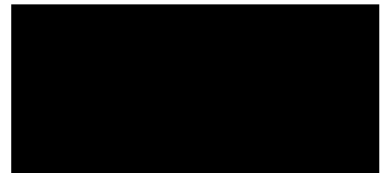




AEWC Ltd
Animal Ecology & Wildlife Consultants

Butler's House
North Street
Petworth
West Sussex
GU28 0DP



Bat & Barn Owl Assessment

Fairmeads Farm

**Binsted Lane
Binsted
Arundel
West Sussex
BN18 0LH**

**Brigitte de Coriolis
16-049-BA
October 2016**

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Summary

- AEWCLtd. was commissioned by Rural Associates to undertake a detailed bat and barn owl assessment of two buildings at Fairmeads Farm, Binsted Lane, Arundel, West Sussex, BN18 0LH to inform the proposed development of the site.
- The initial assessment and report have been conducted and prepared by a qualified ecologist Brigitte de Coriolis. The objective of the survey was to gather information as to whether bats or barn owls are or might be present using this building at any time of the year and how they might be affected by any proposed development to the site.
- Initial observations consider the local area to be suitable for both bats and barn owls, with an abundance of good foraging habitat within close proximity of the site.
- Building 1 is in very poor condition and lacks a roof over most of the structure. At the southern end where the roof is still present, multiple openings provide easy access into the interior for both bats and barn owls, while also creating bright, draughty and dusty conditions within the building. The building lacked suitable roosting features for bats and no evidence of use by bats was identified at any point in or around Building 1. There were no ledges suitable for nesting owls, and limited perching opportunities in draughty, exposed areas of the building. No owls or evidence of owls was identified at any point in or around Building 1.
- Building 2 had a large roof light covering 50% of the roof, creating very bright internal conditions. While gaps at the wall tops and an opening in the roof light created access, the building lacked any suitable crevices for bats or ledges and perches for owls. The metal construction of the building also creates temperature fluctuations, further decreasing suitability. No evidence of either bats or owls was identified at any point in or around Building 2.
- Buildings 1 and 2 are both considered to have negligible potential for use by either bats or barn owls, and the proposed demolition of these two buildings may proceed without need for any further surveys.

This report has been prepared by AEWCLimited, with all reasonable skill, care and diligence within the terms of the Contract with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

1 Introduction

- 1.1 AEWCLtd. was commissioned by Rural Associates to undertake a detailed bat and barn owl assessment of two buildings at Fairmeads Farm, Binsted Lane, Arundel, West Sussex, BN18 0LH to inform the proposed development of the site.
- 1.2 The survey and report have been carried out and prepared by a qualified ecologist Brigitte de Coriolis. This report gives details of the day time assessment survey conducted on the 7th October 2016.
- 1.3 The initial bat assessment is designed to:
 - Assess the potential for bats to roost within the buildings to be affected by the proposed works
 - Assess the potential for barn owls to roost within the buildings to be affected by the proposed works
 - Establish whether further surveys, mitigation or an EPS licence is required.

The survey and report writing were carried out in accordance with Bat Surveys: Good Practice Guidelines (Collins, 2016).

Legislation

- 1.4 All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. All bat species are also included on Schedule 2 of the Conservation of Species and Habitats Regulations 2010. Taken together, these pieces of legislation make it an offence to:
 - Intentionally or recklessly kill, injure or capture bats;
 - Deliberately or recklessly disturb bats (whether in a roost or not); and
 - Damage, destroy or obstruct access to bat roosts.
- 1.5 A roost is defined as 'any structure or place which [a bat] uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.
- 1.6 Barbastelle Bats *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* are also listed as being species of principle importance to the conservation of biodiversity in England under Section 41 of the Natural Environment and Rural Communities Act 2006.
- 1.7 All British birds, their nests and eggs are protected by law. It is an offence to deliberately take, kill or injure a wild bird or take, damage, or destroy any nest or egg of any wild bird under the Wildlife and Countryside Act 1981 (as amended). Schedule 1 provides an additional level of protection so that species such as barn owl *Tyto alba* are further protected against intentional and/or reckless disturbance while nesting.

