

Appendix 8C

Bat Survey Report (CSA 2024c)

Bat Survey Report

November 2024

Upper Ogmore Wind Farm

Prepared by
CSA Environmental

On behalf of
Fisher German

Report No: CSA/6891/03

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1.0 INTRODUCTION

- 1.1 This report has been prepared by CSA Environmental on behalf of Fisher German. It sets out the findings of bat survey work undertaken for Upper Ogmore Wind Farm (hereafter referred to as 'the Site'). Overhead and underground power lines for a new 66kv electricity line are proposed at the Site for which outline planning permission for a Development of National Significance will be sought.
- 1.2 Four areas were identified where trees may potentially be impacted by proposals and so further Ground Level Tree Assessments (GLTA) were recommended. The purpose of these surveys was to assess the potential of any trees that may be impacted by the proposals for their suitability to support roosting bats and inform the route of the proposed overhead power lines to minimise impacts.
- 1.3 The content of this report has been determined with due consideration for best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017; 2018).

2.0 LEGISLATION, PLANNING POLICY & STANDING ADVICE

2.1 All British bat species are legally protected under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended). These Regulations make it an offence to:

- Deliberately capture, injure, or kill a bat
- Deliberately disturb bats, impairing their ability to survive, breed, reproduce or rear/nurture their young, or which significantly affects the local distribution or abundance of the species
- Damage or destroy a breeding site or resting place used by bats

2.2 All bats and their roosts in the UK were previously fully protected under the Wildlife & Countryside Act 1981 (as amended). Amendments to the Act have removed most provisions as they relate to bats, however it remains an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection

2.3 It is important to note that bat roosts are protected throughout the year, regardless of whether or not bats are present at the time. Under the Regulations, the offence of damaging or destroying a breeding site or resting place is subject to 'strict liability', i.e. an offence is committed irrespective of whether the causal act was deliberate or otherwise.

2.4 Where development is proposed that would result in an offence under the Regulations, a European Protected Species (EPS) statutory derogation licence (often termed 'EPS Mitigation Licence') will need to be secured from Natural Resources Wales to permit an act that would otherwise be unlawful. Such a licence can only be granted following receipt of planning permission with all relevant conditions discharged, and where it has been demonstrated that specific statutory derogation tests have been met.

3.0 METHODS

3.1 The following survey methods, design, data analysis and interpretation have been undertaken with due consideration of the Bat Conservation Trust (BCT) guidelines 4th edition (Collins, 2023).

Ground Level Tree Assessment (GLTA) - Trees

3.2 A GLTA is a detailed inspection of the exterior of a tree from the ground to look for features that bats could use for roosting, Potential Roost Features (PRFs).

3.3 All trees with potential to be affected by development were inspected from ground level, using binoculars, high-powered torches, ladder and endoscope as appropriate. The survey was completed on 24 September 2024 by Cerian Smith MCIEEM (Natural England class licence number 2017-28665-CLS-CLS) and Tom Richards MCIEEM (Natural England class licence number 2017-31786-CLS-CLS).

3.4 A description of each tree was made, including the species, height, and condition.

3.5 The aim of this inspection was to look for PRFs from ground level and give a preliminary description of each (such as type of PRF, height, size and location on tree). Surveyors also recorded direct (i.e. actual roosting bats) or indirect evidence of roosting bats (e.g. droppings), as well as the nature and number of features with 'potential' to support roosting bats. This includes consideration of trees to support bats whilst in hibernation.

3.6 Following the GLTA, each tree was assigned one of the following categories:

- **PRF** – A tree with at least one PRF.
- **FAR** – Further assessment required to establish if PRFs are present in the tree.
- **None** – Either no PRFs in the tree or highly unlikely to be any.

Assessing 'Potential' of Trees to Support Roosting Bats

3.7 Each PRF was assigned to one of the following categories:

- **PRF-I** – Tree with a Potential Roost Feature (PRF) that is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surroundings.
- **PRF-M** – PRF is suitable for multiple bats and may therefore be used by a maternity colony.

