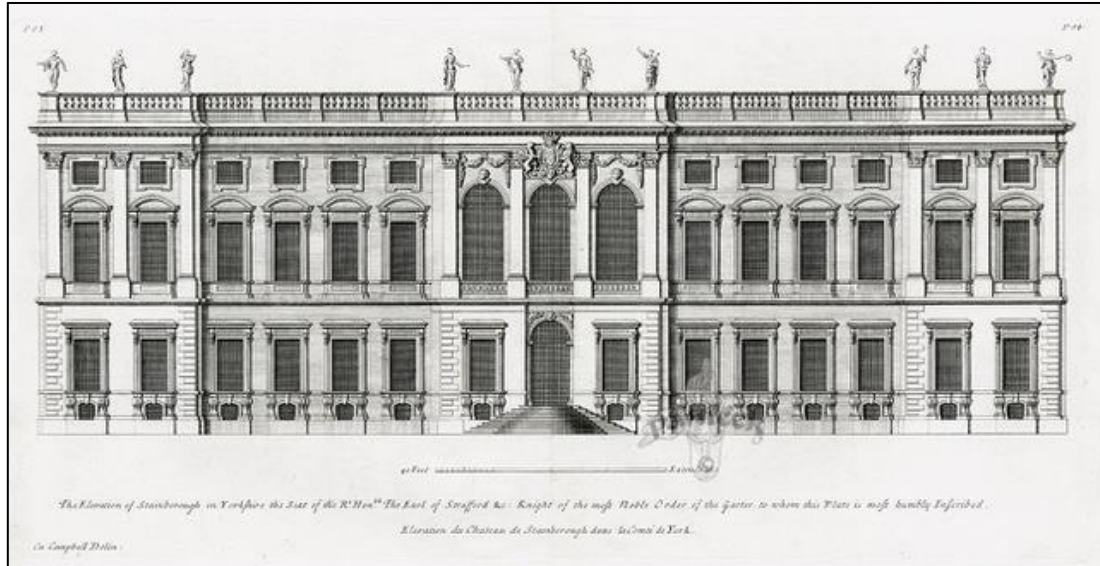


Wentworth Castle, Stainborough

Bat Survey Report

8th January 2021



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1. Summary

- 1.1.1 A preliminary roost assessment, of those sections of Wentworth Castle to be impacted by scheduled repair works, was commissioned by the architect Richard Storah of Storah Architecture Ltd, on behalf of the client, Mark Barrett of Northern College, on 29th January 2021.
- 1.1.2 This report details the results of a desk study, together with an internal and external inspection of the building, undertaken by Robert Bell of Middleton Bell Ecology on 2nd February 2021.
- 1.1.3 Brown long-eared bats are known to have historically roosting in a roof void of Wentworth Castle prior to re-roofing works undertaken in the early 2000s.
- 1.1.4 Two clusters of c.50 bat droppings were recorded beneath roof timbers in a roof void at the west side of Wentworth Castle. This sample has been sent for DNA analysis to enable species identification. A further loose grouping of c.10 bat droppings was recorded from a roof space above the Cutler House.
- 1.1.5 The roost in the Cutler House roof will not be impacted by the proposed works. The second roost in a roof void on the western side of the building could be impacted, were slates in the adjacent sections of roof (Plate 3) re-fitted, or the broken slate in this area replaced. For this reason, it is advised that no slate repair/replacement works should take place in this location without further survey.
- 1.1.6 Whilst no bat roosts were confirmed in the other areas subject to inspection, several aspects of the proposed works nevertheless have potential to impact roosting bats. For this reason, a range of further survey and/or precautionary working practices have been recommended. These measures should be followed in full. The client should be aware that if bats or evidence of historic roosting, is subsequently recorded, then certain aspects of the proposed repair works may not be able to proceed outside of a bat mitigation licence.
- 1.1.7 Any jackdaw exclusion mechanisms fitted after the 1st April should be preceded by a nesting bird check to be undertaken by a suitably experienced ecologist.

