Bat Conservation Trust

# Encouraging bats

A guide for bat-friendly gardening and living

Brown long-eared © Hugh Clark

Many of us have spent long summer evenings sitting in our gardens, watching as the swifts and swallows in the twilight sky are gradually replaced by bats. These small and fascinating creatures often live in close proximity to humans, using gardens as an important source of food, water and shelter.

Here we offer advice on creating a haven for bats in your garden, along with some helpful tips on how to identify these nocturnal visitors.

# Gardening for bats

**Gardens can be wonderful places for people and wildlife, particularly bats. A garden that is good for insects is good for bats, as all species of British bat eat only insects such as midges, moths, mosquitoes and beetles. Whether you have a tiny city garden or acres in the countryside, you can do your bit to help bats.**

## Bats need insects

Flying uses a lot of energy, so bats have huge appetites! For example, a tiny common pipistrelle can eat around 3,000 midges, mosquitoes and other small flies in a single night. Moths, beetles and craneflies (daddy-long-legs) are popular with other species, but flies are the main food for most British bats.

## Most plants depend on insects

We grow flowers in our gardens for our own enjoyment, but their colour and perfume are really the plants' way of advertising themselves to insects. Sweet nectar and protein-rich pollen are bait to encourage insects to visit. In return, the insects carry pollen on their bodies from one flower to another so the flowers are fertilised. The key to a successful wildlife garden is to include plenty of plants that will attract insects, and to ensure that your garden has a good supply of insects from spring through to autumn.

## Choose the right plants

Grow a wide range of plants to attract insects, and by planting a mixture of flowering plants, vegetables, trees and shrubs, you can encourage a diversity of insects to drop in and refuel from spring to autumn. Native plants tend to support far more species of insect than hybrids or exotics, so they should be used as much as possible.

Different plants attract different types of insects. Flowers with long narrow petal tubes, such as evening primrose and honeysuckle, are visited by moths; only their long tongues can reach deep down to the hidden nectar. Short-tongued insects include many families of flies and some moths; they can only reach nectar in flowers with short florets.

Try to include some of the following:

- Flowers that vary not only in colour and fragrance, but also in shape.
- Pale flowers that are more easily seen in poor light, so attracting insects at dusk.
- Single flowers, which tend to produce more nectar than double varieties.
- Flowers with insect-friendly landing platforms and short florets, like those in the daisy or carrot families.

The plant list overleaf may give you some ideas, although the best method is often to simply watch and see which insects you find feeding on which plants.

# Looking after your visitors

A problem often faced by bats in gardens is cats. If you own a cat, you can help to save lives this summer by bringing your cat in for the night half an hour before sunset. This will allow bats to emerge from their roosts undisturbed. This is especially important from mid-June to the end of August, which is when bats are rearing their young. The bats will also be able to return at dawn undisturbed by cats. If you find a bat that appears to have been injured by a cat, call the Bat Helpline (0845 1300 228) for details of your nearest bat carer.

## Plant trees and shrubs

These are important in providing food for insect larvae and adult insects, shelter for flying insects and roosting opportunities for bats. In a small garden, choose trees that can be coppiced – cut down to the ground every few years – to allow new shoots to spring from the base. Young shoots and leaves will support leaf-eating insects, even if they do not produce flowers, and bulbs will flourish under the reduced canopy.

## Create a wet area

No wildlife garden would be complete without a water feature. Not only will a small pond, marshy area or even a bog garden provide bats with somewhere to drink, but they will also attract insects, as many of the tiny flies favoured by bats start life in water as aquatic larvae. Marginal plants can be planted around the pond to create soft edges and encourage insects further. Goldfish should definitely be avoided as they eat the insect larvae.

## Make a compost heap or log pile

Recycle kitchen and garden waste – such as fruit and vegetable trimmings, annual weeds and lawn clippings – to produce useful garden compost, as well as an ideal habitat for insects. A log pile in a damp, shady spot will also encourage insects, particularly beetles.

## Avoid using pesticides

Chemical pesticides kill non-target beneficial invertebrates including natural predators and so may do more harm than good. They reduce bats' insect prey.

## Encourage natural predators

Hoverflies, wasps, ladybirds, lacewings, ground beetles and centipedes are the gardener's friends, and natural pest controllers. Follow these suggestions to help maintain a natural balance:

- Allow some weeds to grow to provide ground cover for natural predators.
- Leave hollow-stemmed plants to overwinter as shelter for ladybirds.
- Leave heaps of dead leaves and brushwood undisturbed for hedgehogs.
- Provide regular food and water for garden birds, as they are also effective predators.

