

Ecological Impact Assessment at
Land Adjacent to Treetops,
Brynteg, Wrexham
LL11 6HT
Grid Ref. SJ 3103 5240
on 18th September 2020

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Contents

Section	Title	Page
1	Summary	3
2	Introduction	4
3	Methodology	4
3.1	Scope	4
3.2	Desk Study	5
3.3	Field Survey	5
4	Baseline Ecological Conditions/Results	5
4.1	Designated Sites	5
4.2	Habitats	5
4.3	Species and Species Groups	6
5	Description of the Development	7
6	Assessment of Effects and Mitigation Measures	7
7	Compensation	8
8	Enhancement Recommendations	8
9	Ecological Constraints	8
10	Monitoring	8
11	Conclusions	8
12	Bibliography	9
13	APPENDICES	10
13.1	Reasonable Avoidance Measures with Regard to Great Crested Newts	10
13.2	Survey Diagram	11
13.3	Map Showing Zones of Influence and Designated Sites	12
13.4	Aerial Photograph	12
13.5	Site and Location Plan	13
13.6	Photographs	14
13.7	Legislation Relating to Great Crested Newts	16
13.8	Legislation Relating to Birds	17

1. Summary

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

The proposed scheme entails the construction of a dwelling and associated access, parking and patio.

The land was 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 of the site by great crested newts (GCN), bats, badgers, dormice and birds.

Impacts during the development should be low with respect to birds provided that no bird nests are constructed or occupied while work is taking place. 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. Trees should not be felled between March and September to prevent harm to nesting birds. Impacts with respect to other protected species are also considered to be low.

Reasonable avoidance measures should be taken with respect to great crested newts and other reptiles and amphibians to avoid harm to individuals due to the presence of nearby waterbodies.

No rare or threatened species of plants or animals were found on site or near the site.

2. Introduction

Susan Worsfold BSc (Hons) ACIEEM is an experienced wildlife surveyor, licensed bat 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 S086005/1 (Natural Resources Wales);

Licensed great crested newt worker, registration number 2016-19947-CLS-CLS (NE) and S086057/1 (NRW)

This report was commissioned by Blueprint of Wrexham.

The site, at Wrexham Road, Brynteg, comprises approximately 0.05 ha of scrub.

The proposed scheme entails the construction of a single dwelling and associated access, gardens, patio and parking.

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. Zones of influence for great crested newts (GCN) were considered using the rapid risk assessment tool, which forms part of the method statement template for GCN mitigation licence (NE), as guidance to evaluate the impacts of the development in the absence of any licensed mitigation.

3.2. Desk Study

Wrexham Planning Portal was consulted for a review of previous ecological surveys carried out in the area. A data search was commissioned from Cofnod to identify any protected or BAP priority species within 1 km. Magic Maps was consulted for the presence of designated sites and protected habitats.

3.3. Field Survey

The site was examined to establish the presence of any protected species or habitats, and for evidence of use by protected species of animals. Trees and/or buildings were assessed for suitability for use by bats. The site and surrounding habitat was examined for signs of use by badgers and dormice. Maps of the site and surrounding environment were examined to identify any nearby waterbodies suitable for use by great crested newts within an influencing distance of the site. The variety of plant species was mapped according to the convention of Phase 1 habitat surveys as described by the JNCC (2010). Photographs were taken of all areas and those of relevance are shown in the appendices.

The visual assessment of the site was carried out in accordance with CIEEM guidelines (CIEEM 2017) on 18th September 2020 by Susan Worsfold BSc (Hons) ACIEEM.

4. Baseline Ecological Conditions/Results

4.1 Designated Sites

The nearest designated site is Gatewen Marsh (Site of Special Scientific Interest) 850 m south east.

4.2 Habitats

Site: The site is in the village of Brynteg on the outskirts of Wrexham. The total area of the site is approximately 0.05 ha. There are some mature trees near the site and forming part of the boundaries. No hedgerows are present on site. The site and adjacent land are suitable for use by foraging and commuting bats and reptiles and amphibians. There are many gaps in the north west boundary wall which could be used as shelter by reptiles and amphibians.