2. Introduction

- 2.1.1 A preliminary roost assessment, of those sections of Wentworth Castle to be impacted by a scheme of repair works, was commissioned by the architect Richard Storah of Storah Architecture Ltd, on behalf of the client, Mark Barrett of Northern College, on 29th January 2021.
- 2.1.2 Proposed repair works are to include the following items:
- Repair chimney cappings to prevent access by jackdaws *Corvus monedula*,
 - Renew and adapt birdproof screens to the internal rainwater launders (troughs),
 - Renew birdproof netting to the south elevation where large jackdaw nests have been created within the existing mesh,
 - Various minor slate and lead repairs,
 - A new rainwater pipe and egress from the main roof via the internal courtyard,
 - Pointing and stonework repairs at high level to the south elevation (this will involve scaffolding),
 - Pointing and masonry repairs at high level to the balustrades of the other elevations (works from roof, not from scaffolding),
 - Some lower level masonry repair, and
 - Redecoration and remasticing of windows, if scaffold access is available.
- 2.1.3 This report details the results of a desk study, together with an internal and external inspection of the building, undertaken by Robert Bell of Middleton Bell Ecology on 2nd February 2021.
- 2.1.4 Wentworth Castle comprises a Grade I listed country house located within extensive parkland and gardens in the village of Stainborough, Barnsley. The house is now used as an adult education college.

3. Habitat Assessment

- 3.1.1 Wentworth Castle is located at the southern end of a complex of traditionally constructed estate buildings including a church, coach house and a range of farm buildings. These buildings have been augmented by college accommodation buildings of a more recent fairly modern flat roofed design. A large and recently restored listed glass house is located west of the house.
- 3.1.2 Beyond the glass house to the west and adjoining the southwest corner of the house, the formal gardens grade into mixed woodland, which surrounds Stainborough Castle, a large folly sited on higher ground to the west. This garden connects to Lowe Wood, an area of replanted and semi natural ancient woodland, located on the opposite side of Lowe Lane.
- 3.1.3 To the east of Wentworth Castle is a lawn and beyond this is parkland, with the Serpentine River (a series of large ponds), located c.450m east of the house. To the south of the house is an additional large lawned area, with a tree-lined avenue beyond.
- 3.1.4 The grounds of Wentworth Castle, together with habitats in the wider area, offer an abundance of ideal foraging habitat for bats and a varied range of species is known to forage and roost in the this area.

Table 1. Location and habitat table

Name and address: Wentworth Castle, Stainborough,			
OS Grid Ref. SE 31998 03174		Altitude. 160m	
Local Planning Authority: Barnsley Metropolitan Borough Council			
Features on site and adjacent to site			
Feature	On site	Adjacent	Comments
Buildings	✓	✓	Located within a complex of estate buildings
River			
Standing water			Serpentine River (series of ponds) c.450m east of house
Bridges tunnels and culverts			Bridge over Serpentine River
Trees	✓	✓	Scattered trees border house and are frequent within parkland and gardens
Woodland			Mixed woodland within gardens west of house and larger woodlands in wider area
Grassland	✓	✓	House bordered by lawns to south and east with parkland beyond

Figure 1. Site location, as indicated by red circle



3.2 Aims

3.2.1 The survey was conducted to help determine the following:

- The presence/absence of roosting bats within areas of Wentworth Castle affected by repair works scheme.
- Identify potential or known bat roosting areas and access/egress points within the works areas or those areas impacted by scaffolding.
- Identify further survey work or mitigation requirements.

4. Methodology

4.1 Data Consultation

- 4.1.1 Bat records for locations within 2km of the site were requested from South Yorkshire Bat Group.
- 4.1.2 A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) website was also undertaken to identify historic European Protected Species (EPS) licences obtained for locations within 2km of the site.
- 4.1.3 In addition, a 2004 bat survey report for the wider estate, including Wentworth Castle, was consulted for further information on historic use of the building by roosting bats (EBC, 2004).

4.2 Field Survey

Preliminary Roost Assessment

- 4.2.1 The following personnel conducted the preliminary roost assessment on 2nd February 2021:
 - Robert Bell (MCIEEM; Bat Survey Class license WML-A34-Level 4, 2016-25236-CLS-CLS)
- 4.2.2 The following activities were carried out during the surveys in compliance with relevant Bat Survey Guidelines (Collins 2016):
 - A brief inspection and assessment of the site and habitats present to within 300m.
 - An examination of all parts of the building which may be impacted by the proposed works including both the inside and outside of the structure. The purpose was to record structural features and condition and to record features that may be suitable for roosting bats. Particular attention was paid to any crevices or gaps in walls, lintels, gaps between beams and joists and to the possibility of finding droppings stuck to walls, floors or other surfaces, or insect remains below beams, among a number of other factors. All signs indicative of a bat roost presence including live or dead bats, droppings, feeding remains, scratch marks and staining were recorded.
- 4.2.3 The following equipment was used or at hand during the survey:
 - Clulight
 - Binoculars
 - Endoscope
 - Ladders
 - Camera

4.4 Survey Limitations

- 4.4.1 Due to Wentworth Castle's size and complexity, this survey targeted only those areas of the building which are likely to be impacted by the current scheme of repair works.

