

65-69 PARKHURST ROAD, LONDON

**DAYTIME BAT SURVEY & NOCTURNAL
EMERGENCE AND DAWN RE-ENTRY
BAT SURVEYS**

A Report to: Parkhurst Road Limited

Report No: RT-MME-116975-01

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

This study has been undertaken in accordance with British Standard 42020:2013 “Biodiversity, Code of practice for planning and development”.

Report Version	Date	Completed by:	Checked by:	Approved by:
Final	23/06/2014	Paul Roebuck (Senior Ecological Consultant)	Colin Bundy (Associate Director)	Dr Philip Fermor (Managing Director)

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management’s Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client’s brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are valid for a period of 12 months from the date of survey. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

In May 2014 Parkhurst Road Limited commissioned Middlemarch Environmental Ltd to undertake a Daytime Bat Survey & Nocturnal Emergence and Dawn Re-entry Bat Surveys at 65-69 Parkhurst Road, London. These surveys are required to inform a planning application associated with proposed development of the site. The proposals consist of the demolition of existing buildings and erection of new buildings rising to 4, 5 and 6 storeys, to deliver 112 new residential homes (use class C3) in a mix of unit sizes and tenures, together with associated cycle parking, accessible car parking, highways, soft landscaping and infrastructure works.

Middlemarch Environmental Ltd has previously carried out Daytime Bat Surveys and Bat Nocturnal Emergence Surveys for Parkhurst Road Limited at this site in 2013. The findings of these surveys are detailed in Report RT-MME-115349 which should be read in accordance with this report.

Middlemarch Environmental Ltd were also commissioned to undertake the following reports, the results of which are detailed in;

- Extended Phase 1 Habitat Survey, Report Number RT-MME-115349-01 Rev A.
- Code for Sustainable Homes Ecological Assessment, Report Number RT-MME-115349-03.
- Arboricultural Survey, Report Number RTMME-115349-04 Rev A.

With respect to the main building on site, due to the presence of features within the structure that could not be fully inspected during the Daytime Bat Survey (and with an additional endoscope survey), and the fact that nocturnal surveys were carried out in September 2013, outside peak survey season (Mid-May to August), two options were presented in report RT-MME-115349 to establish presence/absence of bats as follows:

- **Option 1** - It is recommended that an endoscope survey of all inaccessible areas is carried out (from an extendable moving platform or scaffolding). If all areas are fully accessed and surveyed, and no bats or evidence of bat activity (in the form of scratch marks, feeding remains, grease marks, urine staining or droppings) are found, then demolition works can commence as planned as no bat roost is present. However, if any areas are inaccessible, evidence of bat activity is identified, or it is not possible to conclusively state that bats are not present then it will be necessary to undertake the bat activity surveys outlined in Option 2.
- **Option 2** - It is recommended that a further nocturnal emergence survey and a dawn re-entry survey are undertaken to ascertain the status of bats within the structures. The Bat Survey – Good Practice Guidelines published by the Bat Conservation Trust (2012) recommends at least three nocturnal/dawn surveys be undertaken during the bat activity season (optimal survey period May to August, inclusive) to assess the levels of bat activity on a site. This level of survey effort is satisfactory for buildings with moderate to high bat potential. As nocturnal surveys have already been carried out outside the optimal survey period, further two surveys should be completed between mid May and August 2014 to comply with these guidelines.

Further to discussions with London Borough of Islington it was determined that Option 2 would be required as well as an updated Daytime Bat Survey of the main building in accessible areas. Therefore a Daytime Bat Survey and Nocturnal Emergence and Dawn Re-entry Bat Surveys were recommended.

Due to access issues the Dawn Re-entry survey has not been possible to complete at this stage.

This report details the results of the Daytime Bat Survey and the Nocturnal Emergence survey undertaken on 3rd June 2014.

All UK bat species are European protected species and they are capable of being material considerations in the planning process. A summary of the legislation protecting bats is included within Appendix 1. This section also provides some brief information on the ecology of British bat species.

1.2 SITE DESCRIPTION AND CONTEXT

The site is located off Parkhurst Road in London and is centred at National Grid Reference TQ 303 859. The study site covers an area of approximately 0.58 ha and is irregular in shape. It is situated in a residential area and it is bordered by Parkhurst Road to the south and by residential properties on the remaining sides.

