
Glyn Taff Solar Farm

on behalf of Renantis UK.

Appendix 9C: Breeding Bird Survey Report



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1 INTRODUCTION

1.1 Project Background

- 1.1.1 Avian Ecology Ltd. was commissioned by Renantis UK. to undertake breeding bird surveys in 2021 and 2024 in relation to the proposed installation of a solar farm with associated infrastructure at Bryntail Farm, Pontypridd, Rhondda Cynon Taf, Wales (the Site).
- 1.1.2 The objectives of this report are to:
- Provide baseline information on the current ornithological features within the Site, and on adjacent land;
 - Identify the presence of notable breeding bird species within the Site, and on adjacent land;
 - Assess the importance of the breeding bird assemblages which the Site (and adjacent land) supports; and,
 - Provide recommendations for further pre-construction checks and / or mitigation measures related to wintering and breeding birds, if required.
- 1.1.3 Only common bird species names are referred to within the main text of this report. **Annex 9C.1** provides a summary of all bird species recorded during the surveys. Both common names and scientific species names together with a summary of their conservation status as relevant is also provided in **Annex 9C.1**.

1.2 Site Overview

- 1.2.1 The Site, as illustrated on **Figure 9C.1** and **9C.2**, comprises an area of predominantly sheep-grazed pasture measuring approximately 70.9ha, located approximately 1.5km to the east of Pontypridd, Rhondda Cynon Taf. The Site is located at the approximate central grid reference ST 0950 8974.
- 1.2.2 No international sites designated for their breeding bird assemblage are located within 10km of the Site and no Sites of Special Scientific Interest (SSSIs) designated for their breeding bird interest are located within 5km of the Site.

2 METHODOLOGY

2.1 Breeding Bird Survey

- 2.1.1 Three breeding bird surveys were undertaken between May and July 2021. Surveys intended on being completed by 11:00am, however due to the large size of the Site, the first survey in May ceased at 15:00. Subsequently the remaining surveys were and completed over consecutive days ensuring a finish time of 11:00am. All surveys were carried out in conditions conducive for breeding bird surveys (avoiding heavy rain and strong winds). The survey area for the breeding bird survey was the Site, and adjoining habitats to the Site (for example hedgerows and watercourses along Site boundaries) were included. The survey area was also extended to a 100m buffer for inclusion of breeding Schedule 1 species, where recorded.
- 2.1.2 Four breeding bird surveys were undertaken between May and July 2024. Three of the four surveys were carried out in the morning, starting within one hour of sunrise and ceasing my 15:00. The fourth survey was carried out in the late-PM starting at 13:00 and ceasing by 21:00. All surveys were carried out in conditions conducive for breeding bird surveys (avoiding heavy rain and strong winds). The survey area for the breeding bird survey was the Site, and adjoining habitats to the Site (for example

hedgerows and watercourses along Site boundaries) were included. The survey area was also extended to a 100m buffer for inclusion of breeding Schedule 1 species, where recorded.

- 2.1.3 Breeding bird surveys were undertaken by Nick Saunders *BSc (Hons.)*, an experienced ornithologist.
- 2.1.4 The methodology employed was based upon a scaled-down version of the British Trust for Ornithology (BTO) Common Bird Census (CBC) technique, as detailed in Gilbert *et al.* (1998). All bird registrations were recorded on suitably scaled field maps using standard BTO species codes and behaviour notations (such as singing, carrying food, active nest). The approximate locations of bird territories within the Site were determined using standard territory mapping techniques to identify and isolate areas within which birds consistently displayed breeding behaviours (following Gilbert *et al.* 1998). The territory mapping method is based on the observation that many species during the breeding season are territorial. This is most obviously observed in passerines where territories are often determined by conspicuous song, display and territorial disputes with neighbouring conspecifics. The expected outcome of this technique is that mapped registrations fall into clusters, approximately coinciding with territories. Records of birds just visiting the Site (e.g. gulls feeding in fields) and birds flying over the Site were also made and the records of these summarised, however these have been discounted from further analysis, given they are not breeding within the Site and are therefore not considered relevant to the assessment.
- 2.1.5 For the purposes of the assessment, although the estimated number of breeding territories for all species is provided only the breeding territories of Notable Species are mapped, given these are the most relevant species to the assessment. Notable Species consist of Birds of Conservation Concern (BoCC Amber and Red List Species (Stanbury *et al.* 2021¹)), Environment (Wales) Section 7² Species, Rhondda Cynon Taf Biodiversity Action Plan (LBAP) species³ and Annex 1⁴ raptors and owls and Schedule 1 species⁵.
- 2.1.6 Details of the surveys are presented in **Table 2.1**. Full details of survey effort are presented in **Annex 9C.1**.