5. Results

5.1 Data Consultation

- 5.1.1 The 2004 bat survey report (EBC, 2004) records a number of bat observations made in the eastern roof space (loft over Long Gallery) of Wentworth Castle. A small number of brown long-eared bat *Plecotus auritus* droppings were recorded from various locations throughout this roof in December 2002. Two bats were also seen in this area by Eric Bennett, prior to timber treatment works in September 2003. Subsequent dusk emergence survey of Wentworth Castle on 24th August 2004 and dawn return survey on 1st September 2004 failed to record any evidence of roosting bats. The 2004 report considered that brown long-eared bat flight access into the eastern roof space was likely to be through gutter openings/launders in the eaves.
- 5.1.2 South Yorkshire Bat Group provided 511 bat records for locations within 2km of Wentworth Castle. Species positively identified comprise brown long-eared bat, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Natterer's bat *Myotis nattereri*, whiskered bat *Myotis mystacinus*, Daubenton's bat *Myotis daubentonii*, noctule *Nyctalus noctula* and Leisler's bat *Nyctalus leisleri*. Other bat records related to either an unidentified *Myotis* species, an unidentified *Pipistrellus* species, an unidentified *Nyctalus* species or an unidentified bat species.
- 5.1.3 South Yorkshire Bat Group provided one additional bat record related to Wentworth Castle, with many more records for the locations within the associated estate. The additional Wentworth Castle record comprised the collection of an adult common pipistrelle from this building by a bat carer in 2012.
- 5.1.4 Other very recent (within two years) bat roost records collected from the estate are detailed below.
- 5.1.5 Garden House is located c.260m north of Wentworth Castle on the edge of a historic walled garden. In 2020, this building supporting eight bat roosts comprising a brown long-eared bat night roost, five common pipistrelle day roosts, a soprano pipistrelle day roost and whiskered bat day roost. It is proposed to re-roof this building in Autumn 2021, retaining or re-creating most roost locations.
- 5.1.6 Stainborough Castle is located c.400m west of Wentworth Castle. In 2020, this structure supported a brown long-eared bat maternity roost, a brown long-eared bat hibernation roost, a noctule bat hibernation roost, a Natterer's bat day roost, a brown long-eared bat day roost and two soprano pipistrelle day roosts. At the time of writing this report, this structure is being repaired under a European Protected Species (EPS) mitigation licence 2020-50110-EPS-MIT. All roosts are being retained or re-created.
- 5.1.7 Menagerie House is located c.730m northeast of the site. In 2020 Menagerie House supported five bat roosts comprising a brown long-eared bat hibernation roost, brown long-eared bat feeding perch, brown long-eared bat night roost and two common pipistrelle day roosts. It is proposed to re-roof Menagerie House in Spring-Summer 2021, retaining all roost locations.

- 5.1.8 In addition to the building roosts, soprano pipistrelle day or hibernation roosts have been recorded from three trees on the estate, the closest of which is located c.230m northeast of Wentworth Castle.
- 5.1.9 The wider Wentworth Castle site has a well-documented early history of bat studies, with surveys undertaken by Arthur Whitaker in the early 1900s, during which time at least seven bat species were confirmed as present on site (Whitely, 1987). Most of the roost locations recorded from trees by Mr Whitaker are untraceable, however, others such as Rockley Tunnel still support roosting bats (Middleton & Bell, 2017).

5.2 Field Survey

- 5.2.1 Two clusters of c.50 bat droppings were recorded beneath roof timbers in a roof void at the west side of Wentworth Castle. This sample has been sent for DNA analysis to enable species identification. A further loose grouping of c.10 bat droppings was recorded from a roof space above the Cutler House.
- 5.2.2 The surveyed building is described within this section of the report. The focus of this report is on those areas to be impacted by the proposed works only.

General description

- 5.2.3 Wentworth Castle is a large and complex building which comprises an original C17th house (Cutler House) wrapped around by a C18th U-shaped range comprising a Baroque-styled wing across the east end, with an attached L-shaped Palladian-styled wing enclosing the south and west sides. The house is constructed of sandstone. The arrangement of roofs is complex with parapets on all sides, mainly topped with balustrades. With the exception of the original Cutler House, which has stone slates to the front (northwest pitch), the remaining roofs are covered by either blue slate or lead. Numerous large stone chimneys protrude from the roofs. A courtyard is present in the centre of the house. For aesthetic reasons, the Baroque and Palladian-styled wings lack external guttering and rain water passes through launders within most roof spaces (not including the roof above Cutler House).