At the time of the survey, the site was dominated by large areas of hardstanding with vacant disused buildings. A number of mature trees including Ash *Fraxinus excelsior* and Sycamore *Acer pseudoplatanus* were present along the northern and north-eastern edges of the study area.

2. METHODOLOGY

2.1 DESK STUDY

As part of the Extended Phase 1 Habitat Survey a desk study was carried out to identify records of protected species including bats within 1 km of the development. Any bat records provided are detailed in Section 3.1.

2.2 FIELD SURVEYS

2.2.1 Daytime Bat Survey of Main Building

In line with the specifications detailed by English Nature (2004) and The Bat Conservation Trust (Hundt, 2012), a daytime survey of the Main Building was conducted. A visual assessment of the site was undertaken to identify evidence of possible bat presence. Any accessible holes, cracks and crevices which could allow bat access into potential roosting areas were inspected using a torch and endoscope. The building was surveyed internally and externally.

For reasons of health and safety, the survey was only undertaken in areas accessible from 3.5 m ladders.

2.2.2 Nocturnal Emergence Bat Survey

In line with the specifications detailed Bat Surveys: Good Practice Guidelines (Hundt, 2012), one nocturnal emergence bat survey was conducted on site. The survey commenced 20 minutes prior to sunset and continued until approximately 120 minutes after sunset. The nocturnal emergence survey was conducted using electronic bat detectors Petterson D240x and Bat Box Duet with associated recording devices to facilitate the detection of bats and to aid in the determination of species of bat using the site.

3. DESK STUDY

3.1 BIOLOGICAL RECORDS

Records of bat species within a 1 km radius of the survey area provided by the local record centre are summarised in Table 3.1. A desk study was carried out as part of the Extended Phase 1 Habitat Survey. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance ?	Local BAP?	Legislation
Unidentified Bat <i>Vespertilionidae</i>	6	2008	160 m west	*	✓	ECH 4, WCA 5, WCA 6
Unidentified Pipistrelle <i>Pipistrellus sp.</i>	3	2008	600 m north-east	*	✓	ECH 4, WCA 5, WCA 6
Common pipistrelle <i>Pipistrellus pipistrellus</i>	4	2010	975 m east	-	✓	ECH 4, WCA 5, WCA 6
Key: *: Dependent on species ECH 4: Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest in need of strict protection. WCA 5: Schedule 5 of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). WCA 6: Schedule 6 of Wildlife and Countryside Act 1981 (as amended). Animals which may not be killed or taken by certain methods. Species of Principal Importance: Species of principal importance for nature conservation in England. Local BAP: Islington Biodiversity Action Plan						

Table 3.1: Bat species recorded within 1 km of the survey area

3.2 PREVIOUS BAT SURVEYS

Middlemarch Environmental Ltd has previously carried out Daytime Bat Surveys and Bat Emergence Surveys in 2013 for Parkhurst Road Limited at this site. The findings of these surveys are detailed in Report RT-MME-115349 and have been summarised below.

3.2.1 Daytime Bat Survey - Trees

Four semi-mature to mature ash trees *Fraxinus excelsior* were located along the western part of the northern boundary, whilst a mature ash and two mature sycamores *Acer pseudoplatanus* were present on the eastern section of the boundary. All trees on site were concluded to have no potential for roosting bats. No further surveys were required for these trees.

3.2.2 Daytime Bat Survey - Buildings

Six buildings were assessed internally and externally for presence of bats. A metal container, two outbuildings and an electrical sub-station were considered to have no potential for bats and no further surveys were required for these buildings.

The main building, which was also subject to an endoscope survey on a separate date, was considered to have moderate – high potential for bats. Whilst no bats, or evidence of bat activity were found in the features that could be fully inspected during the survey visits; a complete survey of the building could not be completed. This is because some identified features were not possible to fully inspect, even with an endoscope and lifting platform. As such, it was not possible to fully ascertain the status of the main building with regard to roosting bats.

The warehouse was considered to have low potential for roosting bats.