Adjacent land: The nearest woodland is 30 m east (Moss Valley Country park). There are no rivers within 500 m. There is a pond 50 m from the site which may be suitable for use by great crested newts, although it is not considered suitable as a breeding pond due to the water quality, lack of vegetation and presence of water fowl. Another nearby pond is well stocked with fish. The nearest pond apart from those is 400 m south west.

4.3 Species and Species Groups

Plants: Species found on site:

(*Acer pseudoplatanus*) Sycamore
(*Cirsium arvense*) Creeping thistle
(*Digitalis purpurea*) Foxglove
(*Epilobium hirsutum*) Great willowherb
(*Fraxinus exelsior*) Ash
(*Lonicera sp.*) Honeysuckle
(*Plantago sp.*) Plantain
(*Pteridium sp.*) Bracken
(*Ranunculus repens*) Creeping buttercup
(*Rubus fruticosus*) Bramble
(*Urtica dioica*) Common nettle

No rare or threatened species of plants were found on site or near the site.

Amphibians and Reptiles

None seen during the initial survey. The nearby ponds may attract amphibians and the site could be used by commuting and foraging amphibians and reptiles.

Birds

The shrubs and at the boundaries could provide food and shelter for birds and also nesting potential.

Bats

The site is suitable for use by foraging and commuting bats.

Badgers

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

Dormice

No evidence of use by dormice was found, nor was the site suitable 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 entails the construction of a dwelling with associated access, gardens, parking and patio. Approximately 0.05 ha of ruderal vegetation and scrub will be removed.

6. Assessment of Effects and Mitigation Measures

Designated Sites:

It is not considered that the development will have any significant impact on any designated sites due to its small size, distance from the sites and low ecological impact.

Habitats:

No priority habitat is affected by the proposal. The loss of vegetation will have a low impact on some invertebrate and small mammal species. No hedgerows are to be affected and the diversity of ground flora was average.

Species:

Amphibians and Reptiles

There is a pond 50 m from the site which may be suitable for use by great crested newts, although it is not considered suitable as a breeding pond due to the water quality, lack of vegetation and presence of water fowl. Another nearby pond is well stocked with fish which would predate any GCN eggs. Although the area of ground to be lost or disturbed is very small (0.05 ha), reasonable avoidance measures should be taken to avoid an offence being committed through harm to these animals.

Birds

Trees should not be felled nor shrubs removed between March and August to prevent harm to nesting birds. If birds should gain access to trees or shrubs or the new house, and begin building nests during the work, then the work in that area must stop until the young have left the nests.

Bats

No evidence of use by bats was found, however the site is suitable for use by foraging and commuting bats. A lighting plan should be designed in accordance with the Bat Conservation Trust guidelines: http://www.bats.org.uk/pages/bats_and_lighting.html

Residual Effects

The loss of scrub habitat will have a small effect on future foraging and commuting for some species, however the negative impact may be mitigated with compensatory planting of plant species with higher value and potential for use by wildlife.

7. Compensation

Planting of native trees and shrubs should take place in the new garden. 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 (*Crataegus monogyna*).

8. Enhancement Recommendations

Bats: 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.

Birds: One woodcrete nests suitable for small birds such as robin, blackbird, tit species and sparrow to be incorporated into the new building, and one swallow nest.

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. The nests should be placed inside an enclosed outbuilding or shed, porch or garage leaving a distance of at least 6cm between the top of the nest and the ceiling. There must be access for the birds through an open window or sky-light. A car port or refuse bin shelter, or an outbuilding with a permanently open window or half door, or simply a space over the door, would suffice. Under the eaves of the buildings would be acceptable but less suitable.

Other designs of nest boxes may also be suitable.

9. Ecological Constraints

None identified.

10. Monitoring

None considered necessary.

11. Conclusions

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>

CIEEM (2017) *Guidelines on Ecological Report Writing*. Winchester: Chartered Institute of Ecology and Environmental Management

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>

Great crested newts: surveys and mitigation for development projects available at: <https://www.gov.uk/great-crested-newts-surveys-and-mitigation-for-development-projects>

JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*, ISBN 0 86139 636 7

Langton, T., Beckett, C., Foster, J. (2001) *Great Crested Newt Conservation Handbook*. Halesworth: Froglife

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

The National Vegetation Classification available at: jncc.defra.gov.uk

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

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000) Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*) *Herpetological Journal* 10 (4), 143-155.

