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SWANSEA HOLIDAY COTTAGES, PONTARDAWE

BUILDING INSPECTION SURVEY & BAT ACTIVITY REPORT

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1.0 INTRODUCTION

- 1.1 Bay Ecology was commissioned by Mr Richard Bowen to undertake building inspections with particular regard to the likely presence of roosting bats and nesting birds at a derelict cottage located at Swansea Holiday Cottage Plas Farm located outside Pontardawe (Grid Ref: SN7487404069). It is my understanding that the derelict cottage is to be redeveloped as tourist accommodation. A further corrugated metal Dutch barn was inspected as the structure is proposed to be demolished and the footprint redeveloped.
- 1.2 An external and internal inspection of the residential property was undertaken on the 31st August 2019 by David Rees whom is a suitably experienced ecologist¹. The derelict cottage is an L-shaped building whose main structure is two storey with a single storey annex located at the northern extent of the eastern elevation. The building is constructed from rendered concrete with corrugate metal roofing. A single storey breeze block storage shed was located adjacent to its southern extent. The ground floor of the cottage was being utilised for storage, whilst the first floor was partially used for storage. The adjacent storage structure was also being utilised for storage. The cottage is located immediately adjacent to (east) the River Clydach and its associated broadleaf woodland corridor. Tourist accommodation is located immediately north, south and east of site; whilst a mixed woodland corridor bordered the tourist site along its eastern extent with agricultural land located to the west.. All the rooms and loft space were accessible at the time of the survey. The Dutch barn that is proposed to demolished was located east of the cottage and was constructed from corrugated metal and steel girders and was open sided.
- 1.3 The cottage as a whole was in poor condition with multiple potential bat roosting features identified on the structure. The features were associated with fascias, cracks in external walls, broken windows and open doors providing access to the internal structure. Evidence of roosting bats were identified internally with bat droppings identified on the ground and first floor. The droppings were more numerous on the open plan first floor room and found throughout. However, the droppings which were indicative of *Pipistrelle Pipistrellus sp.* were associated with the southern gable end; whilst larger droppings indicative of Brown Long-eared *Plecotus auritus* were identified throughout, with smaller numbers recorded on the ground floor rooms. During the external survey droppings indicative of *Pipistrelle* were identified on the wall of the southern gable elevation. No droppings were identified within the smaller storage building located to the south. The Dutch barn was considered to be of negligible bat roosting potential due to its lack of potential bat roosting features associated with its prefabricated construction, and its light, airy and open nature.

¹ Full Member of the Chartered Institute of Ecology & Environmental Management with 5+ years experience in bat survey work & NRW bat licence holder 77243:OTH:CSAB:2017.

- 1.4 During August and September 2018 two dusk emergence surveys were conducted at the cottage structure by three experienced surveyors.
- 1.5 This report provides a summary of the daytime inspection, activity surveys (dusks) and automated detector survey undertaken in August/September 2018, and includes recommendations on any ecological constraints/ opportunities associated with renovation works.

2.0 METHODOLOGY

2.1 In order to establish the baseline ecological conditions on site and in the adjoining habitats, a combination of desk-based consultation and building inspection were undertaken between August and September 2018.

Desk study

2.2 This element of the work primarily involved consultation with the South East Wales Biodiversity Records Centre (SEWBRc) to identify any known records of bats and/or roof nesting birds onsite or within the surrounding area (within 2km radius or 0.15km respectively) that could require consideration as part of any demolition proposal (i.e. to inform constraints/opportunities). A search for relevant available via the internet was undertaken with data searches limited to an area extending up to 1km from the centre of site.

Daytime Inspection

2.3 The ecological appraisal comprised of an external and internal inspection at cottage located at the Swansea Cottages site, Plas Farm. In order to establish the potential presence of roosting bats (or nesting birds) at the building, the survey aimed to identify:

- if bats are, or have been, present within the building and, if so, which species are present;
- the type of roost (e.g. day roost, feeding perch, night roost, hibernaculum);
- how bats use the buildings (e.g. location of, exit and entrance points to potential roosts);

2.4 External surveys at the site involved the use of binoculars and ladder to identify possible access/entry points into the buildings and aimed to identify any evidence of use by bats such as droppings, staining, prey remains etc. The internal survey searched for similar evidence of current or historical use by bats. The survey was undertaken from ground-level around the exterior of the buildings; and was assisted by the use of close-focus binoculars and a high powered torch (1 million candlepower). All the roof voids and rooms were accessible at the time of the survey.

