Bat habitat assessment prior to arboricultural operations

Guidance for Natural England's National Nature Reserves

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Date	Summary of changes	Author
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Introduction

This document is intended for staff working on Natural England's National Nature Reserves (NNRs) to enable them to address some of the specific implications with respect to bats of the changes made in 2007 to the Habitats Regulations. It has been written by operational Reserve staff with advice taken from Natural England's Legal, Evidence and Wildlife Teams.

The amendment to the Regulations makes incidental damage to the breeding site or resting place of any European bat species an offence. This guidance will help staff assess trees for their bat potential, and guide them through a process to protect bats during arboricultural operations.

Reserve staff are encouraged to gain an understanding of the process and to put it into action when considering any tree management, including emergency management for safety reasons.

The habitat assessment and mitigation guidance have been designed to be printed onto a single A4 sheet which could be laminated and carried in the Reserve vehicle.

Bats and Arboricultural Operations

This guidance is designed to aid tree and woodland managers assess trees for their bat potential, identify the presence of bats or roosts and prescribe appropriate measures to mitigate their disturbance or destruction.

STEP 1 - Assess the potential for bats in the habitat provided by the tree

A tree with LOW bat potential will display the following features:

• No cracks or crevices. • No ivy cover. • No deadwood in canopy or stem. • No decay cavities or hollows. stem.

A tree with MEDIUM bat potential will display some or all of the following features:

• Some small cracks or crevices. • Low ivy cover. • Deadwood in canopy or stem. • Snagged branches.

A tree with HIGH bat potential will display some or all of the following features:

• Woodpecker holes. • Fractured limbs and/or hazard beam cracks. • Large sections of loose or flaking bark.
• Cavities / cracks / crevices either large in size or numerous in quantity. • Crossing and rubbing branches.
• A hollow trunk, stem or branches. • Dense ivy cover with thick stems. • Tightly forked branch unions.
• Bat, bird or dormouse boxes. • Mature, well established, profuse and thick epicormic growth.

In addition to using the physical features listed above, the classification of a tree's bat potential should take into account the following:

- Research the occurence and distribution of bat species within the locality. Some bats are relatively common throughout England, while others are very limited in their distribution and not all bat species regularly roost in trees. Bat species which regularly roost in trees include ***noctule, Daubentons, pipistrelle spp, Natterers, barbastelle, Bechsteins, Leislers, long-eared, whiskered and Brandts.***
- Additional care should be taken on protected sites (SSSI, SAC), either where they are specifically designated for bats or where bat presence is noted as a particular feature of the designation.
- Bats require roosts with stable microclimates, the conditions of which vary depending on the time of year. For example, bats prefer their Summer maternity roosts to face South or South West, whilst in later Summer, North-facing positions are preferred. In Winter, bats roost most often in cooler yet still sheltered features within the tree.
- Trees with clear access to trunks and main branches which display features of high bat potential are preferred. Ash, Beech, Oak and Scots Pine are often favoured by bats.
- Ancient, veteran and other trees of great age or size are preferred roost sites. The longevity of suitable habitat features should also be considered as more established features will hold greater significance.
- Where trees with suitable bat habitat features are few in number, they are likely to be of a greater importance to bats than if they were one of many.

STEP 2 - Identification of signs of bats and their roosts

Trees classified as having high bat potential must be assessed by a competent person* for the presence of bats or roosts. Where evidence is found, an individual holding a Natural England Bat Licence should be consulted on how operations should proceed. If no evidence is found then the tree should still be treated as having a high bat potential during any arboricultural operations.

****Someone who has either attended a training course such as the LANTRA-awarded 'Arboriculture and Bats' (from the Arboriculture Association & Bat Conservation Trust), or an experienced bat worker who is skilled in the identification of bat roosts.***

The presence of bats or roosts within a tree may be indicated by the following:

• Historical site records. • Sightings of live or dead bats. • Bat calls or squeaking. • The smell of bats.
• Bat droppings. • Grease stains around openings. • Flies around openings. • Urine staining below openings.

STEP 3 - Mitigating disturbance or destruction

If felling or dismantling work is to be conducted, either to eliminate a hazard or for habitat management purposes, consult the flow chart overleaf for further guidance prior to commencing operations.

Where a hazardous tree has been identified as having medium or high bat potential, the following options need to be investigated and applied where possible as an alternative to felling or dismantling the tree. Option 1 should always be the first choice, option 2 the second and so on:

1 - Moving the target/s away from the tree's reach should it fail.
2 - Performing the bare minimum of arboricultural work needed to make the tree safe.
3 - Bracing or supporting the tree.

Mitigation guidance to protect bats and their roosts during arboricultural operations.

Does the tree have a confirmed bat or roost presence?

YES → **Are arboricultural operations required immediately in the interests of public safety?**

NO → **If the intended arboricultural operations have the potential to cause a direct disturbance to bats or destroy them or their roosts, work can only proceed under a licence issued by Natural England.** NB: A licence will only be issued if the intended arboricultural operations are in the overriding public interest (OPI) i.e. "preserving public health or public safety or other imperative reasons of overriding public interest...".

