

Appendix C: Bat Exclusion in Trees

Bats use a variety of features in trees as roost sites. Bats are strictly protected by the Wildlife and Countryside Act (1981) as amended and The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018 [from 31/01/20: Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019]. Destruction of or exclusion of a bat from a roost is a strictly licensable activity that must be approved by the relevant Statutory Nature Conservation Body. The following advice is strictly limited to sites where European Protected Species Mitigation Licensing is in place.

In licensed operations removal of these roosts may require the bats to be excluded from the roost or prevented from re-accessing potential roost features. In some cases, bats can be caught and physically transferred to an alternative roost, or a known or potential roost site can be blocked to prevent bats re-accessing the roost, provided it can be confirmed with absolute certainty that no bats could be inside. In other cases, it is not possible to check the internal roost with a degree of absolute certainty or due to the size and/or shape of roost access points these cannot be adequately blocked.

Bat exclusion devices can be fitted to roost access points to ensure the safe humane exclusion of bats from a roost to allow licensed operations to proceed.

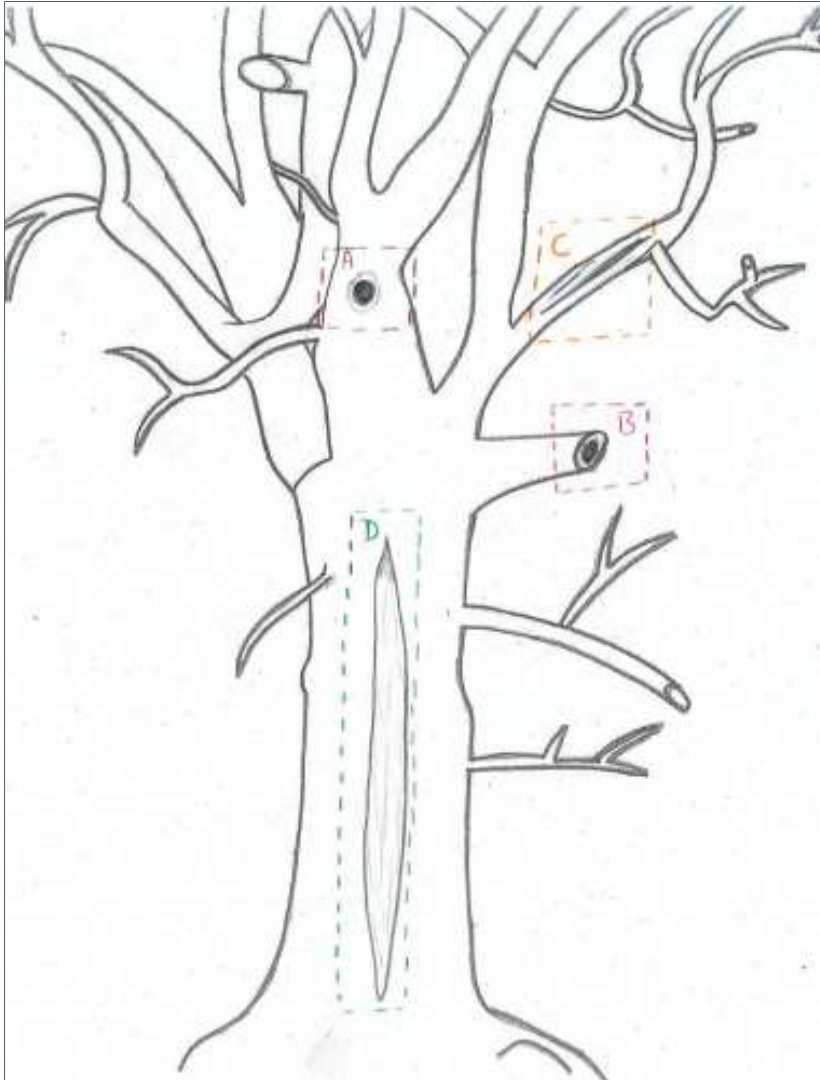
Due to the presence of suitable roosting features within aspects of trees, designs (both purchasable or home-made) will be used to successfully and with welfare in mind safely exclude bats from tree roosting features.

Figure 1 below depicts features that may potentially be found on a tree(s) and provides examples of what devices (Figure 2-5) can be adopted for that particular roosting feature.

Following successful exclusion over a period of several monitored nights (i.e. monitoring the bat access point to confirm bats leave) during suitable weather conditions for bat activity the potential roost feature should be re-inspected and subject to a soft-fell under direct supervision.

When soft-felling all potential bat roost features in trees, where possible, these should be section felled in one piece under the guidance of the Named Ecologist or accredited agent and carefully lowered to the ground by rope. The feature should be re-inspected by the Named Ecologist / accredited agent and either attached as a 'donor' feature to another tree or left in-situ on the ground for at least 24 hours before being removed, or opened up.

Figure 1. Bat roost features in trees



Feature A: Woodpecker Hole. In the case of woodpecker holes, we would utilise a cone-style excluder, such as Figure 2 below. These are ideal as they come with a flange that can be stapled around on the solid wood, thereby encasing the feature entry/exist point(s).

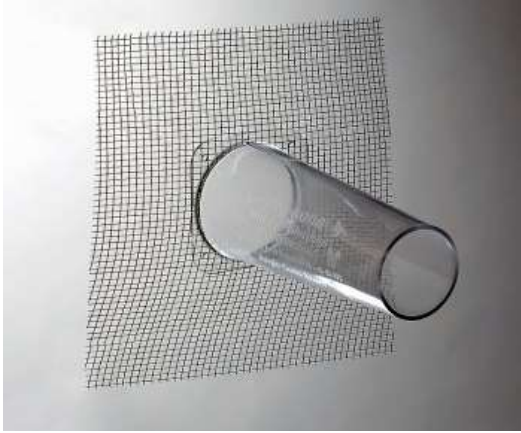
Feature B: Pruning cut (callus roll). As with Feature A, this would be excluded with a cone-style or similar excluder. Such as Figure 2 below.