2.5 The surveyor searched for roost evidence (droppings, staining, scratch marks, etc.) as described above and an assessment of the buildings potential to support nesting birds was also undertaken. The scope of

the bat inspection survey, including timing and survey effort was based on guidelines published by the Bat Conservation Trust (BCT)(2016).

Bat Activity Surveys

- 2.6 The daytime inspection conducted at the cottage identified scatterings of bat droppings on the first floor with small numbers identified on the ground floor and as such further roost characterisation surveys were required at the structure to establish the likely status of the bat roost identified, the exact location of the roost(s) and an indication of the number of bats utilising the structure. The BCT 2016 guidelines require at least one survey to be conducted between May – August and as such a single dusk survey was conducted on the 31st August 2018 (the latter part of the accepted bat activity period for an initial survey), with a further dusk survey conducted on 21st September 2018. Two dusk surveys were conducted due to the sustained poor weather conditions experienced at the time of the proposed September dawn survey (with cold temperatures <10°C). In order to achieve visual coverage of the potential access/entry points associated with the structure, a team of 3 surveyors were present on each survey visit.
- 2.7 The dusk emergence surveys were undertaken by three experienced surveyors. The dusk emergence surveys commenced 15 minutes prior to sunset and extended for approximately 90 minutes after sunset (BCT, 2016).
- 2.8 Weather conditions were of no constraint during the surveys with no precipitation experienced during the dusk surveys. During the August dusk survey a light wind (Beaufort 1-2) was experienced with a temperature of 18°C; whilst during the second dusk survey a light wind (Beaufort 1-2) and a temperature of 14°C was recorded.
- 2.9 Surveyors were positioned to ensure maximum coverage of the cottage, with the surveyors located north east and south of the structure. A broadband ultrasonic detector (Bat Box Duet) and full spectrum detector (Peersonic) were used to allow both in field and office based sonogram analysis of bat calls. All calls were recorded and identified on computer-based sonogram analysis software (Wavesurfer) and BatClassify.

3.0 RESULTS

Desk study

- 3.1 The SEWBRc and internet species data search identified that an adjacent building within the Swansea Holiday Cottages Plas Farm complex was confirmed as a roost for a single Common Pipistrelle *Pipistrellus pipistrellus* during a survey conducted by Just Mammals during 2012. The survey also identified foraging and commuting Soprano Pipistrelle *Pipistrellus pygmaeus*, Natterer's bat *Myotis nattereri* and Daubenton's bat *Myotis daubentonii* in close proximity to the application cottage. The majority of the bat records identified within a 2km radius was Pipistrelle sp., with the exception of some Brown Long-eared *Plecotus auratus* records. All the records identified were of some relevance to the application structure and its location within the surrounding landscape.
- 3.2 Only four records of nesting birds were identified within a 0.15km radius of site of which Swallow *Hirundo rustica* and Wren *Troglodytes troglodytes* were considered to be of some relevance to the application structure onsite due to their potential nesting preferences.

Day-time inspection

Overview

- 3.3 The results of the day-time inspection are summarised in the following sections. The derelict cottage is an L-shaped building whose main structure is two storey with a single storey annex located at the northern extent of the eastern elevation. The building is constructed from rendered stone with corrugate metal roofing. A single storey breeze block storage shed was located adjacent to its southern extent. The ground floor of the cottage was being utilised for storage, whilst the first floor was partially used for storage. The adjacent storage structure was also being utilised for storage. The building as a whole was in a poor condition with multiple potential bat roosting features identified on the structure. The features were associated with fascias, cracks in external walls, broken windows and open doors providing access to the internal structure. Evidence of roosting bats were identified internally with bat droppings identified on the ground and first floor that were indicative of Pipistrelle *Pipistrellus sp.* and Brown Long-eared *Plecotus auratus*. During the external survey droppings indicative of Pipistrelle were identified on the wall of the southern gable elevation. No droppings were identified within the smaller storage building located to the south. The cottage is located immediately adjacent to (east) the River Clydach and its associated broadleaf woodland corridor. Tourist accommodation is located immediately north, south and east of site; whilst a mixed woodland corridor bordered the tourist site along its eastern extent with agricultural

land located to the west. A prefabricated corrugated metal and steel girder Dutch barn was located east of the cottage and was open sided, light and airy, the structure was considered to be negligible bat roosting potential.