2 Background

- 2.1 The site is located at OS grid reference SU 99248 05469, to the south of the A27 between Binsted and Tortington (Figure 1).

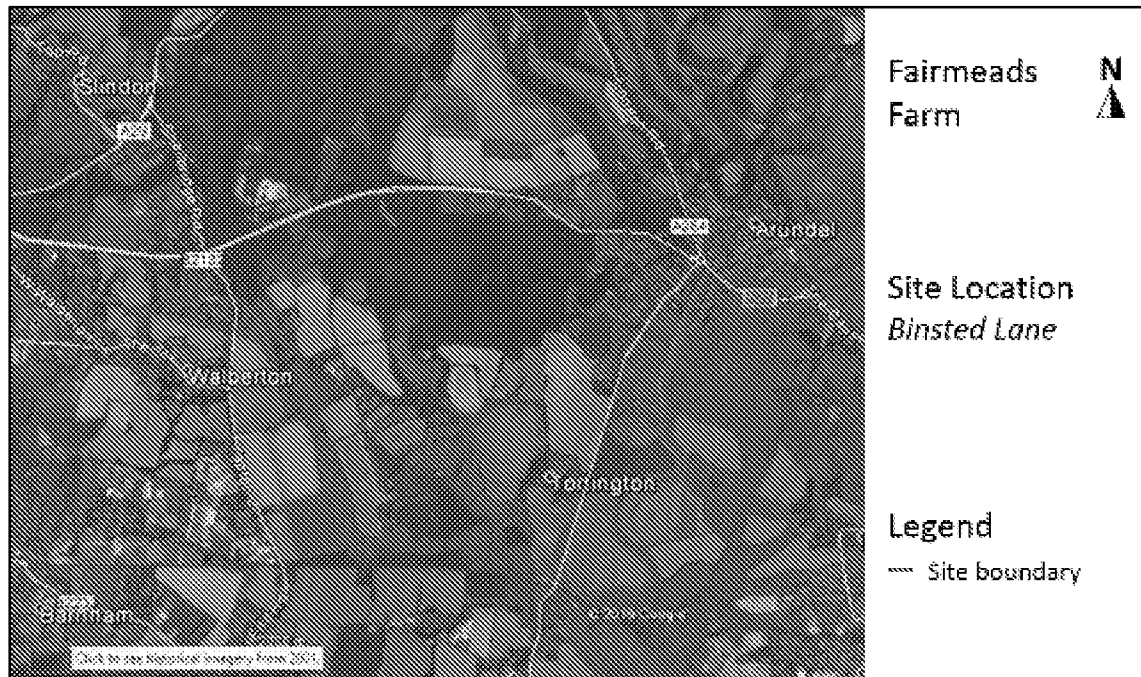


Figure 1: Location of the site at Fairmeads Farm (Image courtesy of Google Earth).

- 2.2 The site lies in a rural area <200m south of the South Downs National Park. The surrounding landscape comprises agricultural and pastoral fields bound by mature tree lines to the east, west and south. To the north is extensive woodland, predominantly deciduous (a BAP Priority Habitat), including areas of both Ancient Semi-Natural and Ancient Replanted woodland.
- 2.3 The site is a portion of Fairmeads Farm just east of Binsted Lane (Figure 2), comprising two old farm buildings within rough grassland, with scrub and bound by hedgerow along the southern boundary and mature tree line on the northern boundary.

