

Oddi Ar Y Twmpath, Glyn Ceiriog Protected Species Survey

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Dunelm Ecology
consultant ecologists

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1 Introduction

1.1 Background

- 1.1.1 Dunelm Ecology Ltd was commissioned to undertake a protected species survey at Oddi Ar Y Twmpath, Glyn Ceiriog. The survey was carried out in support of a planning application to convert a redundant farm building into holiday let accommodation. The habitats surrounding the site have all recently been cleared and now comprise bare ground, while a new gravel access track has been created. Aerial photography suggests the farm building was previously surrounded by grassland and tall ruderal vegetation with semi-mature trees around the edges of the site. A hedgerow is located immediately to the south of the building adjacent the existing access road and this will be retained as part of the development proposals.

1.2 Aims and Objectives

- 1.2.1 Taking into consideration the proposals and the site's current location and current composition, the survey principally focused on bats and breeding birds although evidence of other protected species such as badger was also noted¹. This report provides a brief overview of the legal protection afforded to bats and birds in the UK. It includes a detailed description of the survey methods used and the results of the study. The implications of the survey findings are discussed; with an assessment of potential impacts provided and recommendations given as to what further measures are considered necessary.

1.3 Legislative and Planning Context

Bats

- 1.3.1 All British bat species are protected under the Wildlife and Countryside Act (WCA) 1981, which has been amended by later legislation, including the Countryside and Rights of Way (CROW) Act 2000 and the Conservation of Habitats and Species Regulations 2017. Bats are listed on Schedule 5 of the WCA and are, therefore, subject to some of the provisions of Section 9 which, with the amendments, make it an offence to:
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection (S9:4b).
 - Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a bat (S9:4c).
- 1.3.2 Bat species are also listed under Annexes IIa and IVa of the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, also known as the 'Habitats Directive'. Inclusion on Annex IVa means they are consequently identified as European Protected Species (EPS) and protected under the

¹ Great crested newt was scoped out of the assessment due to an absence of ponds within 250 m of the site while a phase 1 habitat survey was deemed unnecessary given that all existing habitats have been cleared and the site currently comprises bare ground.

Conservation of Habitats and Species Regulations 2017. These regulations make it an offence to:

- (a) deliberately capture, injure or kill any wild animal of a European protected species,
- (b) deliberately disturb wild animals of any such species, in such a way as –
 - (i) to impair their ability to survive, to breed or reproduce, or to rear their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate, or
 - (iii) to affect significantly the local distribution or abundance of the species to which they belong;
- (c) damage or destroy a breeding site or resting place of such an animal.

1.3.3 Under these Regulations it is an offence to damage or destroy a breeding site or resting place whether a bat is in occupation or not.

Breeding Birds and Barn Owl

1.3.4 All wild species of breeding birds and their nests are protected under Part 1 of the Wildlife and Countryside Act (WCA) 1981, as amended by later legislation including the Countryside and Rights of Way (CROW) Act 2000. Part 1 (Section 1:1) of the WCA states that it is an offence to intentionally:

- (a) kill, injure or take any wild bird;
- (b) take, damage or destroy a nest of any wild bird while that nest is in use or being built; or
- (c) take or destroy an egg of any wild bird,

1.3.5 Part 1 (Section 1:5) of the WCA (amended by the CROW Act 2000) refers to specific birds listed on Schedule 1 of the WCA including barn owl, and makes it an offence to intentionally or recklessly:

- (a) disturb any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
- (b) disturb dependent young of such a bird.

1.3.6 The Environment (Wales) Act (2016) places an obligation on public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. Section 7 of the Act includes lists of species and types of habitats in Wales that are regarded as being of 'principal importance' for the purpose of maintaining and enhancing biodiversity. This includes several species of bat and bird.

1.3.7 The effects of developments on protected species are considered in the National Planning Policy Framework (NPPF). Section 11 of the NPPF states that the planning system should contribute to and enhance the natural and local

environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. The NPPF also includes the requirement to contribute to the Government's commitment to halt the overall decline in biodiversity and to promote the reservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets.

- 1.3.8 Finally, the Welsh Assembly Government's Technical Advice Note 5: *Nature Conservation and Planning* states that protected species such as bats and breeding birds are a material consideration in the planning process.

2 Methods and Approach

2.1 Field Survey

Bats

- 2.1.1 A detailed inspection survey of the building was carried out during daylight hours on 20 March 2020 following the methodology outlined in the *Bat Mitigation Guidelines* (Mitchell-Jones 2004) and *Bat Surveys Good Practice Guidelines* (Collins 2016). The survey involved systematically searching the exterior and interior of the building for bats and their field signs with the aid of ladders, endoscope (Snakevision), close-focusing binoculars (Opticron Countryman BGA 8x42) and a powerful torch (Clulite 1M candle-power). Such signs may include insect remains, droppings, grease marks, urine stains and smoothing or lack of cobwebs. In addition, the building was assigned to a roost potential category, based on its suitability for supporting roosting bats (see Table 1). These criteria have been devised using information obtained from the *Bat Mitigation Guidelines* (Mitchell-Jones 2004) and *Bat Surveys Good Practice Guidelines* (Collins 2016).

Table 1 Roost Assessment Criteria

Roost Potential Category	Description of Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Birds

- 2.1.2 Birds were surveyed for in conjunction with the bat survey. This involved searching the interior of the building for signs of occupation including droppings or splashing, pellets (regurgitated prey remains), feathers and nests (Shawyer 2011).

