



Wild About Gardens



#wildaboutgardens



Stars *of the* Night

Working together to create a
'batty' neighbourhood



Royal Horticultural Society
Sharing the best in Gardening

Find more information at
wildaboutgardens.org.uk

What do you know about these fascinating animals?

© Chris Dammant

Bats are nocturnal creatures, seen dimly at dusk and very occasionally during the day. Their large wings make them look bigger than they really are, and as they swoop down chasing insects, people sometimes feel uneasy. Misunderstandings can arise from just not knowing much about them, despite the fact that one in four mammal species is a bat.

Roosting

Bats do not make nests, but choose to roost in various places throughout the year. They hang upside down or creep into cracks and crevices to roost. Some prefer hollow trees, others caves, whereas some use both at different times. Many shelter in buildings, behind hanging tiles and boarding, or in roof spaces. For several weeks in summer females gather in a maternity roost, choosing somewhere warm to give birth and look after their baby. They remain here until the young are able to fly and feed themselves.

Hibernation

Because there are few flying insects (bat food) to be found in the UK during winter, British bats hibernate. They find somewhere cool and humid like a disused tunnel or cave free from disturbance and tuck themselves away. Their heart rate and breathing slow down and their temperature drops to save energy. Occasionally you may see a bat flying during the winter, as they sometimes wake to move to a new site or to look for food or water.

Did you know...?

Of over **1,300 species**

worldwide, **17 are known to breed in the UK**

These amazing mammals range from the pipistrelle, weighing only **4-7g**, (about the same as a 2p coin) to the noctule, weighing in at up to **40g!** (about the same as four £1 coins).



All British bats eat insects

Flying uses lots of energy so bats have huge appetites, each species having their own favourites. A pipistrelle can eat more than **500 tiny insects** in an hour. Some species even eat spiders!

Bats are threatened

There are fewer wooded areas, ponds and open grass spaces for bats to feed and roost as roads and buildings have now replaced them. These features can also create barriers for some bats. Links to the countryside, like hedges and front gardens that make up green corridors, have been lost or fragmented.

You can help them

There are estimated to be over 15 million gardens in the UK, covering an area greater than all the National Nature Reserves combined! So our gardens and public green spaces are vitally important habitats for wildlife, including bats. By taking small steps to make them more wildlife friendly we can make a big difference – and there are lots of benefits for gardeners too.

Bats are mammals
Like us and many of our pets, they give birth to live defenceless young that feed on their mother's milk.



© Hugh Clark

Bats are not blind

They can see, but at night their ears are more important than their eyes. They use echolocation, a system of locating things by sound, to find their way and catch their food in the dark.

Jan-Feb



▣ Bats are hibernating to conserve energy as insects are hard to find.

March



▣ As the weather gets warmer bats wake more often to feed.

April-May



▣ Bats are more active, feeding most nights. Females are forming maternity groups, usually returning to roosts previously used.

June-July



▣ Females give birth, usually to a single pup, suckling them frequently. Young start flying from about three weeks.

Sept, Oct, Nov



▣ Mating occurs in autumn. Bats feed as much as they can preparing for winter, but spend longer periods torpid (sluggish and cold).

Dec



▣ Most bats drop their temperatures further and go into hibernation.

Lay on a banquet for bats

Careful planning will increase the value of your garden or green space to bats and other wildlife, however small it is. As bats need a huge number of insects, a garden that is good for insects is good for bats. Even a window box or tiny town garden can attract insects, which in turn attract bats.