Feature C: Hazard beam. In this, depending on the size, the main limb would be externally wrapped, with cloth/sheeting, and at widest points a cone-like excluder (such as Figure 2 below) installed along these points, thereby allowing any bats to emerging to find an easy exit out of the feature.

Feature D: Trunk Wound. Similar to Feature C, the feature would be covered and a cone-like excluder installed near the apex and base (with a mix of Figure 2 and 3), thereby allowing bats to exit at the top and base of the wound. This would cater for bats that are either roosting in the apex feature or in the callus rolls on either side of the wound.

Figure 2. Commercial bat exclusion cones

Cone with flange



Cone on its own.

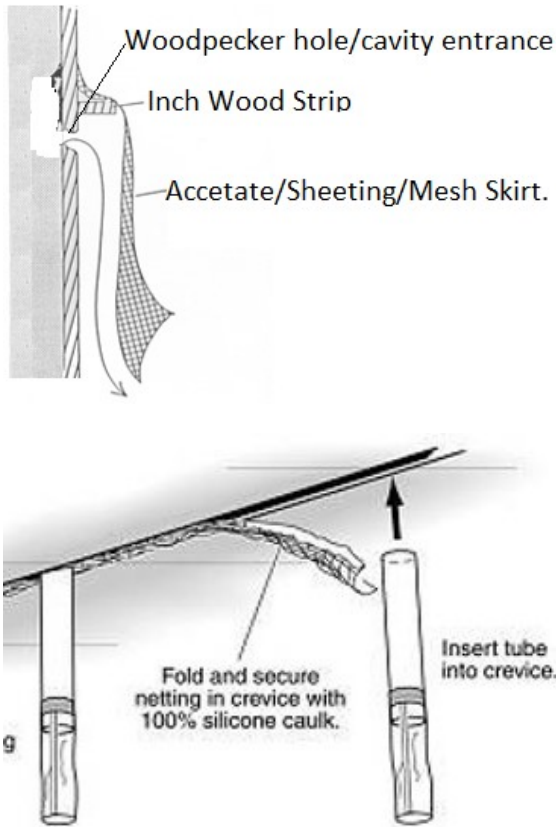


Cone designed for corners/450 entrance holes

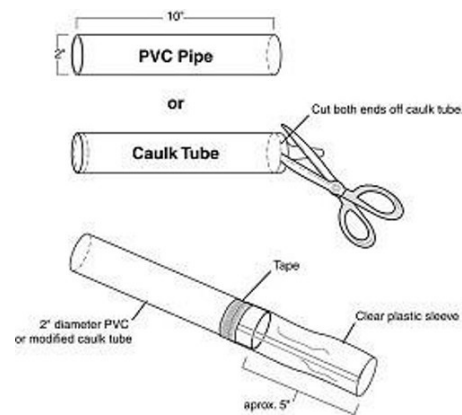


Source: Wildcareshop: <https://www.wildcare.co.uk/bats/bat-worker-accessories/bat-excluders.html> [accessed 23/01/2020]

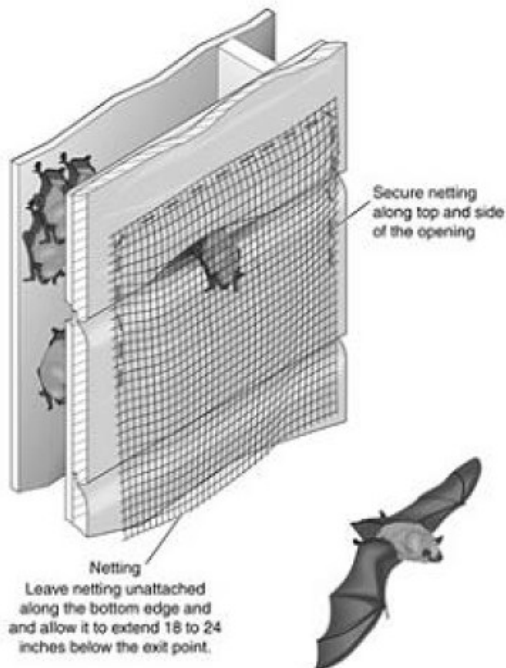
Figure 3. Bespoke bat exclusion tubes and sheeting



Acetate sheet or mesh netting used to create a 'skirt' or sheet over the bat access point allowing bats to 'climb' down the tree push out at the bottom of the 'skirt'. The exclusion works by the bats not being able to climb back up the bottom opening. Care must be taken when installing these to ensure that a bat can indeed access out by pushing past the light-weight sheet and that gaps are not left that would either allow the bats to crawl back up, or that air currents or wind could blow the sheet 'open'.



Exclusion tubes should have a diameter of 5cm and be about 25cm in length. Exclusion devices can be purchased commercially or made from PVC pipe or flexible plastic tubing. Bats are unable to cling to the smooth surface of these tubes, so the tube should project no more than 6mm into the opening. (adapted from Bat Conservation International).



One-way door on the outside of opening constructed from plastic netting or sheeting that is firmly attached at the top and sides. The netting should be left unattached along the bottom edge and it should extend 18-24 inches below the exit point (adapted from Bat Conservation International & Georgia Department of Natural Resources).

N.B mesh and gauze should be carefully selected in line with current best practice guidance to ensure the most appropriate materials are used. Mesh and gauze should have a fine weave with no sharp exposed edges, pieces or wires. This is to prevent harm to bats and ensure bats do not become inadvertently trapped.