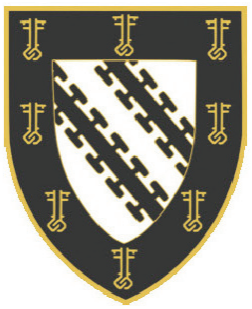

EXETER COLLEGE OXFORD

A New Quad at Walton Street

Bat Survey Report

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1.0 INTRODUCTION

1.1 PURPOSE

A bat scoping survey was commissioned at Ruskin College, Walton Street, Oxford (SP509066). The survey was carried out by A. Fure, bat license holder, no 20110691. This was in advance of plans by Exeter college, to acquire the building for continued educational use. The visit was undertaken during the morning and afternoon of 11.4.12.

1.2 SITE DESIGNATIONS

In nature conservation terms the nearest areas of interest are: within a kilometer to the north-west lies an international site, Oxford Meadows, Special Area of Conservation (SAC); within this area is also a Site of Special Scientific Interest: Port Meadow with Wolvercote Common & Green (SSSI). A second SSSI lies slightly further to the north-east wildlife, New Marston Meadows. The location is criss-crossed by rivers, streams a canal and a number of lakes and ponds feature: the Thames, Cherwell, Seacourt and Hinkley streams as well as the Oxford Canal. The railway and rail-side land, is located to the west of the college. These are all landscape features attractive to foraging bats and act as important wildlife corridors.

1.3 CAMPUS HABITAT

There are no recent bat records for the college but the campus is overlooked by mature evergreen oak trees, which contain potential for bat interest. There is a lake in the adjacent grounds of Worcester college, which is recognised priority habitat in the National Biodiversity Action Plan (BAP). Open water, trees and treelines are used by bats for a variety of functions such as:

- commuting routes: in order to avoid open areas;
- cover: especially during the early part of the evening and in urban centres where light levels are high; and
- foraging areas: the trees are both an insect breeding habitat and offer a sheltered microclimate.

2.0 METHOD

2.1 DESK STUDY AND INFORMATIVES

A desk study was performed using information from:

- Oxford bat group and local biodiversity websites;
- Regional Biodiversity Action Plan;
- NBN Gateway; and
- Nature on the Map, Natural England.

2.2 COLLEGE.

A walkover survey of the college was undertaken in a good light, in temperatures of ten degrees centigrade, in line with Bat Conservation Trust Guidelines, 2012.

An external and internal inspection of the buildings was undertaken, using binoculars, looking for feeding remains, staining or droppings, which may indicate bat occupation.

- Most internal south-facing rooms in the main building were accessed from the 2nd and 3rd floors;
- A cursory loft inspection was undertaken;
- The patios and walls were investigated for mammal ingress and occupation; and
- Singing and overhead registrations of birds were noted.

3.0 RESULTS

3.1 DESK STUDY

A desk study shows that several species of bat have been recorded foraging in the within 2 km, mostly associated with riparian land, including the canal (Table 1).

Table 1: Status of bats recorded nearby.

Species	Frequency and roost site
Common pipistrelle	**Common**
Soprano pipistrelle	**Common**
Noctule bat	**Uncommon** declining in the some regions
Leisler's bat	**Rare** nationally Roosts in trees and buildings
Natterer's bat	Recorded along the canal
Daubenton's bat	Recorded along the canal
Serotine	**Rare** Roosts in Buildings Not recorded for several years

3.2 BUILT ENVIRONMENT

Campus buildings ranged from the main building with period features (1912) to a concrete (1970's) dining block to modern library and accommodation block (Library & Kitson Building 1980's). Particular attention was paid to the period building as a number of features favoured by bats were found such as:

- A sheltered, single storey linking building with a flat-roof and in close proximity to a patio surrounded by mature vegetation;
- Holes in brickwork on south and west elevations, created during the replacement of rainwater goods; and the
- Raised or loose flashing around the roof-line and windows of the main building especially at the bend around Worcester Place and Walton Street.

3.3 MAIN BUILDING: FRONT AND SIDE

The frontage of the main building onto Walton Street and Worcester Place presented low potential for bat interest due to the lack of obvious features and light pollution from the number of sources. There were a number of slipped tiles, which might allow ingress. The southern elevation, on the boundary with Worcester College was obscured by 7 evergreen oak trees, which may provide sufficient cover necessary to attract bats to the tiles. The aspect and vegetation raises the potential to medium and should be investigated during an emergence survey. Good views of the roof are possible from a 3rd floor kitchen.

