



Bats & Trees

This leaflet is designed for those who want to know if their tree has bat potential and for those worried about works that could disturb bats in an individual tree or small group of trees. If you require information relating to woodlands and forestry management, please contact the Bat Conservation Trust (BCT) for additional resources.

How do bats use trees?

All bats in the UK feed on insects, and because trees can support a large variety and abundance of insects they are important for foraging bats. Mature native trees support the greatest abundance of insects with veteran or ancient trees being of particular value.

Bats also use linear features (such as tree lines and hedgerows) as commuting routes between their roosting location and foraging areas.

Bats live within sheltered locations known as roosts and all UK species have been found to utilise natural features within trees to roost. Mature and veteran trees may support these types of features, but any tree could be used if there is a suitable opportunity.

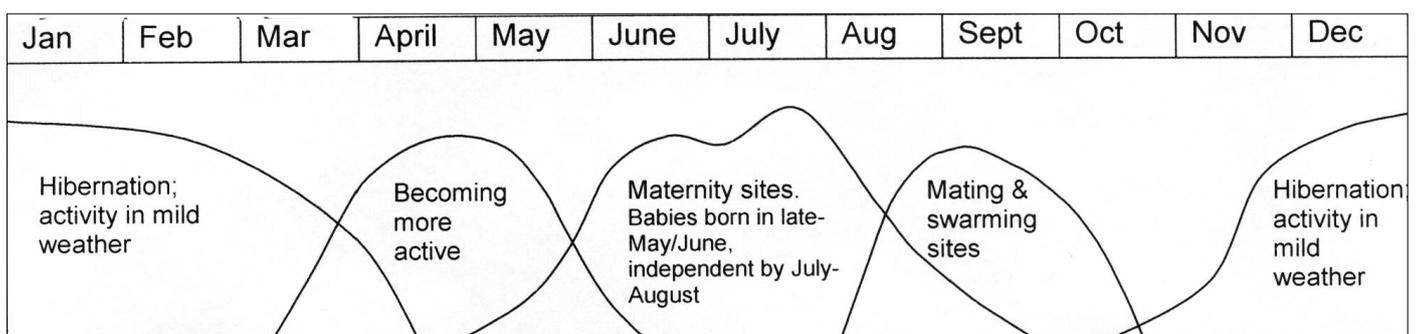
Bats have different roosting requirements at different times of year and this will determine the roost feature used. In the summer for example, breeding females need warmer conditions when raising their young. In winter when cool and stable temperatures are required for hibernation, bats may move into deeper features. The features used may also change within the same season, for example bats may move to a damp rot hole in particularly hot summer spells to avoid any risk of dehydration.

Loss of trees, due to a variety of reasons including natural processes (such as weather) and human intervention (such as tree surgery or tree clearance for development) is a major threat for bats. Understanding the requirements of bats can help to identify those trees with 'bat potential' and ways in which tree management can aid bat conservation and ensure the legislation protecting bats and their roosts is adhered to.



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A bat's year



Tree preferences

All UK bat species have been found in or around trees and wooded areas. Here is an overview of some bat species and how they can utilise tree features or woodland habitat.

Pipistrelle bats (Common, Nathusius & Soprano) – predominantly a building roosting species but they can also be resident in trees. Pipistrelles are crevice dwellings bats, so when roosting in trees can be found behind areas of loose bark or within splits and rot holes. They have adapted to both the rural and urban habitat so foraging covers a variety of areas.



Brown long-eared bat – can likewise be found roosting in both tree and building features. Roosts in trees can sometimes be close to the ground and the immediate surroundings of the roost can be more cluttered with vegetation than that of other species. Brown long-eared bats prefer to forage in deciduous woodland where they glean insects from leaves and bark. They have a slow, fluttery mode of flight.

Noctule – the UK's largest bat is primarily a tree dweller all year round favouring rot and woodpecker holes. Both females and males have roosts of this kind, and males defend the roost during the mating season to help attract females. They can forage up to 10km away from their roost and are known as hawking bats, catching and eating their prey whilst in flight.



Barbastelle – commonly found within any splits of a tree or behind loose areas of bark. They typically roost in trees year round; normally in ancient deciduous woods with a substantial understorey. They are fast agile flyers and specialist foragers in a variety of habitats.

