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Ecologically Bats

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HIGH PEAK
11 JUN 2013

Site assessment at the Former Shepley Mill Site Sk031 939, off George Street, Glossop, Derbyshire.

A walk over site assessment was conducted by Dr Elizabeth Barratt on 9th February 2013

Dr Elizabeth Barratt is an ecologist and bat specialist. She is a professional consultant with over 25 years' experience in conservation and survey work, specializing in bat ecology. She has been a licensed bat worker and member of the Cheshire Bat Group since 1986, and is a Voluntary Bat Warden for Natural England, participating in the annual National Bat Monitoring Programme of the Bat Conservation Trust. Dr Barratt is a full member of the Chartered Institute of Ecology and Environmental Management.

SITE DESCRIPTION

The survey area is the site of the former Shepley Mill which has become derelict. The site is within an urban setting, and now comprises an area of semi-mature woodland off George Street, Glossop (**Appendix** 1).The woodland area is surrounded on three sides by residential/church buildings and is adjacent to Glossop brook which forms a wildlife corridor through Glossop. The Ordnance Survey co-ordinates are SK031 393



Glossop Brook

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Lower woodland area



Glossop Brook



Upper woodland area

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A desktop survey has not identified any SSSI within the immediate vicinity. The local Wildlife Site adjacent to Park Crescent is sited approximately 1km to the north west of the Former Shepley Mill site.

Site habitat assessment

The woodland habitat is assessed as semi-natural woodland with some natural regeneration of trees but the majority being planted and of a similar age (JNCC Phase 1 habitat classifications). The predominant tree species present is Ash. The upper woodland area (proposed site of caravan park) also contains hawthorn, goat willow, crack willow and sycamore.

There is no shrub understorey present within this area. The ground flora at the time of survey was predominantly ivy with some celandine present. A later survey may identify additional ground flora species however evidence was also found of non-native bulbs being planted.



Celandine



Ivy

The site boundaries are a mixture of post and rail fencing plus boarding. A native hedgerow is present along the north side of the upper woodland site.

BATS

Desk Top Study

A record search for bat roosts and records within the George Street area was carried out using the South Lancashire Bat Group database.

Three species of bat

- Common pipistrelle
- Brown long-eared bat
- Myotis species

have been recorded roosting or flying within 2km of Glossop high street. There were no specific records for the Former Shepley Mill site site

Roost Assessment

The trees on the upper woodland regeneration area were assessed for presence of bats and potential bat roost site :

- The majority of the trees within this area are not mature and have not developed suitable roost sites for bats i.e. no suitable cracks, crevices, lifting bark were identified in the trees in this area.
- Tree 5 (ash) and 6 (sycamore) on the arboroculturea assessment have a thin covering of ivy on the tree trunk. As the ivy thickens it has the potential to provide roosting opportunities

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When carryout a work on trees contractors should be aware that if bats or signs of bats are found during works, all work should cease and Natural England or a licensed bat consultant contacted immediately and their advice followed. Failure to do so may result in an offence under the legislation in relation to bats as described in the Wildlife and Countryside Act (1981). On no account should the bat(s) be handled by anyone other than a licensed bat worker.

Foraging

The trees and brook provide a foraging/commuting route for bats. The site could be improved by the inclusion of insect attracting native species to provide foraging opportunities and the planting of native species hedgerows to provide connectivity across the site (**Appendix 2**).

Nesting Birds

There is potential for nesting birds in association trees on site and therefore any clearance work should take place outside the breeding season for birds, which is March to September, although this may be dependent on weather conditions. . Cold weather may delay the onset of nest-building or warm weather may bring it forward. The lack of an understorey/shrub layer will reduce the number of species nesting on site as will the absence of tree holes

During the survey wren, robin, blue tit, great tit and blackbird were observed within the woodland area.

Barn Owls

The trees on site were considered unsuitable for barn owl nesting sites and the area did not provide suitable foraging opportunities for barn owls.

