



**EASTERGATE ECOLOGY
DORMOUSE SURVEY REPORT**

Prepared for Linden Homes

by

Hankinson Duckett Associates

HDA ref: 2136.9

June 2014

hankinson duckett associates

The Stables, Howbery Park, Benson Lane, Wallingford, Oxfordshire, OX10 8BA

Hankinson Duckett Associates Limited Registered in England & Wales 3462810 Registered Office: The Stables, Howbery Park, Benson Lane, Wallingford, OX10 8BA

CONTENTS

	Page
1 Introduction	1
2 Methodology	2
3 Results	3
4 Impact Assessment	4
5 Conclusion and Recommendations	5
6 References	5

HDA Document Control and Quality Assurance Record

APPENDICES

A Dormouse Survey Plan

1 INTRODUCTION

1.1 Site location and summary description

1.1.1 This report describes a Hazel Dormouse survey conducted on approximately 11.5ha of land at Eastergate, West Sussex, hereinafter referred to as the site. The site centre is located by National Grid Reference SU 948055. The study was commissioned by Linden Homes in June 2013.

1.1.2 The site is located on the northern edge of Eastergate and is bordered to the south by Barnham Road with residential development beyond, to the east by a public footpath with farmland beyond and to the west by residential development fronting Fontwell Avenue and Collins Close. Unmanaged orchard and farmland extends to the north. The location and boundary of the site are shown in *Appendix A*.

1.1.3 In general terms, the site comprises a disused fruit farm characterised by areas of unmanaged orchard separated by managed species-poor semi-improved grassland fields and areas of species-poor semi-improved grassland/ scrub mosaic. Field boundaries within and around the site generally comprise fences with mature tree lines and a single stretch of species-poor hedgerow. A more detailed description of the habitats within the site is given in the Ecological Appraisal (HDA, 2013).

1.2 Legislative context

1.2.1 The Hazel Dormouse (hereinafter referred to as 'Dormouse') is protected under The Conservation of Habitats and Species Regulations 2010 (as amended), which implements the EC Habitats Directive 92/43/EEC in the United Kingdom. In relation to European Protected Species (EPS), the 2010 Regulations make it an offence to:

- Deliberately capture, injure or kill any wild animal of an EPS;
- Deliberately disturb wild animals of any such species, in particular any disturbance which is likely to: (i) impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or to hibernate or migrate; (ii) affect significantly the local distribution or abundance of the species to which they belong;
- Damage or destroy a breeding site or resting place of such an animal; and
- To (a) be in possession of, or to control; (b) to transport any live or dead animal or any part of an animal; (c) to sell or exchange or (d) offer for sale or exchange any live or dead animal or part of an animal of an EPS.

1.2.2 In addition, Dormice are protected under the Wildlife and Countryside Act 1981 (as amended). Dormice are listed on Schedule 5 of the Act and are subject to the provisions of Sections 9.4b and 9.4c, which 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; or

- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a bat.

1.2.3 If works are planned that are likely to constitute an offence under the current legislation, a Natural England EPS licence should be applied for, and granted, prior to works commencing.

1.2.4 Dormice are also identified as species of principal importance under Section 41 of the 2006 NERC Act. This requires planning authorities to regard these species as a material consideration in the planning process.

1.3 Scope and purpose of the report

1.3.1 Habitats within the site have been identified as suitable for use by Dormice, including the dense unmanaged orchard areas and mature tree lines.

1.3.2 During the desk study carried out as part of the Ecological Appraisal (HDA, 2013), two records of Dormouse were provided for the desk study area, pertaining to Wandleys Copse approximately 1.1km to the north-east of the site.

1.3.3 The aim of the survey was to establish whether Dormice were present at the site and to identify the need for any licensing and mitigation in the event of development.

2 METHODOLOGY

2.1 Nest tube survey

2.1.1 A Dormouse nest tube survey was conducted at the site by Alex Leishman, Anna Senior and Michael Berwick of Hankinson Duckett Associates during summer and autumn 2013 and spring 2014, in accordance with the methodology described in Section 3.2.6 of the Dormouse Conservation Handbook (Bright *et al.*, 2006). A total of 88 Dormouse nest tubes were installed across the site on 30th July 2013. The distribution of nest tubes across the site is shown on the plan included as *Appendix A*.

2.1.2 A series of three subsequent monitoring visits were made to the site. On each visit, all tubes were inspected for the presence of Dormice and to look for signs of recently constructed Dormouse nests. Evidence of other small mammals using the tubes was also recorded. The dates of all Dormouse survey visits have been provided in Table 1.

Table 1: Dormouse survey visits (2013 & 2014)

Date	Reason for visit
30 th July 2013	Installing nest tubes
7 th October 2013	Nest tube monitoring
6 th December 2013	Nest tube monitoring
9 th May 2014	Nest tube monitoring and removal

2.1.3 The Dormouse Conservation Handbook describes a scoring system for nest tube surveys which provides an indicator of the thoroughness of a survey. The system is based on an 'index of probability', whereby each month of the year in which Dormice are active is assigned a value according to the likelihood of Dormice using nest tubes (and leaving evidence of occupation) in that particular month. Table 2 identifies the value of each month according to this system.