3.8 The categories above are intended to provide initial guidance on whether further inspections are necessary to prove presence or likely

absence of roosting bats, rather than to assign importance to such features.

- 3.9 The potential of a tree to support roosting bats is often influenced by its age, thermal stability, lighting and levels of human activity. Furthermore, the proximity to foraging habitat - particularly woodland, parkland and wetland - as well as the presence of navigational routes (e.g. hedgerows, treelines and watercourses) influence both the potential for bats to roost, as well as the species which may roost. Professional judgement is therefore applied, based upon known factors which effect the potential of features to support roosting bats, insofar as determining the need or scope of further surveys or inspections.

Limitations

- 3.10 Although the survey was not conducted at a time of year when the leaves are fully off the trees, it was undertaken in good weather conditions with clear visibility. Due to the nature of the majority of the trees and woodland assessed it is not deemed to be a limitation.
- 3.11 The ground at survey area 4 was steep in gradient and assisted with seeing some features higher in the canopy. However, some of the trees in the line T13-T18 were just beyond a boundary fence and could not be fully accessed to assess potential on all aspects of the tree. Despite this, features were identified on northern, eastern and southern aspects to categorise the majority of these as PRF-I or PRF-M but a full assessment should be conducted of western aspects during any further aerial inspections if impacted by proposals.

4.0 RESULTS

- 4.1 A total of four survey areas were identified on the Upper Ogmores Wind Farm proposals where trees may potentially be impacted by the route of the overhead powerlines and may result in loss or facilitation pruning. Each area was visited and any trees that support any bat roosting potential were identified and considered.
- 4.2 Full results of the survey and a map showing the location of trees with bat roosting potential is given at the end of this report/below.
- 4.3 The four areas are shown in Figures 1 and 2 below.