Rapid Risk Assessment Tool available at: <https://www.gov.uk/government/publications/great-crested-newts-apply-for-a-mitigation-licence>

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>

13.1 Reasonable Avoidance Measures with Regard to Great Crested Newts, and Other Reptiles and Amphibians

It is a criminal offence to harm a great crested newt.

Great crested newts (GCN) spend most of their time on land, returning to still water only to breed once they are mature at about 3-4 years of age.

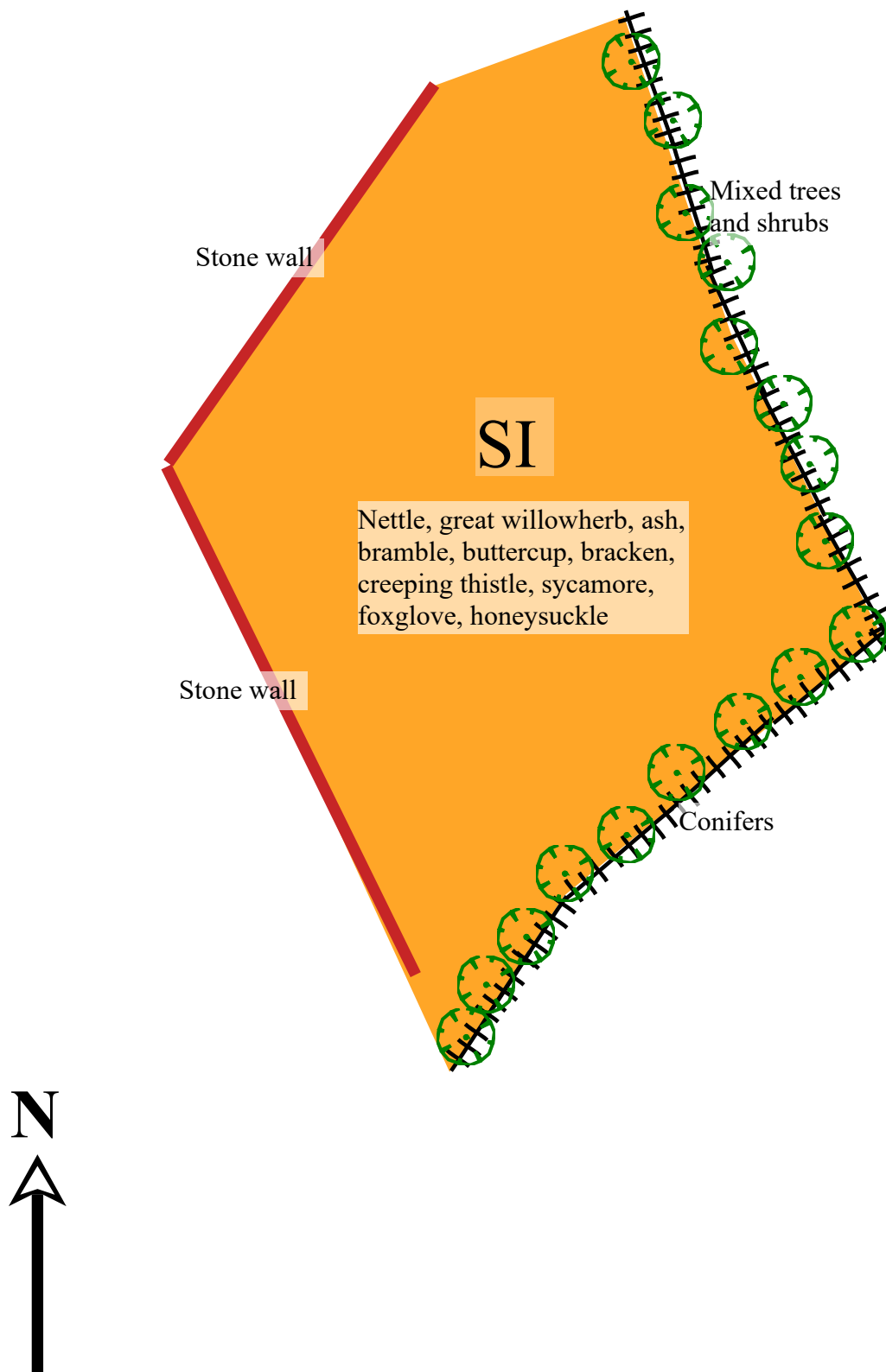
They may travel more than kilometre from their breeding pond.