Plate 1. Aerial image of Wentworth Castle. Taken by Ben Hopkins



External features

- 5.2.4 This section of the report describes the condition of only those external features on Wentworth Castle that will, or may, be impacted by the proposed works schedule.

Roofs

- 5.2.5 The works to impacts the roofs are limited to the fitting of/or repair of bird proof screens within the internal rainwater launders/guttering, various minor slate and lead repairs and the repair of chimney cappings.
- 5.2.6 Wentworth Castle was re-roofed after the 2004 bat survey and consequently the pitched roofs are in a very good state of repair (Plate 1 & 2). Potential bat access points appear limited to missing or damaged birdproof screens on internal rainwater launders and occasional slightly lifted slates (due to shape of underlying roof timbers) (Plate 2).
- 5.2.7 The stone chimneys generally lack open masonry joints, however, bats can potentially access the interior of chimneys via missing mesh bird screens (Plate 4). Bats are considered unlikely to roost within the interior of the chimneys, due largely to their recent complete meshing at the time of the last re-roof. It is however not possible to rule out bat roosting in the interior of chimneys and these locations cannot be accessed for direct inspection.

Plate 2. Looking north across Wentworth Castle roof



Plate 3. Close view of pitched roof at west side of Wentworth Castle showing generally good state of repair. Bat access point to identified roost circled in red



Plate 4. Example of chimney with damaged bird proof screen circled in red



Balustrades

- 5.2.8 The balustrades were all subject to close inspection from the roof. No evidence of current or historic bat roost usage was recorded from any location on the balustrades although a number of narrow open joints up to c.7mm in width were present (Plate 5). Whilst the open joints were generally too narrow for use by roosting bats and no bats or droppings were present at the time of inspection, the possible use of the wider of these joints in the future could not be fully ruled out.

Plate 5. Missing mortar on balustrade joint



South elevation

- 5.2.9 It is proposed to scaffold the south elevation of Wentworth Castle in order to undertake a number of minor repair works, including pointing and masonry repairs, the renewal of birdproof netting associated with the Corinthian columns beneath the central pediment and some redecoration and remasticing of windows.
- 5.2.10 In general, the south elevation is well-pointed and there are few open joints between the large ashlar blocks. An inspection was undertaken from ground level using a high-power torch and binoculars. The highest level of bat roost potential appeared to be associated with extended crevices between the curved roof and recessed walls of entrances, within the centre of this elevation (Figure 2; Plate 6), however, no bats or signs of use were recorded. Additional open crevices were few in number and mainly associated with areas where the wall steps-out. These crevices could be inspected with a torch and no evidence of bat use was seen from the ground.
- 5.2.11 The bird netting associated with the top of the Corinthian columns has clearly been breached by birds as evidenced by large stick nests, however, there does not appear to be any bat roost potential associated with these features (Plate 7).
- 5.2.12 One of the identified potential roosting features on the south elevation comprised a crevice between a wooden window frame and the adjacent masonry at the west end of this elevation.

Plate 6. Looking across south elevation



Figure 2. Crevices in south elevation masonry, visible from ground, which are considered to display bat roost potential

