Padwick Farm, Leek

Biodiversity Scoping Survey Report

On behalf of Alison Heathcote

Contents

1. Introduction

1.1. Background and Personnel

Kelly MacGillivray was commissioned by Alison Heathcote to carry out a Biodiversity Scoping Survey of two fields at Padwick Farm, Leek subject to proposals for the siting of four mobile camping units and associated composite toilets. The survey was instructed in response to a request from Staffordshire Moorlands District Council and assessed the habitats present on site, along with their potential for protected species to be present. This report considers the survey results in the context of any possible implications that the camping units may have on bat species and badger in particular, but also any other protected species or habitats of conservation value.

Kelly MacGillivray is an experienced ecologist and holder of class survey licences for both great crested newts and bats (CLS00075 – levels 1 and 2 respectively). Kelly has worked for both Penny Anderson Associates in Buxton and Wild Service (a merger of the Avon and Gloucestershire Wildlife Trust Ecological Consultancies) in Bristol over the last four and a half years. Associate Membership of the Chartered Institute of Ecology and Environmental Management is currently in the renewal process.

1.2. Site Description and Proposals

The site is situated at Lowe Hill, towards the south-east corner of Leek in Staffordshire, just north of the A523 and amidst almost entirely rural surroundings. Numerous small woodlands, tree lines, hedgerows and agricultural fields, along with a very large pond, are all present within 1km. The site itself comprises two sloping, cattle-grazed fields associated with, and immediately east of, Padwick Farm. The fields are bordered by fences, stone walls, tree lines and small areas of broadleaved woodland, and divided by a stone wall with gateways. The central grid reference for the site is SJ99834 55609. Site photographs are included throughout this report and the site layout is provided in Figure 1.

1.3. Legislation Summary

This report has been prepared in accordance with relevant legislation and policy. Further detail, comprising legislative summaries relating to bats and badger, is provided in **Appendix A**, however the following primary documents are of relevance:

- The Wildlife and Countryside Act 1981 (as amended)
- The Countryside and Rights of Way Act (CRoW Act), 2000 (as amended)
- The Natural Environment and Rural Communities Act (NERC Act), 2006
- The Conservation of Habitats and Species Regulations 2010 (as amended)

2. Methodology

All of the methodology outlined below is in line with best practice guidelines produced by the Chartered Institute of Ecology and Environmental Management[1].

2.1 Desk Study

Ecological data was obtained from the National Biodiversity Gateway and reviewed in order to identify the presence of protected species (considered to be relevant to the proposals) within 1km of the site.

2.2 Biodiversity ScopingSurvey

A Biodiversity Scoping Survey of the site was undertaken on 30 December 2015 following standard methods[2].

The survey considered the suitability of the site to support notable or protected flora or fauna. For badger in particular, field signs including latrines, pathways, hairs and setts were searched for around the fields' boundaries, and for bats, evidence of tree roosting (e.g. droppings and/or urine staining in and around crevices) was searched for, and the habitats evaluated for their potential use to foraging and commuting bat species.

Suitability for each protected species was considered according to current good practice[1] and only those species thought likely to utilise the site in some way were considered (e.g. badger and bats). Further information is provided in the Results section below.

The site was also inspected for signs of any invasive plant species subject to legal controls e.g. Japanese knotweed (*Fallopia japonica*) or Himalayan balsam (*Impatiens glandulifera*).

2.3 Constraints

The survey was conducted outside of the optimum survey times for badger activity (i.e. early spring and late autumn when activity levels are higher). Cattle poaching of the ground and high levels of rainfall prior to the day of the survey may also have erased any badger footprints; however, it was considered highly likely that field signs of a more permanent nature (e.g. guard hairs caught on barbed wire and well-used pathways and latrines) and indicative of regular badger use would certainly have been recorded if present.

No constraints were experienced during the surveys that were considered to be significant or detrimental to good judgement of the potential ecological impacts of the proposals.

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[1] Survey guidance is available at http://www.cieem.net/sources-of-survey-methods-sosm- and appraisal guidance is available at http://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea-

[2] Joint Nature Conservation Committee (1990). Handbook for Phase 1 Habitat Survey. JNCC, Peterborough.