Table 2.1: Breeding bird survey effort.

Survey	Date	Start time (24hrs)	End time (24hrs)	Sunrise/Sunset times (24hrs)	Survey conditions
May 2021	25/05/2021	07:00	15:00	05:08	Moderate westerly breeze (3 on the Beaufort scale). Dry, broken cloud and good visibility.
June 2021	16/06/2021	06:30	11:00	04:55	Light south westerly (1 on the Beaufort scale) Dry, clear and good visibility.
	17/06/2021	06:00	11:00	04:55	Light north westerly (2 on the Beaufort scale) Dry, broken cloud and good visibility.
July 2021	07/07/2021	06:00	11:00	05:05	Light south westerly (1 on the Beaufort scale) Mostly dry with brief showers at the start of

¹ <https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf>

² <https://www.biodiversitywales.org.uk/environment-wales-act>

³

<https://www.rctcbc.gov.uk/EN/Resident/PlanningandBuildingControl/LocalDevelopmentPlans/LDPEvidenceBaseLibraryandAnnualMonitoringRe/RelateddocumentsEvidenceBase/EB47a.pdf>

⁴ https://ec.europa.eu/environment/nature/conservation/wildbirds/threatened/index_en.htm

⁵ <https://www.rspb.org.uk/birds-and-wildlife/advice/wildlife-and-the-law/wildlife-and-countryside-act/schedules/>

Survey	Date	Start time (24hrs)	End time (24hrs)	Sunrise/Sunset times (24hrs)	Survey conditions
					survey, broken cloud and good visibility.
	08/07/2021	06:00	10:30	05:06	Light westerly breeze (2 on the Beaufort scale) Dry, broken cloud and good visibility.
May 2024	29/05/2024	06:00	15:00	05:04	Moderate southerly breeze (2 on the Beaufort scale). Mostly dry with brief light shower and overcast with good visibility.
June 2024	10//06/2024	06:00	15:00	04:56	Moderate northerly breeze (4 on the Beaufort scale). Brief light shower and broken cloud with good visibility.
June 2024	27/06/2024	05:00	13:00	04:57	Light west south westerly breeze (2-4 on the Beaufort scale). Dry and cloudy with good visibility.
July 2024	23/07/2024	13:00	21:00	21:15	Moderate north easterly breeze (3 of the Beaufort scale). Dry and sunny with good visibility.

Limitations

- 2.1.7 The results of the surveys are only a snap-shot of the habitat use and activity of the bird assemblage within the Site. However, the surveys have provided indicative evidence of the breeding and wintering bird assemblages within the Site.
- 2.1.8 It is appreciated that factors, including the cropping and grazing regimes will influence habitat use within the Site by birds. It is an assumption that the cropping and grazing regimes during the survey period is typical for the Site.
- 2.1.9 Dawn-based breeding bird surveys are usually completed by 10:00am for most lowland habitats. Due to the large size of the Site, several surveys continued to after midday. Based on the upland adjacent habitats and evidence showing birds singing and displaying long after midday, this was not thought to have a significant impact on the results of the surveys.
- 2.1.10 Access was permitted to all parts of the Site during all surveys. All habitats within 100m of the Site were visible from the Site boundaries, including within the Bryn Tail Farm buildings.

