Bats in Trees

YORKSHIRE DALES
National Park Authority

Assessing the need for bat surveys where works proposed will affect trees.

Background to bats in trees

Bats are animals which roost in places that give them shelter and protection from predators. As bats are generally asleep through the day in spring, summer and autumn, or during hibernation in winter they tend to use places that predators find difficult to access. This means that the holes beyond which bats roost in, can be as small as 10-15mm across, although bigger bats like Noctules may well use something as large as a woodpecker hole.

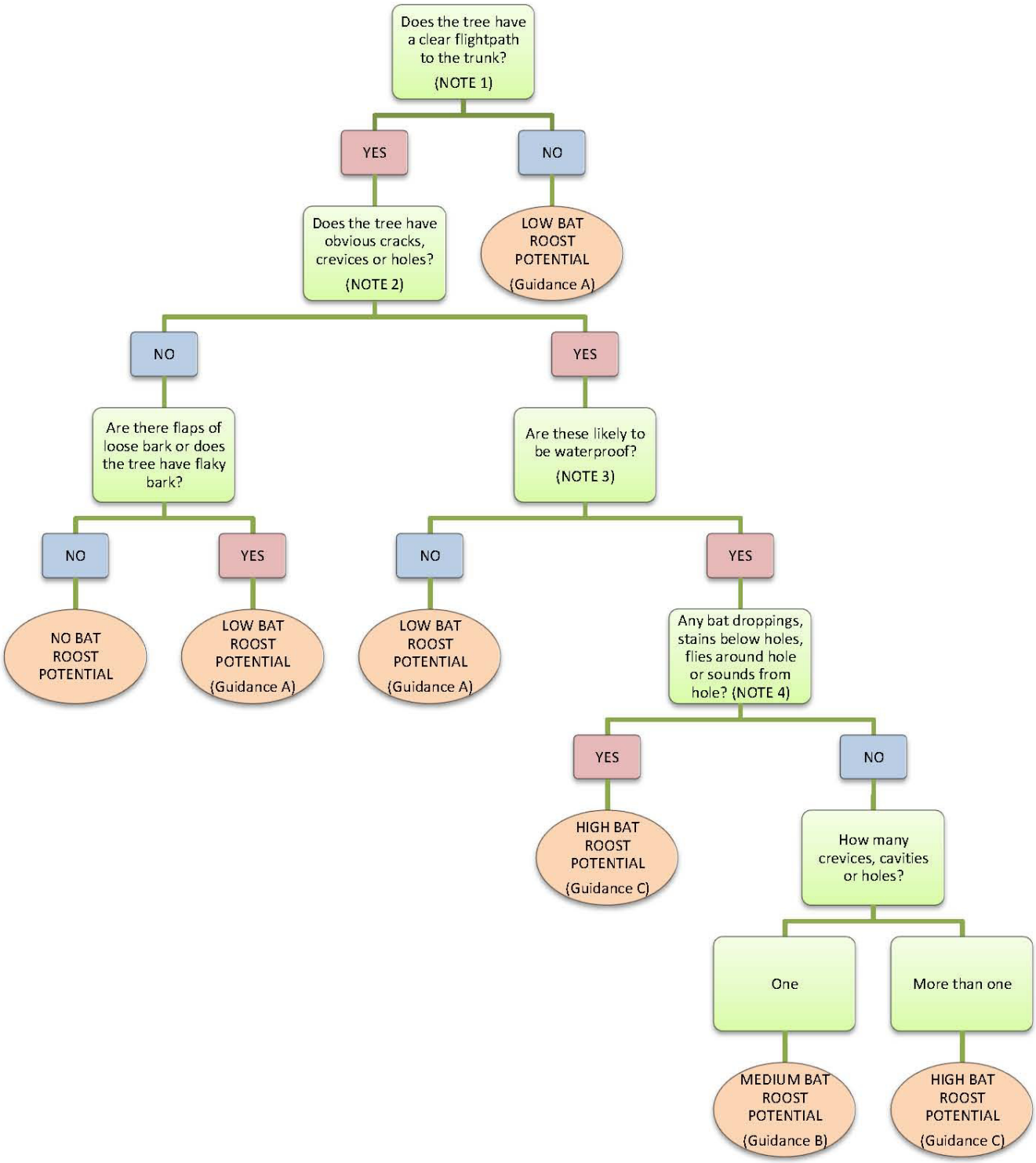
Bats may roost in a variety of different types of holes. These can range from a piece of loose bark on the trunk, holes caused by rot, cracks caused by stress or mechanical damage, to major splits and cavities. However, generally bats will want some protection from the weather so cavities that are open to the sky or obviously fill with water are less likely to support roosts. Even so, they may lead to other, drier places.