3.2.3 Bat Nocturnal Emergence Surveys

The main building and warehouse were subject to two nocturnal emergence surveys in September 2013. No bats were recorded emerging from the buildings. A single common pipistrelle bat was recorded during each survey visit passing over the north of the site.

4. DAYTIME BAT SURVEY RESULTS

4.1 PREVIOUS DAYTIME BAT SURVEYS – MAIN BUILDING

As described above in Section 3.2, the main building was subject to a Daytime Bat Survey and an Endoscope Survey in September 2013.

The full results of these surveys are detailed in RT-MME-115349 which should be read in accordance with this report. As a summary the assessment of the main building identified the presence of a number of features considered to provide potential roosting opportunities. The main building was considered to have moderate to high potential for bats. Potential features included:

- Gaps between fascia and gable end;
- Raised lead flashing;
- Weep holes;
- Air vents; and
- Gaps in brickwork.

Whilst no bats, or evidence of bat activity (in the form of droppings, urine staining, grease marks, scratch marks or feeding remains), were found in the features that could be fully inspected during the survey visits; a complete survey of the building could not be completed. As such, it was not possible to fully ascertain the status of the buildings with regard to roosting bats.

4.2 DAYTIME BAT SURVEY – MAIN BUILDING

The Daytime Bat Survey of the main building was undertaken on 3rd June by Paul Roebuck (Senior Ecological Consultant, MCIEEM) and Lucy Rees (Assistant Ecologist). The weather conditions recorded at the time of the survey are detailed in Table 5.1.

Parameter	Conditions
Temperature (°C)	19
Cloud Cover (%)	40
Precipitation	None
Wind Speed (Beaufort)	F2

Table 4.1: Weather Conditions during Daytime Bat Survey

The survey concluded that all external features providing potential roosting opportunities for bats identified during the 2013 inspection were still present with the exception of the gap under lead flashing (Target Note 6, RT-MME-115349). The lead flashing was no longer attached to the building in this location. The remaining part of the structure in the area where the lead flashing used to exist was inspected with binoculars and it was concluded that there were no suitable gaps or crevices that provide roosting opportunity (Plate 4.1).



Plate 4.1 Area of building where lead flashing is no longer present

An internal inspection of the building was carried which included an examination of the loft space. The internal conditions were the same as during the 2013 surveys outlined in RT-MME-115349.

No bats, or evidence of bat activity (in the form of droppings, urine staining, grease marks, scratch marks or feeding remains), were found at the main building both externally and internally during the survey. Similarly to surveys in 2013, a complete survey of the building was not possible as some external sections of the building were inaccessible for close inspection.

5. NOCTURNAL EMERGENCE SURVEY RESULTS

5.1 NOCTURNAL EMERGENCE SURVEY

The nocturnal emergence survey was undertaken on 3rd June by Paul Roebuck (Senior Ecological Consultant, MCIEEM) and Lucy Rees (Assistant Ecologist). The weather conditions recorded at the time of the survey are detailed in Table 5.1.

Parameter	Conditions	
	Start	Finish
Temperature (°C)	15	14
Cloud Cover (%)	80	70
Precipitation	None	None
Wind Speed (Beaufort)	F1	F1

Table 5.1: Weather Conditions during Nocturnal Emergence Survey

The nocturnal emergence survey commenced 20 minutes prior to sunset and continued until approximately 120 minutes after sunset. Sunset was at 21:09 hrs (BBC Weather Centre Data for London). No bat species were recorded during the survey.

6. DISCUSSION AND CONCLUSIONS

6.1 DISCUSSION

6.1.1 Summary of Previous Surveys

Middlemarch Environmental Ltd has previously carried out Daytime Bat Surveys and Bat Emergence Surveys in 2013 for Parkhurst Road Limited at this site. The findings of these surveys are detailed in Report RT-MME-115349.

All trees on site were concluded to have no potential for roosting bats. No further surveys were required for these trees. Six buildings were assessed internally and externally for presence of bats. A metal container, two outbuildings and an electrical sub-station were considered to have no potential for bats and no further surveys were required for these buildings. The main building, which was also subject to an endoscope survey, was considered to have moderate – high potential for bats. The warehouse was considered to have low potential for roosting bats.