3 RESULTS

3.1 Breeding Bird Surveys 2021

- 3.1.1 The breeding bird assemblage recorded within the Site in 2021 is representative of typical farmland habitats of predominantly common species. A total of 17 species were recorded as showing breeding behaviour within the Site, including 12 Notable Species. These included seven Amber List species (whitethroat, willow warbler, wren, song thrush, dunnock, meadow pipit and reed bunting), and seven Red List species (skylark, mistle thrush, tree pipit and linnnet). Of these, seven species are listed as rare and most threatened species under Section 7 of the Environment (Wales) Act, 2016 (skylark, house

sparrow, song thrush, dunnock, tree pipit, linnet and reed bunting) as well as the Rhondda Cynon Taf Biodiversity Action Plan plus buzzard. The number of breeding territories of these species were typically low with the only one notable species exceeding five territories being skylark with nine territories.

- 3.1.2 The Notable Species breeding assemblage (which included dunnock, song thrush, linnet and reed bunting) was typically associated with vegetation along field boundaries onsite, principally hedgerows and woodland edge.
- 3.1.3 Ground-nesting Notable Species which use open fields onsite consisted of meadow pipit and skylark. Both skylark and meadow pipit were recorded with modest breeding numbers, with skylark showing nine territories and meadow pipit with five territories. All territories were located towards the northern half of the Site within open pasture fields.
- 3.1.4 All breeding species recorded along with an estimated number of territories are detailed within **Table 3.1**. Those species in **bold** are considered Notable Species. The indicative locations of the territories of Notable Species are provided in **Figure 9C.1: Breeding Bird Survey Results 2021**.

Table 3.1: Breeding bird survey results.

Common Name	Estimated Number of Territories	Comments
Buzzard	1	Within a pocket of broadleaved woodland along Site boundary towards the southern end of the Site.
Skylark	9	Ground nesting species on pasture fields within the Site.
Great tit	1	Single territory along boundary vegetation towards the Western half of the Site.
Blackcap	3	Associated with boundary vegetation along the Western half of the Site.
Whitethroat	2	Associated with vegetation along field boundaries.
Willow warbler	2	Recorded within the Western half of the Site within boundary vegetation.
Wren	2	Associated with vegetation along field boundaries.
Blackbird	4	Associated with vegetation along field boundaries and broadleaved woodland within and immediately adjacent to the Site.
Mistle thrush	3	Associated with boundary woodland within the Western half of the Site.
Song thrush	5	Associated with boundary broadleaved woodland.
Robin	4	Associated with boundary vegetation along field boundaries.
Dunnock	2	Associated with boundary hedgerows towards the south of the Site.
Meadow pipit	5	Ground nesting species associated with grassland habitats close to the northern field boundary

Tree pipit	1	Single singing territory noted at the edge of boundary broadleaved woodland within the centre of the Site.
Chaffinch	3	Associated with boundary vegetation and woodland close to the centre of the Site.
Linnet	2	Associated with boundary vegetation along the northern and eastern boundaries of the Site.
Reed bunting	3	Associated with vegetation close to wetter areas along the northern and eastern field boundaries.

3.1.5 During the surveys a small number of species were recorded which were not considered as breeding within the Site. These consisted of species flying over the Site only (red kite, kestrel, house martin and swallow) and those considered only visiting the Site to feed (woodpigeon)⁶.

3.2 Breeding Bird Surveys 2024

3.2.1 The breeding bird assemblage recorded within the Site in 2024 is representative of typical farmland habitats of predominantly common species. A total of 12 species were recorded as showing breeding behaviour within the Site, including 11 Notable Species. These consisted of six Amber List species (willow warbler, song thrush, redstart, dunnock, meadow pipit reed bunting), and five Red List species (skylark, mistle thrush, tree pipit, bullfinch and linnet). Of these, six species are listed as rare and most threatened species under Section 7 of the Environment (Wales) Act, 2016 (skylark, song thrush, dunnock, tree pipit, linnet and reed bunting) as well as the Rhondda Cynon Taf Biodiversity Action Plan. The number of breeding territories of these species were typically low with the only notable species exceeding five territories being linnet with 13 territories.