Aim to grow as wide a range of flowers throughout the year as possible to attract a diversity of insects. **Here are some suggestions:**

Daisies or similar flowers

Short florets attract many pollinating insects including solitary bees



Oxeye daisy
(*Leucanthemum vulgare*)



Cosmos – single flower forms



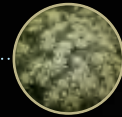
Michaelmas daisy
(*Symphotrichum novi-belgii*)

Umbellifers

'Landing platforms' attractive to a very wide range of insects including longhorn beetles, solitary wasps, hoverflies and other flies



Wild angelica
(*Angelica sylvestris*)



Bishop's weed
(*Ammi majus*)



Sea holly
(*Eryngium spp.*)

Flowers with long pollen-tubes

Can attract longer tongued insects such as butterflies, moths and some bumblebees



Common honeysuckle
(*Lonicera periclymenum*)



Scotch thistle
(*Onopordum acanthium*)



Purple top
(*Verbena bonariensis*)

Herbs and aromatic flowers

Popular with a wide-range of insects



Lavender (*Lavandula x intermedia*)



Marjoram
(*Origanum vulgare*)



Borage
(*Borago officinalis*)

Tall, pale or night-scented flowers

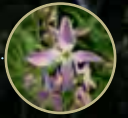
These are more obvious to night time insects such as moths



Hemp agrimony
(*Eupatorium cannabinum*)



Evening primrose
(*Oenothera biennis*)



Night-scented stock (*Matthiola longipetala*)

Aquatic plants

Plants in ponds and marshy areas provide habitat for aquatic larvae such as mayflies



Lady's smock or cuckoo flower
(*Cardamine pratensis*)



Purple loosestrife
(*Lythrum salicaria*)



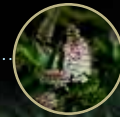
Water mint
(*Mentha aquatica*)

Trees, shrubs and climbers

Will support a huge range of insects



Mountain ash or rowan
(*Sorbus aucuparia*)



Hebe
(*Hebe spp.*)



Common ivy
(*Hedera helix*)

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Welcome bats into your garden or green space

As well as growing flowers, there are other ways to attract insects to your garden. You can create microhabitats, by making log or leaf piles, mulching garden beds and leaving hollow stems standing over winter for bugs to shelter in.

If you have a wall or fence grow

climbing plants

against it to add another level to your garden structure



flying insects

which in turn will attract more birds and bats.

A small hedge or a shelter belt created by walls and fences encourages a concentration of

▣ Trees and shrubs

provide food and shelter for many insect larvae. In a small garden, choose trees that can be coppiced – cut down to the ground every few years – such as hazel 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. They can also be striking focal points in a small garden.



▣ Reduce your light pollution

All bat species are nocturnal, resting in dark conditions during the day and emerging at night to feed. Artificial light, such as street lights, garden security lighting, or decorative lighting on homes and trees, can have a detrimental effect on bats by affecting the time they roost and come out to hunt. You can support bats in your neighbourhood by reducing or turning off your garden lighting. If you'd prefer to keep on your security lighting, consider changing your settings to a dimmer light or fit hoods or cowls over them to limit light pollution.



▣ A pond or marshy area will support the aquatic larvae of insects such as small flies, which are a favourite of pipistrelle bats.

▣ Allow a patch of grass to grow long as this is an important habitat for many insect larvae.



▣ Avoid using pesticides and encourage natural predators

instead. Predatory beetles, centipedes, hoverflies, ladybirds, lacewings and ground beetles are the gardener's friends. They will happily move into compost heaps, log piles and rockeries and will show their appreciation by polishing off your garden pests.

© Tom Marshall

How to make your own compost

You will need:

- a shady spot where a heap will stay moist
- some old bricks
- watering can (for dampening dry ingredients before adding)
- shredded wood waste or scrunched newspaper
- gardening fork
- a piece of old carpet or polythene sheet
- green compostable ingredients

Save up enough ingredients for a week or two until you have enough to build a heap in one day.

Add more ingredients as the heap sinks down



Carpet or polythene sheet to keep it warm and dry

Compostable ingredients

Compostable ingredients

Compostable ingredients

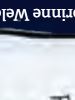
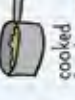
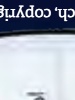
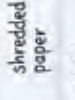
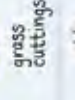
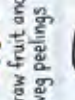
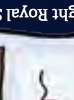
Base of bricks



Wait at least three months and turn the heap once with a garden fork



Ready to use when dark and crumbly



not shiny

prunings and dead plants

shredded paper

dead leaves

grass cuttings

raw fruit and veg peelings

tea bags

woolly stems

cooked food scraps

cat or dog poo

meat or bones

perennial weed roots

cotton and wool

diseased plants

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A compost heap will attract bat prey – insects!