External Survey Main Structure

- 3.4 The main cottage structure was a two storey was constructed from rendered stone with a corrugated metal roof, a single storey annex was located on the eastern elevation at its northern extent (Photo 1).

Eastern elevation

- 3.5 The ground floor interior was accessed via an open doorway on the eastern elevation, whilst the first floor interior was access via steps located on the eastern elevation. Multiple potential access points to the internal structure was evident on the eastern elevation of the main cottage and annex, with open doors and window identified. Further potential bat roosting features (PRFs) were evident beneath the wooden fascias and corrugated metal roof on the eastern elevation (Photo 2).

Photo 1: Main cottage structure and annex eastern elevations (view looking west).



Photo 2: Gaps beneath fascias and corrugated metal roof on eastern elevation (view looking west).



Southern elevation

- 3.6 The southern elevation of the structure possessed a number of PRFs associated with the rotten wooden fascia and crack in the exterior chimney breast which ran vertically down the southern gable end (Photo 3). A number of bat droppings indicative of *Pipistrelle* sp. were identified on the southern gable end wall beneath the wooden fascias at the eastern extent.

Northern elevation

- 3.7 The northern elevation of the main cottage structure possessed a first floor wooden door beneath an overhanging corrugated metal roof (Photo 4), PRFs were associated with the gaps beneath the metal roof. Wooden access doors to the single storey annex were located on this elevation with large gaps located above them providing potential access points to the interior (Photo 5).

Photo 3: Southern gable end with rotten fascias, vertical crack down chimney breast and droppings identified on wall at eastern extent of elevation (View looking north).



Photo 4: Northern elevation with wooden and overhanging roof (view looking south).



Photo 5: Northern annex elevation with gaps above doors and open window (view looking east).



Eastern elevation

3.8 The eastern elevation of the building (Photo 6) was located in close proximity to the River Clydach and associated riparian corridor (Photo 7) and possessed an open window to the ground floor and PRFs beneath wooden fascias and in cracks in the lintels (Photo 8).

Photo 6: Eastern elevation with open ground floor window and gaps beneath wooden fascias (view looking south).



Photo 7: River Clydach (view looking south).



Photo 8: Crack in lintel on eastern elevation.



Internal Survey Cottage

- 3.9 The first floor was a single open plan room that was generally well lit from an open doorway on the eastern elevation and draught free. The exposed corrugated metal roof and wooden beams were evident and the room was being utilised for storage (Photo 9). Scatterings of bat droppings were identified throughout the first floor and were indicative of Brown Long-eared bat and Pipistrelle sp.. However, the Pipistrelle droppings were concentrated down the wall of the southern elevation beneath the corrugated metal roof and wooden beam (Photo 10). Audible sounds of roosting bats were evident. Evidence of feeding active was identified within the first floor with Small Tortoiseshell wings identified (Photo 11).
- 3.10 A crack within the southern gable wall was evident (Photo 10) and penetrated into the interior of the chimney stack. However, no roosting bats or evidence of roosting bats was evident when examined (Photo 12), although multiple crevices between the stone construction was evident. The first floor room also possessed an active Swallows nest.
- 3.11 The ground floor of the cottage and annex was in constant use as storage and both were light (from multiple access points) and draught free (Photo 13), and only small numbers of droppings indicative of Brown Long-eared bat were identified. However, multiple PRFs were identified in the annex interior and were associated with the stone walls. Evidence of nesting Swallow were identified on the ground floor, whilst an artificial Swallow nest identified in the annex.

Photo 9: First floor interior (view looking north).



Photo 10: Southern gable end of interior with roost location and crack in chimney breast (view looking south).