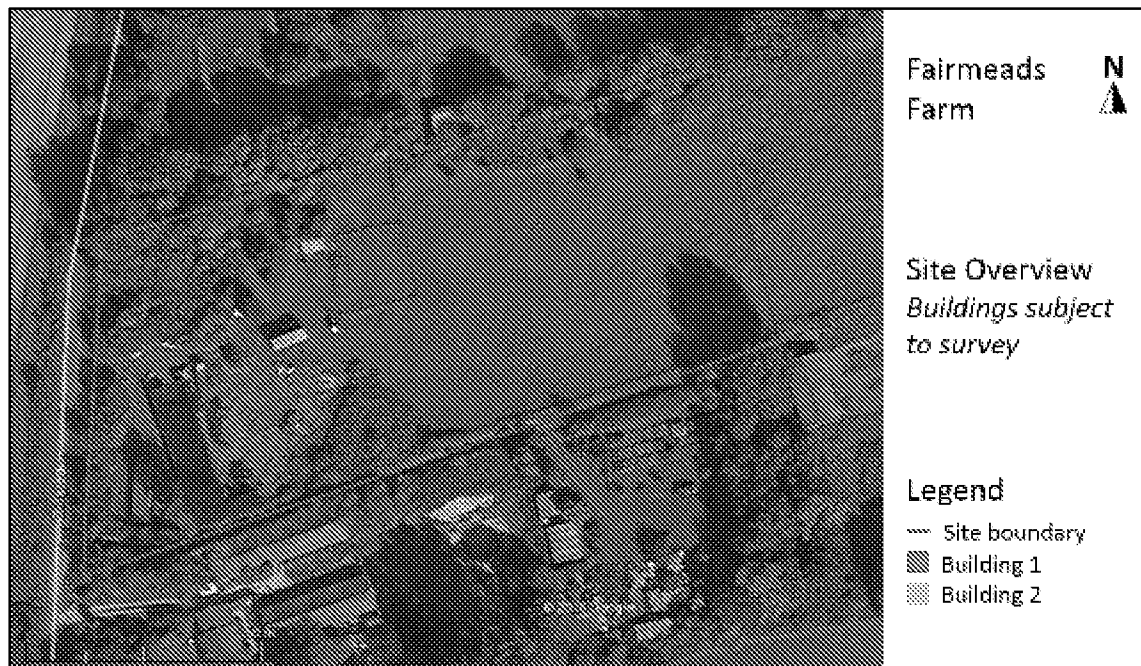


Figure 2: Aerial view of the site showing the buildings surveyed.

- 2.4 Building 1 is a large, L-shaped building of block construction. The building is in extremely poor condition, and only one area in the southern corner still has the corrugated asbestos roof present (Figure 3).



Figure 3: The western elevation of Building 1, showing the poor condition and missing roof over much of the building.

- 2.5 Building 2 is a small storage shed constructed from brick and corrugated metal sheeting near the northern boundary of the site (Figure 4).



Figure 4: Showing the southern elevation of Building 2.

- 2.5 The proposed development is for demolition of Buildings 1 and 2, and construction of a new farm workshop and machinery storage barn.
- 2.6 The survey is required to identify if any bats or barn owls are present using the buildings and how they may be impacted by any proposed demolition of the buildings for planning consent.

3 Method

- 3.1 The buildings' suitability for bat roosting was assessed by examining structural features. Structural features that may influence the suitability of a building to support roosting bats include the presence of a roof void, the presence of access points into the building (including gaps beneath barge boards, weatherboarding, soffits and fascias, gaps under lead flashing, gaps within masonry and under loose tiles, gaps between tenon and mortise joints), the complexity and size of any roof void and daytime light levels in the roof void.
- 3.2 The buildings' suitability for roosting bats was also assessed by examining the surrounding habitat. Important habitat features surrounding the structure which may influence roost potential include whether the structure is in a semi-rural or parkland location, its proximity to a significant linear habitat features such as a watercourse, mature hedgerow, wooded lane or an area of woodland.
- 3.3 A detailed bat building inspection was undertaken by Brigitte de Coriolis on the 20th July 2016. An external search around the perimeter of the buildings was conducted

and any possible access points i.e. gaps and crevices were noted and surveyed with the high powered torch and ladder as required.