They move about mostly at night, and by day creep underground or beneath shelter such as stones or logs.

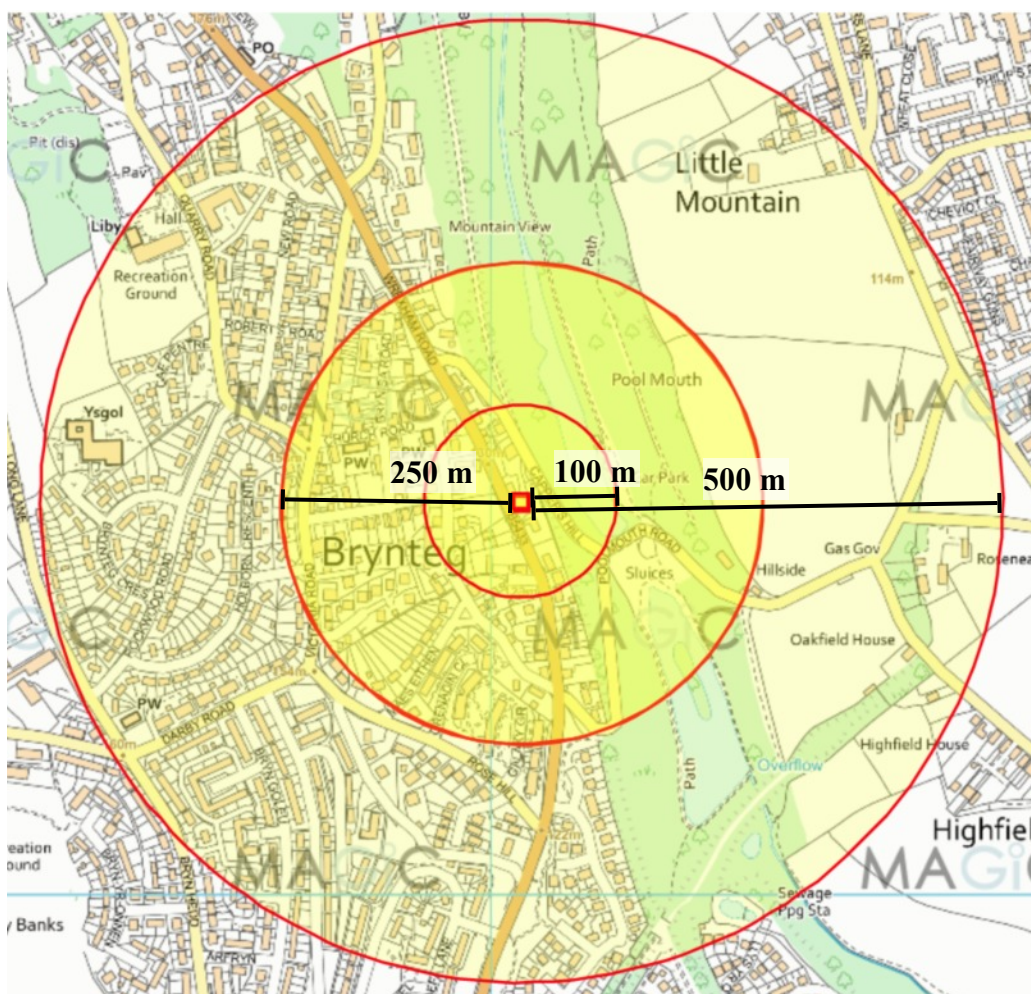
They hibernate during the winter, which is generally from the beginning of November until late March, depending on the weather. Hibernation is underground in burrows made by other small animals or beneath substantial cover such as large stones or piles of logs.

