

## Emergence Survey Report – Bats Nesting Birds/Barn Owl

<b>Site Location</b>	St. Marys Croft, The Green, Dungworth, Bradfield, Sheffield, South Yorkshire, S6 6HE
<b>Document reference</b>	CE1605  <i>This document should be read in conjunction with the Preliminary Roost Assessment for bats completed on the 6<sup>th</sup> October 2020 by ARBTECH</i>
<b>Date of survey</b>	Emergence Survey – 9 <sup>th</sup> May 2021 Emergence Survey – 24 <sup>th</sup> May 2021 Emergence Survey – 28 <sup>th</sup> June 2021
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## **1.0 Introduction**

### **Brief**

This report will present the findings of an emergence survey for bats & Nesting Birds/Barn Owl of the named site on the below dates;

Emergence Survey – 9th May 2021

Emergence Survey – 24th May 2021

Emergence Survey – 28th June 2021

## 2.0 Executive Summary

Chase Ecology undertook an emergence survey at the named site to assess the building for bats following a preliminary roost assessment which deemed the structure to offer value for roosting. During this time the building was assessed for nesting birds and activity from Barn Owl.

Survey Methodology	<p>All emergence surveys were conducted during the optimal recommended survey times following best practice guidelines.</p> <p>All surveys were carried out during optimal weather conditions.</p> <p>Each elevation of the structure which offers value to bats was viewed during the survey visit with no limitations.</p> <p>Internal/external inspections carried out for any evidence from nesting birds along with feeding.</p>
Results of emergence surveys	<p>Following the three recorded emergence survey of the structure during May &amp; June 2021 a total of one daytime bat roost for Common Pipistrelle with a maximum count of one bats was observed within the main South facing roof coverings.</p> <p>See Section 5: Results of Phase 2 Activity Surveys</p>
Nesting Birds/Barn Owl	<p>The internal areas of the structure were assessed further on the 9<sup>th</sup> May 2021 &amp; 28<sup>th</sup> June 2021 for any evidence/activity from Barn Owl. During this time no fresh evidence from Barn Owl was observed.</p> <p>During the initial roost assessment carried out by ARBTECH on the 6<sup>th</sup> October 2020 the building demonstrated an opening within the East facing elevation (1<sup>st</sup> floor) which was confirmed to offer access opportunities to both Barn owl &amp; Bats. However this was then blocked off via a timber board (See images within page 10) along with internal disturbance from the removal of all 1<sup>st</sup> floor areas which has now fully opened the building up.</p> <p>It is likely that the blocked window may have prevented the access to Barn owl.</p>
Requirements for Additional Survey	<p>See Appendix 1: Mitigation, Protection &amp; Enhancement.</p>

<p>Predicted Impacts of Development on Bats</p>	<p><u>Bats</u>  Low impacts will be offered to bats if all guidance &amp; recommendations for mitigation within appendix one are implemented during all stages of development.</p> <p><u>Barn Owl</u>  The original roost assessment for the building confirmed activity internally from Barn Owl and it is likely that if the building had not been blocked via a timber board to the East facing opening that Barn Owl may still have actively used the structure for roosting.</p> <p>It is advised that a suitable level of mitigation/enhancement is offered to prevent a loss in biodiversity during the proposed development works.</p> <p>See Appendix 1: Mitigation, Protection &amp; Enhancement.</p>
<p>Licensing Requirements for Bats</p>	<p>Prior to any further disturbance/modification of the building a Protected Species Mitigation Licence must be obtained from Natural England for 1 x Common Pipistrelle Daytime roost which has been evidenced within the rear South facing roof coverings.</p> <p>In addition to the above mitigation requirements, the building has evidenced suitable features of value to bats for Winter Roosting so all disturbance works, maintenance, renovations, modifications should be carried out during April to October only.</p> <p>See Appendix 1: Mitigation, Protection &amp; Enhancement.</p>
<p>Biodiversity Net Gain During Development</p>	<p>See Appendix 2: Biodiversity Net Gain</p> <p>Agreed enhancement for Bats, Barn Owl and Nesting Birds (Swift) has been confirmed and will be implemented during the development works and must be maintained by the client for no less than 10 years.</p>

### **3.0 Legislation**

- 3.1.1 All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2010 (as amended), making it an offence to:
- Deliberately kill, injure or capture a bat;
  - Deliberately disturb bats;
  - Damage or destroy a breeding site or resting place;
- 3.1.2 In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly Obstruct access to any structure or place which any bat uses for shelter or protection; or Disturb any bat while occupying a structure or place which it uses
- 3.1.3 If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural England, which would be subject to appropriate measures to safeguard bats.