Bechstein's bat – most frequently found roosting in old woodpecker holes. Records so far indicate that oak and ash are important trees for roosts of this species. In general, they prefer wet woodlands with small streams and denser vegetation.



Natterer's bat – a crevice dwelling bat found to roost in both deciduous and coniferous woodlands. Deciduous roosting areas may include broad-leaved woodland, hedgerows and treelines alongside agricultural land whilst coniferous plantations have also been recorded.

Trees and signs of bat activity

Bats can utilise many tree features including trunk hollows, knot holes, splits/cracks in branches and sheltered areas created by flaking bark. You may wish to have an initial look for these characteristics to establish a tree's 'bat potential' as features can sometimes be identified from ground level during the day, with the aid of close focussing binoculars.

Apart from the physical features of a tree, you can also ask those who may know about bat activity or roosts in the area. Local bat groups may be able to offer such information by providing historical records from the area. Please see our website for more details of bat groups in your area (www.bats.org.uk/batgroups). However, please note that bat groups are run by volunteers and not all groups will have bat records available. Local biological record centres also hold records of sightings or roosts. Their details can be found at: <http://www.alerc.org.uk/find-an-lerc-map.html>

How do bats utilise trees?

As a navigational aid especially when trees are in lines or hedges

Foraging for insects

Roosting inside woodpecker holes

Feeding perch or protection during bad weather

Roosting in cracks and branch splits

Roosting behind loose bark

Roosting in cavities, splits and cracks

Winter hibernation in hollow trunk if frost-free

Roosting behind dense ivy

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Tree protection

Local authorities have a legal duty to protect trees and are able to apply a Tree Protection Order (TPO) to an individual tree, a group of trees or even small woodlands. A TPO protects the specific tree or area from deliberate damage or destruction. This makes it an offence to fell, uproot, crown and generally cause damage without the consent from the council's planning authority. A TPO is granted primarily for environmentally aesthetic purposes meaning that the trees often hold a landmark or visual characteristic rather than that for their importance to wildlife. As a result, please note that a TPO is not applied solely on the basis of bat presence.

Anyone can apply for a TPO to be placed and it doesn't need to be on their land, nor directly under threat. Trees with a TPO are often fully mature and long-standing, increasing the probability of possible bat features, and that of bat presence. As with all trees; it is advised that any features with bat potential are inspected by the surgeons involved, and if necessary, by a bat expert prior to the commencement of any works. A TPO will not prevent planning applications from being granted but they will be considered as part of the decision process.



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When felling an area of trees covering a total of 5 cubic metres or more, a felling licence may be required and you should contact the Forestry Commission for more information (www.forestry.gov.uk).

Bats & the Law

In the UK, bats and their roosts are protected by law meaning that it is illegal to damage, destroy or disturb bats or their roost sites. A roost is defined as any place that a wild bat uses for shelter or protection, and the roost is protected whether bats are present or not. Bat populations have been declining not only in the UK, but across Europe and are therefore protected under the European Union's Habitats Directive in addition to country specific legislations.

The relevant legislation in England & Wales is the Wildlife and Countryside Act 1981 and Conservation of Habitats & Species Regulations 2010 (as amended). In Scotland it is the Conservation (Natural Habitats, etc.) Regulations 1994, and in Northern Ireland the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995.

It is the land owner's responsibility, in addition to those conducting the works, to ensure that protected species, such as bats, have been taken into account before any actions are conducted that could disturb those animals. This legislation is still applicable regardless of the presence of a TPO and felling licences.

If a roost has been confirmed, and is likely to be lost, a European Protected Species (EPS) derogation licence is likely to be required. The issuing of this licence follows on from conducted surveys (with mitigation plans where relevant), and allows the works to be undertaken lawfully. EPS licences are granted by the relevant Statutory Nature Conservation Organisation (SNCO) and any questions should be directed to the licencing team of that SNCO. Where it is confirmed that a bat roost is not present, the work can proceed as planned.

Need to carry out tree works?

If you need to undertake works (pruning/felling/crowning etc.), you will need to consider if the tree has any features that could support bats. If any of the characteristics listed on page 3 are present on a tree, then it is likely to have 'bat potential'.