Badgers

There was no evidence of badger setts within the site boundary at the time of survey. No paths, latrines or foraging signs were found during survey. The site is heavily disturbed and used by dog walkers.

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CONCLUSIONS & RECOMMENDATIONS

The site assessment was carried out in February 2013 and is therefore subject to the following caveats

- A general habitat assessment can be carried out in winter but will not identify specific ground flora which are not visible at this time.
- Bats are in hibernation throughout the winter and therefore signs of bat presence (droppings etc.) will be absent. Assessment of bat roost potential can be made at this time
- Birds will not be nesting at this time and may be absent from the site

Based on the results of the walk over assessment the site was found to be of limited floral biodiversity. The inclusion of native species appropriate to the location within a landscaping/management scheme will increase the biodiversity of the site and enhance the habitat linkage for insects, bats, badgers and birds.

Bats

Anecdotal evidence reports that bats have been seen flying across the site and this would be in line with the bat record search data which records three bat species in the area. The site offers foraging and commuting opportunities for bats but no potential bat roost sites were identified in the upper woodland area. Landscaping for the proposed development should include the planting of insect attracting native species to provide foraging opportunities and the planting of native species hedgerows to provide connectivity across the site (see **Appendix 2** for species lists).

Although the trees in the lower (southern) section of the site showed no evidence of bat roosting opportunities at the time of survey there is potential for roosts to develop as the trees mature, therefore we recommend retention of as many trees as possible, especially those forming the wildlife corridor along the edge of Glossop brook. Roosting opportunities can be enhanced through the erection of bat boxes such as the Schwegler 1FF bat box which can be attached to surrounding trees. The best time for tree thinning and felling works to be carried out is late autumn/winter avoiding active seasons for bats and nesting seasons for birds.

Nesting Birds

Birds are declining due to loss of roost and nesting places. The erection of artificial nests within the proposed development will provide alternative sites and make a positive contribution to their conservation. Woodland birds prefer tree holes or dense shrubs as nesting sites. These features can be provided through the use of suitable bird boxes.

Badgers

Badgers are not using the site and therefore no action will be required.

Best practice close to watercourses and bodies

Best practice must be employed to avoid any degradation of habitat close to the watercourse or of the watercourse itself.

- All building waste is properly disposed of and no use is made of the canal or stream for any building activities
- No materials, waste or other polluting substances are discharged into the watercourse
- No riparian (river) habitat is damaged during the work
- Any incidental or accidental damage is repaired as soon as possible.

It is recommended that if further guidance is required then the Environment Agency must be contacted to ensure that best practice is employed during the clearance and development work.