3.2.2 The Notable Species breeding assemblage (which included dunnock, song thrush, linnet and reed bunting) was typically associated with vegetation along field boundaries onsite, principally hedgerows and woodland edge.

3.2.3 Ground-nesting Notable Species which use open fields onsite consisted of meadow pipit and skylark. four territories and meadow pipit also with three territories. Additionally a single tree pipit territory was associated with open pasture fields close to moorland edge. All territories were located towards the northern half of the Site within open pasture fields.

3.2.4 All breeding species recorded along with an estimated number of territories are detailed within **Table 3.2**. Those species in **bold** are considered Notable Species. The indicative locations of the territories of Notable Species are provided in **Figure 9C.2: Breeding Bird Survey Results 2024**.

Table 3.2: Breeding bird survey results.

Common Name	Estimated Number of Territories	Comments
Green woodpecker	1	Associated with single pocket of broadleaved woodland.
Skylark	4	Within pasture fields within the Site.
Willow warbler	1	Associated with adjacent gorse-dominated vegetation.

⁶ This was based on a number of factors including the number and gender of birds recorded (e.g. only one record of one female during the survey period), unsuitability of habitats onsite for breeding of some species.

Mistle thrush	1	Associated with boundary woodland within the southern half of the Site.
Song thrush	2	Associated with boundary broadleaved woodland along the southern boundary of the Site.
Redstart	2	Two territories notes associated with mature broadleaved woodland.
Duncock	1	Associated with boundary hedgerows towards the south of the Site.
Meadow pipit	3	Associated with grassland habitats close to the northern field boundary
Tree pipit	1	Single singing territory at the northern boundary of the Site. Territory not associated with woodland edge habitats, but close to adjacent moorland edge.
Bullfinch	2	Associated with adjacent broadleaved woodlands.
Linnet	13	Associated with boundary vegetation across the Site
Reed bunting	2	Associated with vegetation close to wetter areas along the northern and eastern field boundaries.

3.2.5 During the surveys a small number of species were recorded which were not considered as breeding within the Site. These consisted of species flying over the Site only (herring gull, red kite, raven, goshawk, swift, swallow, woodpigeon and house martin) and those considered only visiting the Site to feed (mallard, woodpigeon stonechat, raven, wren and starling)⁷.

⁷ This was based on a number of factors including the number and gender of birds recorded (e.g. only one record of one female during the survey period), unsuitability of habitats onsite for breeding of some species and birds not showing breeding behaviour.