Determining the need for a survey

A survey is required if there is a reasonable likelihood of bats being affected by the proposed development or works. Therefore, it is necessary to go through some kind of procedure to reach an informed decision as to how likely it is that bats are present. Bats can and do roost in any size of tree so long as they have suitable crevices. An initial assessment of trees can be made using the flow chart below. Start at the top and follow the appropriate path through the chart until you arrive at an assessment in one of the orange circles. The following notes will help you answer some of the questions.

General points

Even when a survey finds no potential for roosting bats or actual bats, there is still a chance that bats might be found during works. Should that occur work MUST STOP until further advice has been obtained from a suitably experienced ecologist or Natural England. It would be good practice to include an informative to this effect on decision notices.


Does the tree have a clear flightpath to the trunk? (NOTE 1)
YES
NO
LOW BAT ROOST POTENTIAL (Guidance A)
Does the tree have obvious cracks, crevices or holes? (NOTE 2)
NO
YES
Are there flaps of loose bark or does the tree have flaky bark?
Are these likely to be waterproof? (NOTE 3)
NO
YES
NO
YES
NO BAT ROOST POTENTIAL
LOW BAT ROOST POTENTIAL (Guidance A)
LOW BAT ROOST POTENTIAL (Guidance A)
Any bat droppings, stains below holes, flies around hole or sounds from hole? (NOTE 4)
YES
NO
HIGH BAT ROOST POTENTIAL (Guidance C)
How many crevices, cavities or holes?
One
More than one
MEDIUM BAT ROOST POTENTIAL (Guidance B)
HIGH BAT ROOST POTENTIAL (Guidance C)

Note 1: Does the tree have a clear flightpath to the trunk?

Bats are fairly unlikely to fight their way through the dense branches of a traditional conical conifer to reach the trunk, so these trees can largely be discarded at this point. Conifers that have developed a more open habit (like older Scot's Pine) could be suitable for bats whilst broadleaves with thick epicormic growth up the entire trunk may be unsuitable.

Note 2: Does the tree have obvious cracks, crevices or holes?

It is assumed that most assessments will be carried out from the ground with the aid of binoculars. Whenever possible carry out the survey when there are few or no leaves on the tree so that the trunk and branches can be properly seen. You should be looking for holes, cracks, splits, etc. in the main stems of the tree and in the branches (especially the underside of branches). Note the number, location and size for future reference.

Note 3: Are these likely to be waterproof?

Most potential roost sites that are not open to the sky or facing upwards will be sufficiently waterproof.

Note 4: Signs of bats

Bat droppings

These resemble mouse droppings in appearance, although some may be larger. Rub suspected droppings between your finger and thumb – if it crumbles to dust it is probably a bat dropping.

Dark stain

This may be running down the trunk beneath a hole due to bat droppings being washed out of the hole by urine and rain. Stains are also produced by algae growing where rain has been channelled, so if you are unsure, assume that it is bat droppings.

Flies

These can sometimes be attracted to an occupied roost, especially in hot weather. The hole may contain woodpeckers, starlings, etc. but unless you know, assume bats.

Noise

Coming from a hole could indicate bats as they will often chatter during hot weather or before they leave a roost at dusk. You could be hearing nesting birds, but once again, assume bats unless you know otherwise.

Guidance A: Low bat roost potential

These trees are considered unlikely to support roosting bats on a regular basis.

However, individual bats may choose to use them from time to time or the trees may deteriorate with age, making them more likely to support bats in the future. They may also be used by nesting birds.

Surgery or felling may take place on these trees as necessary without any special precautions. However, work should avoid the period March to July inclusive, to avoid causing disturbance to nesting birds and if crevices, cavities or loose bark are discovered, care must be taken to avoid cutting through such areas.

Guidance B: Medium bat roost potential

There is a good chance that bats may use these trees on some occasions.

If medium risk trees are to be felled they should first be subjected to a more detailed bat survey. In winter this might involve using specialist climbing techniques and an endoscope or in summer a dusk emergence or dawn return survey. If medium risk trees are to be subject to surgery the proposed work should first be discussed on site with a bat ecologist and the limitations of work that may be carried out, agreed.

If necessary surgery work will affect likely roost sites a bat survey may be required as for felling and / or supervision of the work in progress may be necessary. Felling or surgery should only be carried out between late September and mid November.

Guidance C: High bat roost potential

It is considered likely that bats would use such trees.

If felling or surgery is required there is first a need to prove that they are not roosting sites. Proposed minor surgery to high risk trees may be possible after an on-site discussion to agree limits to such work. Such works will need to be carried out between late September and mid November under the supervision of a suitably qualified ecologist.

Other works to high risk trees must be proceeded by bat surveys. Surveys during at least two separate seasons may be necessary.

Mitigation and Licences

If bats are confirmed to be using a tree mitigation will be necessary and a European Protected Species licence may be required from Natural England. A suitably qualified ecologist should be able to draw up these documents.