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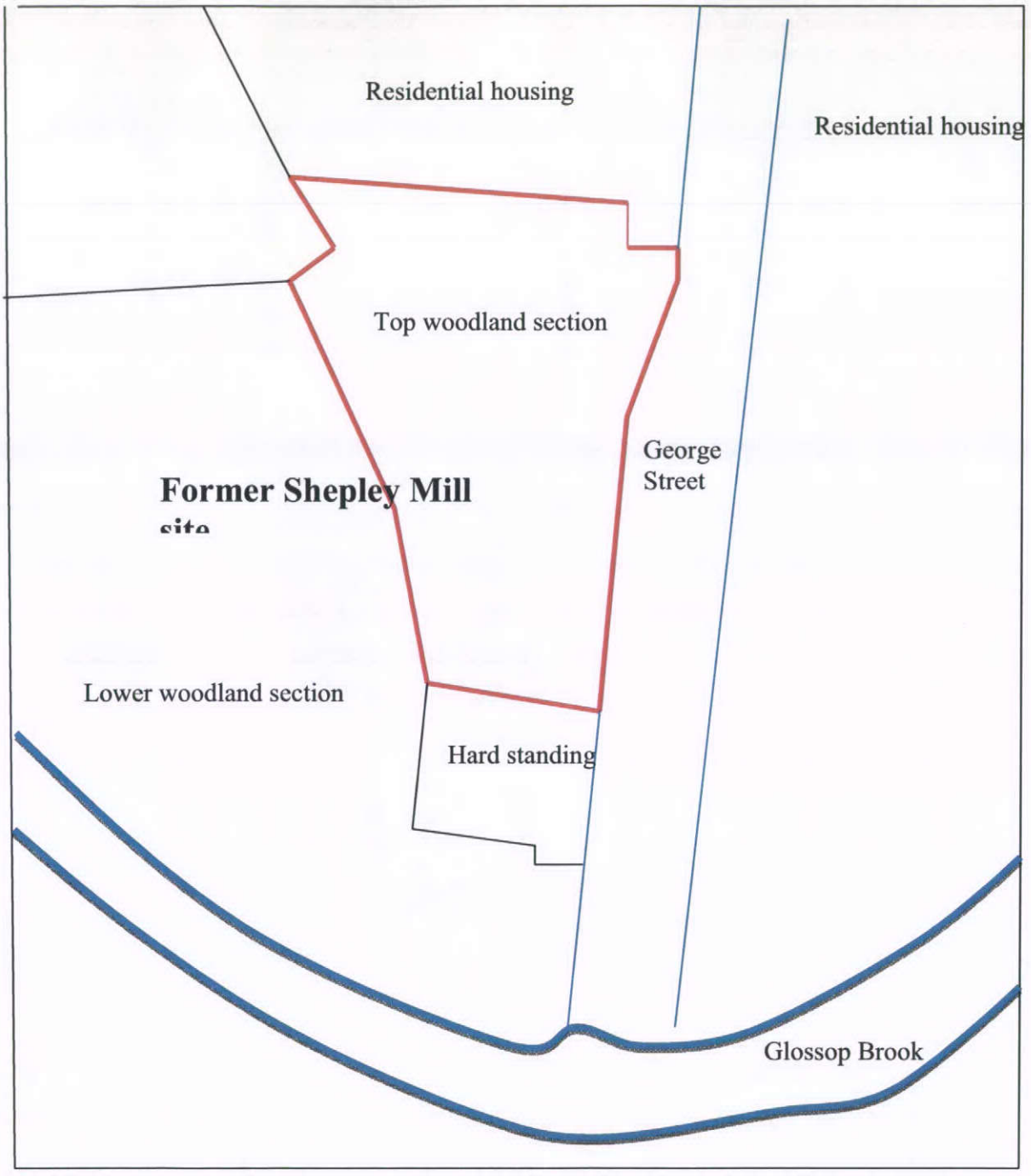
The conclusions and recommendations in this report in respect to surveys for protected species are based upon the results from surveys in February 2013. These data will only be of use for 12 months following the survey, after which further survey to establish the current position and possible changes in status, will be necessary to ensure all activities are informed and guided by the most recent data on site status

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Appendix 1: Former Shepley Mill site site sketch



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Appendix 2: Landscaping and the conservation of bat populations

Planting to enhance a site for bats should aim to provide a habitat rich in insects, and with the potential for alternative roosting sites. The construction of shelter belts, especially around a pond will create areas with high densities of insects.

Trees and Shrubs

Oak	*Quercus robur*
Ash	*Fraxinus excelsior*
Silver Birch	*Betula pendula*
Field Maple	*Acer campestre*
Hawthorn	*Crataegus monogyna*
Alder	*Alnus glutinosa*
Goat Willow	*Salix caprea*
Guelder Rose	*Viburnum opulus*
Hazel	*Coryllus avellana*
Blackthorn	*Prunus spinosa*
Elder	*Sambucus nigra*
Butterfly-bush	*Buddleja davidii*

Night-scented flowers

As bats usually feed at dusk and dawn it is advantageous to use night-scented flowers which will attract moths and other night-flying insects.

