

Report by: **KJF Consultancy** Ltd

Title: **Findings and Conclusion of Further Bat Activity
Survey - Land adj Shripney Road (A29),
Bognor Regis, West Sussex PO22 9NP**

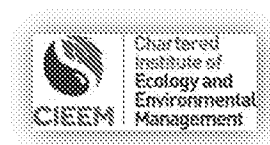
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Declaration of compliance with professional code of conduct: "The information contained within this report which I have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. I confirm that the opinions expressed are my true and professional bona fide opinions."

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References (in alphabetical order)

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1. Summary

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1.1 Background

1.1.1 This report follows the KJF Consultancy Ltd report produced 04.10.19 - Findings and Conclusion of Bat Activity Surveys - Land adj Shripney Road (A29), Bognor Regis, West Sussex PO22 9NP (report ref:- BAS.LASR.BR.WS). Relevant information contained within the report may be reiterated within this report; however, the report should be referred to while reading this report.

1.1.2 To enable more information to be gained regarding the species of bats that are associated with the site; KJF Consultancy Ltd was instructed to carry out a further bat activity survey.

1.2 Instruction received

1.2.1 I was instructed by the client to:-

(a) carry out a further bat activity survey within the site, and

(b) provide a report to advise the client of the findings and conclusion of the further survey.

1.3 Survey methodology

1.3.1 A static bat activity survey was carried out that was a dusk to dawn survey 02.07.19 to 03.07.19. The survey was again carried out in accordance with good practice guidelines (Bat Conservation Trust. Bat Surveys for Professional Ecologists. Good Practice Guidelines. 3rd Edition. 2016).

1.3.2 My conclusion is given at 5; my recommendations are given at 6.

2. Survey details**2.1 Dates and times of the survey**

2.1.1 The date and times of the survey are given below.

Dates of the survey:	Sunset/start of survey:	End of survey:
02.07.19	21:19/21:00	24:00
	Start of survey/sunrise:	Start of survey:
03.07.19	03:00/04:55	03:00

Table 1. Dates and times of the survey.

2.2 Surveyors details

2.2.1 I carried out the further survey; I hold a Level 2 Bat Survey Class Licence. My credentials are attached at appendix 1.

2.3 Equipment used

2.3.1 I used an iPad and the Echo Meter Touch 2 PRO (EM2) Bat Detector (with Real Time Species Auto-ID) to detect/record bat calls; I used a head torch and an infrared night scope occasionally used when dark. Observations were recorded on my mobile phone.

2.3.2 A HoldPeak[®] HP-866A Pro Anemometer was used to record ambient conditions (temperature in °C), relative humidity (RH, the amount of water vapour present in the air expressed as a percentage), and the maximum wind speed during the survey. Any periods of rain or strong wind during the survey were recorded.

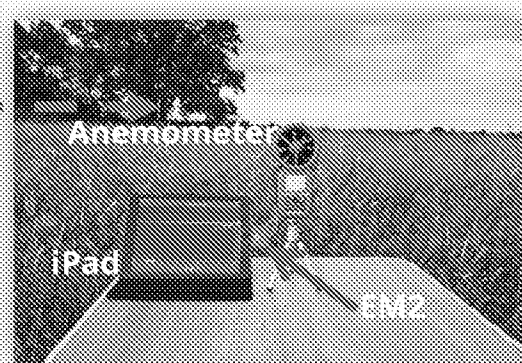
2.4 Survey description

2.4.1 The first activity surveys consisted of a transect survey and a static survey (the details of the surveys are given within the report referred to at 1.1.1). The further activity survey I carried out was a static survey.

2.4.2 I was positioned near the centre of the site, with the iPad, bat detector, and the anemometer, to record bat activity (calls from foraging and passing bats and sightings of bats) and to record the conditions during the survey. My location during the survey is shown within the photographs below.



Photograph 1 (courtesy of Google). My location  during the survey.



Photograph 2. The anemometer etc.

2.4.3 I carried out the static survey to ascertain the presence/absence of any rare species of bats that might be associated with the site (a paddock). Rare species of bats associated with grassland habitats (e.g. paddocks) are (in alphabetical order): Bechstein's bat (*Myotis bechsteinii*); Barbastelle (*Barbastella barbastellus*); and the Grey long-eared bat (*Plecotus austriacus*).

2.4.3.1 The above species are all very rare and reasonable survey effort must be made to be confident of the presence/absence of these species where a development is proposed.