The main building and warehouse were subject to two nocturnal emergence surveys in September 2013. No bats were recorded emerging from the buildings. A single common pipistrelle bat was recorded during each survey visit passing over the north of the site.

6.1.2 Summary of Daytime Bat Survey & Nocturnal Emergence Survey

Daytime Bat Survey

No evidence of bats was recorded during the survey. The building contained the same features that were identified during the 2013 survey with the exception of a gap under lead flashing which was no longer present.

Nocturnal Survey

No bat species were recorded during the survey.

6.2 CONCLUSIONS

The suite of survey work undertaken on site to date confirms that both the main building and all other buildings and trees on site do not contain a bat roost.

Given the survey findings to date, with very limited bat activity during the two nocturnal surveys in 2013, and no bat activity recorded in 2014, it is concluded the site has a low value to bats.

7. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

R1 Main Building

The main building has been subject to three separate Daytime Bat Surveys, two nocturnal emergence surveys in September 2013 and a nocturnal emergence survey in June 2014. No bat roosts or evidence of bats were identified. The survey data obtained for the site is valid for 12 months from the survey date. If development works to the surveyed building have not commenced within this timeframe it will be essential to update the survey effort to establish if bats have colonised the building in the interim. Updated daytime surveys can be undertaken at any time of year. Updated surveys requiring nocturnal or dawn assessment will need to adhere to the Bat Conservation Trust Guidance.

In the unlikely event that a bat is found during site works all works in that area must immediately cease and a suitably qualified ecologist should be contacted.

R2 Bat Boxes

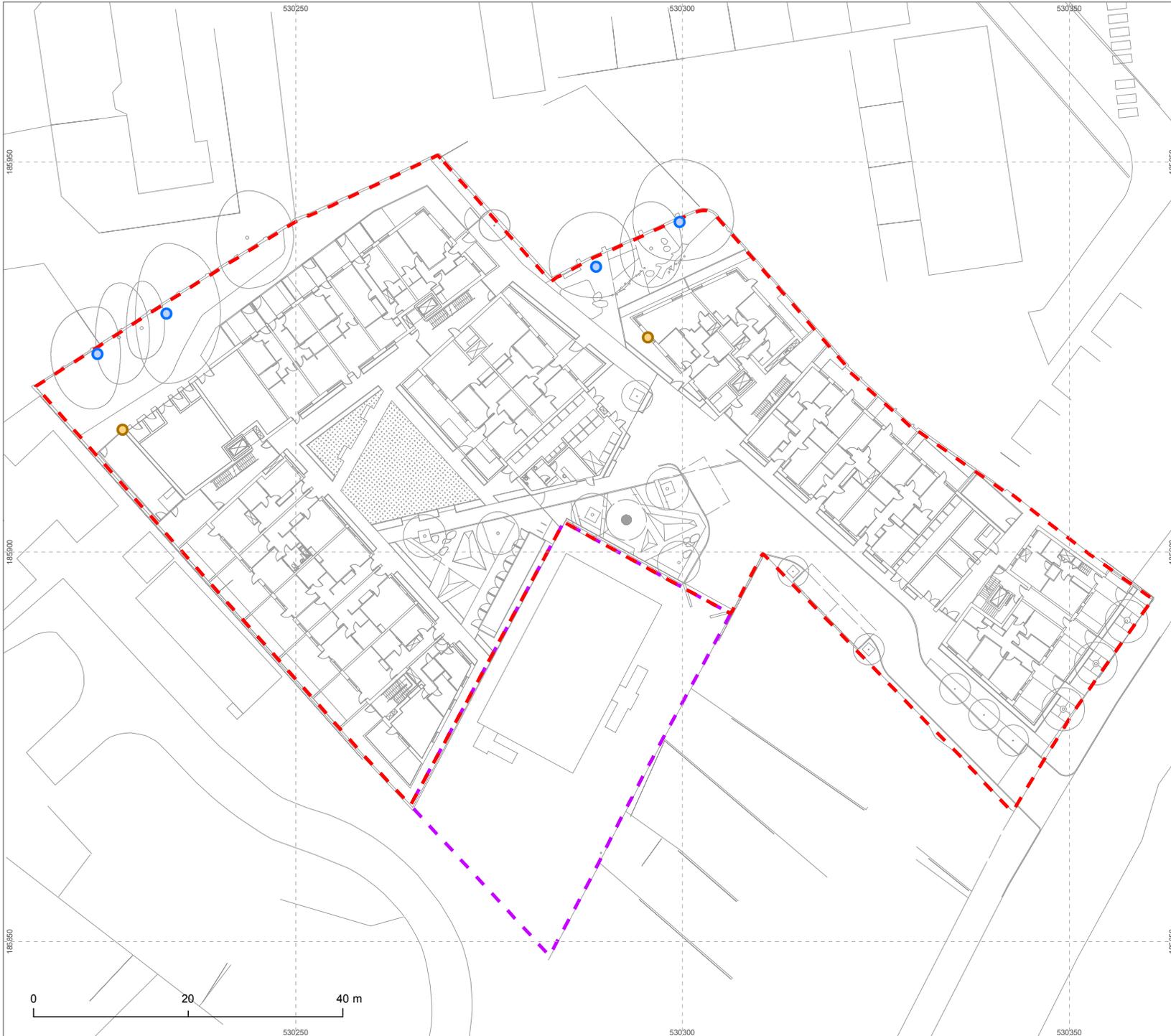
Drawing number C116975-01 shows the proposed location and specification of bat boxes to be included in the proposals. The 1FD bat boxes should be located on existing trees and the 1FF boxes should be located on the proposed buildings. Boxes should be located above 5m in height and in sheltered sunny locations.

