

Bat Activity Surveys at
Willow Cottage,
Park Street, Ruabon,
Wrexham LL14 6LE
GR SJ 30501 43738

On 19th August and 10th September 2020

Report completed 6th October 2020
Ref: WIL190820

Survey by:
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Introduction

The building and outbuildings were the subject of protected species surveys in 2017 and 2018 (*Protected Species Survey at Willow Cottage, Park Street, Ruabon, Wrexham LL14 6LE, GR SJ 30501 43738 on 8th November 2017* (Susan Worsfold 2017) and *Bat Activity Surveys at Willow Cottage, Park Street, Ruabon, Wrexham LL14 6LE GR SJ 30501 43738 on 28th May and 10th June 2018* (Susan Worsfold 2018))

Since two years had lapsed since the previous surveys an updated assessment was required, which is the purpose of this report. The proposed plan for the site has altered slightly as there are now due to be eight dwellings to be constructed rather than ten.

Methodology

One pre-dawn re-entry survey and one dusk emergence survey were carried out in accordance with Collins J. (Ed) (2016) *Bat surveys for professional ecologists: Good practice guidelines (3rd Edn)*. The Bat Conservation Trust, London.) and *Bat Worker's Manual*, JNCC (McLeish, A. P. and Mitchell-Jones, A. J., 2004)

Full spectrum frequency division detectors (Peersonic RPA3) were used to record any bat sounds for later analysis on the computer.

Personnel:

Susan Worsfold BSc ACIEEM (SW), an experienced wildlife surveyor, licensed bat worker and voluntary bat roost visitor. Registration number CLS0895 2015-12555-CLS-CLS (CL15 Bat Roost Visitor Level 1) and registration number CLS 0895 2015-12556-CLS-CLS (CL18 Bat Survey Level 2) (Natural England) and S086005/1 (Natural Resources Wales)

Anne Thackwell MA (AT), an experienced assistant.

Activity Surveys

Date	Sunset/ Sunrise	Start	End	Temp Start °C	RH Start %	Temp End °C	RH End %	Cloud %	Wind 0-6
19/8/20	06:00	04:30	06:15	16	76	13	93	40	0
10/09/20	19:40	19:20	21:15	17	66	12	71	85	0

19/8/20

Number of observers: 2

Observer 1: SW; equipment: Peersonic RPA3; Station: north west corner of house

Observer 2: AT; equipment: Peersonic RPA3; Station: south east corner of house

Bat species seen and/or recorded:

First bat:

*Soprano pipistrelle (*Pipistrellus pygmaeus*)*

Time: 04.32; Location: AT station

Subsequently: Frequently, AT station and occasionally, SW station

*Common pipistrelle (*Pipistrellus pipistrellus*)*

Time: 04.54; Location: AT station

Subsequently: Occasionally, AT station

*Myotis sp. Probably whiskered bat (*M. mystacinus*)*

Time: 22.50; Location: AT station

Subsequently: None

Bats were seen intermittently foraging and commuting near the buildings and site for the duration of the survey. No bats were seen to enter any of the buildings.

10/9/20

Number of observers: 2

Observer 1: SW; equipment: Peersonic RPA3; Station: north west corner of house

Observer 2: CT; equipment: Peersonic RPA3; Station: south east corner of house

First bat:

Soprano pipistrelle (*Pipistrellus pygmaeus*)

Time: 20.00; *Location:* CT station

Subsequently: Frequently, CT station and occasionally, SW station

Other species:

Common pipistrelle (*Pipistrellus pipistrellus*)

Time: 20.11; *Location:* CT station

Subsequently: Frequently, CT station

Myotis sp. Probably whiskered or Natterer's bat (*M. mystacinus* or *nattereri*)

Time: 20.15; *Location:* CT station

Subsequently: Frequently, CT station and occasionally, SW station

Bats were seen intermittently foraging and commuting near the buildings for the duration of the survey No bats were seen to emerge from any of the buildings.

Assessment of Effects and Mitigation Measures

There is not considered to be any threat to the conservation status of bats as no buildings were being used by roosting bats at the time of the surveys.

However, the buildings and site are being used by foraging and commuting bats and three species of bat were identified on site.

It is possible that transient bats may temporarily roost or perch in the buildings in the future, therefore care must be taken as there may be danger of harm to individuals.