YES → **If bats or their roosts are confirmed to be present within a tree that needs to be felled, or sections of it dismantled immediately on the grounds of public safety and there is no time to consult a bat licensed professional, operations should follow these mitigation measures:**

1. Prior to work commencing, or as soon as possible afterwards, evidence (written and photographic) of the tree's hazardous nature should be gathered.

2. If a climber's entry into the tree has the potential to disturb, remove or destroy a feature with bat potential, such as a large section of loose bark, an alternative method of entry should be investigated such as a Mobile Elevated Work Platform (MEWP) or ladder.

3. Work should be conducted in a highly sensitive manner and, unless completely unavoidable, known roosts and timber with bat potential should not be directly sawn through. If such timber is removed, it should be lowered to the ground and left at the base of the tree permanently - or for at least 48 hours. Where it is impractical to lower potential or known bat roosts, piles of brash or logs can be used to soften the impact of them hitting the ground.

4. Attempts should be made to return any timber containing roosts back to a similar position and height by strapping to a nearby presence.*

5. An individual holding a Natural England bat licence should be contacted and informed of the situation as soon as possible to advise on any further mitigation

NO

What level of bat potential does the tree have?

LOW → **Operations can proceed without any further need for bat survey or inspection work and no mitigation measures are needed.**

MEDIUM → **If operations will directly disturb, remove or destroy timber with bat potential, they should only proceed using the following mitigation measures:**

1. Wherever possible, work should be carried out between late August and early October or between March and April.

2. Prior to felling or removing timber with bat potential, workers should conduct a visual inspection for signs of bats. If bats or roosts are discovered, prior to or during operations, re-consult the flow chart and follow the advice for a confirmed bat or roost presence.*

3. Work should be conducted in a sensitive manner, and where reasonably practicable, timber with bat potential should not be directly sawn through. If such timber is removed, it should be left at the base of the tree for at least 48 hours.

HIGH

Are arboricultural operations required immediately in the interests of public

YES → **If operations will directly disturb, remove or destroy timber with bat potential, they should only proceed using the following mitigation measures:**

1. Prior to felling or removing timber with bat potential, workers should conduct a visual inspection for signs of bats. If bats or roosts are discovered, prior to or during operations, re-consult the flow chart and follow the advice for a confirmed bat or roost presence.*

2. If a climber's entry into the tree has the potential to disturb, remove or destroy a feature with bat potential, such as a large section of loose bark, an alternative method of entry should be investigated, such as a Mobile Elevated Work Platform (MEWP) or ladder.

3. Work should be conducted in a sensitive manner, and where reasonably practicable, timber with bat potential should not be directly sawn through. If such timber is removed, it should be left at the base of the tree for at least 48 hours. Where it is impractical to lower potential bat roosts, piles of brash or logs can be used to soften the impact of them hitting the ground.

NO

Are they required within 4 weeks of identifying a hazard?

YES → **If operations will directly disturb, remove or destroy timber with bat potential, a trained or experienced person must conduct an inspection to confirm whether bats or their roosts are present. If unconfirmed, operations should only proceed using the following mitigation measures:**

1. If a climber's entry into the tree has the potential to disturb, remove or destroy a feature with bat potential, such as a large section of loose bark, an alternative method of entry should be investigated, such as a Mobile Elevated Work Platform (MEWP) or ladder.

2. Work should be conducted in a sensitive manner, and where reasonably practicable, timber with bat potential should not be directly sawn through. If such timber is removed, it should be left at the base of the tree for at least 48 hours. Where it is impractical to lower potential bat roosts, piles of brash or logs can be used to soften the impact of them hitting the ground.

3. If bats or roosts are discovered during operations, re-consult the flow chart and follow the advice for a confirmed bat or roost presence.*

NO → **If operations will directly disturb, remove or destroy timber with bat potential, a trained or experienced person must conduct an inspection to confirm whether bats or their roosts are present. If unconfirmed, operations should only proceed using the following mitigation measures:**

1. Work can only be carried out between late August and early October or between March and April.

2. If a climber's entry into the tree has the potential to disturb, remove or destroy a feature with bat potential, such as a large section of loose bark, an alternative method of entry should be investigated, such as a Mobile Elevated Work Platform (MEWP) or ladder.

3. Work should be conducted in a sensitive manner, and where reasonably practicable, timber with bat potential should not be directly sawn through. If such timber is removed, it should be left at the base of the tree for at least 48 hours. Where it is impractical to lower potential bat roosts, piles of brash or logs can be used to soften the impact of them hitting the ground.

4. If bats or roosts are discovered during operations, re-consult the flow chart and follow the advice for a confirmed bat or roost presence.*

* - If bats are found and need to be moved or taken into care for their own safety, the task should ideally be conducted by an individual holding a Natural England bat licence. Where this isn't possible, they should be placed in a box with air holes and kept in a safe and quiet location until they can be passed into the care of such an individual.

Joe Alsop, Ben Le Bas, David Harrison, Ash Murray and Tony Mitchell-Jones - May 2010