## 4.0 METHODOLOGY

- 4.1 All reporting undertaken by Mr Garry Smith who is an experienced licensed bat ecologist in England [Class 2 registration 2017-28032-CLS-CLS] with over 9 years' experience practical of professional ecological surveys.
- 4.2 It is recommended that emergence surveys should be carried out within the optimal survey season from May to August, April & September are also useful times if weather conditions remain optimal, in line with the Good Practice Guidelines, 3rd edition, Bat Conservation Trust
- 4.3 Surveys were conducted following "The Bat Workers Manual "(JNCC 2004), "The Bat Mitigation Guidelines" (EN 2004) and the Bat Conservation Trust 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (2016) recommendations.
- 4.4 All elevations of the structure were visible throughout the survey to capture any bats emerging from within or into the structure throughout the duration of the survey.
- 4.5 Internal inspections were carried out to assess for any signs of nesting birds including Barn Owl.
- 4.6 The building was inspected for any modifications or changes between surveys.



## 5.0 Results of Phase 2 Activity Surveys

Site Address		St. Marys Croft, The Green, Dungworth, Bradfield, Sheffield, South Yorkshire, S6 6HE				
Date		9 <sup>th</sup> May 2021				
Sunset/ Sunrise	Start Time	Finish Time	Temperature		Wind Beaufort Scale	Cloud Cover
			Start	End		
20:50	20:35	22:30	13	10	1	100%
		Name	Position		Detector	
Lead Surveyor		GARRY SMITH	Front Centre		WALKABOUT	
Assistant Surveyor		SCOTT LATHAM	Rear Left		EMT PRO	
Assistant Surveyor		TONT TEESE	Front Right		EMT PRO	

### Emergence/Re-Entry Data

No bats observed to have emerged from within or into the structure during the survey times recorded above.

### Activity from Bats during survey

Species	Activity
Common Pipistrelle	Single pass during early stages of survey, no visual. 1 x bat foraging around front/rear areas of site during mid stage of survey briefly.
Brown Long-eared	Single pass across rear field during mid stage of survey.
Noctule	Single pass above site during early stages of survey.

Site Address		St. Marys Croft, The Green, Dungworth, Bradfield, Sheffield, South Yorkshire, S6 6HE				
Date		24 <sup>th</sup> May 2021				
Sunset/ Sunrise	Start Time	Finish Time	Temperature		Wind Beaufort Scale	Cloud Cover
			Start	End		
21:13	20:58	22:50	12	10	2	10%
		Name	Position		Detector	
Lead Surveyor		GARRY SMITH	Front Centre		WALKABOUT	
Assistant Surveyor		SCOTT LATHAM	Rear Left		EMT PRO	
Assistant Surveyor		TONT TEESE	Front Right		EMT PRO	

### Emergency/Re-Entry Data

No bats observed to have emerged from within or into the structure during the survey times recorded above.

### Activity from Bats during survey

Species	Activity
Common Pipistrelle	1 x bat emerged from the roof coverings to throw of cottages to the right of the barn and used the areas to the front of the barn for foraging for a few minutes. 1 x commuting pass during mid stages of the survey, no visual.

During the survey visit on the 24<sup>th</sup> May 2021 it was identified that the first floor opening within the East facing gable had been blocked up and the internal 1<sup>st</sup> floor joists & coverings had been removed as per below images.

If Barn Owl had still been active within the structure this would have likely caused access disturbance. In addition the removal of the 1<sup>st</sup> floor has opened up additional natural lighting within the roof void areas




Site Address	St. Marys Croft, The Green, Dungworth, Bradfield, Sheffield, South Yorkshire, S6 6HE					
Date	28 <sup>th</sup> June 2021					
Sunset/ Sunrise	Start Time	Finish Time	Temperature		Wind Beaufort Scale	Cloud Cover
			Start	End		
04:40	03:00	04:55	12	12	3	90%
	Name	Position		Detector		
Lead Surveyor	GARRY SMITH	Front Centre		WALKABOUT		
Assistant Surveyor	SCOTT LATHAM	Rear Left		EMT PRO		
Assistant Surveyor	TONT TEESE	Front Right		EMT PRO		

### Emergence/Re-Entry Data

Point	Time	Species	Activity
One	04:29	Common Pipistrelle	1 x bat emerged into rear South facing roof coverings as per below image.

### Activity from Bats during survey

Species	Activity
Common Pipistrelle	2 x bats foraging around the building and field to the rear for up to 15 minutes during mid stages of survey. 1 x bat foraging around the rear of site and across roof coverings prior to emerging into the building (Point1) at 04:29.
Soprano Pipistrelle	1 x commuting pass during mid stages of survey, no visual.
Brown Long-eared	1 x brief foraging during early stages of survey, no visual.