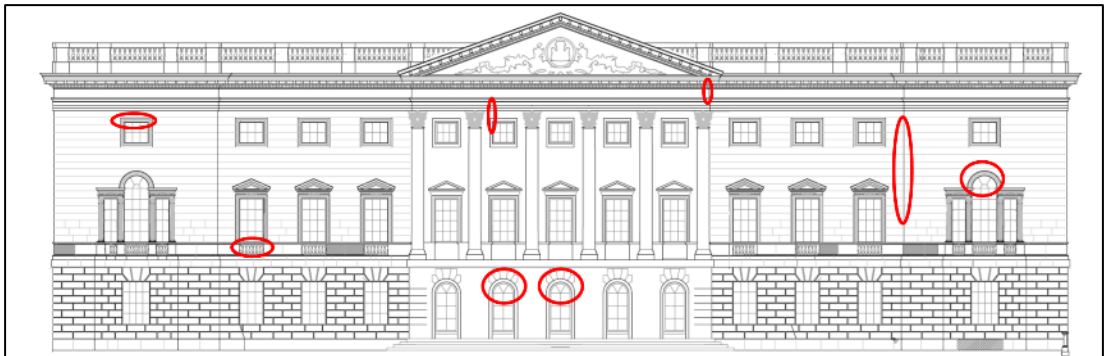
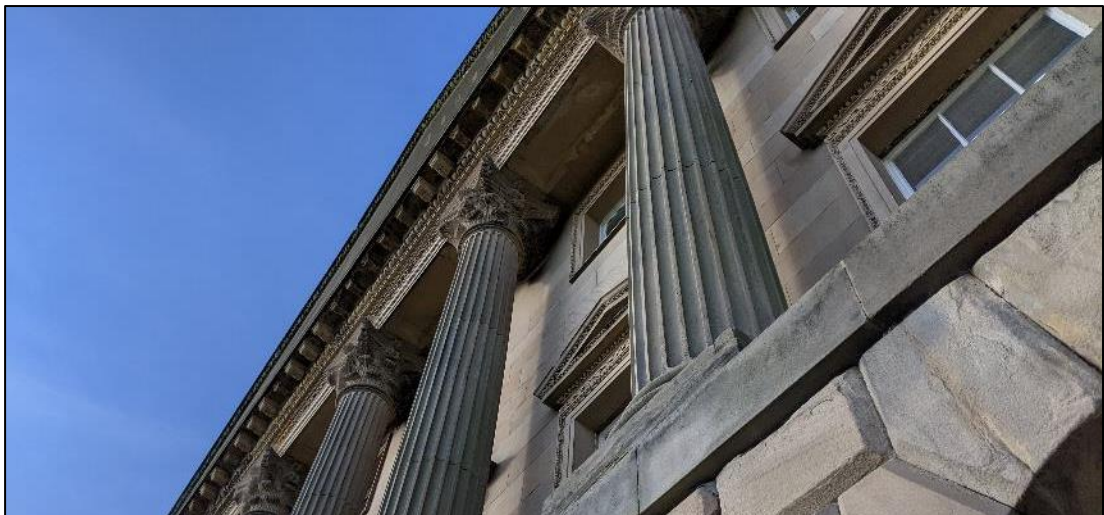


Plate 7. Looking up at Corinthian columns on south elevation



New guttering into courtyard and lintel repair in courtyard

- 5.2.13 There were no visible bat roosting opportunities associated with the location of the proposed new gutter into the courtyard.
- 5.2.14 A single cracked lintel within the courtyard has been identified for repair. A close inspection of this location highlighted the presence of a vertical crevice between the wooden frame and the stone lintel (Plate 8). This was inspected with a torch and binoculars so far as was possible, however, a full inspection could not be achieved from the ground.

Plate 8. Crevice between damaged lintel and frame within courtyard



Internal inspection

Roofs

- 5.2.15 All roofs could be accessed for inspection, however, some areas of the Cutler House roof could not be seen from access hatches. This is not considered a significant constraint, as the Cutler House roof (with the exception of associated chimneys) will not be impacted by the proposed scheme.
- 5.2.16 The inspected roofs are lined with a modern breathable roofing membrane, which is visible in places where the wooden sarking had been removed to enable the fitting of ventilation slates. The roofs are fitted on original roof timbers (Plate 9), however, fire doors have been fitted and these fire doors would prevent bat movement between adjacent sections of roof void. The rainwater launders comprise lead-lined timber-built channels which pass through the voids (Plate 10), except in Cutler House, which lacks

internal launders. The launders have wooden covers (Plate 10). These covers were lifted to inspect the interior. Bird nest material and droppings were present within some launders; however, no evidence of bats was visible. Wooden launder covers would prevent bats accessing the interior of the roof voids, assuming that broken or missing bird screens had first allowed bat access from the roof exterior into the interior of the launder.

- 5.2.17 The roof voids were clean and as a result could be easily inspected for bat droppings and/or feeding remains. Two defined areas of bat droppings were recorded (Figure 3). At the northern end of a roof void on the west side of the building (Plate 3; Figure 3), two closely located clusters of c.50 droppings were recorded beneath roof timbers. The droppings were small in size and have been sent for DNA analysis to determine their species of origin, however, on the basis of dropping size and location they are suspected to originate from whiskered bat. One cluster was close to the point where a ventilation slate passed through the sarking. It appears that bats pass through crevices between slightly uneven slates (Plate 3) into the void between slates and membrane/sarking. It is thought the bat/bats then move into the roof void via an opening between the ventilation slate and wooden sarking. A second loose scatter of c.10 droppings was recorded from a section of roof space above Cutler House (Figure 3). The potential access point to this roost was not investigated as there does not appear to be any way in which this roost could be impacted by the proposed works. The number of droppings present in the two roost locations indicates use by a low number of bats only, although more droppings may be present in the void between slates and felt/sarking.