3.4 MAIN BUILDING: REAR

Fig. 1 west elevation, most weaknesses were present in the protective coverings (flashing, tiles etc) found at the curve of the building (Fig. 3).

The west elevation had a Queen Anne style window (the Principals office) where a possible bat dropping was found (refer to Fig 2 below). This was the only mammal dropping noted during the survey and could not be reached for further analysis. Many pigeon droppings were noted, especially under rainwater goods, which served as perches.

There were regular points where lead flashing was no longer flush to the tiles or window framework, either through lost pins or where they had been subject to past repairs. The vents were open and not covered by chicken wire and could theoretically allow mammal access. There were no collections of bat droppings splayed on the walls or urine stains on the windows (windows were not routinely cleaned, useful for survey purposes).

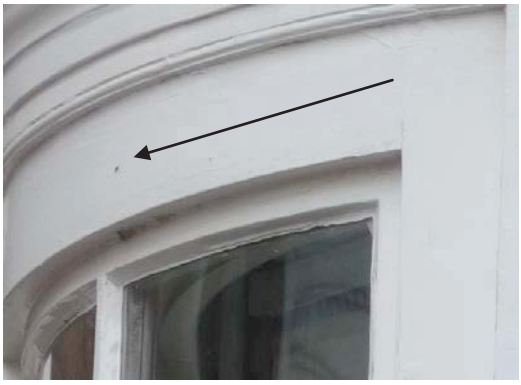

Fig. 2 The arrow marks position of a dropping on the window of the Principals office. Flashing pins above this window were often missing.

Below this area was a single-storey linking building with a flat-roof. These are often favoured by bats if access is favourable. In this case, there was a plastic fascia board with no obvious gaps or weak areas to allow mammal access. Gaps between the brickwork and the roof, had been coated with sealant and were in a good state of repair.

Fig. 3 note deep gaps in flashing on the roofline

Fig. 4 southern elevation note nesting birds

3.5 SOUTHERN ELEVATION

A pair of great tits *Parus major*, were noted nesting within the top of rainwater goods (red arrow at Fig. 4) to the east of the pediment on the southern elevation (see law pertaining to nesting wild birds at 5.3). The weaknesses in protective covering were repeated at this elevation, although some cracks in brickwork had been filled in with sealant. This aspect of the building was the most favourable for mammal potential due to its warmth. A linking building between the main building and a concrete dining block, housed the stairwell. This had a loose wooden fascia board, although no additional weak spots were

noted. Eaves from the pediment can be viewed from room 3.06. This appears to be covered in pigeon droppings, which could mask other species.

3.6 MAIN BUILDING: INTERNAL AREAS

Once the external points of weakness were documented, it was possible to undertake a more thorough investigation from vantage points inside the building and most second and third storey south-facing rooms were accessed in order to undertake binocular inspections. This included the staff common room, from where the balcony could be reached and from where recesses in brickwork were noted (e.g. at the handrail of the balcony). Windows did not display any droppings characteristic of flying animals, which adhere to surfaces. Some rooms on the east side of the main block could not be entered, although windows along Walton Place could be viewed from the valley at the parapet wall.

3.7 LOFT

Fig. 5 Loft view west

The loft is in two parts separated by a fire wall. The Walton street side is difficult to access, through a door, which can only be reached by placing a ladder in a bath. The Worcester Place loft is straightforward, although disposable protective clothing should be worn on account of scattered squirrel poison, widely distributed around the boarded floor. The loft space is clean, has electricity, lacks any insulation material and the water tanks are covered. The hatch is disguised as a ceiling tile and can be accessed from outside room 3.16. A cursory inspection did not reveal any bat droppings or hanging animals.

3.8 DINING BLOCK

The concrete dining block was considered low potential for bat ingress. The flat roof could be observed from the 3rd floor of the main building. The crenelated roof-line could

contain weak spots allowing ingress, although all appeared tightly sealed. This building was of low potential for bat interest in its entirety.

3.6 KITSON BUILDING AND LIBRARY

The library is a sunken building and it is possible to walk on the roof and observe the roof-lights, which had no mammal droppings covering them, although many bird droppings were present. This kind of feature is sometimes useful for retaining droppings of overflying animals, although it is early in the year to be looking for this kind of evidence. However, the warmth generated in this area, will be attractive to insects and therefore bats at various times. The niches afforded at the Kitson accommodation block, are many, including the 'shingles' or hanging tiles around the dormers. This must be a very warm area indeed and was therefore deemed to be of medium potential for roosting bats. Three west facing gable apices can be viewed from the opposing side of Worcester Place and are shown to be cemented with no gaps.