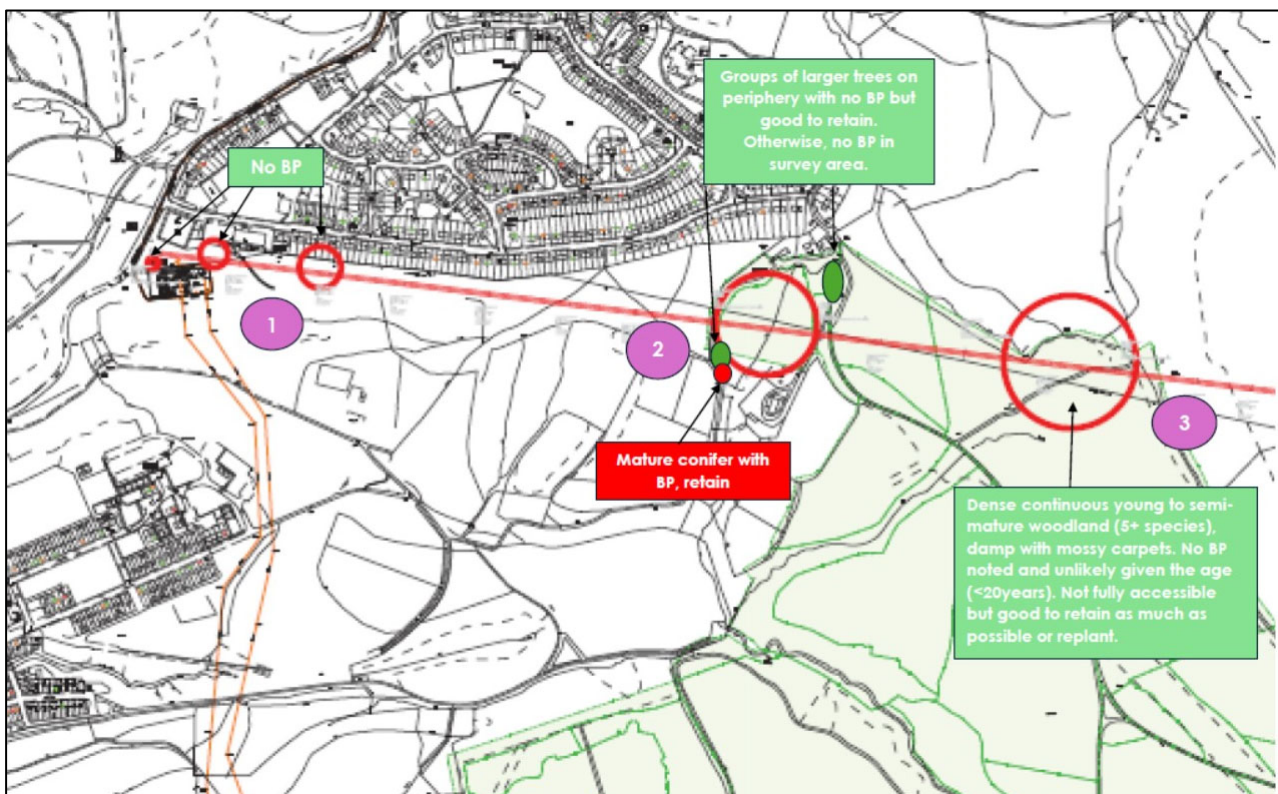


Figure 1. Ground Level Tree Assessment (GLTA) survey areas across locations 1, 2 and 3 where trees will potentially be impacted by the proposed powerline route. BP = bat potential.

- 4.4 Area 1 comprises three small groups of young trees and shrub, with several semi-mature trees scattered around the metal railings of the electricity substation. There is no bat potential (BP) associated with any of the vegetation here, all of which is too young to support suitable roosting features.
- 4.5 Area 2 appears to be a planted woodland area that comprises mostly trees that are less than 20 years old and so not of an age to generally support bat roosting features, except for two more mature groups of trees at the north-east (mostly sycamore; green markers on Fig.1) and south-west (mostly conifer) edges, including one conifer with bat potential (as shown by the red marker in Figure 1). The conifer was a

double stem mature tree, with one stem collapsed at c.5m height, with splits and crevice, and a hollow or woodpecker hole at c.3m height on the southern stem. This is identified as having a Potential Roosting Feature (PRF).

- 4.6 Area 3 is an area of dense young to semi-mature replanted woodland comprising abundant spruce with oak, willow, birch and occasional rowan. The track through the woodland has completely overgrown and was inaccessible, but again is less than 20 years old and a walk around the southern edge did not suggest any trees significant enough to support roosting features and no bat potential was identified.
- 4.7 Area 4 is the most constrained area for trees, comprising a number of very mature (potentially veteran/ancient) oak and ash trees. A total of twenty trees were assessed along the boundaries, 17 of which supported potential roosting features, of which at least 10 had potential to support large numbers of bats (PRF-M), four had potential to support individual bats (PRF-I) and one tree would need further assessment for its suitability, and was therefore categorised as FAR.



Figure 2. GLTA survey area at location 4 where trees will potentially be impacted by the proposed powerline route.

5.0 DISCUSSION AND RECOMMENDATIONS

- 5.1 Four areas were identified along the proposed route for the new power line with trees that might potentially be impacted during works. The first area, Area 1, comprises young trees and shrubs with no bat potential and therefore no mitigation measures in regard to bats are proposed.