3. Survey findings

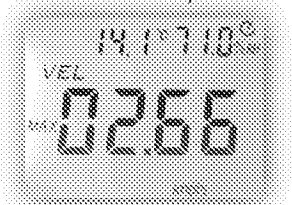
3.1 Survey times and ambient conditions

3.1.1 Sunset and sunrise times on the dates of the survey were 21:19 and 04:55 respectively. The survey started at 21:00; 19 minutes before sunset, and ended at 05:15; 20 minutes after sunrise. In accordance with the guidelines, the survey started at least 15 minutes before sunset and continued until at least 15 minutes after sunrise. Although I took a break during the survey; I left the bat detector recording to ensure no species went undetected. The bat detector was continually recording between 21:00 and 05:15; a total recording time of 8.25 hours.

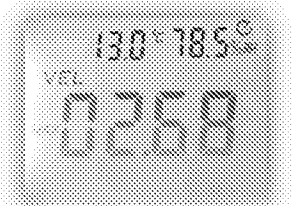
3.1.2 The photographs below show the ambient conditions recorded during the survey.



Photograph 3. Ambient conditions at the start of the survey (16.1°C, RH 71.0%, max wind speed recorded = 02.43 knots).



Photograph 4. Ambient conditions at 24:00 (14.1°C, RH 71.0%, max wind speed recorded = 02.66 knots).



Photograph 5. Ambient conditions at 03:00 (13.0°C, RH 78.5%, max wind speed recorded = 02.68 knots).

3.1.2.1 The temperature recorded at the end of the survey was 11.6°, with a RH of 81%, and a max wind speed recorded of 1.8 knots.

3.1.2.2 The temperature was better than optimal ($\geq 10^{\circ}\text{C}$), throughout the survey; there were no periods of rain or strong wind during the survey. The maximum wind speed recorded during the survey was 2.68 knots; this equates to 1 (light air) of the Beaufort Wind Force Scale.

3.2 Species recorded during the survey

3.2.1 A total of 102 calls were recorded from 5 species of bats during this survey; the species recorded (common and scientific names) are given below (in alphabetical order). Comments on the species are also given.

Common and scientific name:	Comments:
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	Found widespread throughout the UK.
Nathusius' pipistrelle (<i>Pipistrellus nathusii</i>)	Considered to be a rare species within the UK; however, it may be more common than is presently realised.
Noctule (<i>Nyctalus noctula</i>)	Found widespread throughout the UK.
Serotine (<i>Eptesicus serotinus</i>)	The serotine is one of our less common species, occurring mainly south of a line drawn from The Wash to parts of South Wales.
Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>)	Found widespread throughout the UK.

Table 2. Species recorded during the survey.

3.2.2 The 1st call was recorded at 21:28 (a Noctule); the last call was recorded at 03:53 (a Noctule). The number of calls recorded for each species is given below (in descending order).

Common name:	Number of calls recorded:
Common pipistrelle	45
Serotine	17
Soprano pipistrelle	16
Noctule	15
Nathusius' pipistrelle	9
	102

Table 3. Number of calls recorded for each species.

3.3 Observations

- 3.3.1 The only bats seen were a Common pipistrelle passing at 21:50, and a Serotine passing at 22:00.

4. Limitations

- 4.1 The following are considered limitations on the surveys:-

- (a) the differing activity patterns of bats at different times of the year;
- (b) the differing capabilities of different bat detectors;
- (c) not making a request for data (records of any bat roosts within 1km of the site) from the local environmental records centre.

5. Conclusion

- 5.1 It is proposed to develop a significant area of land adj Shripney Road (A29), Bognor Regis, West Sussex PO22 9NP; however, no details of a development were provided. Therefore, it has not been possible to assess the likely impacts on bats through a development. However, assumptions have been made regarding likely impacts on bats.

- 5.2 KJF Consultancy Ltd was instructed by Hanbury Properties Ltd, to carry out a bat survey within the site and to provide a report giving the findings and conclusion of the survey.

- 5.2.1 There are no buildings within the site; the only structure within the site (an open fronted timber structure used for storage) does not contain any features likely to be used by bats.

- 5.3 Bat activity surveys (transect and static surveys) were carried out during the evening of 28.09.18 from 18:30 to 23:00. The surveys were carried out over a period of 4.5 hours. A further activity survey - a static bat activity survey, was carried out that was a dusk to dawn survey 02.07.19 to 03.07.19; this survey was carried out over a period of 8.25 hours. The surveys were carried out in accordance with good practice guidelines.

