



Hazel Dormouse Survey Report

Of

Phases 2-6, Haverhill,

Suffolk

on behalf of

Persimmon Homes (Suffolk)

December 2019

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The Black Barn, Hall Road, Lavenham, Suffolk CO10 9QX
tel: **01787 248216** fax: **01787 247264** email: jamesblake@jba-landmarc.com

Chairman: James Blake BA (Hons) Dip LA (Hons) CMLI

Company Secretary: Louise Blake BSc PGCE

Directors: Elzbieta Zebrowska MSc Eng LArch MScEnvSc CMLI : Kevin Slezacek DipArb MArborA

Associate Directors: Vivienne Jackson : Marie Lowe CIMA Cert.BA

www.jba-landmarc.com

Registration no.08169866 VAT no.512.4127.91

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Drusilla Hall is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and is a Chartered Environmentalist (CEnv). The code of professional conduct is subscribed to for all work.


Project	Author	Status	Date
Haverhill – Dormouse Survey Report 19 0006	Drusilla Hall BSc (Hons) MCIEEM CEnv  Dormouse Licence: 2016 – 20740-CLS-CLS	Final v1.0	November 2019

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INTRODUCTION

Instruction and background

Iceni Ecology Ltd. was instructed by James Blake Associates, the 'Client', on behalf of Persimmon Homes Suffolk, to undertake a hazel dormouse *Muscardinus avellanarius* survey at land north of Haverhill, Anne Sucklings Lane, Little Wrating, Suffolk CB9 0EA, 'the site'. The hazel dormouse has been referred to as 'dormouse' within this report.

The site is undergoing extensive re-development and comprises a number of hedgerows which were assessed as having the potential to support dormice. Those hedgerows likely to be impacted by the re-development were subsequently surveyed for dormice.

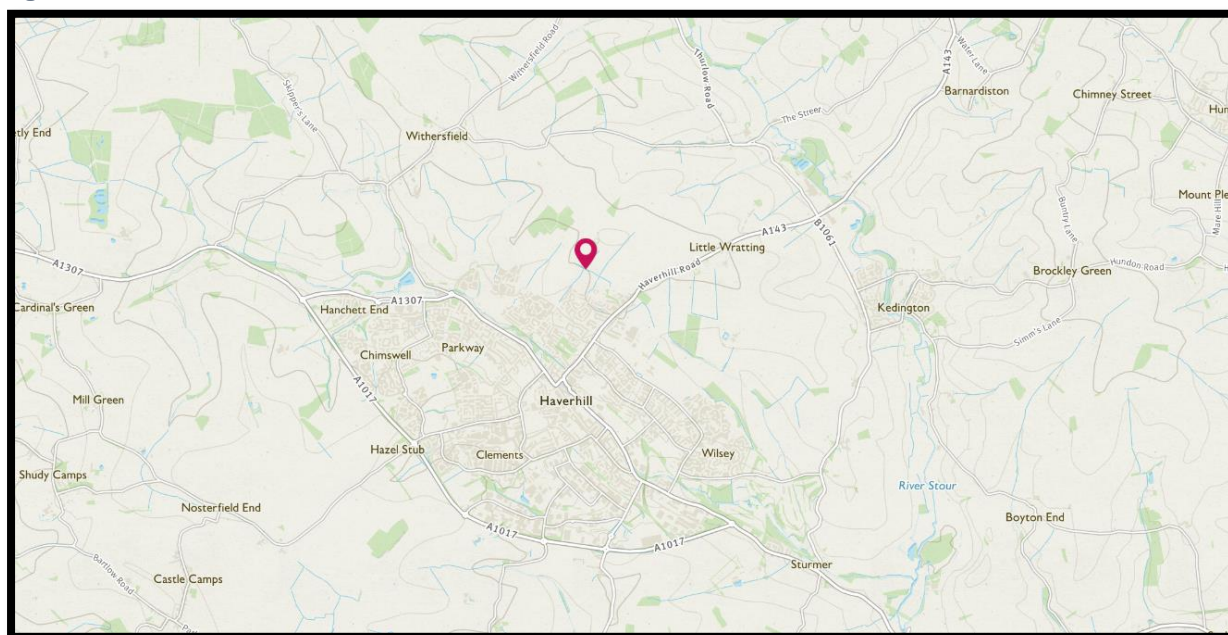
The key objectives of the survey were to:

- Establish the presence / likely absence of dormouse in suitable habitats;
- Confirm the distribution of the dormouse and usage of habitats potentially impacted by proposed development; and
- Confirm the requirement and scope of ecological mitigation, if necessary.