Nottingham Catchfly	*Silene nutans*
Night -flowering Catchfly	*S. noctiflora*
Bladder Campion	*S. vulgaris*
Night-scented Stock	*Matthiola bicornis*
Dame's-violet	*Hesperis matronalis*
Common Evening-primrose	*Oenothera biennis*
Soapwort	*Saponaria officinalis*
Tobacco plant	*Nicotiana affinis*
Cherry pie	*Heliotopum x hybridum*

Scented herbs

Chives	*Allium schoenoprasum*
Sage	*Salvia officinalis*
Marjoram	*Origanum vulgare*
Borage	*Borago officinalus*
Mint	*Mentha* sp.

Climbers

Perfoliate Honeysuckle	*Lonicera caprifolium*
Italian Honeysuckle (garden)	*L. etrusca*
Japanese Honeysuckle	*L. japonica*
Honeysuckle (native)	*L. periclymenum*
White jasmine	*Jasminium officinale*
Dog-rose	*Rosa canina*
Sweet-briar	*R. rubiginosa*
Field-rose	*R. arvensis*
Ivy	*Hedera helix*
Bramble	Rubus fruticisos agg.

Leaving areas of grass uncut allows larval stages of these insects to develop.

Source:

Bats in the garden by Shirley Thompson, 1989. School Garden Company. Spalding Lincs
Bat Conservation Trust leaflet 'Garden for Bats'

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Appendix 3: Legislation

Bats are offered special protection under the following legislation:

- **The Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9**. This Act transposes into UK law the **Convention on the Conservation of European Wildlife and Natural Habitats** (commonly referred to as the "Bern Convention". The WCA was recently amended by the **Countryside and Rights of Way [CroW] Act 2000.** This makes it is an offence to:
  - Intentionally kill, injure or take any species of bat [Section 9(1)]
  - Possess or control any live or dead specimens or anything derived from a bat [Section 9(2)]
  - Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat [Section 9(4)(a)]
  - Intentionally or recklessly disturb a bat while it is occupying a place or structure which it uses for that purpose [Section 9(4)(b)]

- **The Conservation (Natural Habitats &c) Regulations 1994** (The Habitats Directive) transposes into UK law **Council Directive 92/43/eec** of 21st May 1992 on the **Conservation of Natural Habitats of Wild Fauna and Flora** (referred to as the Habitats [and Species] Directive). Bats are listed on Annex II and Annex IV of the Directive. Inclusion in Annex II serves to underline their (the bats') conservation significance; inclusion in Annex IV (European Protected Species) means that member states are required to put into place a system of strict protection as outlined in Article 12. This is done through inclusion in Schedule 2 of the Regulations. Regulation 39 makes it an offence to:
  - deliberately capture or kill a bat [Regulation 39 (1)(a)]
  - deliberately disturb a bat [Regulation 39(1)(b)]
  - deliberately damage or destroy a breeding site or resting place of a bat [Regulation 39(1)(d)].

There are several exceptions to the provisions listed above. Licenses permit unlawful activities and are granted for certain purposes by Natural England for scientific, education or conservation purposes (including survey). Natural England issues licenses through the Wildlife Licensing Unit for the purposes of "*preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*" [Regulation 44(2)(e)].

Barn owls, *Tyto alba*, are protected under the **Wildlife and Countryside Act 1981**, in which they are classified as a schedule one species, under this special protection it is an offence to:

- Kill, injure, or take (handle) any wild barn owl.
- Take, damage or destroy any wild barn owl nest whilst in use or being built (Barn owls do not build a nest but make a scrape).
- Take or destroy a wild barn owl egg.
- Have in one's possession a wild barn owl (dead or alive), or egg, unless one can show it was obtained legally.
- Disturb any wild barn owl whilst "building" a nest or whilst in or near a nest containing eggs or young.
- Disturb any dependant young of wild barn owls.