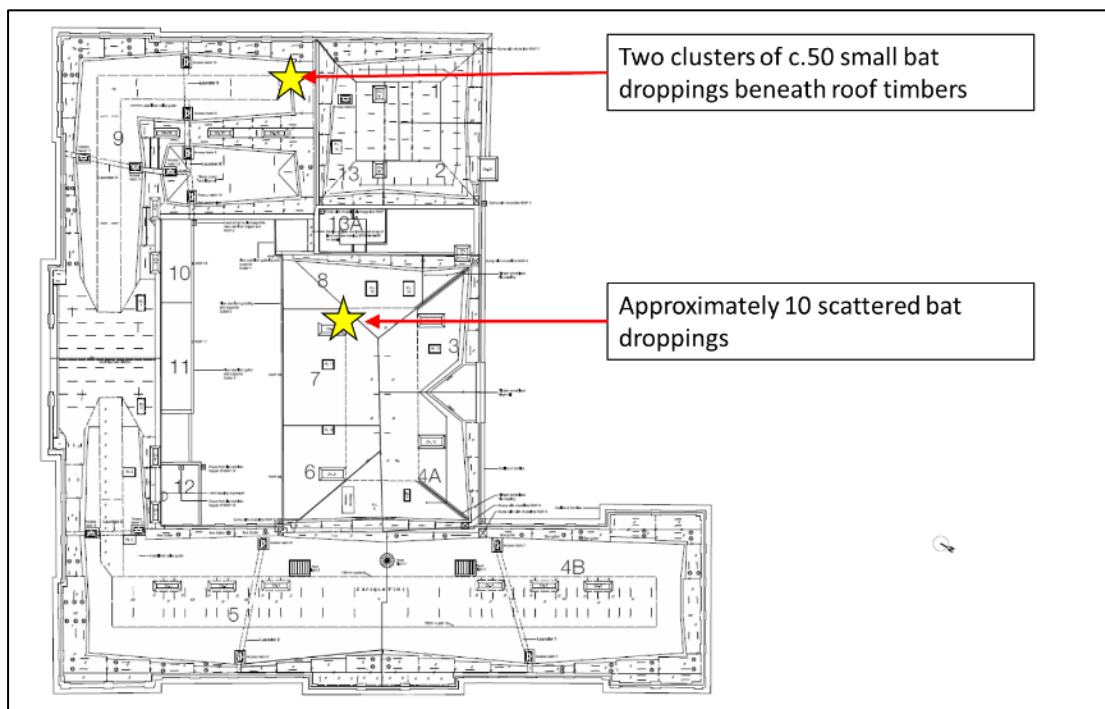
Plate 9. Location of cluster of c.50 bat droppings circled in red.



Plate 10. Typical covered section of launder as it passes through roof



Figure 3. Evidence of bats recorded from Wentworth Castle roofs



6. Assessment

6.1 Summary and Evaluation of Findings

- 6.1.1 Two bat roost locations were identified during the inspection. The roost in the Cutler House roof will not be impacted by the proposed works. The second roost in a roof void on the western side of the building could be impacted, were slates in the adjacent sections of roof (Plate 3) re-fitted, or the broken slate in this area replaced. For this reason, it is advised that no slate repair/replacement works should take place in this location without further survey. It appears highly unlikely that bats access either roost

location via the launders and consequently the presence of the two bat roosts within roof voids is not seen as an impediment to the repair of bird screens on the launders.

- 6.1.2 Whilst no bat roosts were confirmed in the other areas subject to inspection, several aspects of the proposed works nevertheless have potential to impact roosting bats. For this reason, a range of further survey and/or precautionary working practices have been recommended. These measures are detailed within this section of the report and they should be followed in full. The client should be aware that if bats or evidence of historic roosting is subsequently recorded from key areas, then certain aspects of the proposed repair works may not be able to proceed outside of a bat mitigation licence.