3. Results

3.1. Desk Study

The National Biodiversity Gateway (NBN) (https://data.nbn.org.uk/ - accessed 03.01.16) returned over 100 bat records from within 1km of the site over the last 20 years, the nature of which (i.e. roost or field observation) was unspecified. Species included Daubenton's (*Myotis daubentonii*), Natterer's (*Myotis nattereri*), noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared (*Plecotus auritus*). None of the records were associated with the site itself.

A single '100m presence' badger (*Meles meles*) record from within the last 20 years was returned from the search, immediately to the south of the site. The nature of the record, along with the exact location was unspecified, but may speculatively have been a road casualty along the A523.

No further protected species records, including those for great crested newt (*Triturus cristatus*) were returned from within a 1km search radius of the site.

3.2. Biodiversity Scoping Survey

3.2.1 Habitats and Flora

Semi-improved neutral grassland

The site was dominated by cattle grazed (and cattle poached), semi-improved neutral grassland (**Photographs 1 and 2)**, which in turn was locally dominated by Yorkshire fog (*Holcus lanatus*), red fescue (*Festuca rubra*) and perennial rye-grass (*Lolium perenne*) with frequent to abundant creeping buttercup (*Ranunculus repens*). Other species included locally abundant chickweed (*Stellaria media*), frequent broadleaved dock (*Rumex obtusifolius*), with foxglove (*Digitalis purpurea*), young hawthorn (*Crataegus monogyna*) and common nettle (*Urtica dioica*) all present in rare amounts along the stone wall dividing the two fields.

Photographs 1 and 2 *– The southern field (looking west up-slope) and looking down-slope*

A slightly more diverse assemblage of botanical species was recorded along the sloping eastern edge of the northernmost field. This area had locally abundant ribwort plantain (*Plantego lanceolata*), frequent amounts of white clover (*Trifolium repens*) and occasionally recorded crested dog's tail (*Cynosurus cristatus*). Rare amounts of common cat's-ear (*Hypochaeris radicata*), common mouse-ear (*Cerastium fontanum*) and meadow buttercup (*Ranunculus acris*) were also recorded.

Broadleaved woodland

Two areas of mature, broadleaved woodland were recorded adjacent to the two fields. A thin strip between the southern boundary and the A523 (**Photographs 3 and 4**) was dominated by sycamore (*Acer pseudoplatanus)*, a cluster of which were ivy-clad, with locally frequent holly (*Ilex aquifolia*) occasional ash (*Fraxinus excelsior*) and hawthorn. The woodland sloped down to the road and ground flora was dominated by ivy (*Hedera helix*) with frequent common nettle and bramble (*Rubus fruticosus*). Bare patches of earth were present at the top of the slope behind the stone wall field boundary.

Photographs 3 and 4 *- The southern woodland slope (looking east down field boundary) and ivy-clad sycamore*

A strip of beech (*Fagus sylvatica*) dominated woodland (with ivy dominated ground flora and occasional hawthorn) was recorded adjacent to the A523 at the north-east corner of the fields, with a tree line extending along the northern boundary (**Photographs 5 and 6**). The tree line contained mature ash, holly, hawthorn and pedunculate oak (*Quercus robur*) along a post and wire fence.

Photographs 5 and 6 – Northern woodland (looking north) and adjoining tree line (looking west)

3.2.2 Protected Species

Bats

Several trees along the northern boundary's tree line and within the two broadleaved woodland areas possessed features of potential roosting value to bats. These features included hazard beams, damaged limbs, rot holes, cavities and a small amount of flaking bark. No evidence of bat use was noted around any of the features.

The ivy-clad sycamores in the southern woodland area were deemed to be unsuitable for roosting bats due to the lack of plating (ivy cover was thin throughout) and the slim-ness of the trees and their limbs.

The areas of woodland and the field boundaries in general would provide ideal foraging areas and commuting routes for local bat populations.

Badger

No confirmed evidence of badger use of the site was identified. Two mammal trails between the northern field and the field immediately adjacent to the north were recorded; however, no clear prints or guard hairs on the barbed wire were found to establish these as being used by badger.