3.7 EXTERNAL FEATURES: WALL AND GARDEN

Two noteworthy areas are the wall and the patio garden, both are found along the southern boundary with Worcester college.

Fig. 6 Boundary wall

Access was gained to view the offside of the wall, where many broken tiles were noted. Due to the aspect and covering of vegetation it is possible that bats may use this feature from time to time on a casual basis. The patio garden may be used by nesting birds.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 EVALUATION

- The college is within 100m of designated/biodiversity priority habitat where protected species may be found foraging;
- The southern and western aspects of the main building were thought to be of medium potential for bat interest;
- The rear of Kitson block is also of medium potential for casual bat roosting and high potential for bat foraging;
- The dining block and the frontages on Walton Street and Worcester Place were deemed to be of low potential for bats; and
- The survey identified bird species protected by wildlife law when nesting.

4.2 DATA SEARCH

It is likely that nearby 'recent projects' would have commissioned ecological surveys, which would have incorporated bat surveys. For this reason it would be desirable to contact the Oxford Bat Group to see if there are known bat roosts nearby. Absence of records does not equate to absence of bats. TVERC also offers a data search service although the benefits of subsequent data should be canvased with staff at the Biological Records Centre beforehand.

4.3 SUMMER INSPECTION

Bats do not move to their summer roosts until May and are best surveyed after the end of this month due to the changing weather patterns. They will move to maternity sites from this period and the recommended survey times are the summer months, June-August. The college term ends 29th June and is closed after 31st August so July will be the most satisfactory month to survey from an access perspective. An external building inspection should include a loft inspection at both ends of the building, which will require specific health and safety precautions outlined within the text.

4.4 BAT EMERGENCE AND ACTIVITY SURVEYS

Two bat emergence and activity surveys for two people should be undertaken during July, 2012. These surveys should concentrate on the rear of the main building on the raised patios in order to view activity at the main block, above the library and the Kitson block. One of these could include an additional dawn survey concentrating on the

southern boundary features from Walton Street, although this should be led by the consultants engaged on the project, guided by optimal weather conditions and informed by any likely impact of project proposals.

4.5 PHASE 2 SURVEYS

Depending on the data, an additional early September survey(s). This is due to a lake within close proximity at Worcester College and the potential for small mating roosts.

4.6 BIRDS

Birds are using the building and grounds and they are protected when at their nests see 5.3.

5.0 LEGISLATION AND POLICY

5.1 EUROPEAN AND UK LAW PERTAINING TO BATS

All species of bat are fully protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion in Schedule 5. All bats are also included in Schedule 2 of the Conservation (Natural Habitats, & c.) Regulations,1994. The Act and Regulations make it illegal to:

- intentionally or deliberately kill, injure or capture (take) bats;
- deliberately disturb bats (whether in a roost or not);
- damage, destroy or obstruct access to bat roosts;
- possess or transport a bat or any other part of a bat, unless acquired legally; or
- sell, barter or exchange bats or parts of bats.

5.2 AMENDMENTS TO THE HABITATS REGULATIONS (2007)

Enacted during 2008, there were moves to strengthen the protection of features of importance that protected species are reliant upon. This applies where there may be ANY disturbance to bats or a disturbance affecting:

- The ability of a group of animals of that species to survive, breed or rear or nurture their young;
- In the case of migratory species, impair their ability to hibernate or migrate or
- The local distribution or abundance of the species

If a bat roost is to be affected by development activities, a licence from Natural England will need to be obtained.

5.3 WILD BIRDS

The Wildlife and Countryside Act (1981, as amended) protects birds, eggs and nestlings from killing, injury, and damage or destruction to its nest. The Act also protects any intentional disturbance to the bird while it is building its nest, or is in, on or near a nest containing eggs or young, or disturbance of the dependent young. The Countryside and Rights of Way Act 2000 (CROW) strengthened aspects of this legislation, importantly adding that 'reckless' disturbance of birds (including those listed on Schedule 1) during the breeding season is now subject to prosecution under the law.

5.4 CONSERVATION UNDER BIODIVERSITY ACTION PLANS (BAP)

The Local, Regional and National Biodiversity Action Plans (BAP's) are a consideration in determining local habitat changes. The UK Biodiversity Action Plan (BAP) contains a Bat Species Action Plan (SAP), aimed at maintaining its existing range and population status, as well as increasing the number of populations. The SAP calls for a wide range of actions to further the conservation of this species, such further survey, monitoring and the favourable management of sites.