How to make an insect hotel

You will need:

- Wooden pallets x4
- Bricks
- Plastic bottles
- Bamboo canes and/or plastic straws
- Straw
- Leaves
- Tiles
- Cardboard
- Stones/pebbles
- Twigs/loose bark

1 Place a wooden pallet in your chosen location. On top of the pallet, line bricks around the corners and across the middle.



2 Place your next pallet on top of this and repeat the process for all of your pallets.



3 Cut off the top two-thirds of your bottles. Fill up half of them with bamboo canes/plastic straws and the other half with rolled up cardboard. Place these inside the hotel.



4 Fill in the remaining spaces with bricks, leaves, pebbles, stones, tiles, loose bark and straw.



5 Add in any extra materials that you want to recycle e.g. old pipes, carpeting, toilet tubes, old plant pots. Be creative – add a welcome sign or give your hotel a name!



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An insect hotel will provide a feast for bats

Looking after bats through the seasons

Here's a handy guide to the small actions you can take throughout the year to support the stars of the night in your garden or green space:

Spring

✔ Plant nectar-rich plants, trees and shrubs for example lungwort, primrose, honesty and wallflower.

✔ Build a pond or water feature.

✔ Join a local Bat Group to find out more about bats in your area.

Summer

✔ Count the bats near your home as part of the National Bat Monitoring Programme (NBMP) and help to gather important data.

✔ Create a compost bin, the perfect habitat for some of the bat's insect prey.

✔ Buy yourself a bat detector and get listening to their pips and squeaks. Find out if you have a bat visitor.



✔ Keep cats indoors from an hour before sunset, when bats emerge from their roosts.

✔ Plant nectar-rich plants, including corncockle, fennel, knapweed, lavender, red campion, sea holly, scabious and ox-eye daisy.

Autumn

✔ Put up bat boxes for next year's roost. Ensure that you never disturb a bat box once its up. All bat species and their roosts are now legally protected.



✔ Plant new trees and shrubs including buddleia, common honeysuckle, crab apple, dog rose, hawthorn, hazel and ivy.

✔ Do a spot of bat watching at a 'bat haven' close to you. For hints on where to watch for bats go to the Big Bat Map www.bigbatmap.org Add your own sightings too to help others enjoy your discoveries. Add your own sightings too to help others enjoy your discoveries.

Winter

✔ Leave hollow stems for overwintering insects.

✔ When winter pruning trees be aware of any hollow cavities or potential roosting sites and ensure these are not disturbed.



© Aubrey Turner

© RHS Andrew Halstead



© Amy Lewis

All year round:

Which flowers attract most insects?

Look at the flowers in your garden to see which ones are most attractive to insects. Look at other gardens to see which flowers are in bloom at different times. This will be a help in planning the best way to attract insects throughout the year. If you're unsure, you can also use this list to help you to choose insect-attracting plants: rhs.org.uk/perfectforpollinators

What do I do if I find a grounded bat?

Any bat that is found on the ground, especially during the day, is likely to need help. Contain in a box using gloves or a soft cloth and call the Bat Helpline 0345 1300 228 for further advice.

Be an ambassador for bats

Tell other people what amazing animals bats are, especially during Halloween when bats are a hot topic! Share the ideas in this booklet to help people make their gardens and green spaces more bat-friendly.

Bat watch!

Not sure where to go to see bats? Take a look at our top reserves to spot these flying mammals: wtru.st/see-bats



© Hugh Clark

How to make a bat box

You will need

- an adult to help you.
- untreated, rough-sawn timber



- tape measure and pencil



- saw



- hammer and nails



Do not use wood stain or preservative on your box



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Produced in collaboration with Kent Bat Group

How to make a wildlife pond

You will need

- A patch of garden



- Spade



- A plank of wood



- Spirit level



- Butyl pond liner



- Sand



- Water (use rainwater for best results)



- A variety of pond plants



- Large rocks

Remember don't add fish or a pump. The fish will eat smaller life forms (including frog and newt larvae) while the pump may suck them up!