- 5.2 Area 2 mostly comprises trees that are too young to support bat features, with the exception of one conifer with bat potential (south-west edge) and more mature group of mostly sycamore trees at the north-eastern edge. Both of these can be easily avoided and therefore will not pose as a constraint to the works.
- 5.3 Area 3 is dense young to semi-mature woodland and no trees thought significant enough to support roosting features have been identified. Although no constraints in regard to bats are within Area 3, it should be retained as far as possible, or re-planted if impacted during works. The surrounding heath/grassland area was noted to hold reptile potential and should be subject to sensitive working methods.
- 5.4 Area 4 is the area that is most constrained for trees, comprising a number of very mature oak and ash trees, some of which are potentially veteran and/or ancient. Seventeen out of the twenty trees assessed have potential roosting features for bats, with at least ten trees having features with the potential to support larger numbers of bats (PRF-M). It is recommended that the overhead powerline be routed through the existing gaps between tree canopies to avoid any direct impacts to canopies or individual trees. It is also recommended that a detailed tree assessment by a suitably qualified arboriculturist is sought to determine their ancient or veteran status, both of which are Irreplaceable Habitats. Consideration of avoidance of impacts from machinery on root systems as a result of the installation of powerlines will also be necessary.
- 5.5 Where impacts cannot be reasonably avoided, further detailed aerial inspection (tree climbing) surveys or emergence surveys will be required for any trees within Area 4 that will be directly impacted and have been identified as PRF-M, PRF-I or FAR. The first inspection would enable a more accurate assessment of the roosting resource by inspecting PRFs and re-categorising both the trees and PRFs if appropriate. A further two climbing inspections or three emergence surveys within the core active period of May to August may be required to confirm presence or likely absence of roosting bats and establish the species present or search for patterns that suggest roosts are present.
- 5.6 All four areas contain habitat to support nesting birds. As such, any clearance works will need to be subject to seasonal timing constraints and/or precautionary working methods to avoid the nesting bird season (1st March to 1st September inclusive).

