



# **CYNGOR GWYNEDD**

## **YSGOL TREFERTHYR: BAT EMERGENCE SURVEYS**

**Dr Rod Gritten PhD PGCE CBiol MSB  
GRITTEN ECOLOGY**

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**GrittenEcology**

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Dr Rod Gritten PhD PGCE CBiol MSB

rod@grittenecology.co.uk | 01766 770 933 | 07768 319 560

Traian, Llanfrothen, Penrhyndeudraeth, Gwynedd LL48 6SW

## 1.0 INTRODUCTION

More than fifty trees present on the site of the proposed Ysgol Treforthyr primary school build on a greenfield site on the outskirts of Cricieth were surveyed for their potential to host bat roosts (Addendum to Ecological Survey for New Primary School Build Ysgol Treforthyr, Cricieth. **Gritten Ecology** 17.3.21). As a result of that survey, a number of trees were identified as having Low-Medium-High Potential to host bat roosts and it was recommended that appropriate evening emergence surveys should be carried out during May 2021 to determine whether any of these trees were being used as bat roosts. The Arboricultural report {Luke O'Connor (13.7.20), which was revised on 7.1.21. (It is understood there has been a further revision in May 2021 to be submitted elsewhere)} recommended that these trees receive some (pruning) attention or should be felled.

Accordingly, evening emergence surveys were carried out on 17<sup>th</sup> and 19<sup>th</sup> May 2021 during appropriate weather conditions (**Table 1 and 2**) utilising experienced bat surveyors under the supervision of Dr Rod Gritten (NRW Bat Licence No. S089418/1) who has over twenty five years' experience of such surveys.

This report should be read in conjunction with the **Gritten Ecology** 17.3.21 tree bat roost potential survey report.

## 2.0 METHODOLOGY

Seven trees were identified as requiring further survey, one of these (Tree No. 36 (0070) was found to have a hole at chest height. This was surveyed using a General 5660 Seascope endoscope on 19.5.21. The six other trees were subjected to an emergence survey. Weather conditions at the time of these surveys are shown in **Table 1** and **Table 2** below. Surveyors used hand-held Batbox Duet heterodyne or Magenta recorders, whilst an Anabat Express recorder was located at the base of each tree or group of trees.

All emergence surveys were terminated when it became too dark to see effectively.

Time	Temperature °C	Relative Humidity %	Cloud cover %	Wind	Precipitation
Start 20.40	13.8	72	50	Slight breeze	None
Finish 21.55	10.5	84	50	Slight breeze	None

**Table 1: Weather conditions at the time of the 17.5.21 emergence survey (Sunset 21.11).**

Time	Temperature °C	Relative Humidity %	Cloud cover %	Wind	Precipitation
Start 20.45	15.6	67	90	Slight breeze	None
Finish 21.55	9.5	81	60	Slight breeze	None

**Table 2: Weather conditions at the time of the 19.5.21 emergence survey (Sunset 21.14).**

### 3.0 RESULTS

**Tree No. 2 (0057)** is a veteran Sessile Oak (*Quercus petraea*) with Low Potential (2) as a bat roost but has a fissure in an area of deadwood on the northern side of the tree. The tree has been recommended to be retained but requires some limb removal to avoid further rot damage. One surveyor was stationed towards the north of the tree during the 17.5.21 emergence survey. **No bats were seen to be emerging** during the survey.

**Tree No. 3 (0058)** is also a veteran Sessile Oak with Low Potential (2) as a bat roost in a tear-out to the south. The tree has been recommended to be retained but requires some removal of deadwood. One surveyor was stationed to the south on 17.5.21. **No bats were seen to be emerging** during the survey. However, there was an active Blue Tit's (*Cyanistes caeruleus*) nest in the tree.

**Tree No. 4 (0059)** is a veteran Alder (*Alnus glutinosa*) (**Photo 1**) that has High Potential (4) as a bat roost. It has been recommended to be felled to accommodate the proposed development. It has suitable hollows and fissures to the west. One surveyor was stationed to the west during the 17.5.21 emergence survey. An endoscope survey was also carried out on 1.4.21 using a telescopic ladder for access and a General 5660 Seascope endoscope. No signs of bats were noted during that survey indicating the tree was not being used as a hibernaculum. **No bats were seen to be emerging** during the survey.



**Photo 1: The veteran Alder with the potential bat roost ringed in red.**

**Tree No. 5 (0060)** is a poorly Sycamore (*Acer pseudoplatanus*) that is showing signs of early senescence but has High Potential (4) as a bat roost. Due to its condition, it has been recommended for felling. There appears to be a suitable roost entrance to the west. One surveyor was stationed to the west during the 17.5.21 emergence survey. **No bats were seen to be emerging.** However, two bats were seen and detected with the bat detector and the Anabat (echolocating at 55kHz) feeding in the general vicinity of the tree indicating that the weather conditions at the time of the survey were suitable for bat activity. This gives some validity to the negative emergence survey.

**Tree No. 36 (0070)** is a Norway Maple (*Acer platanoides*) which has High Potential (4) as a bat roost having a suitable hole just above head height on its trunk. It has been recommended to be retained but have tear-outs, deadwood and a hanger removed. The endoscope survey was carried out on 19.5.21 but **no bats or signs of bats were detected.** It was concluded that an emergence survey is not required for this tree.

**Tree No. 53 (0097)** is a veteran Sessile Oak which has a Medium Potential (3) as a bat roost. It has been recommended to reduce the tree to 10 metres but to be retained as wildlife habitat though diseased. One surveyor was stationed to the south of the tree during the 9.5.21 emergence survey. **No bats were seen to be emerging** during the survey.

**Tree No. 55 (0094)** is also a veteran Sessile Oak with a High Potential (4) as a bat roost. It has been recommended to be retained as wildlife habitat but to reduce the main leader by

6 metres. It has several possible sites which might provide roosting opportunities for bats. Accordingly, three surveyors were stationed all around the tree during the 19.5.21 emergence survey. **Two Soprano Pipistrelle bats (*Pipistrellus pygmaeus*) were seen emerging from a crack in the tree at 21.25** echolocating at 55kHz. **This tree is, therefore, a bat roost.** Since only two bats emerged from the tree, it is likely the tree is not a maternity roost but is being used by either two non-breeding females or two male bats as a roost. One of the observers also noted a Great Tit (*Parus major*) regularly entering a small hole carrying caterpillars for its brood nesting inside.

#### 4.0 DISCUSSION

Six of the seven trees surveyed yielded negative results, so the recommended felling or pruning can be safely carried out providing it is carried out in the very near future. A negative result simply suggests the trees are not being used as bat roosts *at the time of the survey*. It must not be used as an indication of the suitability of the trees as *potential* bat roosts. It is recommended, therefore, that a further emergence survey is carried out prior to the felling/pruning works are undertaken.

Since the veteran Oak tree (No. 55/0094) is a bat roost, technically a derogation Licence from Natural Resources Wales should be obtained before any works are carried out to the tree. However, in discussion with Luke O'Connor, the Arboricultural contractor on this project, it has been agreed that none of the recommended pruning works on this particular tree need to be carried out. A Construction Exclusion Zone (BS 5837) will be erected around the tree during the construction period to ensure that the tree and its bat roost remains unaffected during that time.

That this tree also hosts a Great Tit's nest is an additional reason why it will not be subject to any disturbance by the suggested pruning. The presence of a Blue Tit's nest in Tree No 3 (0058) means that the recommended pruning works will not be carried out during the bird breeding season (April-August).