FIGURE 9C.1: BREEDING BIRD SURVEY RESULTS 2021

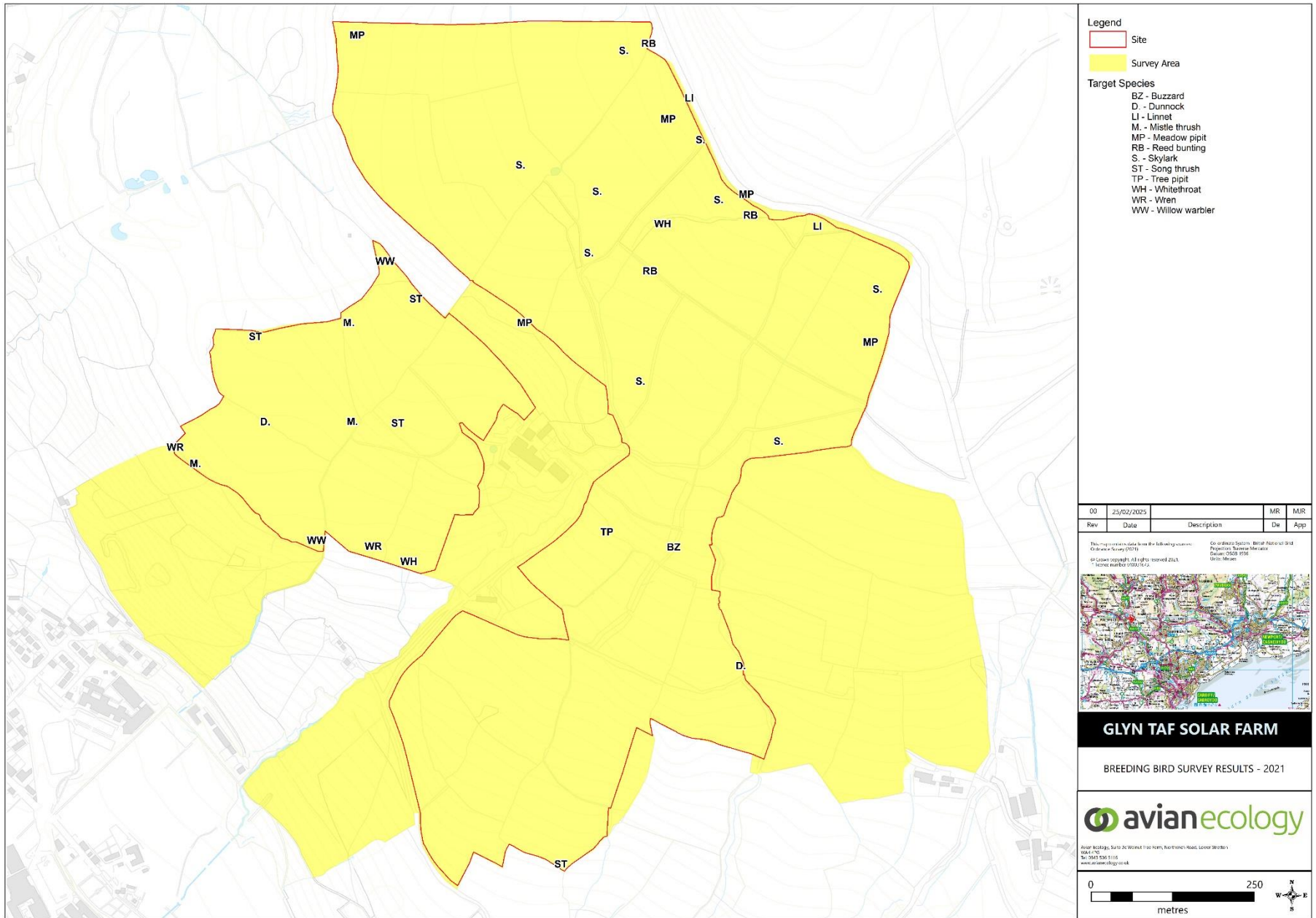
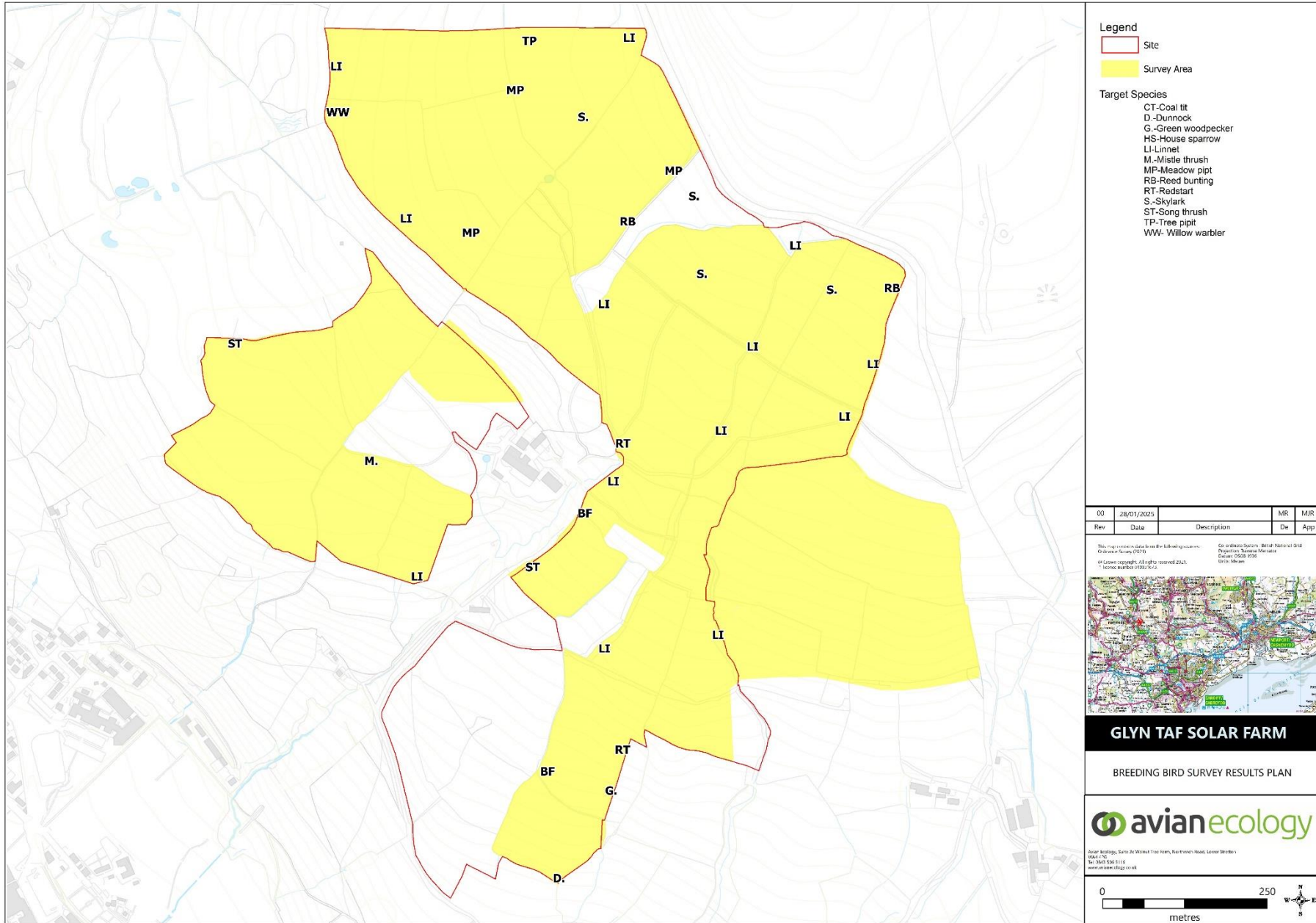