Location and description of site

The site is located north of Haverhill, adjacent to Anne Sucklings Lane, Little Wrating, Suffolk, centred on approximate Ordnance Survey (OS) Grid Reference TL 6731 4690 (Figure 1).

The area of proposed development currently comprises a mixture of arable, rough grassland, hedgerows and ditches.

Figure 1: Location of site, centred on red marker

Relevant wildlife legislation

The [hazel] dormouse is protected under The Conservation of Habitats and Species Regulations 2017 ['The Habitats Regulations']. The Habitats Regulations implement The Habitats Directive 1992 [92/43/EEC] into English Law. It protects the dormouse against:

- deliberate capture, injury or killing;
- deliberate disturbance; and
- damage or destruction of a breeding site or resting place.

Disturbance is defined as that which is likely to impair their ability:

- to survive, to breed or reproduce, or to rear or nurture their young; or
- in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- to affect significantly the local distribution or abundance of the species to which they belong.

The dormouse is also fully protected under the Wildlife & Countryside Act 1981 (as amended)¹ (WCA). Dormouse is listed on Schedule 5 of the WCA, and therefore subject to the provisions of Section 9, it is an offence to:

- Intentionally kill, injure or take a dormouse [Section 9(1)];
- Possess or control any live or dead specimen or anything derived from a dormouse [S 9(2)] (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a dormouse [S 9(4)(a)]; and

¹ Amended by the Countryside & Rights of Way Act (2000).

- Intentionally or recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose [S 9(4)(b)].

It is possible to apply for a European Protected Species (EPS) licence from Natural England to permit otherwise unlawful activities; these can only be granted for certain purposes.

In order to obtain an EPS licence and satisfy requirements for planning approval, it has to be clearly demonstrated that any disturbance or damage will be adequately mitigated for. This normally requires that there should be no net loss in local dormouse conservation status (including factors such as population size, viability and connectivity). If it is unavoidable that development will affect these factors, the mitigation should aim to maintain a population of equivalent status on or near the original site, and should address links to adjacent (indirectly affected) populations where present.

Dormouse status and distribution

The dormouse is typically found in woody habitats which provide a diverse supply of fruit and seeds and which offer a dense three-dimensional structure, such as broadleaf woodland with a dense shrub layer or mature species rich scrub and hedgerows. Their distribution is generally skewed towards the south of England and the south-east is considered to be a stronghold for dormice in the UK.

During the active season, (April to November), dormice are nocturnal, sleeping during the day in woven nests woven at least 1m above ground level, and never on the ground. During the night they spend most of their time in the canopy feeding on seeds, flowers, fruits and insects. Nuts, especially hazelnuts, are important food sources prior to hibernation but dormice will occur in habitats without hazel and use a variety of other nuts and fruits. Dormice spend most of their active time in the canopy and rarely explore ground level, therefore leaving this species particularly prone to habitat fragmentation. The minimum extent of connected habitat required to sustain a dormouse population is not clearly understood but current guidance suggests that sites less than 20 ha are much less likely to support a viable population. However, dormice do occasionally cross open ground over short distances such as gates and gaps in hedgerows and their occurrence is often difficult to predict. Dormice do not normally travel far from their nest (usually less than 70m)².

The dormouse hibernates when food is scarce during the winter months, around October or November, until April. Their hibernation nests are built near to or on the ground in a tree stump or in clumps of leaf litter. When they wake up in the spring, food is often still in short supply and dormice often re-enter a hibernation-like state known as torpor to save energy. Most activity is recorded in the latter part of the spring and summer with breeding activity peaking in August and September.

² Bright, P., Morris, P., and Mitchell-Jones, T. The dormouse conservation handbook. Second edition. English Nature.

Limitations

There were no limitations to the successful completion of the survey.