R3 Landscape Design

Landscaping proposals should wherever possible follow guidance outlined in the Bat Conservation Trusts Landscape and Urban Design for Bats and Biodiversity Document with planting suitable to attract insect prey for foraging bats.

8. DRAWINGS

Drawing C116975-01 – Bat Box Locations



C116975-01

Legend

- 1FD Schwegler bat box
- 1FF Schwegler bat box with built-in wooden rear panel
- Retained area
- Survey area



Project		Parkhurst Road	
Drawing		Proposed Bat Box Location	
Client		Parkhurst Road Limited	
Drawing Number	C116975-01	Revision	00
Scale @ A4	1:700	Date	June 2014
Approved By	PR	Drawn By	CD

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This drawing is based on landscape layout "13033_(00)_110.dwg",
 supplied by the client.

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APPENDIX 1

LEGISLATION

Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2010, as amended (Habitats Regulations 2010, as amended). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2010 (as amended), states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance 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.

It is an offence under the Habitats Regulations 2010 (as amended) for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* (rather than deliberately) kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, or *obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The following bat species are Species of Principal Importance for Nature Conservation in England: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*.

The reader should refer to the original legislation for the definitive interpretation.

ECOLOGY

At present, 18 species of bats are known to live within the United Kingdom, of which 17 species are confirmed as breeding. All UK bat species are classed as insectivorous, feeding on a variety of invertebrates including midges, mosquitoes, lacewings, moths, beetles and small spiders.

Bats will roost within a variety of different roosting locations, included houses, farm buildings, churches, bridges, walls, trees, culverts, caves and tunnels. At different times of the year the bats roosting requirements alter and they can have different roosting locations for maternity roosts, mating roosts and hibernation roosts. Certain bat species will also change roosts throughout the bat activity season with the bat colony using the site to roost for a few days, abandoning the roost and then returning a few days or weeks later. This change can be for a variety of reasons including climatic conditions and prey availability. Bats are known live for several years and if the climatic conditions are unfavourable at a particular roost, they

may abandon it for a number of years, before returning when conditions change. Due to the matriarchal nature of bat colonies, the locations of these roosts can be passed down through the generations.

Bats usually start to come out of hibernation in March and early April (weather dependent), when they start to forage and replenish the body weight lost during the hibernation period. The female bats then start to congregate together in maternity roosts prior to giving birth and a single baby is born in June or July. The female then works hard to feed her young so that they can become independent and of a sufficient weight to survive the winter before the weather gets too cold and invertebrate activity reduces. Males generally live solitary lives, or in small groups with other males, although in some species the males can be found living with the females all year. The mating season begins in the autumn. During the winter bats hibernate in safe locations which provide relatively constant conditions, although they may venture outside to forage on warmer winter nights.