Please note that confirming the presence/absence of a roost may require assistance from a specialist with the necessary training and equipment for a full survey. If you are unsure about bat potential it is best to seek advice.

The presence of bats will not stop works, but means that advice needs to be sought on how they are to be done lawfully. If the presence of a bat roost is suspected you will typically need to seek the services of an experienced ecological consultant with knowledge of bats to conduct a survey; establishing any impacts the works are likely to have. The consultant should also be able to assist with any EPS licence application required.

A directory of ecological consultants can be found on the Chartered Institute of Ecology and Environmental Management's website (www.cieem.net - click on 'professional directory' right of screen, scroll down and then select species 'bats' and add your postcode).

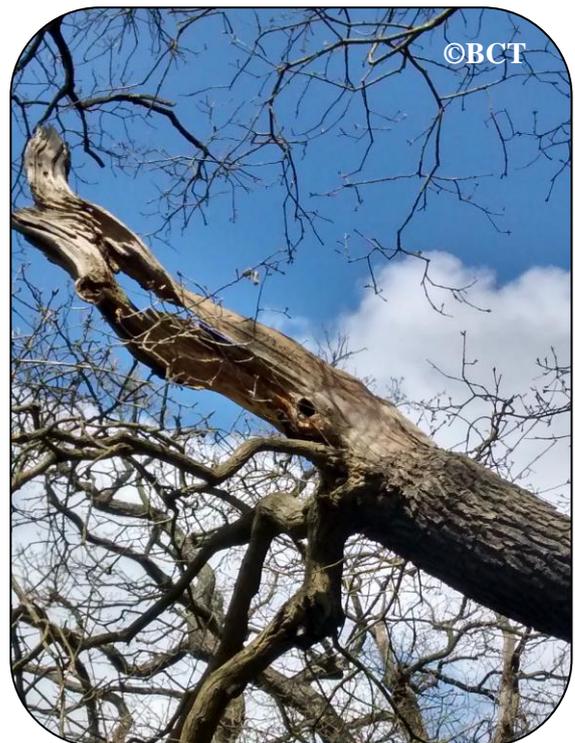
The BCT Bat Surveys: Good Practice Guidelines (www.bats.org.uk/batsurveys) provide information relating to tree surveys and how they can be undertaken by bat experts. Please note that these guidelines are designed to be interpreted on a case-by-case basis. Survey methodologies may therefore differ based on the experience of the surveyor and factors such as geographic location and species present.

Advice can additionally be sought from the relevant SNCO (please refer to page 8 for details) though please note that you may subsequently be advised to engage an ecological consultant.

If emergency situations arise where urgent tree works are necessary due to confirmed and overriding public health and safety, and the potential for bats is high or actively present, the SNCO should be contacted for further advice.

If, after inspection the tree is deemed as low potential for a roost to be present (no potential roost sites visible on the tree), then work may proceed with care. As a precaution, and where possible, we recommend any works are conducted in September/October, to avoid maternity and hibernation seasons when bats are most vulnerable to disturbance. If the tree is to be felled then we recommend soft felling, where tree limbs are cut and left grounded over night to allow any bats to make their way out.

Bat roosting sites can change depending on a variety of factors and therefore the presence of bats should never be ruled out completely. **If, in the unlikely event any bats or new evidence are discovered prior to work or whilst work is in progress**, we advise pausing work and consulting the relevant SNCO immediately for further advice. This will help to avoid any harm to bats and offences being committed.



Concerned about works to a tree?

If you are concerned about works to a tree where a bat roost is suspected or known, those responsible for the works should be informed to ensure that any relevant surveys are conducted in order to prevent a breach of the legislation. This survey would typically be conducted by an ecological consultant with the appropriate knowledge and licence, who would assess any impact of the proposed works to bats.

Whilst surveys, mitigation and possible EPS licences for the works are implemented to ensure any bats and their roosts are taken into account, it is important to note that the presence or suspected presence of bats will not necessarily stop any overall work from going ahead.

If the council is involved with any proposed tree work (e.g. part of a wider planning application requiring consent) we would suggest that you contact the council's Local Planning Authority (LPA) alerting them to the presence/potential presence of bats and the need for a survey before works proceed. Bat survey reports are publically available as part of the overall planning documents through the LPA's online planning portal or you can contact the LPA to request a hard copy. If you disagree with any aspects of the report then we again advise raising these issues with the LPA.