FIGURE 9C.2: BREEDING BIRD SURVEY RESULTS 2024



ANNEX 9C.1. BIRD SPECIES SUMMARY

Table 9C.1 provides a list of bird species recorded during the breeding bird surveys. Both common and species names are presented along with a summary of each species conservation status using the following abbreviations:

- Annex 1 – Species listed as Annex 1 on the European Commission (EC) Birds Directive;
- S1 – Schedule 1 of the Wildlife & Countryside Act 1981 (as amended);
- S7 - species listed as rare and most threatened on the Section 7 of the Environment (Wales) Act (2016);
- S9 – Schedule 9 Invasive Non-native Species listed on the Wildlife & Countryside Act 1981 (as amended);
- BoCC – Birds of Conservation Concern as listed by leading bird conservation organisations in the UK, including the RSPB and BTO. Red and Amber categories are given (Stanbury *et al.*, 2021); and,
- LBAP – Rhondda Cynon Taf Local Biodiversity Action Plan Species.

Table 9C.1: Summary of bird species.

Common name	Species name	Conservation status
Lesser black-backed gull	<i>Larus fuscus graelsii</i>	BoCC – Amber.
Herring gull	<i>Larus argentatus argenteusi</i>	BoCC Amber, S7.
Red kite	<i>Milvus milvus</i>	S1, Annex 1.
Buzzard	<i>Buteo buteo</i>	LBAP
Green woodpecker	<i>Picus viridis</i>	-
Woodpigeon	<i>Columba palumbus</i>	BoCC – Amber.
Kestrel	<i>Falco tinnunculus</i>	BoCC – Amber.
Great tit	<i>Parus major</i>	-
Coal tit	<i>Peripaus ater</i>	-
Blue tit	<i>Cyanistes caeruleus</i>	-
Raven	<i>Corvus corax</i>	LBAP
Swift	<i>Apus apus</i>	BoCC – Red, LBAP
Skylark	<i>Alauda arvensis</i>	BoCC – Red, S7, LBAP.
House martin	<i>Delichon urbicum</i>	BoCC – Red, LBAP.
Swallow	<i>Hirundo rustica</i>	-
Blackcap	<i>Sylvia atricapilla</i>	-
Whitethroat	<i>Curucca communis</i>	BoCC – Amber.
Willow warbler	<i>Phylloscopus trochilus</i>	BoCC – Amber.
Wren	<i>Troglodytes troglodytes</i>	BoCC – Amber.
Starling	<i>Sturnus vulgaris</i>	BoCC – Red, S7, LBAP.
Blackbird	<i>Turdus merula</i>	-

Common name	Species name	Conservation status
Song thrush	<i>Turdus philomelos</i>	BoCC – Amber, S7, LBAP.
Mistle thrush	<i>Turdus viscivorus</i>	BoCC – Red, LBAP.
Robin	<i>Erithacus rubecula</i>	-
Redstart	<i>Phoenicurus phoenicurus</i>	BoCC – Amber.
Stonechat	<i>Saxicola rubicola</i>	LBAP.
Dunnock	<i>Prunella modularis</i>	BoCC – Amber, S7, LBAP.
Meadow pipit	<i>Anthus pratensis</i>	BoCC – Amber.
Tree pipit	<i>Anthus trivialis</i>	BoCC – Red, S7, LBAP.
Chaffinch	<i>Fringilla coelebs</i>	-
Bullfinch	<i>Pyrrhula pyrrhula</i>	BoCC – Red, S7.
Linnet	<i>Linaria cannabina</i>	BoCC – Red, S7, LBAP.
Reed bunting	<i>Emberiza schoeniclus</i>	BoCC – Amber, S7, LBAP.

ANNEX 9C.2: BREEDING BIRD SURVEY EFFORT

Date	Surveyor	Start Time (24 hrs)	End time (24 hrs)	Wind Speed	Wind Direction	Rain	Cloud Height	Cloud Cover	Visibility	Frost	Snow	Temperature (°C)
25/05/2021	NS	07:00	15:00	3	W	0	2	6	2	0	0	12
16/06/2021	NS	06:30	11:00	1	SW	0	2	2	2	0	0	17
17/06/2021	NS	06:00	11:00	2	NW	0	2	6	2	0	0	16
07/07/2021	NS	06:00	11:00	1	SW	0-1	2	4-7	2	0	0	18
08/07/2021	NS	06:00	10:30	2	W	0	2	3	2	0	0	18
29/05/2024	NS	06:00	15:00	3-4	S	0-1	2	7-8	2	0	0	14-17
10/06/2024	NS	06:00	15:00	4	N	0-1	2	5-7	2	0	0	11-15
27/06/2024	NS	05:00	13:00	2-4	W-SW	0	2	7	2	0	0	15-17
23/07/2024	NS	13:00	21:00	3	NE-E	0	2	2-4	2	0	0	19-20

Wind Speed		W-Direction	Rain		Cloud Cover		Cloud Height	
Calm	0	Use 16 point Compass	None	0	In eights e.g.	3/8	<150m	0
Light air	1		Drizzle/Mist	1			150-500m	1
Light breeze	2	N	Light showers	2			>500m	2
Mod. breeze	3	NE	Heavy showers	3				
Fresh breeze	4	ENE	Heavy rain	4				
Strong breeze	5	E						
Mod. gale	6	Etc	Visibility		Snow		Frost	
Fresh gale	7		Poor	0	None	0	None	0
Strong gale	8		<1km	1	Onsite	1	Ground	1
Whole gale	9		>1km	2	High ground	2	All day	2
Storm	10							