Any other information including photographs of emergence points	
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## 6.0 References

- Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004) 3rd Edition Bat Workers' Manual. Joint Nature Conservation Committee, Peterborough.
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. Natural England, Peterborough.
- British Trust for Ornithology (2016) [www.bto.org/](http://www.bto.org/)
- Magic database (2017) <http://www.magic.gov.uk/MagicMap.aspx> accessed on 08/03/2017.
- Google Earth (2017)

## **Appendix 1: Mitigation, Enhancement & Protection**

This document must be available to all involved in the planned development. All contractors must be aware of the potential of protected & priority species being found on site and care should be taken during works to avoid harm (including during any tree works), if protected species are found then all work should cease and an ecologist should be consulted immediately.

### **Mitigation - Bats**

During the three emergence surveys (2020/2021) a total of five individual daytime bat roosts were identified which will suffer total loss during the proposed development works;

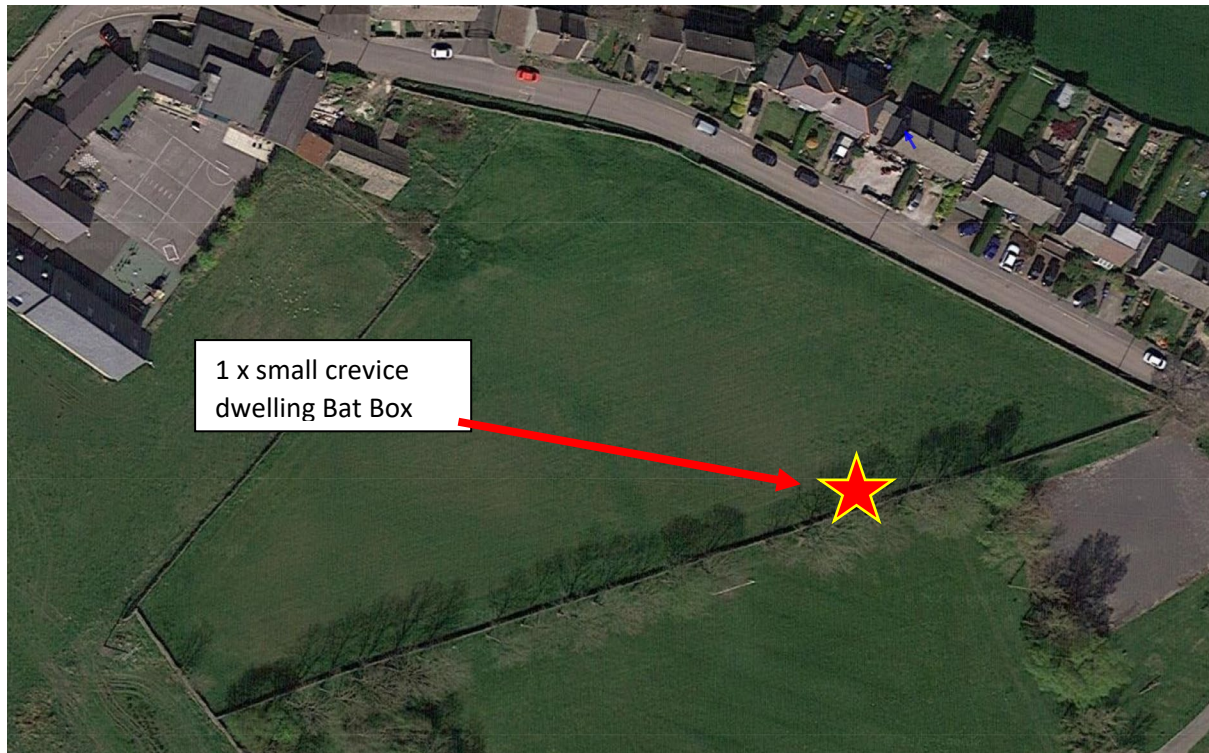
Roost 1 – Common Pipistrelle – Daytime roost (1 x bat max count)

Prior to any development works which would offer disturbance to the two roost locations within the main roof coverings a Protected Species Mitigation Licence will need to be obtained from Natural England as below;

- Mitigation License to be applied and granted prior to any disturbance works to both bat roosts which have been identified within this report.
- Mitigation methods agreed with contractors prior to any development works on site.
- During mitigation, a licenced and experienced bat worker will be on site to coordinate the mitigation works and to supervise a hand strip of all roost locations. During this time, any roosting bats located will be moved to a suitable bat box within the site.
- One small crevice dwelling bat box will be installed within the site and remain as a permanent fixture. This selected box will form part of the mitigation licence and will be installed by the ecologist on the day of the mitigation works.
- On completion of all mitigation works the licenced ecologist will complete all relevant return documentation to Natural England and conduct any post development checks where appropriate.