For more information about the planning process involving bats and how to write an objection letter, please download BCT's Planning System Advice Pack (www.bats.org.uk/planningadvice)



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If you witness any potential offences being committed (such as harming/disturbance of bats or damage/destruction of a roost), the first action is to inform the relevant authority (LPA or SNCO) and check to see whether an EPS licence has been granted. If concerns are still present this incident should be reported to your local Police Wildlife Crime Officer (through 101 or the local constabulary number; see www.nwcu.police.uk; 'Finding your local police'). If the Wildlife Crime Officer isn't available the incident should be reported to another member of the local police team. In all cases please mention 'Operation Bat' and request a crime reference number.

Deviation from the conditions of a granted licence (e.g. works undertaken at an incorrect time of year) may also constitute an offence. If in Scotland, Wales or Northern Ireland this should also be reported to the police in the same way. If in England however, then the matter should be reported to Natural England's Wildlife Enforcement Specialist on 0300 060 1099.

After reporting any bat-related crime to the police please report it to the Bat Conservation Trust on 0345 1300 228, quoting the crime reference number.

Helping out bats

Though bat boxes cannot replace the range of natural cavities and features that trees provide, they can create additional roosting opportunities for a variety of species. Bat boxes can be fitted on trees and can be purchased prebuilt, or created from DIY designs. BCT's 'Bat Box Information' pack provides information regarding what type of boxes are available, and how they can be installed depending on the surrounding environmental conditions and bat populations.

Shelter is not the only resource that bats require however. Food and water supplies are also vital and though trees help to provide these in abundance, a helping hand can further enhance suitable habitat. The leaflet 'Encouraging bats' offers a variety of tips and ideas on how to create a stable and diverse habitat in which bats can thrive.

These resources can be downloaded from the publications page on our website:

www.bats.org.uk/publications



About the Bat Conservation Trust

The Bat Conservation Trust (BCT) is the only organisation solely devoted to bat conservation in the UK and is working towards a future where everyone, everywhere can enjoy seeing and hearing bats as a natural part of their environment. Bats themselves are unique mammals and play a pivotal role in our environment, recognised as both biological indicators and natural controllers of insect populations. Unfortunately during the last century bat populations have suffered severe declines and we are working to secure the future of bats in our ever changing world.

We are supported by a network of members, volunteers, academics and professionals, and with your help we can continue a diverse range of projects. To become a member of BCT and for more information about our work, please visit our website www.bats.org.uk.

The Bat Conservation Trust has also developed a variety of training courses aimed at bat professionals and arborists; www.bats.org.uk/training for further information and how to book a place.

Statutory Nature Conservation Organisations (SNCOs)

Natural England

0300 060 3900

www.gov.uk/government/organisations/natural-england

Natural Resources Wales

0300 065 3000

www.naturalresourceswales.gov.uk

Scottish Natural Heritage

01463 725 364

www.snh.gov.uk

Northern Ireland Environment Agency

0845 302 0008

www.doeni.gov.uk/niea

Useful Contacts

Arboricultural Association

A world-leading authority on arboricultural best practice, the Association delivers professional standards and guidance to ensure responsible management.

www.trees.org.uk

The Tree Council

The UK's leading tree charity, promoting their importance in a changing environment and acts as an umbrella body for a wide range of organisations concerned with the management and conservation of trees and woodland habitat.

www.treecouncil.org.uk

Local Planning Authority (LPA)

www.planningportal.gov.uk/inyourarea/ - useful tool for establishing and finding the local planning authorities in concerned areas.

Other resources & links

The Bat Conservation Trust (BCT)

For additional pages on bats and how they utilise woodland areas

www.bats.org.uk/woodland

Bat Tree Habitat Key

Free web-hosted publication in three parts that was written by AEcol Principal Ecologist, Henry Andrews and designed to illustrate what features are used by differing species

www.aecol.co.uk/Bat-Tree-Habitat-Key

Leaflet compiled by David Jackson (2015)

The Bat Conservation Trust (known as BCT) is a registered charity in England and Wales (1012361) and in Scotland (SC040116).

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National Bat Helpline: 0345 1300 228