If bats are found at any stage of the development then work in that area must stop and a licensed bat worker contacted for advice.

A lighting plan should be designed in accordance with the Bat Conservation Trust guidelines: http://www.bats.org.uk/pages/bats_and_lighting.html

Non-bitumen coated roofing membranes (NBCRM's) are very hazardous for bats. It is recommended that bituminous felt that does not contain polypropylene threads is used for any roof linings to prevent entanglement and death of bats which may gain access. If NBCRM's are used it is important that the roof is completely sealed to prevent access by bats.

Compensation

None appropriate as no roosting sites affected.

Enhancement Recommendations

Bats: Enhancements for bats are recommended on four of the houses such as a bat brick providing access to a cavity wall which would be left partly un-insulated and a chamber constructed inside. Alternatively the Type 27 Schwegler Brick Box for Bats is also designed to be incorporated into a wall but is self-contained. Alternatively a bat box could be fixed to an external wall of the new building, for example the 2FE Schwegler Wall-Mounted Bat Shelter or Schwegler 1FF. All available from www.nhbs.com and other sources. Bat boxes should be placed in a south east to south west facing position if possible. Further information is given in the bat box information pack available at <http://www.bats.org.uk/index.php>.

Birds: One woodcrete nests suitable for small birds such as robin, blackbird, tit species and sparrow to be incorporated into the new building, and one swallow nest.

House Sparrow Terrace - Wooden (or woodcrete) nest box with 3 sub-divisions to support 3 nesting pairs. To be placed under the eaves of buildings or incorporated into walls. Entrance holes: 32mm diameter. Dimensions: H310 x W370 x D185mm. Also suitable for tits, redstarts and spotted flycatchers. Place at least 2 m from the ground.

Swallow nests - H110mm x W250mm x D140mm. The nests should be placed inside an enclosed outbuilding or shed, porch or garage leaving a distance of at least 6cm between the top of the nest and the ceiling. There must be access for the birds through an open window or sky-light. A car port or refuse bin shelter, or an outbuilding with a permanently open window or half door, or simply a space over the door, would suffice. Under the eaves of the buildings would be acceptable but less suitable.

Other designs of nest boxes may also be suitable.

Ecological Constraints

It was not possible to cover the north side of the outbuildings as this was not on the client's land. However it is considered that observer coverage was adequate considering the low potential of these buildings, the low activity of bats on the site and the lack of evidence of bat use in any of the buildings.

Monitoring

Not considered necessary.

Bibliography

Bat Conservation Trust available at: <http://www.bats.org.uk/index.php>

BCT and ILP Guidance Note 8 Bats and Artificial Lighting available at:
<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

CIEEM (2017) *Guidelines on Ecological Report Writing*. Winchester: Chartered Institute of Ecology and Environmental Management