2.2 Personnel

- 2.2.1 The survey was undertaken by Jon Guarnaccio MCIEEM. Jon has 17 years experience as an ecological consultant and holds bat and barn owl survey licences.

2.3 Survey Constraints

- 2.3.1 The survey was carried out at an appropriate time of year while access was possible to all parts of the building. The previous contents of the building have however been cleared so it is possible evidence of bats e.g. droppings may also have been inadvertently removed.
- 2.3.2 It should be noted that species such as birds and bats can be unpredictable and may not conform to standard patterns recorded in scientific literature. Therefore, this report cannot predict with absolute certainty that they will occur in apparently suitable locations or habitats, or that they will not occur in locations or habitats that appear unsuitable.

3 Results

3.1 Field Survey

Bats

- 3.1.1 Table 2 below provides the results of the bat daytime inspection survey. In summary, no evidence of bats was recorded but the building was assessed as having moderate potential to support roosting bats owing to the presence of crevices between stonework and gaps within roof timbers. Additionally, the site is situated amidst a rural landscape characterised by pasture fields, broadleaved woodland, hedgerows and small watercourses. Such habitats are of high value to bats meaning roost sites are likely to be common in the surrounding area. In particular, the hedge lined road that runs along the southern boundary of the site provides excellent connectivity to the wider landscape, especially for horseshoe bats which rely heavily on such habitat features.

Table 2 Daytime Inspection Survey Results

Description	Roosting Opportunities & Signs of Bat Use	Roost Potential
Two storey barn (upper floor has been removed) dating from 18 th /19 th century. The barn is built on an L shaped plan and constructed from stone walls set under a corrugated metal roof (both pitched and hipped gables are present). The roof (some sections of which are missing) is supported by the original hand sawn timbers which support mortise and tenon joints. There are several doorways and openings present on the north elevation of the building which coupled with missing sections of roof results in well-lit and cool/draughty internal conditions. Vents are also present at the eastern gable end and southern elevation of the building.	No evidence of bats was recorded during the survey. Bats can readily access the interior of the building through various openings in the walls and roof while the walls support numerous crevices suitable for roosting, particularly the internal walls and southern external elevation. Mortise and tenon joints also provide potential roosting opportunities. However, due to the dilapidated nature of the building and its exposure to the elements and high light levels, it is considered unlikely that a maternity colony would utilise the building.	Moderate

Birds

- 3.1.2 Old swallow nests were found within the building while crevice dwelling species such as blue tit and wren may utilise crevices between stonework.

Other Species

- 3.1.3 No evidence of other protected species was recorded during the survey although previous terrestrial habitats such as grassland and tall ruderal represented suitable habitat for reptiles such as slow worm and common lizard. Badgers are also likely to be present in the surrounding area and are likely to investigate the site although it is currently of no value to badgers.

4 Discussion

4.1 Assessment and Recommendations

Bats

- 4.1.1 There is no conclusive evidence that the barn is used by roosting bats, but it is assessed as having moderate roost potential owing to the presence of numerous potential roosting features and the close proximity of optimal foraging habitat. The possibility of a day and/or night roost (low conservation value) used by solitary or low numbers of bats should therefore not be discounted. However, it is considered unlikely that the barn is used by a maternity colony (high conservation value) or by significant numbers of hibernating bats as the building is exposed to the elements and subject to high internal light levels. Further survey effort in the form of dusk emergence and/or return to roost surveys would, however, be required to confirm these conclusions and to give confidence in the initial negative survey result. Such surveys can only be undertaken between May and August during suitable weather conditions i.e. warm ($>8^{\circ}\text{C}$), calm and dry; with at least two weeks between each survey.

Birds

- 4.1.2 To reduce the risk of harming birds that may nest within wall crevices, it is recommended that works take place outside the breeding bird season which lasts from March to August inclusive. If this is not feasible then a pre-works survey will need to be undertaken no more than 48 hours in advance of works commencing to ensure no active nests are present. If nesting is confirmed, works would need to be postponed until chicks had fledged the nest or a 5 m no works zone imposed around the nest site. Further bat surveys will help to establish if swallows are currently using the barn for breeding.

Other Species

- 4.1.3 Any steep sided excavations left uncovered should have wooden planks inserted to allow any trapped animals such as badgers and reptiles to escape.

Biodiversity Enhancement

- 4.1.4 Notwithstanding the requirement for further bat surveys, ecological enhancements should be incorporated within the scheme. This could include the provision of integral bat and bird roosting facilities within the converted building while landscape planting should principally comprise native species of local origin to compensate for the loss of former vegetation within the site. This should comprise species such as oak, hazel, holly, blackthorn, hawthorn, honeysuckle, guelder rose and field maple. New areas of grassland could be created through the sowing of a wildflower seed mix suited to the soil conditions. External lighting should be kept to an absolute minimum with special care taken to ensure that the hedge-lined road to the south of the site remains completely unlit.

5 References

Collins J (2016). *Bat Surveys Good Practice Guidelines*. Third Edition. BCT, London.

Mitchell-Jones AJ (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Shawyer CR (2011). *Barn Owl Tyto alba Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting*. IEEM, Winchester.



Plate 1 Looking east through pitched roof section of barn



Plate 2 Looking south through hipped roof section of barn



Plate 3 Internal wall crevices are numerous



Plate 4 Roof timbers support mortise and tenon joints



Plate 5 All semi-natural habitats within site have been cleared



Plate 6 Hedge-lined track to south of site