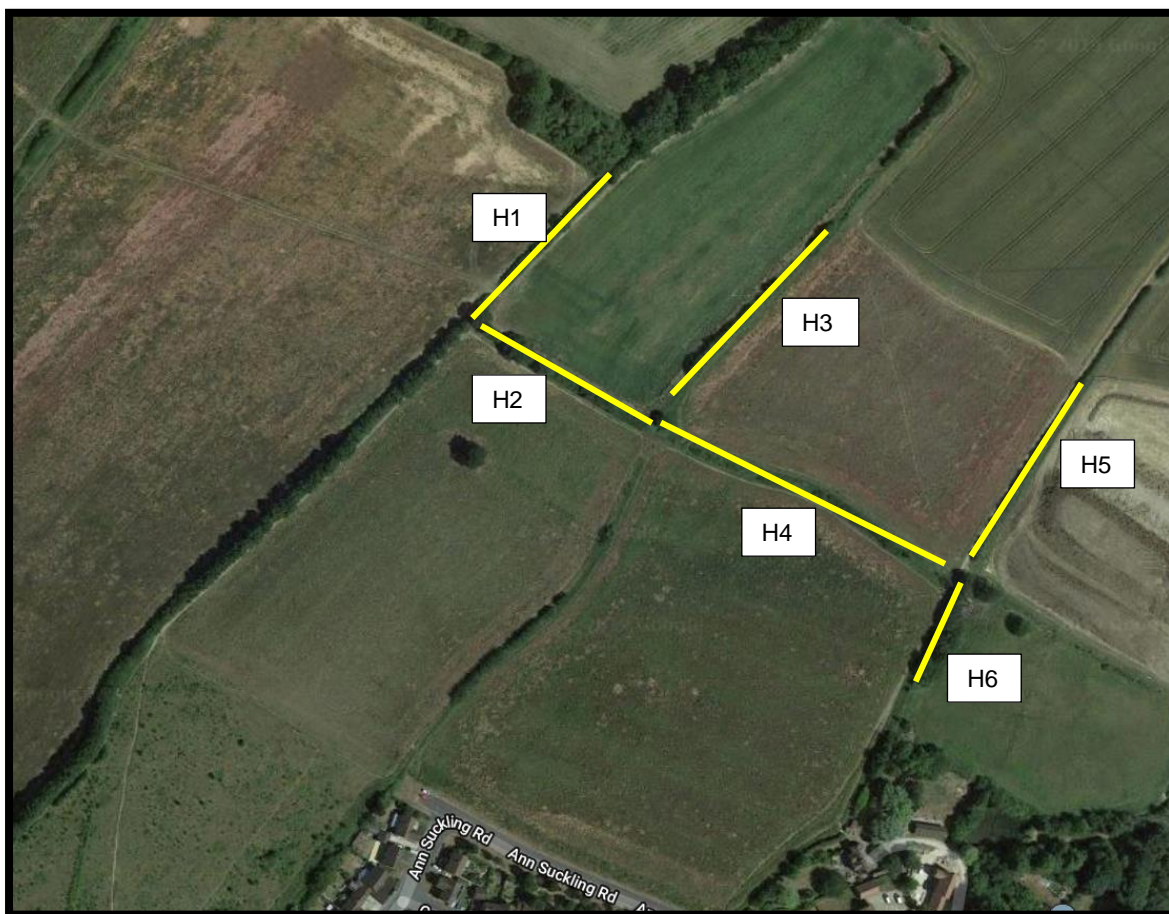
SURVEY METHODOLOGY

Field survey

The field survey was undertaken in accordance with survey guidelines recommended in Bright *et al* (2006)⁴ and Natural England³.

The hedgerow habitats surveyed are shown on Figure 2. These areas could potentially be impacted by the re-development in terms of habitat loss and illumination.

Figure 2: Area of dormouse survey (along yellow lines), with hedgerow references



On 04/04/19, 50 dormouse 'nest tubes' were placed in hedgerows / bramble within the areas shown on Figure 2, spaced at around 15-20 paces between each tube. Tubes are made from stiff double-walled black plastic with a small plywood tray placed inside and slightly protruding beyond the tube's entrance. The opposite end of the tube is sealed with a wooden block mounted on the tray. They were secured on vegetation using cable ties and left pointing slightly downwards to avoid water ingress. Dormice will readily use the tubes, occasionally for breeding, as well as daytime shelter.