Other species

No evidence of any other protected species was found during the survey, although the trees/woodlands bordering the site would provide nesting opportunities for birds, whilst brash piles adjacent to the stone walls along the southern boundary and within the southern woodland's eastern end would provide refugia opportunities to hedgehog (*Erinaceus europaeus*) and amphibian species.

4. Discussion and Recommendations

4.1. Habitats

The site contains cattle grazed (and already cattle poached), semi-improved neutral grassland, a mature tree line and two areas of broadleaved woodland (containing brash piles in places) adjacent to the northern and southern field boundaries. Woodland ground flora was ivy-dominated in both areas, with no notable species. No invasive species (for example, Japanese knotweed) were found during the survey.

The habitats recorded are common and widespread, with no recognised conservation value. However, it is recommended that any brash piles along the field boundaries and within the southern woodland strip are retained and/or enhanced in order to provide refugia opportunities to species such as hedgehogs and amphibian species.

The proposals for four mobile camping units and associated composite toilets (Figure 1) will not impact the mature tree line or broadleaved woodland areas, with the units intended to be positioned at the western, flatter ends of the field interiors. The flora of the field interiors was considered too short and disturbed by cattle to be of any transitional or foraging value to great crested newts.

No lighting or 'infrastructure' scheme will be associated with the units - only low level, solar powered lighting will be used within the units and only bark chippings or similar will be used when areas may become waterlogged.

The impacts of the proposals on the site's habitats are deemed to be negligible.

4.2. Bat Species

Bat roosts are protected from destruction, modification or obstruction under the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). Bats are protected from deliberate or reckless killing or injury and from disturbance whilst in a roost.

The proposed units are assessed as having negligible potential to affect bats, roosting or otherwise, given the lack of an associated lighting scheme and the positioning within the upper/western field interiors (therefore away from the boundaries likely to be used by commuting and foraging bat species, and potentially by roosting bats within the trees). No trees will be felled or managed as a result of the proposals and only low level disturbance will result from human noise during occupation of the units. Therefore, no further survey effort with regards to bat species is recommended.

4.3. Badger

Badgers are protected under the Protection of Badgers Act 1992.