# Which plants should I choose?

**Bat-friendly gardeners should aim to plant a mixture of flowering plants, vegetables, trees and shrubs to encourage a diversity of insects, which in turn may attract different bat species. Flowers that bloom throughout the year, including both annuals and herbaceous perennials, are a good idea: night-flowering blossoms attract night-flying insects. Trees and shrubs provide food for insects and roosting opportunities for bats.**

**Approximate flowering periods are listed below, although they may vary according to area and weather conditions!**

## Flowers for borders

*Aubretia (spring to early summer)
*Candytuft (summer to autumn)
*Cherry pie (summer to autumn)
Corncockle
Cornflower
Corn marigold
Corn poppy
*Echinacea
English Bluebell (spring)
*Evening primrose (summer to autumn)
Field poppies (summer)
*Honesty (spring)
*Ice plant 'Pink lady' (early autumn)
Knapweed (summer to autumn)
Mallow (summer to autumn)
*Mexican aster (summer to autumn)
*Michaelmas daisy (summer to autumn)
*Night-scented stock (summer)
Ox-eye daisy (summer)
*Phacelia (summer to autumn)
*Poached egg plant (summer)
Primrose (spring)
Red campion (spring)
*Red valerian (summer to autumn)
Scabious (summer)
St John's wort (spring)
*Sweet William (summer)
*Tobacco plant
*Verbena (summer to autumn)
*Wallflowers (spring to early summer)
Wood forget-me-not (spring)
Yarrow (early summer)

Plants marked * are hybrids or exotics that may be useful in the garden

## Herbs (both leaves & flowers are fragrant)

Angelica
Bergamot (summer to early autumn)
Borage (spring to early autumn)
Coriander (summer)
English marigolds
Fennel (summer to early autumn)
Feverfew (summer to autumn)
Hyssop (summer to early autumn)
Lavenders
Lemon balm
Marjoram (summer)
Rosemary (spring)
Sweet Cicely (spring to early summer)
Thyme (summer)

## Things to remember

- Pesticide-free gardens tend to be better for wildlife and bats.
- Wherever possible, try to choose native plants and trees.
- Never dig up plants from the wild. Buy native plants from reputable suppliers who breed their own stock.
- Use peat-free compost or peat-substitutes such as coir. Peat extraction is unsustainable and seriously damages our unique bog habitats. Gardeners can help by reducing the demand for this product.
- Creating a range of habitats such as a pond, vegetable garden and hedgerow makes your garden more attractive to insects and in turn bats.
- Add a seat, put your feet up and watch your garden come to life!

### Trees, shrubs & climbers

Bramble (climber)
*Buddleia (shrub)
Common alder (suitable for coppicing)
Dog rose (climber)
Elder (small)
English oak (large gardens only)
Gorse (shrub)
Guelder rose (shrub)
Hawthorn (suitable for coppicing)
Hazel (suitable for coppicing)
Honeysuckle (native honeysuckle)
Hornbeam
Ivy (climber)
*Jasmine (night-scented)
Pussy willow (suitable for coppicing)
Rowan
Silver birch

### Wild flowers for pond edges & marshy areas

Bog bean
Bugle
Creeping Jenny (spring to summer)
Flag iris
Hemp agrimony (summer)
Lady's smock (spring to summer)
Marsh mallow
Marsh marigold (spring)
Marsh woundwort
Meadowsweet (summer to early autumn)
Purple loosestrife (summer)
Water avens
Water forget-me-not (summer to autumn)
Water mint (summer to autumn)

# Bat boxes

Bat boxes are artificial roosts, usually made of wood or woodcrete (a mixture of wood chips and concrete). They are designed to encourage bats into areas where there are few natural roosting sites, such as woodpecker holes in trees. Bat boxes have a useful place in bat conservation, but it should be remembered that bats take to boxes less readily than birds.

Various designs of bat box are available commercially. Wooden boxes are usually cubic or wedgeshaped, with a grooved 'bat ladder' and a narrow entrance slit at the bottom. They can be nailed to trees or walls. Woodcrete boxes are of two basic types: either cylindrical with an access hole in the front and designed to be hung on tree branches with a wire loop; or brick-shaped, usually with narrow roosting crevices inside and an entry slit at the bottom, designed to be fixed to flat surfaces such as walls of buildings. Because species have different requirements, you are more likely to attract bats to your boxes if you put up a few of each type. Designs and instructions for making your own bat box can be found at www.bats.org.uk.

Bats do not like draughts, and prefer well-insulated boxes where temperature and humidity remain constant. Well-sealed joints are therefore important, as is the avoidance of large, loose-fitting front panels. Removable lids should be avoided, again to reduce draughts, but also to prevent disturbance or unintentional injury to bats when the box is opened. A special licence is required to disturb or handle bats in the UK, and any disturbance without a licence is illegal. For more information on bats and the law call the Bat Helpline (0845 1300 228).