Wild Birds: Wildlife legislation through the Wildlife & Countryside Act 1981 states it is an offence to

- Intentionally kill, injure or take any wild bird
- Intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built
- Intentionally take or destroy an egg of any wild bird

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The Wildlife & Countryside Act 1981 has several subsequent amendments the most important being the Countryside and Rights of Way Act 2000 (CROW) which under Schedule 12 of the Act strengthens the legal protection for threatened species. It also makes certain offences 'arrestable' and importantly and

significantly creates a new offence of reckless disturbance. It also confers greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and also enables heavier penalties on conviction of wildlife offences.

Schedule 12 amendment states:
1. In section 1(5) of the 1981 Act (offence of intentional disturbance of wild birds) after "intentionally" there is inserted "or recklessly".

Badgers (*Meles meles*): LEGISLATION AND POLICY GUIDANCE

The Protection of Badgers Act 1992 is based primarily on the need to protect badgers from baiting and deliberate harm or injury. It also contains restrictions that apply more widely and it is important for developers to know how this may affect their work. All the following are criminal offences:

- to wilfully kill, injure, take, possess or cruelly ill-treat a badger;
- to attempt to do so; or
- to intentionally or recklessly interfere with a sett.

Development should not be permitted unless it is possible to take steps to ensure the survival of the badgers in their existing range and at the same population status, with provision of adequate alternative habitats **if setts and foraging areas are destroyed.**

Best practice

- The need to comply with the law is obvious. However, there are other more practical benefits in taking
- adequate account of badgers when planning a development. Public affection for this species means that
- the cost of mitigation to accommodate badgers may be small compared with that of dealing with
- protests or adverse publicity if badgers are not catered for. Natural England recommends that when any
- protected species is thought to occur on site, early advice be sought from an appropriately experienced
- adviser, as this can prevent costly delays at a later date. Following the advice below will help developers
- to avoid committing offences:
- It may take a period of many weeks or months to obtain adequate information about how
- badgers are using a site. Bait marking (a method used to map territorial ranges) and other
- survey techniques are usually effective only at certain times of the year.
- Foraging areas should be maintained or new foraging areas should be created.
- Access between setts and foraging / watering areas should be maintained or new ones
- provided. Development that isolates a badger territory by surrounding it with roads or housing
- results in problems such as increased road traffic collisions, and badger damage to gardens and
- houses.
- Natural setts are usually favoured over artificial setts, so unnecessary closure of natural setts
- should be avoided.
- Badger tunnels can extend to 20m from the entrance holes and are located between 0.2 and
- several metres deep, depending on the soil and topography. Excavation work and heavy
- machinery should be kept well away from where it could result in damage to the sett or
- disturbance to any badger occupying the sett. Guidelines recommend that :
- heavy plant can used at 30m and over
- small mechanical digger up to 10 metres
- hand-digging only at <10m
- These measurements are from the closest known hole, active or not.

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- Fires and chemicals should not be used within 20 metres of a sett Trees should be felled so that
- they fall away from active setts and badger paths should be cleared of felled timber and scrub
- Appendix 2b: **Badgers (*Meles meles*): LEGISLATION AND POLICY GUIDANCE**
- wherever possible. Disturbances, such as loud noise or vibrations, that might agitate badgers
- occupying a sett should be avoided or limited to areas well away from the sett.
- If this guidance cannot be followed and the work you are proposing is likely to cause sett interference
- you will need to apply for a licence. In considering your licence application you should note:
- Sett interference should be avoided between the beginning of December and the end of June,
- which is when badgers are breeding. Badgers are particularly vulnerable at this time of year and
- sett interference can result in dependant cubs being left on their own.
- The law does not permit licences to capture badgers for development purposes, so physically
- moving them out of the way of development is not an option.
- The person to be licensed should be competent and will, ideally, have previous, relevant
- experience in carrying out this type of work.
- Taken from:
  Natural England (2007) *Badgers and Development: A Guide to Best Practice and Licensing* Version 09/07

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