

Llandyfaelog Substation Hazel Dormouse 2024 Surveys



On behalf of **National Grid**
nationalgrid

Technical Note

Hazel Dormouse 2024 Surveys Llandyfaelog

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1 Introduction

Stantec UK Ltd. were instructed by National Grid Electricity Transmission to undertake a hazel dormouse *Muscardinus avellanarius* presence/ likely absence survey of land at Llandyfaelog, Carmarthenshire.

The objectives of this survey were to:

- identify any designated nature conservation sites within or in the vicinity of the Site boundary that have the potential to support dormouse;
- identify any known records and/or populations of dormouse in the vicinity of the Site boundary;
- record and map evidence of dormouse activity; and
- provide an assessment of the presence and distribution of dormice within the Site.

2 Legislation

The dormouse is a fully protected species listed on the Conservation of Habitats and Species Regulations 2017 (as amended) and the Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended), which combined makes it an offence to:

- deliberately capture, injure, or kill a dormouse;
- intentionally or recklessly disturb a dormouse while it is occupying a structure or place of shelter or protection;
- intentionally or recklessly obstruct access to any such structure or place; and
- damage or destroy a breeding site or resting place used by a dormouse.

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3 Methods

The dormouse surveys were undertaken paying due regard to the Dormouse Conservation Handbook¹, the current guidance available at the time of survey.

A total of 106 dormouse nest tubes were deployed, approximately 20 m apart within the Site on 25 July and checked in August, September, October and November 2024. The locations of dormouse nest tubes are shown in Appendix A, Figures.

The Dormouse Conservation Handbook provides guidance on survey effort requirements, using an Index of Probability of finding dormice present in nest tubes in any one month. The Index of Probability is based on using 50 nest tubes as a standard. A copy of The Index of Probability scores is provided in Table 1.

Additional guidance from the South West Dormice Project² recommend that assumed absence of dormice should not be based on a Search Effort Score of less than 20. The Search Effort Score is calculated by adding the Index of Probability scores for the months in which the tubes were deployed, providing a minimum check of all tubes is undertaken every other month.

Table 1 Index of Probability of Finding Dormice Preset in Nest Tubes (taken from Bright *et al.* 2006)

Month	Index of Probability
April	1
May	4
June	4
July	2
August	5
September	7
October	2
November	2

Survey visits to inspect nest tubes were undertaken and any presence of dormouse or any signs, particularly recently constructed nests, were recorded along with any evidence of other species using the nest tubes. Table 2 present the dates of each survey visit.

As shown in Table 2 the final search effort score achieved is 18, which is below the minimum recommended score. As the minimum score hasn't been met, the survey would not be considered a robust assessment of presence or likely absence of dormice within the Site.

¹ Bright P., Morris P., Mitchell-Jones T. (2006). The dormouse conservation handbook second edition. English Nature. Peterborough.

² Chanin, P. and Woods, M. (2003). Surveying dormice using nest tubes. Results and experiences from the South West dormouse Project. English Nature Research Report no. 524.

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Table 2 Dormouse Survey Dates and Cumulative Index of Probability

Survey Visit Number	Date	Cumulative Index of Probability
Nest tubes deployed	25 July 2024	2
1	29 -30 August 2024	7
2	26 September 2024	14
3	29 October 2024	16
4 and nest tube collection	26 November 2024	18

4 Limitations

The dormouse tubes were deployed on the Site in July due to land access constraints. This is later than the required start time of June to reach the minimum recommended score of 20, although given that greater than the standard 50 dormouse nest tubes were installed and dormouse presence was identified this is not considered a limitation to the survey findings.

Tubes were inspected monthly until November when the tubes were removed. It was not possible to inspect all tubes during the August monitoring round due to the unexpected presence of livestock within fields and during the September monitoring round it was discovered that nine dormouse tubes within one field had been destroyed by hedge cutting. Although, the minimum of 50 dormouse nest tubes was still met, as such this isn't deemed a significant limitation to the survey findings.

5 Results

Evidence of dormouse and other species recorded during the survey visits is provided in Table 3 and shown in Appendix A, Figures.

Table 3 Hazel Dormouse Survey Results

Date	Evidence of Hazel Dormouse	Evidence of Other Species
29-30/08/2024	None	Empty wood mouse nest with food supply Sparse bird droppings and feathers Bird droppings
26/09/2024	Start of nest building	Remains of possible wood mouse nest Wood mouse nest and food cache Early nest building – small quantity of brown grass
29/10/2024	Confirmed dormouse nest (Appendix B, Photograph 1)	Some nesting material (leaves) Remains of possible wood mouse nest Potential wood mouse nest Wood mouse nesting material and hawthorn cash

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Date	Evidence of Hazel Dormouse	Evidence of Other Species
		Possible wood mouse hawthorn cash Wood mouse hawthorn cash
26/11/2024	Old dormouse nest (Appendix B, Photograph 2) Possible dormouse nest, woven centre with brown leaves (Appendix B, Photograph 3) Old dormouse nest spherical and slightly woven, brown leaves (Appendix B, Photograph 4) Possible dormouse nest ball but not woven. Wet and no smell green leaves but old. (Appendix B, Photograph 5)	Old wood mouse nesting material Food cache x2 Nibbled bulb, possibly wood mouse

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Appendix A – Figures



— Site Boundary

Dormouse Survey

- Negative (no evidence/empty)
- Other (other species evidence)
- Positive (hazel dormouse evidence)
- No Access / Not Checked
- ✕ Box destroyed/lost



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Appendix B Photographs



Photograph 1: October - Confirmed dormouse nest



Photograph 2: November - old dormouse nest



Photograph 3: November - Possible dormouse nest, woven centre with brown leaves



Photograph 4: November - Old dormouse nest spherical and slightly woven, brown leaves

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Photograph 5: November - Possible dormouse nest ball but not woven. Wet and no smell green leaves but old