- 3.4 A systematic internal inspection of the building was conducted using a high-powered torch to illuminate all areas thought to be suitable for roosting bats. All surfaces were also surveyed for signs of bat presence.
- 3.5 Features of potential value to bats were surveyed not only for the presence of bats but also for signs that could indicate use by bats, such as:
 - bat droppings that are dry and do not putrefy, but can crumble away to dust;
 - staining of access points used by bats to enter the structure; and
 - feeding remains such as moth and butterfly wings.
- 3.6 The buildings to be affected by the development were also assessed for potential to support breeding barn owls, by searching for features suitable for nesting such as ledges, and for evidence such as feathers, staining, owl pellets or carcasses.

4 Results

- 4.1 All accessible areas were examined around the building for droppings and evidence of bats and barn owls. It should be noted however that it is not always possible to identify bat presence by examining externally around buildings as poor weather conditions may have washed away droppings which were deposited on exposed surfaces.
- 4.2 **Building 1:** The building is disused and in extremely poor condition. The majority of the building has no roof and the walls are in poor condition, cracked and beginning to collapse with all the existing windows broken. There is a pitched roof of corrugated asbestos over one section at the southern end of the building, that has become heavily overgrown with ivy. Single-skin timber walls separate this section into a covered area and two separate storage rooms (Figure 5).
- 4.3 The roof is unlined and ivy has been growing internally for some time. Broken windows, open doorways and missing sections of timber provide easy access into the interior for both bats and barn owls. All areas were bright and draughty with thick, dusty cobwebs present (Figures 6 and 7).



Figure 6: Covered area at the southern end of Building 1.



Figure 7: The two storage rooms at the southern end of Building 1.

- 4.4 There were no crevices suitable for roosting bats present and no bats or evidence of bats were identified internally or externally around Building 1.

- 4.5 There were no ledges suitable for nesting barn owls, and limited perching opportunities in exposed, draughty areas. No owls or evidence of owls was identified at any point in Building 1.
- 4.6 Building 2: The building has brick lower walls on three sides, with corrugated metal upper walls. The sloped roof is half corrugated metal and half plastic roof light, making the interior very bright (Figure 8). There are gaps at the wall tops and the plastic roof light is broken leaving a long, narrow opening (Figure 9) enabling access into the interior.



Figure 8: Showing the interior of Building 2 with gaps at the wall tops.



Figure 9: Showing the opening in the roof light of Building 2.

- 4.7 The metal structure of the building creates temperature fluctuations and is generally not considered suitable for bats. There were no crevices suitable for roosting bats present and no bats or evidence of bats were identified internally or externally around Building 2.
- 4.8 There were no ledges or perching opportunities suitable for barn owls, and no owls or evidence of owls was identified at any point in Building 2.

5 Constraints/Limitations

- 5.1 Bats can have seasonal use of buildings and being so mobile may arrive and start using a site after it has been surveyed, or roost somewhere else during the period it was surveyed. For this reason, bats may potentially be present but remain undetected, particularly during day time assessment surveys.

6 Conclusions

- 6.1 Initial observations consider the local area to be suitable for both bats and barn owls, with an abundance of good foraging habitat within close proximity of the site.
- 6.2 Building 1 is in very poor condition and lacks a roof over most of the structure. At the southern end where the roof is still present, multiple openings provide easy access into the interior for both bats and barn owls, while also creating bright, draughty and dusty conditions within the building.
- 6.3 The building lacked suitable roosting features for bats and no evidence of use by bats was identified at any point in or around Building 1. There were no ledges suitable for nesting owls, and limited perching opportunities in draughty, exposed areas of the building. No owls or evidence of owls was identified at any point in or around Building 1.
- 6.4 Building 2 had a large roof light covering 50% of the roof, creating very bright internal conditions. While gaps at the wall tops and an opening in the roof light created access, the building lacked any suitable crevices for bats or ledges and perches for owls. The metal construction of the building also creates temperature fluctuations, further decreasing suitability. No evidence of either bats or owls was identified at any point in or around Building 2.
- 6.5 Buildings 1 and 2 are both considered to have negligible potential for use by either bats or barn owls, and the proposed demolition of these two buildings may proceed without need for any further surveys.

7 References

- Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd Edition, Bat Conservation Trust, London.