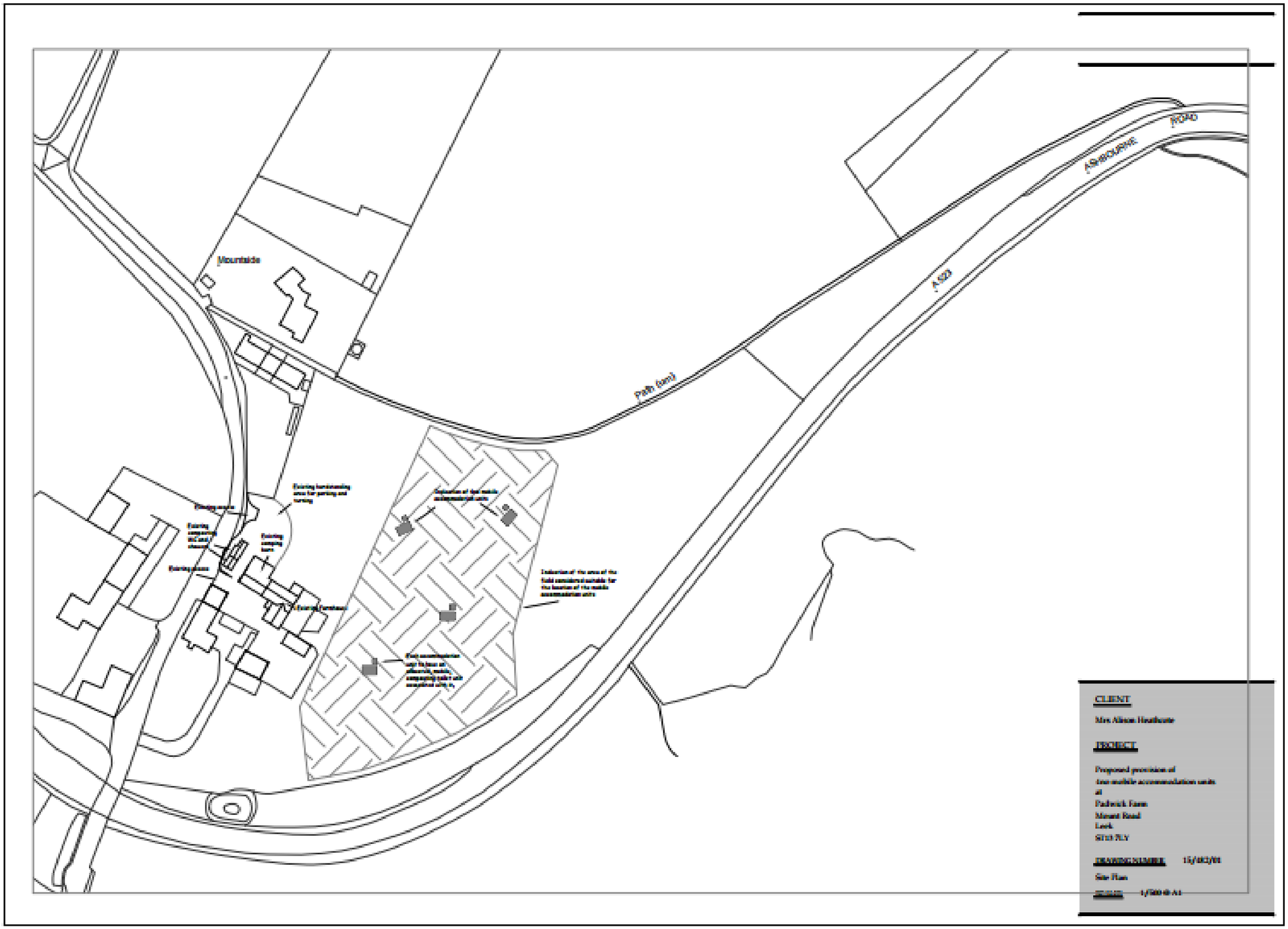
The fields surveyed, along with their boundaries and adjacent woodland areas, present foraging and commuting opportunities for badger, whilst the wider surroundings are likely to contain setts. However,

no confirmed badger evidence was found during the survey (including within the woodland areas where visible from the fields). On the assumption that individuals may utilise the site for foraging and commuting at times, the localised nature and low level of disturbance expected to be associated with the four camping units during their occupation mean that impacts on local badger populations will be negligible. Therefore, no further survey effort with regards to badger is recommended.

4.4 Additional information

Should any further information or clarification be required in relation to the Biodiversity Scoping Survey or this report, please feel free to contact the ecologist on 07817153573 or at kelly.mac87@btinternet.com.

Figure 1 – Site Plan



References

Hundt (2012). *Bat Surveys – Good Practice Guidelines*. 2nd Edition. Bat Conservation Trust, London.

Joint Nature Conservation Committee [JNCC] (2010). *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. JNCC. Peterborough

Stace, C.A. (2010). *New Flora of the British Isles: Third Edition*. Cambridge University Press

Appendix A - Legislation

Bats

There are 18 species of bats in the UK, all of which are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). They are also included in Schedule 2 of the Conservation of Habitats and Species Regulations 2010, making them European Protected Species. The Wildlife and Countryside Act, the "Habitats Regulations" and the CRoW Act 2000 together make it an offence, among other things, to recklessly, intentionally or deliberately:

- Disturb roosting bats or obstruct access to their roosts;
- Disturb a significant number of bats (whether in a roost or not);
- Damage, destroy or obstruct access to bat roosts;
- Kill, injure or capture (or take) bats.

A bat roost is defined as "any structure or place (including trees) which any bat uses for shelter or protection". Because bats tend to re-use the same roosts, legal opinion is that the roost is protected whether or not the bat(s) are present at the time.

Badger

Badgers are protected under the Protection of Badgers Act 1992. This makes it an offence to wilfully kill, injure, take, possess or ill-treat a badger, or to attempt to do so; or to intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it.