³ Interim Natural England Advice Note – Dormouse surveys for mitigation licensing – best practice and common misconceptions. WML-G37(12/11).

It is recommended in Bright *et al* (2006)⁴, that at least 50 tubes are used to sample a site. The tubes were checked monthly from May to November (inclusive) by Dru Hall BSc (Hons) MCIEEM CEnv of Icen Ecology Ltd., a licensed dormouse surveyor. Each tube was checked for the presence of dormouse individuals and signs such as nests.

The survey guidelines give an 'Index of Probability' scores, based on 50 tubes, of finding dormouse present in tubes in any single month. The scores are then multiplied by units of 50 tubes. These are shown in Table 1 below.

Table 1: Index of Probability of finding dormice present in tubes in any one month

Month	Index of Probability based on 50 tubes
April	1
May	4
June	2
July	2
August	5
September	7
October	2
November	2

The guidelines state that assumed absence should not be based on a search effort score of a total of less than 20. This would be obtained by using 50 tubes from June to November, inclusive (Chanin & Woods, 2003⁴). The probability score applies from when the nest tubes are deployed to when they are removed, **not just the months where the tubes are physically checked**. It is, however, recommended that tubes are checked monthly, as dormouse nests may degrade especially when overtaken by other species of mice and can lose many of their unique characteristics.

Table 2 shows the dates the dormouse tubes were checked, with weather conditions and the Index of Probability scores attained, based on 50 tubes.

Table 2: Dormouse checks and Index of Probability scores

Survey dates	Index of Probability score
Tubes installed: 04/04/19	
May: 17/05/19	4
June: 20/06/19	2
July: 31/07/19	2
August: 17/08/19	5
September: 13/09/19	7
October: 24/10/19	2
November: 16/11/19	2
TOTAL SCORE	24

The field survey achieved an Index of Probability total score of 24, which indicates that the survey effort can be relied upon to determine presence or assumed absence.


RESULTS

⁴ Chanin, P. & Woods, M. 2003. Surveying dormice using nest tubes. Results and experiences from the South West Dormouse Project. *English Nature Research Report No. 524*.

Field survey

The results are shown in Figure 3 below.

Figure 3: Dormouse field survey results 2019

														
Dormouse results - Haverhill 2019														
Survey Information			Survey Conditions				Results							
Visit No.	Date:	AM or PM:	Surveyor Initials:	Average Temperature °C:	Wind:	Cloud Cover %	Rain:	Results					Location	
					(N)one (L)ight (M)od (S)trong		(N)one (L)ight (M)od (H)heavy							
								M	F	J	Torpid	Active	Nests / Nuts etc..	Array / box no.
0	04/04/2019	Dormouse tubes installed by JBA.												
1	17/05/2019	pm	DH	16	L	40	N	0	0	0	0	0	0	n/a
2	20/06/2019	pm	DH	20	L	90	N	0	0	0	0	0	0	n/a
3	31/07/2019	pm	DH	23	L	95	N	0	0	0	0	0	0	n/a
4	17/08/2019	pm	DH	25	M	50	N	0	0	0	0	0	0	n/a
5	13/09/2019	pm	DH	21	L	20	N	0	0	0	0	0	0	n/a
6	24/10/2019	pm	DH	9	L	100	L	0	0	0	0	0	0	n/a
7	16/11/2019	am	DH	7	L	100	L	0	0	0	0	0	0	n/a

No dormice or evidence of dormice were found during the survey.

Some evidence of wood mouse *Apodemus sylvaticus* was found during the survey as follows in October / November:

- Nests in H1, H2 and H5.
- Food reserves and droppings in H3.
- Single adult wood mouse in H2 (in October and November).

CONCLUSION AND RECOMMENDATIONS

The dormouse survey undertaken within hedgerow habitat at the site did not show any evidence of dormice; as such, it is unlikely that dormice will be adversely impacted from the re-development and no specific mitigation measures for dormice are recommended.

It is recommended that if any of the hedgerows will remain as part of the re-development that these are 'gapped up' using native species. This should be undertaken as part of the wider landscape scheme for the site.