1. The log pile, vegetation and any rubble which may appear on site are potential refuges for GCN. Any vegetation should be kept below 10 cm in order to make it less attractive to GCN and other small animals. Vegetation removal will begin in the centre of the site and continue to the outer edges so that any animals present are able to move away. Removal of the log pile should be done with care and by hand.
2. Any trenches should have a ramp of earth at each end to enable any animals to escape. All trenches must be inspected carefully before infilling, and any animals carefully removed and removed from the area to a place of safety.
3. Building materials should be stored clear of the ground (say, on pallets) so as to avoid crushing any animals which might seek refuge under them, when the materials are lifted.
4. Any open pipework will be capped overnight. All open trenches and pipework should be inspected at the start of each working day to ensure no animal is trapped.
5. Any excavated material which is not replaced on the same day should either be removed from the site or stored on a hard surface and covered with an impermeable membrane, such as a plastic sheet or tarpaulin, and the edges of the sheet secured so that no amphibians can gain access.
6. If any great crested newt is discovered in the area of the work, then work in that area must stop and a licensed great crest newt worker contacted immediately for advice.

Appendix 13.2: Survey Diagram



Appendix 13.3: Map Showing Zones of Influence and Designated Sites

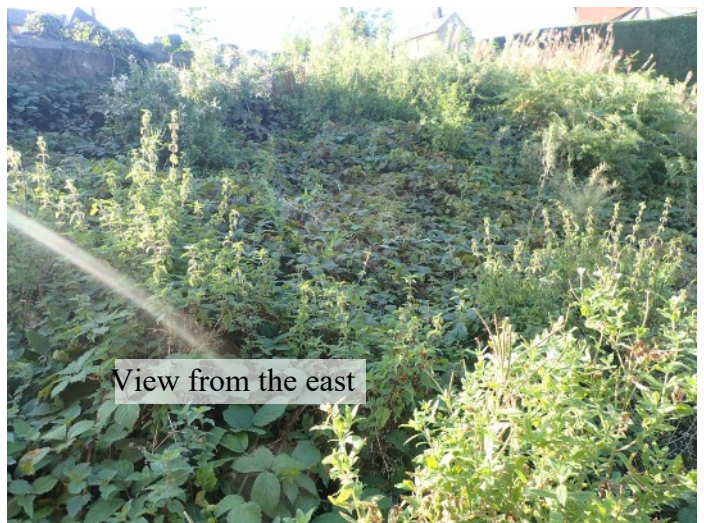


Appendix 13.4: Aerial Photograph





Appendix 13.6: Photographs of the Site



Appendix 13.6: Photographs of the Adjacent Land



Appendix 13.7: Legislation Regarding Great Crested Newts

Wales is home to six amphibian species. They need fresh water in which to lay their eggs or spawn and enough suitable habitat nearby to spend the rest of their year. They have declined in recent decades as ponds have disappeared or become polluted or acidified. Pond restoration and creation (even in gardens) is a great help to amphibian conservation.

All amphibian species spend a large part of their year foraging on dry land, and they need sheltered places to hibernate. Hedgerows and other areas of semi-natural habitat are vital for their survival.

UK legislation:

The most common species are protected from sale under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). They are:

Common frog, *Rana temporaria*

Common toad, *Bufo bufo*

Palmate newt, *Triturus helveticus*

Smooth / common newt, *Triturus vulgaris*

The legislation protects them from being sold or offered for sale to protect them from exploitation in the pet trade or laboratory use.

European legislation:

Our rarest amphibians are protected under the Conservation of Habitats and Species Regulations 2017 (known as ‘the Habitats Regulations’). The Habitats Regulations lists the following amphibian European Protected Species (EPS):

great crested (or warty) newt, *Triturus cristatus*

natterjack toad, *Bufo calamita*

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,

deliberately take or destroy the eggs of such an animal, or

damage or destroy a breeding site or resting place of such an animal

Disturbance is defined as that which is likely to impair the ability to survive, breed, reproduce, or nurture young, or to hibernate or migrate.

There are other offences relating to possession, transport and sale. See ‘Possession and Sale of Protected Species’ for more information.

The great crested newt and natterjack toad also receive protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) from the following:

disturbing whilst occupying a place of shelter or protection,

obstructing access to a place of shelter or protection,

sale / offering for sale

Licensing for activities involving European Protected Species:

In certain circumstances Natural Resources Wales may issue licences for activities involving European protected species, that would otherwise be offences.

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.