Photo 11: Feeding remains on first floor of cottage.



Photo 12: Interior of chimney breast through crack in wall.



Photo 13: Interior of annex (view looking east).



Wood Storage Shed

- 3.12 A single storey breeze block fire wood storage shed was located south of the cottage (Photo 14). The roof was constructed from corrugated metal sheeting, whilst the walls were single skin. The structure was very light and draught free with no roofing insulation present. No evidence of roosting bats was identified externally or internally and the structure was considered to be of negligible bat roosting potential.

Dutch Barn

- 3.13 A Dutch Barn was located at the south eastern extent of the Swansea Holiday Cottage complex. The Barn was open sided and was constructed from corrugate metal and steel girders (Photo 15). A low stone wall was part of the structure's western elevation. The structure was light and airy and was considered to be of negligible bat roosting potential due to its prefabricated open nature and lack of PRFs.

Photo 14: Storage shed (view looking west)



Photo 15: Dutch Barn (view looking east).



Bat Activity Survey Results

Dusk Emergence Survey 31st August 2018

- 3.14 During the evening emergence survey 12 Common Pipistrelle and 2 Soprano Pipistrelle bats were recorded emerging from beneath the fascias and roof of the main cottage structure on the southern and eastern elevations (Photo 16 & 17). The first Common Pipistrelle bat recorded emerging at 19.50h approximately 14mins before sunset (20.04h) with the last Pipistrelle bat recorded emerging at 20.18h approximately 14mins after sunset. A bat was recorded emerging through the open window of the structure on the western elevation (Photo 18)(closet to the river) at 20.15h, no calls were detected by the northern surveyor. However, the bat was considered to be a Brown Long-eared bat from its flight characteristics. Moderate – high levels of bat activity was recorded along the western elevation in close proximity to the riparian corridor, which decreased around the eastern elevation and the artificial lights of the surrounding tourist cottages. From both in-field and sonogram analysis it was determined that the majority of the calls were made by commuting/foraging Common Pipistrelle, Soprano Pipistrelle, and individual Daubenton's and Brown Long-eared bats.

Dusk Emergence Survey 21st September 2018

- 3.15 During the evening emergence survey only a single Common Pipistrelle was recorded emerging from beneath the fascias at 19.08h approximately 8mins before sunset (19.16h); with a further two Soprano Pipistrelles recorded emerging from the fascias at 19.34h approximately 18mins after sunset. During an internal inspection of the structure a single Brown Long-eared bat was recorded flying within the ground floor room of the cottage and the attached annex. As with the August dusk survey moderate levels of bat activity was recorded along the western elevation in close proximity to the riparian corridor, which decreased around the eastern elevation and the artificial lights of the surrounding tourist cottages. From both in-field and sonogram analysis it was determined that the majority of the calls were made by commuting/foraging Common Pipistrelle, Soprano Pipistrelle, and individual Daubenton's and Brown Long-eared bats.

Nesting Birds

- 3.16 During the internal inspections of the cottage nesting Swallow were identified within the ground and first floor. Swallow is listed as Amber on the lists of species of Conservation Concern in Wales (Johnstone & Bladwell. 2016).

Photo 16: Emergence locations along red line (below fascia)(view looking north).



Photo 17: Emergence locations along red line (below fascia) (view looking west).



Photo 18: Emergence from open window (view looking south).



4.0 LEGISLATION, POLICIES AND PLANS

- 4.1 The following international, national and local legislation and planning policies pertaining to bats, nature conservation and biodiversity are considered of some relevance to the renovation of the cottage within the Swansea Holiday Cottage complex.