2.1.4 Values for individual months are based on the use of 50 tubes. If the number of tubes used is increased, the score for each month increases proportionately. In accordance with this methodology, the assumed absence of Dormice from a site should not be based on a total search effort score of less than 20 points.

Table 2: Index of probability of finding Dormice present in nest tubes in any one month (Chanin and Woods, 2003, in Bright *et al.*, 2006).

Month	April	May	June	July	Aug	Sept	Oct	Nov
Index score	1	4	2	2	5	7	2	2

2.1.5 During the survey conducted at Eastergate, 88 nest tubes were in place on the site for the months of August, September, October, November and December 2013 and January, February, March and April 2014. This provided a total score of at least 31 points, obtained over the main Dormouse activity period. The results are therefore considered to provide a robust assessment of Dormouse presence/absence in relation to the site.

2.2 Habitat assessment

2.2.1 As an additional element to the nest tube survey, areas of unmanaged orchard, scrub and hedgerow within or immediately adjacent to the site were critically assessed for their suitability to support breeding populations of Dormice, or to provide habitat linkages between areas of suitable breeding habitat.

3 RESULTS

3.1 Habitat assessment

3.1.1 Suitable Dormouse habitat is found within the areas of dense unmanaged orchard and mature tree lines which dominate the central and south eastern corner of the site. The

areas of orchard have not been managed for a number of years and are now highly overgrown with scrub. These areas generally comprise mature Apple and Plum trees, many of which are dead or dying, and standing and fallen deadwood is frequent. Occasional Pedunculate Oak and Ash trees are present and scrub is proliferating throughout all the orchard areas with species comprising Ivy, Bramble, Blackthorn, Elder, Dog-rose, Hawthorn and Dogwood which are creating highly shaded conditions. In addition to the fruit trees, the variety of species present within the unmanaged orchards provides suitable Dormouse habitat as it includes a range of species useful for foraging Dormice such as Bramble, Dog-rose and Hawthorn. The hedgerows and tree lines forming boundaries within and around the site include valuable species such as Balsam Poplar, Hawthorn, Oak, Blackthorn, Elder, Bird Cherry, Hornbeam and Sycamore and therefore also provide suitable foraging habitat.

3.1.2 The areas of suitable habitat within and adjacent to the site are connected via tree lines and hedgerows to areas of suitable habitat in the wider area, however these links are generally narrow and areas of extensive suitable habitat are distant from the site.

3.1.3 Areas of potential Dormouse habitat located within the site are illustrated on the plan in *Appendix A*.

3.2 Nest tube survey

3.2.1 No evidence of Dormice was found on any of the survey visits. Bedding nests of leaves belonging to Wood Mouse were observed in a large number of the nest tubes, along with a number of caches of characteristically gnawed fruit stones associated with Wood Mouse activity. Bird nests were also recorded in a couple of the tubes.

4 IMPACT ASSESSMENT

4.1 Dormouse presence/absence

4.1.1 Three elements have been considered in the determination of Dormouse presence/absence at the site: desk study, habitat assessment and nest tube survey results. Dormouse records and substantial areas of woodland cover are absent from the site and the immediately surrounding area, and the connectivity of the habitat within and immediately adjacent to the site is generally limited. The nest tube survey did not identify evidence of Dormouse within any areas of the site and it is therefore considered that Dormice are absent from the site.

4.2 Dormouse impact assessment

4.2.1 Given the absence of Dormice from the site, development of the site is considered highly unlikely to have any impact on Dormice and no requirement for mitigation or licensing has been identified.

5 CONCLUSION AND RECOMMENDATIONS

- 5.1 No evidence of Dormouse was identified during the nest tube survey. Based on the results of the nest tube survey and habitat assessment, Dormice are considered to be absent from the site. No specific impact avoidance or mitigation measures are therefore required in relation to Dormice.

6 REFERENCES

Bright, P., Morris, P. and Mitchell-Jones, T. (2006) *The Dormouse Conservation Handbook, 2nd Edition*. English Nature, Peterborough.

HDA (2013). *Eastergate Ecology: Ecological Appraisal*. Hankinson Duckett Associates, Wallingford.

HDA Document Control and Quality Assurance Record

Project Title: Eastergate Ecology
Project Reference: 2136.9
Document Title: Dormouse Survey
Commissioning Party: Linden Homes

Issue	Description	Date of Issue	Signed
1	Dormouse Survey	June 2014	

	Personnel	Position
Author	Clare Parker CMIEEM	Ecologist
Approved for issue	Adrian Meurer CMIEEM	Director

© Hankinson Duckett Associates. All rights reserved

No part of this report may be copied or reproduced by any means without prior written permission from Hankinson Duckett Associates. If you have received this report in error, please destroy all copies in your possession or control and notify Hankinson Duckett Associates.

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by Hankinson Duckett Associates no other party may use, make use of or rely on the contents of the report. No liability is accepted by Hankinson Duckett Associates for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of Hankinson Duckett Associates using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Hankinson Duckett Associates has been made.

APPENDIX A

Dormouse Survey Plan