All timber used in bat boxes should be rough-sawn to allow bats to cling and climb, and must also be untreated, since bats are very sensitive to some chemicals used for timber treatment. A 'bat ladder' or other landing area is essential, as is an entry slit wide enough to admit bats but narrow enough to keep out predators.

Boxes are most likely to be used if they are located in places where bats are known to feed. Woodland, parkland and river banks are good places, as are gardens close to ponds, rivers or parks. If possible, they should be close to a hedge or tree line, as some species of bat use these to navigate and are reluctant to cross open spaces to get to and from roosts. The bats' approach to the box should be clear of obstacles, such as tree branches; boxes should be placed as high as possible (at least 4 or 5 metres above ground level), not only to maximise their exposure to sunlight for warmth but also to ensure security from cats or human vandals.

Ideally, between two and four boxes should be clustered, facing in different directions in order to allow bats to select a range of roosting temperatures at different times of year e.g. north, south-east and south-west. Depending on the specific location you may wish to adjust the aspect of individual boxes to maximise exposure to sunlight or to avoid prevailing wind, rain, or excessive heat.

Bats need time to find and explore new homes, and it may be several years before boxes have residents – be patient! Droppings on the landing area, urine stains around the lower parts of the box and chittering noises from inside on warm afternoons and evenings are signs of occupation. Remember not to disturb bats by opening the box or approaching too closely when they are present, although a dusk watch of their emergence is often a spectacular sight.

# Watching for bats

## Here's a guide to the species of bat that you're most likely to see in and around your garden, particularly as it begins to get dark.

**Pipistrelles** emerge around sunset, and these are the bats that you are most likely to spot. They have an erratic flight – twisting and turning around buildings, streetlights, trees and hedges. There are three species of pipistrelle that look very similar: the common pipistrelle, the soprano pipistrelle and the rarer Nathusius' pipistrelle.

Another of our bats is the **brown long-eared bat**. Long-eared bats come out after dark, and usually fly very close to trees, making them difficult to spot. Their flight is slow and hovering, a little bit like that of a big butterfly.

The **noctule** is one of our biggest bats; noctules emerge early in the evening, just as it starts to get dark. They can sometimes be seen flying in a straight line, high overhead. About the size of a starling, their narrow wings are quite distinctive.

If you see a bat flying very low over water, skimming the surface like a mini hovercraft, it's a **Daubenton's bat**. Watch Daubenton's bats carefully and you may see them touch the water's surface to seize an insect with their big hairy feet.

The best way to experience the usually secret nocturnal world of bats is by using a bat detector. These amazing devices enable you to listen in to bat calls, usually too high-pitched for humans to hear - with a bit of practice it's very satisfying to be able to distinguish between bat species! Your local bat group will probably hold bat walks and talks throughout the summer months to provide an introduction to these fascinating creatures and how to spot them.

Photos: Pipistrelle, Noctule, Daubenton's bat – Hugh Clark; Brown long-eared – Steve Parker

If you regularly see bats in your garden, it's possible that bats are roosting in your home, or perhaps in one of your neighbours' houses. Call the Bat Helpline (0845 1300 228) to ask for a copy of the 'Living with bats' booklet, which gives advice on what to do if you share your house with bats. The Bat Helpline will also be able to provide details of your nearest bat group, and also more information on taking part in our summer bat surveys – if you enjoy watching and listening for bats, why not sign up for our National Bat Monitoring Programme and help us to count the UK's bats?

# The future for bats

The Bat Conservation Trust (BCT) is working towards a world where bats and people thrive together in harmony, to ensure bats are around for future generations to enjoy.

We depend on the public not only for money to help conserve bats and their habitats, but also to provide the data that informs that conservation. If you would like to help us with this important work, you can do so by getting involved with our summer bat surveys. For more information and a survey form, please call the Bat Helpline (0845 1300 228) and ask for the National Bat Monitoring Programme or visit www.bats.org.uk/nbmp.

To find out more about bats why not join the Bat Conservation Trust and help bats hang on! Call the Bat Helpline on 0845 1300 228 or visit www.bats.org.uk/join.

# Useful contacts

## The Bat Conservation Trust (BCT)

15 Cloisters House, 8 Battersea Park Road, London SW8 4BG
Call the Bat Helpline today on **0845 1300 228** or visit **www.bats.org.uk**
Email **enquiries@bats.org.uk**

Contact BCT for more information on gardening for bats, bat box advice, taking part in the National Bat Monitoring Programme and for details of your local bat group or bat carers.

## Statutory Nature Conservation Organisations (SNCOs)

Natural England
Telephone 0845 600 3078
www.naturalengland.org.uk

Countryside Council for Wales
Telephone 08451 306 229
www.ccw.gov.uk

Scottish Natural Heritage
Telephone 0131 447 4784
www.snh.org.uk

Northern Ireland Environment Agency
Telephone 0845 3020008
www.ni-environment.gov.uk

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