6.2 Legislation and Policy Guidance

Bats

- 6.2.1 Bats receive protection under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended).
- 6.2.2 It is an offence to:
- Deliberately capture (or take), injure or kill a bat.
 - Intentionally or recklessly disturb bats whilst they are occupying a structure or place used for shelter or protection or obstruct access to any such place.
 - Damage or destroy the breeding or resting place (roost) of a bat.
 - Possess a bat (live or dead), or any part of a bat.
 - Intentionally or recklessly obstruct access to a bat roost.
 - Sell (or offer for sale) or exchange bats (dead or alive), or parts of parts.
- 6.2.3 The Convention on Biological Diversity, signed in Rio de Janeiro, Brazil in 1992, requires member states to develop national strategies and to undertake a range of actions aimed at maintaining or restoring biodiversity. The UK Biodiversity Strategy was produced in response to the Convention.
- 6.2.4 In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, “to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. It notes that “conserving biodiversity includes restoring or enhancing a population or habitat”. *Barbastella barbastellus*, Bechstein’s *Myotis bechsteinii*, brown long-eared, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, noctule *Nyctalus noctula* and soprano pipistrelle *Pipistrellus pygmaeus* bats are included as priority species within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. At a more local level there are Local Biodiversity Action Plans for smaller geographical areas which may cover a greater or lesser range of bat species.
- 6.2.5 Where it is proposed to carry out works which will have an adverse impact on roosting bats, the site must either be registered on the Bat Mitigation Class Licence (BMCL) or a European Protected Species (EPS) license must first be obtained from Natural England. This requirement applies even if no bats are expected to be present when the work is carried out.
- 6.2.6 The National Planning Policy Framework for England was revised in 2019. This document states that plans should ‘promote the conservation, restoration and re-

creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity’.

Birds

6.2.7 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.

6.3 Further Survey, Recommendations and Enhancements

Bats

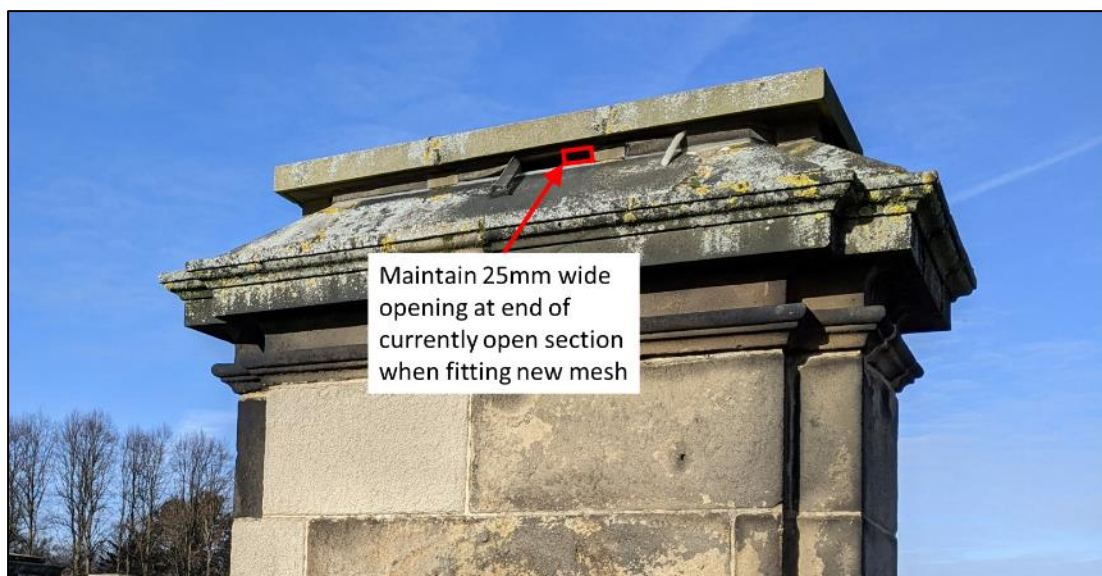
6.3.1 The further survey and/or precautionary working practices required in relation to each aspect of the proposed repair works is detailed below.

Repair chimney cappings to prevent access by jackdaws

6.3.2 The presence of roosting bats within the chimney interiors is considered unlikely but cannot be ruled out. Further inspection from scaffold would not enable the determination of the presence/absence of roosting bats, whilst further nocturnal survey would only effectively show the presence of roosting bats using this area at some times of year.

6.3.3 It is considered that at this time, bird screens can only be reinstated across chimney openings if bat access to these areas is retained. It is considered this could be achieved by designing the mesh covering to stop 25mm from the end of each rectangular opening, as shown in Figure 4. An opening of this size will be too small for jackdaws but large enough to facilitate bat access.