Legislation Pertaining to the Protection of Bats

- 4.2 Under Annex II of the *Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora* (EC Habitats Directive) some bat species are listed as of Community Interest, the conservation of which requires designation of Special Areas of Conservation (SACs); Under Annex IV of the EC Habitats Directive all bat species are listed as of Community Interest, in need of strict protection. In England and Wales, the EC Habitats Directive has been transposed into law in 1994 and, following recent amendments is set out in the *Conservation of Habitats & Species Regulation 2010* to give bats, their breeding sites and resting places a high level of strict protection making it an offence (subject to certain specific exceptions) to deliberately capture or kill/injure a bat, to damage or destroy a place used for shelter or protection or to deliberately disturb a bat in such a place.
- 4.3 Bats are also afforded protection within England and Wales under the Wildlife and Countryside Act 1981 (as amended); Countryside and Rights of Way Act 2000; Natural Environment and Rural Communities Act 2006.
- 4.4 Case Law² has placed an onus on local planning authorities to satisfy ‘three tests’ under the Habitats Directive when determining applications that could affect European Protected Species. Essentially, these three tests are: i) that there is no satisfactory alternative; ii) that the proposed development is in the over-riding public interest (including those of a social or economic nature) and iii) the proposed development would not adversely affect the Favourable Conservation Status of the species locally.

Legislation Pertaining to Birds

- 4.5 Under the Wildlife & Countryside Act 1981 (as amended) all wild birds are protected against killing or injury and their nests against damage or destruction whilst they are being built or contain eggs/dependent young.

² Wooley vs. East Cheshire (2009) and Morge vs. Hampshire County Council (2010)
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Planning Policy Wales (2016)

- 4.6 This document set out the land use planning policies of the Welsh Assembly Government (WAG) with Chapter 5 dealing with Conserving and Improving Natural Heritage and Coast. The advice contained within PPW is supplemented for some subjects by Technical Advice Notes (TAN), with TAN 5 addressing Nature Conservation and Planning (September 2009).

Technical Advice Note (TAN) 5 – Nature Conservation and Planning

- 4.7 Under Section 2.4 within the TAN 5, *‘when deciding planning applications that may affect nature conservation local planning authorities should’*:
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
 - Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
 - Ensure that the range and population of protected species is sustained;
 - Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation;

5.0 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 The daytime inspection and data search undertaken at the cottage located within the Swansea Holiday Cottage complex identified droppings indicative of Pipistrelle sp. and Brown Long-eared bat throughout the first floor of the structure along with feeding remains (Small Tortoiseshell butterfly wings); whilst small numbers of droppings indicative of Brown Long-eared were identified on the ground floor. Pipistrelle droppings were also identified on the exterior of the southern elevation. The corrugated metal Dutch Barn was considered to be of negligible bat roosting potential due to its prefabricated nature and light airy structure.
- 5.2 The August dusk emergence surveys conducted at the cottage identified 12 Common Pipistrelle, 2 Soprano Pipistrelle and a single Brown Long-eared bat emerging from the structure. A single Common Pipistrelle, two Soprano Pipistrelle and a Brown Long-eared bat were recorded roosting within the structure during the second September dusk survey. The Common Pipistrelle roost was considered to be a small maternity roost due to the number of bats recorded at the latter part of the bat breeding season, which had dissipated prior to the second dusk survey conducted in September; whilst the Soprano Pipistrelle and Brown Long-eared roost were considered to be a small daytime roost for non-breeding females and individual males.
- 5.3 The identification of roosting bats within the cottage means the renovation works will require a European Protected Species (EPS) derogation licence, which will require appropriate mitigation built into the proposed cottage structure. The EPS licence application will require an accompanying bat method statement that will detail timings of works, required watching briefs, sensitive working methodologies, required mitigation and monitoring. The EPS licence will not be required to cover the demolition of the Dutch Barn.
- 5.4 Additional considerations for the renovation works relates to the structure supporting nesting Swallow. All nesting birds are protected under the Wildlife & Countryside Act 1981 (as amended) and it is recommended that it would be prudent that any works be conducted outside the bird nesting season (March-September) or preceded by a visual inspection. It is recommended that renovated structure make provision for Swallow with the installation of appropriate Swallow nest cups.

REFERENCES

- Bat Conservation Trust (2016). *Bat Surveys – Good Practice Guidelines*. Third Edition. Bat Conservation Trust, London.
- EUROPA. (2007). *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC; Final version, February 2007.*
http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm
- Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual, 178 pages b/w photos, softback, ISBN 1 86107 558 8
- Johnstone, I. & Bladwell, S.(2016). *Birds of Conservation Concern in Wales 3: The population status of birds in Wales*. RSPB.