- 5.3.1 A combined total of 211 calls were recorded during all the surveys; 8 species of bats were recorded foraging and/or passing. 5 species are found widespread throughout the UK. However, 1 species (the Serotine) is less commonly found, and 2 species (the Nathusius' pipistrelle and the Barbastelle) are rare; particularly the Barbastelle, which is limited to central and southern England, and Wales. The Nathusius' pipistrelle may be more common than is presently realised. According to the Bat Conservation Trust (BCT) website, the Barbastelle has been confirmed at 2 Local Nature Reserves (LNRs) in West Sussex: Ebernoe Common and The Mens. The LNRs are 20.4 and 18.2 miles (respectively) from the site. The recordings were emailed to the BCT for verification; they confirmed that the calls are from a Barbastelle bat.

- 5.4 During the surveys, 68 calls were recorded from the Soprano pipistrelle; 60 calls were recorded from the Common pipistrelle; 46 calls were recorded from the Noctule; 17 calls were recorded from the Serotine; 10 calls were recorded from the Nathusius' pipistrelle; 7 calls were recorded from the Brown long-eared bat; 2 calls were recorded from the Barbastelle; and 1 call was recorded from the Daubenton's bat. In my opinion, the calls were from the same bat of the species recorded i.e. only 8 bats were foraging/passing during the surveys.
- 5.5 Bat activity surveys have now been carried out in September 2018, and July 2019; the surveys were carried out over a total period of 12 hours and 45 minutes.
- 5.5.1 In my opinion, reasonable survey effort has been made to be confident of the presence/absence of rare species of bats; based on the surveys, a development will not adversely impact any rare species of bats.
- 5.5.2 There appears to be a low population of bats that are found widespread throughout the UK that occasionally forage/pass over the site. 1 species less commonly found (the Serotine) also occasionally forages/passes over the site. 1 rare species (Nathusius' pipistrelle) also occasionally forages/passes over the site; however, this species may be more common than is presently realised. Only 2 calls were recorded during all the surveys for 1 other rare species (the Barbastelle).
- 5.6 Although a development will not adversely impact any rare species of bats; to minimise adverse impacts on bats through a development, appropriate and proportionate mitigation measures will need to be given. Given the area of the site, a lighting strategy will be required; reference will need to be made to the Bat Conservation Trust and Institution of Lighting Professionals Guidance Note 8/18 - Bats and artificial lighting in the UK.
- 5.6.1 Developments provide opportunities to make provision (enhancements) for the local population of bats through providing permanent roosting options i.e. by installing bat bricks into the fabric of new buildings/dwellings and bat access tiles into roofs. Trees and hedges planted within a development site provide habitats for foraging bats.
- 5.6.2 To ensure the mitigation and enhancement measures are implemented, compliance measures (i.e. site visits by an appointed Ecologist) during the development and after completion, will be required.
- 5.6.3 If planning permission is granted for a development within the site, the LPA will be able to attach a condition to the decision notice with regard to bats.

6. Recommendations

1. This report should be submitted to the LPA as supporting information for the proposed development.

References

A Field Guide to British Bats by Frank Greenaway and A. M. Hutson (Bruce Coleman Books, Middlesex - 1990).

Bat Conservation Trust. Bat Surveys for Professional Ecologists. Good Practice Guidelines. 3rd Edition (2016). ISBN-13 978-1-872745-96-1.

Bat Mitigation Guidelines. 2004. ISBN 1 85716 781 3.

Bat Conservation Trust and Institution of Lighting Professionals Guidance Note 8/18 Bats and artificial lighting in the UK.

British Bat Calls: A Guide to Species Identification. Jon Russ. ISBN-13: 9781907807251. 2012.

BS 42020: 2013 Biodiversity - Code of practice for planning and development.

CIEEM (2013) Technical Guidance Series. Competencies for Species Survey: Bats.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal. Chartered Institute of Ecology and Environmental Management.

University of Bristol, School of Biological Sciences (www.bio.bris.ac.uk).

Natural England's standing advice for local planning authorities to assess impacts of development on bats (www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects).

Natural England's standing advice to review applications that might affect protected species (www.gov.uk/guidance/protected-species-how-to-review-planning-applications).

Appendix 1. Author's credentials.

Professional affiliations

Professional Member of The Chartered Institute of Building (MCIOB); Chartered Environmentalist (CEnv); Professional Member of The Chartered Institute of Ecology and Environmental Management (ACIEEM); Registered with Natural England and Licenced (Level 2 Bat Survey Class Licence) to disturb and handle Bats.

Relevant experience

9 years' experience as a Local Authority Woodland Conservation Officer; an independent Ecological Consultant since 2011.

Insurance details

Details of Insurance, and Continual Professional Development for the last 2 years,' can be provided on request. If requested, some of the details within the information may be redacted to comply with the Data Protection Act.