## Bat box location within the site



## **Protection measures to be implemented during development**

### Lighting

It is recommended that during the development process the levels of lighting such as security floodlighting and lighting around working platforms if any should be limited to reduce the level of disturbance caused to bats which have been recorded locally.

Disturbance caused by high power lighting can cause disturbance to common commuting and foraging areas currently used by bats.

It is advised that all works should be carried out during the hours of daylight to further reduce the levels of disturbance caused to bats and other nocturnal wildlife in the surrounding environment.

### Nesting Birds – Barn Owl

The building has demonstrated confirmed activity from Barn Owl during an internal assessment in October 2020. It was identified in May 2021 that the only suitable access point for Barn Owl had been blocked off which may have prevented any continued roosting within if active.

It is confirmed that prior to any further development taking place a Barn owl inspection must be carried out (24 hours prior) by a suitably experienced ecologist to confirm no disturbance would be offered to said species.

### Protection of Wildlife During the development

All excavations (if any) should be closed where possible during the hours of darkness to prevent entrapment of wildlife such as mammals which may use the site during the hours of darkness for commuting & foraging.

For excavations which require to be left open a shallow slope should be in place to aid escape.

Any pipes over 200mm in diameter should be capped off at night to prevent animals entering.

The site should remain in a tidy fashion with waste materials removed daily to prevent any use from wildlife as a natural refugia.

## Appendix 2: Biodiversity Net Gain

### Bats

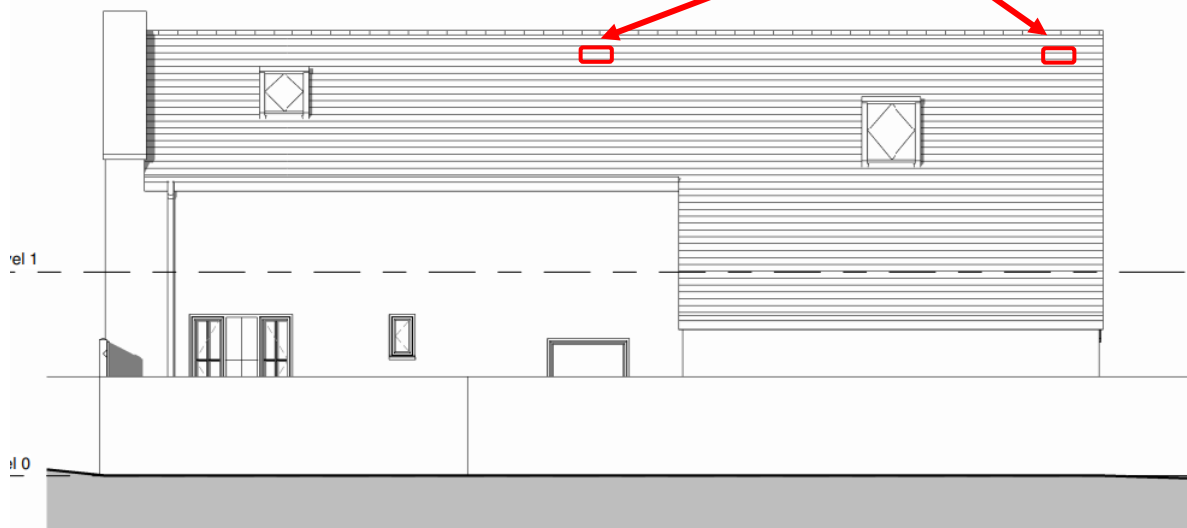
It has been confirmed that the development works will offer total destruction of the single daytime bat roost for Common Pipistrelle so a suitable level of enhancement has been agreed to prevent an overall loss in habitat.

Four bat access tiles will be introduced within the new roof coverings (two North & two South) to offer continued roosting features commonly used by crevice dwelling bats such as Common Pipistrelle.



2 **Proposed Front (North) Elevation**  
1 : 50

Bat Access tile



4 **Proposed Rear (South) Elevation**  
1 : 50

It is confirmed that a felt membrane covering **MUST** be used during the construction of the new roof coverings during development as breathable roof membrane



coverings have been demonstrated to offer danger to bats and not recommended for use on such development works.

### **Barn Owl**

As the proposed development will likely offer an impact to Barn Owl with a loss in roosting habitat. It has been agreed that a barn owl box (Post mounted) will be introduced within the site and maintained by the client for no less than 10 years.