6.0 REFERENCES

Chartered Institute of Ecology and Environmental Management, 2017. *Guidelines for Ecological Report Writing*. Winchester: CIEEM.

Chartered Institute of Ecology and Environmental Management, 2018. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1*. Winchester: CIEEM.

Collins, J., ed., 2023. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 4th ed. London: The Bat Conservation Trust.

Reason, P.F. and Wray, S. 2023. *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. Ampfield: Chartered Institute of Ecology and Environmental Management.

Appendix A

Ground Level Tree Assessment Results Table

Ground Level Tree Assessments (GLTA)

Project Reference	6891
Project Name	Upper Ogmire Wind Farm
Surveyor	Cerian Smith and Tom Richards
Date	24/09/2024
Limitations	Steep gradients allowed some better visibility in higher canopies but restricted access on others

Tree Reference	Species	Location	Tree Height (m)	Tree Alive or Dead	Single or Multi-stem	Initial Suitability Category	PRF Reference	PRF Type	PRF Height (m)	PRF Location	Aspect of PRF Entrance	PRF Suitability	Description of Suitability
T1	Oak	SS 85118 93956	15	Alive	Single	PRF-M	A	Hollow	5	Horizontal feature at limb base	SE	PRF-M	
							B	Woodpecker Holes x 3	7	Main stem	S	PRF-M	
							C	Hollow	4	Western limb	S	PRF-M	
							D	Tear out	6	Western limb	N	PRF-M	
							E	Small hollow	6	Western limb	W	PRF-M	
T2	Oaks	SS 85100 93942	20	Alive	Single	PRF-M	A	Hollow	4	South limb	W	PRF-M	
							B	Tear out	4	South limb	W	FAR	
							C	Dead branch rot hollow	4	Main stem	NW	FAR	
							D	Hollow	4	SE limb	E	PRF-M	
T3	Oak	SS 85127 93934	25	Alive	Single	PRF-M	A	Split/ small tear-out	10	South limb	S	FAR	
							B	Split/ tear out c. 20 x 50cm	9	Main stem	W	FAR	
							C	Split	14	Main leader	Up facing	PRF-M	Old tear-out.
							D	Woodpecker holes x 2	13	Main leader	N	PRF-M	
							E	Hollow	10	Main stem	North aspect	PRF-M	
T4	Oak	SS 85140 93921	25	Alive	Single	PRF-I	A	Minor splits/ crevices	4	North-east leader	N	PRF-I	
							B	Large splits 1m long	4	South-east leader	SE	PRF-I	
T5	Oak	SS 85146 93906	25	Alive	Single	PRF-I	A	Splits in hanging stem	15	East leading stem	SE	PRF-I	All quite minor.
							B	Splits in hanging stem	10	North-east leader		PRF-I	All quite minor.
T6	Ash	SS 85127 93909	25	Alive	Single	PRF-M	A	Large hollow	9	Main stem	N	PRF-M	
T7	Ash	SS 85136 93892	12	Alive	Single	None	-	-	-	-	-	-	No features, no further survey required.
T8	Ash	SS 85129 93898	20	Alive	Single	PRF-M	A	Series of at least 3 woodpecker holes	8	Top of main stem	W	PRF-M	
							B	Large hollow	8	Top of main stem	Down-facing above woodpecker holes	FAR	
							C	Woodpecker hole	7	On second stem	N	PRF-M	
T9	Oak	SS 85138 93870	45	Alive	Single	PRF-M	A	Large hollow where old limb lost	5-10m	Main stem	S	PRF-M	
							B	Large opening c. 20cm wide	10	Main stem	NW	PRF-M	
							C	Woodpecker hole	12	North-east limb	W	PRF-M	
							D	Hollow		North-east limb	Above woodpecker hole	PRF-M	
T10	Oak	SS 85148 93862	45	Alive	Single	PRF-M	A	Large split.	10	South limb	Top side	PRF-M	
							B	Tear out	10	South-west second leading stem	SW	PRF-M	
							C	Split limb	3-4m	East facing	E	PRF-M	
T11	Birch sp.	SS 85046 93937	18	Alive	Multi-stem	PRF-I	A	Hollow	0 to 4m	Main stem, section before split	W		1-2 entrances
T12	Oak	SS 85035 93932	15	Alive	Single	FAR	A	Ramshorn feature	10	Under side of SE limb	Underneath	FAR	
T13	Oak	SS 85027 93922	20	Alive	Single	PRF-I	-	-	-	-	-	-	No features but PRF-I as mature and a full inspection of the rear was not possible.
T14	Oak	SS 85026 93912	20	Alive	Single	PRF-M	A	Rot hollow	10	East limb of main stem	W	PRF-M	
							B	Large split hollow on north-east limb with c. 40cm opening	9	North-east limb	SE	PRF-M	
T15	Oak	SS 85026 93902	20	Alive	Single	PRF-M	A	Split/ hole	4	Top of main stem, leading north	W	PRF-M	
T16	Oak	SS 85026 93887	20	Alive	Single	PRF-M	A	Rot hollow	5	North-west limb	N	PRF-M	
							B	Fused stems - crevices	10	Central stem	E	FAR	
T17	Oak	SS 85026 93862	15	Alive	Single	None	-	-	-	-	-	-	No features, no further survey required.
T18	Ash	SS 85024 93852	18	-	-	PRF-M	A	Hollow in main stem and rams horns	0-3m	Main stem	W	PRF-M	
							B	Split in limb heading north-east	4		W	PRF-M	
T19	Oak	SS 85057 93837	20	Alive	Single	None	-	-	-	-	-	-	No features, no further survey required.
T20	Oak	SS 85070 93841	12	Alive	Single	PRF-M	A	Longitudinal west facing split on west facing limb				FAR	
							B	Main stem	5-7m	Large aperture on main stem		PRF-M	

Appendix B

Photographs



Photograph 1. View across woodland at survey area 2 – scrubby trees with large conifers on south-west periphery.



Photograph 2. Mature conifer with bat potential, hollow/woodpecker hole below collapsed limb.



Photograph 3. View of western section of area 3 – scrubby replanted woodland, willow and oak.



Photograph 4. View of eastern section of area 3 – replanted woodland, higher component of spruce.



Photograph 5. Oak tree T1 in Area 4 with five PRF-M features on the south, north and west aspects



Photograph 6. Oak tree T3 in Area 4 with four PRF-M features on north, west and south aspects



Photograph 7. Oak tree T4 with two PRF-I features on northern and south-east aspects.



Photograph 8. Oak tree T5 and ash trees T6 and T8, with multiple PRF-I and PRF-M features.



Photograph 9. Birch tree T11 with hollow in main stem before it splits at c.1m high.



Photograph 10. Oak tree T9 with five PRF measures.



Photograph 11. PRF B on north-west aspect of oak tree T9, categorised PRF-M.



Photograph 12. PRFs C and D on western aspect of oak tree T9.

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