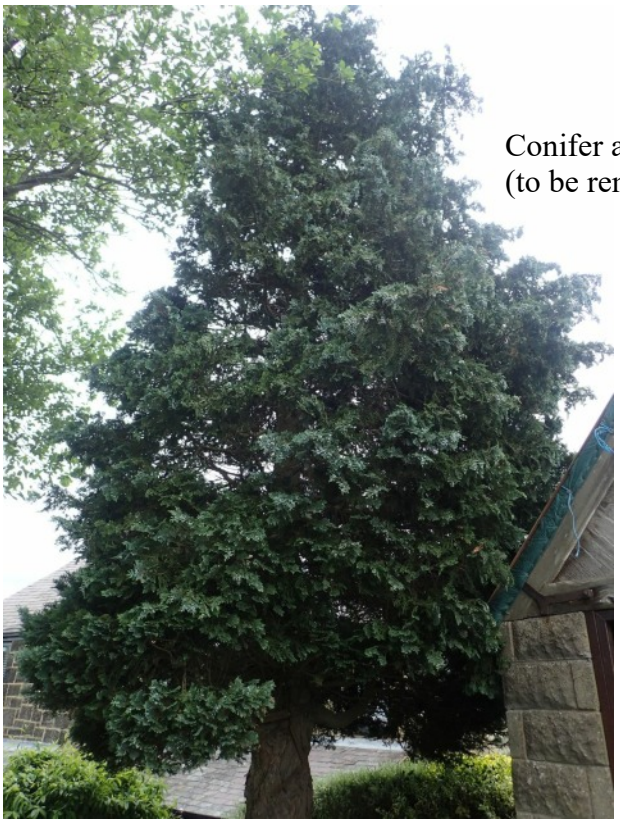
Lean to interior



Building interior



Building interior



Conifer adjacent to building
(to be removed)

Appendix 13.7: Legislation Relating to Bats

All species of bats in the UK are European Protected Species (EPS). It is against the law to damage or destroy a bat's breeding site or resting place (known as a roost), or deliberately to capture, kill, injure or disturb a bat

Bats are the only mammals which can fly. They are warm blooded, they suckle their babies and are intelligent, social animals. British bats feed only on insects, of which they consume vast numbers to sustain their energetic lifestyles. A pipistrelle bat can eat up to 3000 midges in a single night!

We have 12 species of bat breeding in Wales. Many of these have suffered severe declines, not just in Britain but throughout Europe.

All British bat species are protected under the Conservation of Habitats and Species Regulations 2017, known as the 'Habitats Regulations'. Bats have a unique relationship with humans, sometimes sharing our homes for part of the year. For this reason, Natural Resources Wales (NRW) deals with many hundreds of bat enquiries each year from householders.

Under the Habitats Regulations, it is an offence if you:

deliberately capture, injure or kill any wild animal of an EPS
deliberately disturb wild animals of any such species
damage or destroy a breeding site or resting place of such an animal
Disturbance includes, but is not limited to, any disturbance which is likely:

1. to impair their ability –
to survive, to breed or reproduce, or to rear or nurture their young, or
in the case of animals of a hibernating or migratory species, to hibernate or migrate; or

2. to affect significantly the local distribution or abundance of the species to which they belong.

Defra and the Welsh Government will publish a joint guidance document on the interpretation of the offences relating to disturbance, and to damage and destruction of breeding sites and resting places.

There are other offences relating to possession, transport and sale.

NRW issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

If you are a householder and have concerns about bats at your property (other than queries related to planning applications or a development), contact the NRW Enquiry Line for advice, telephone 0300 065 3000

Appendix 13.8: Legislation Relating to Birds

All wild birds, their nests and eggs are protected. It is an offence to intentionally:

kill, injure or take any wild bird,
take, damage or destroy the nest of a Golden Eagle, White-tailed Eagle or Osprey (even if disused),
take, damage or destroy the nest of any wild bird whilst it is in use or being built,
take, damage or destroy an egg or any wild bird,
possess any live or dead wild bird or the egg of any wild bird, or any derivative
Many rare birds are listed on Schedule 1, which makes it an offence to intentionally or recklessly:

disturb a Schedule 1 bird while it is building a nest or is in, on or near a nest containing eggs or young; or
disturb dependent young of such a bird

Natural Resources Wales (NRW) issues licences for specific purposes, so that you can undertake legitimate work without breaking the law. See ‘Bird licensing’ for more information.