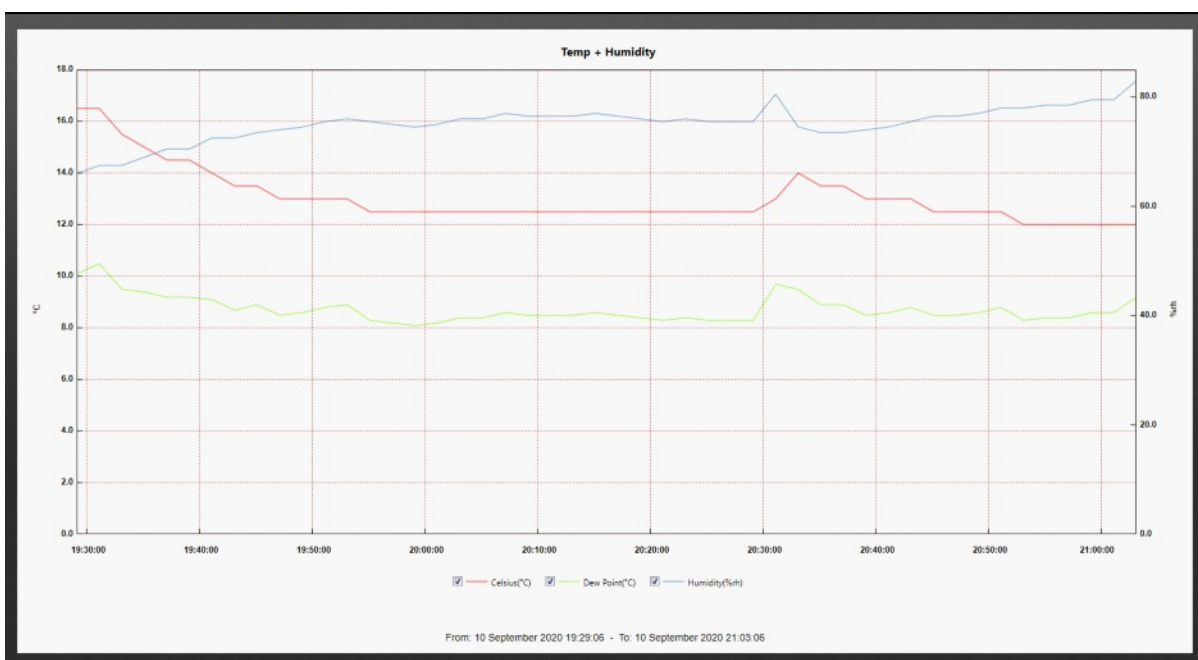
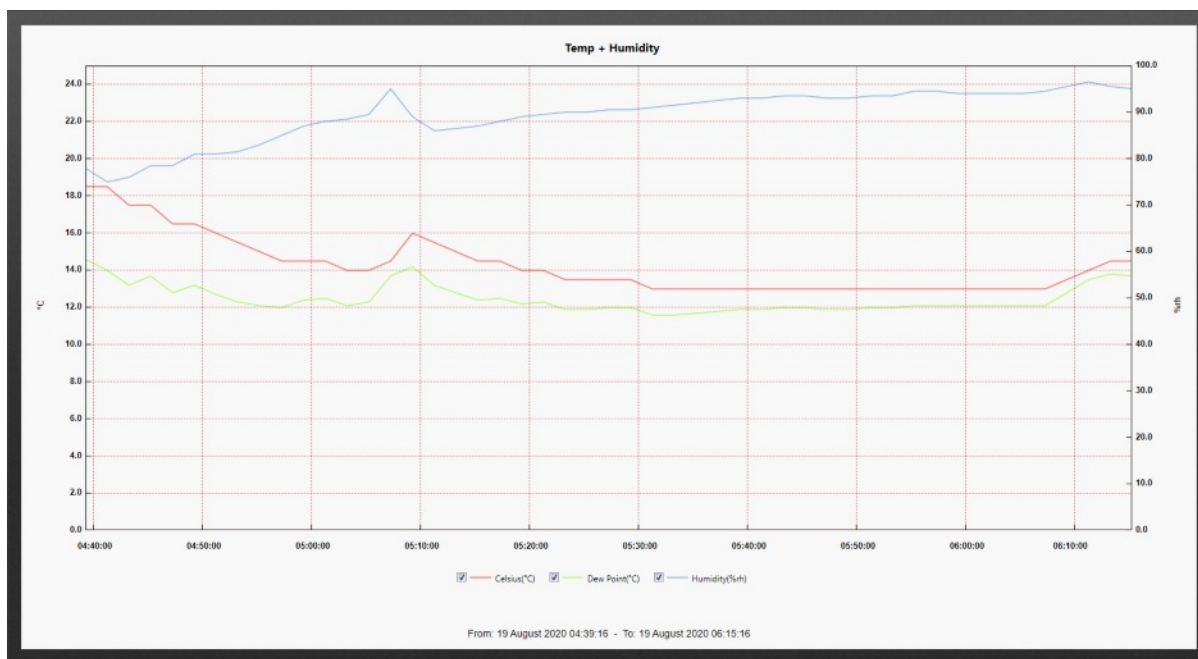
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Mitchell-Jones, A. J. and McLeish, A. P. (2004) *Bat Worker's Manual*, Peterborough: Joint Nature Conservation Committee

Mitchell-Jones, A. J. (2004) *Bat Mitigation Guidelines*, Peterborough: English Nature

Natural Resources Wales available at: <https://naturalresources.wales/?lang=en>

Temperature and Humidity Charts



Photographs of the Buildings



Location of Bat Detectors and Observers



Bat detector and observer ★