Figure 4. Chimney bat access requirement



Renew and adapt birdproof screens to the internal rainwater launders (channels)

- 6.3.4 The covers present on launders are expected to prevent any bats moving from the interior of launders into the adjacent roof space. In addition, the overwhelming majority of roof spaces appear not to be used by bats. The only roost present in a roof with a launder has a clear access point between slates. For these reasons it is considered that bird screens on launders can be replaced without further nocturnal survey. It is however recommended that prior to bird screens being fitted, launder covers are first lifted to check for any birds that may be trapped in the launders at that time.

Renew birdproof netting to the south elevation where large jackdaw nests have been created within the existing mesh

- 6.3.5 The renewal of birdproof netting to the south elevation appears unlikely to impact roosting bats as no potential roost locations can be seen behind netting. It is however difficult to view all associated areas from the ground and consequently, as a precaution, it is recommended these areas are checked by a licensed bat worker from the scaffold (or alternative access mechanism) prior to netting being replaced.

Various minor slate and lead repairs

- 6.3.6 This element of works may not be able to take place. Certainly, one area of roof with slightly uneven slates and one broken slate (Plate 3) appears to be used by roosting bats.
- 6.3.7 It is advised that no slate or lead repair be undertaken without first being checked and signed-off by a licensed bat worker.

A new rainwater pipe and egress from the main roof via the internal courtyard

- 6.3.8 No potential roost features were identified with the course of the new rainwater pipe and as a result it is considered this work can take place without further precautionary measures being enacted.

Pointing and masonry repairs at high level to the south elevation (this will involve scaffolding)

- 6.3.9 All areas of pointing will need to be checked and signed off by a licensed bat worker prior to this work being undertaken. All workers involved in pointing should be subject to a bat Toolbox Talk.
- 6.3.10 Scaffolding risks blocking potential roost locations on the south elevation. It would for this reason be preferable if this work could be undertaken from a Moveable Elevated Work Platform (MEWP) although it is understood that this is not possible due to ground conditions and access. As a result, the following precautions are recommended in relation to scaffolding:
- A bat Toolbox Talk is delivered to all scaffolders prior to scaffold being fitted
 - Scaffolders should avoid tying the scaffold into the wall via fixings installed in open joints
 - Scaffold lifts at lower heights should not be boarded out more than strictly necessary.
 - The south elevation should be subject to a direct inspection by a licensed bat worker as soon as the scaffold is complete. Scaffold may need to be modified

if any bat roosts are located during this check.

Pointing and masonry repairs at high level to the balustrades of the other elevations (works from roof, not from scaffolding)

- 6.3.11 All areas of pointing will need to be checked and signed off by a licensed bat worker prior to this work being undertaken. All workers involved in pointing should be subject to a bat Toolbox Talk.

Some lower level masonry repair

- 6.3.12 It is unclear where this work is required. This may be fine, however, the exact requirement should be checked with a licensed bat worker prior to commencing

Redecoration and remasticing of windows, if scaffold access is available.

- 6.3.13 Any areas where mastic is to be used to fill currently open crevices (as opposed to mastic removal and replacement) should be checked and signed off by a licensed bat worker prior to this work being undertaken.

Repair of lintel in courtyard

- 6.3.14 This work should either be preceded by a single nocturnal bat survey, or, as soon as scaffold is erected and signed-off, this feature should be subject to a direct inspection by a licensed bat worker, prior to works commencing.

Birds

- 6.3.15 Several elements of the works are being undertaken specifically to prevent use of the building by nesting jackdaw. All nesting birds are subject to legal protection as outlined in section 6.2 of this report. Jackdaw typically nest from April to July (Ferguson-Lees *et al.*, 2011). Any jackdaw exclusion mechanisms fitted after the 1st April should be preceded by a nesting bird check to be undertaken by a suitably experienced ecologist.

6.4 Conclusions

- 6.4.1 Evidence of roosting bats was recorded from two locations in roof spaces of Wentworth Castle. This will limit the alterations of roof slates associated with one bat access point outside of a bat mitigation licence.
- 6.4.2 Other elements of the proposed repair works may proceed assuming a series of pre-works checks, and other precautionary working practices are undertaken. If these checks highlight the current or historic presence of roosting bats, then the works programme may need to be further adapted.
- 6.4.3 Any jackdaw exclusion mechanisms fitted after the 1st April should be preceded by a nesting bird check to be undertaken by a suitably experienced ecologist.

7. References

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