- 1 Choose your spot. Draw your pond outline and dig out, including some shallow areas.

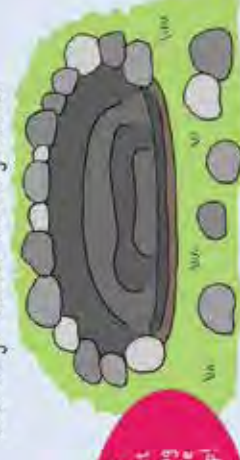


Use a plank and spirit level to ensure that the edges are level

- 2 Coat the hole with sand (to protect the liner from sharp stones)



- 3 Make a trench all around the edge of your pond, and lay the edge of the liner into this. Weigh it down with large rocks.



- 4 Fill the pond up with water.



If you fill it from a tap or hose your water might turn green - don't worry, this is just the minerals.

- 5 Leave your pond to settle for about a week before adding your plants.



- 6 Watch and see what wildlife visits.

Consider adding a plank of wood as a ramp to help any wildlife that may have fallen in



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* Look for a spot with plenty of sun, ideally with some shade in the afternoon. Try to avoid trees nearby, as fallen leaves can pollute the pond.

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So which bats

live in the UK?

The noctule

is one of our biggest bats. They emerge early in the evening, just as it starts to get dark, and can sometimes be seen flying in a straight line high overhead, with sudden swoops to catch an insect. The noctule looks about the same size as a starling, and has long narrow wings.

Flies in a straight line with a sudden swoop

Listening to bats

Bats, like us, can see when it is light, but at night they send out pulses of sound and listen to the echoes bouncing back from trees or insects. These act as a torch of sound to give them a picture of their surroundings. Humans can usually only hear

these echolocation calls by using a device called a bat detector, which makes them audible to humans. This is because echolocation calls are too high pitched for us to hear. Different species echolocate at different frequencies, and can sound very different as well.

To listen to more bat species visit wildaboutgardens.org.uk

Pipistrelles

are the bats you are most likely to see in your garden. They emerge around sunset and have an erratic flight as they chase tiny insects. There are three species of pipistrelle in the UK that look very similar: the common pipistrelle, the soprano pipistrelle and the rarer Nathusius' pipistrelle.

Erratic flight path

The brown long-eared

bat is much more difficult to spot. It comes out after dark and usually flies very close to trees, or even in and out of the branches. Its flight is slow and hovering, a bit like that of a big butterfly.

Flies close to trees

© Tom Marshall



Scan the QR code with your smart phone and listen for yourself!



© Hugh Clark



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About Us

For more information about how you can help wildlife in your garden, including gardening advice, activity ideas and wildlife guides, visit The Wildlife Trusts and RHS joint partnership website wildaboutgardens.org.uk

The Wildlife Trusts

The Wildlife Trusts are the UK's largest people-powered organisation caring for all nature – rivers, bogs, meadows, forests, seas and much more. There are 47 Wildlife Trusts covering the whole of the UK with a shared mission to restore nature everywhere we can and to inspire people to value and take action for wildlife.

Many Wildlife Trusts run projects to specifically address the disappearance of our bats, including raising awareness amongst local communities, conducting surveys, encouraging people to take action at home, running family and educational events and targeting bat hotspots for conservation effort. You can find out more about some of these projects and download our educational resources at: wildlifetrusts.org/bats

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The Royal Horticultural Society

For more than 210 years the RHS has been the force behind gardening in the UK. We're driven by a desire to enrich everyone's life through plants, and make the nation a greener, more beautiful place.

We believe that everyone in every village, town and city should benefit from growing plants to enhance lives, build stronger, healthier, happier communities, and create better places to live.

Our work in education, science and communities is only possible thanks to the generous support of our visitors, members, partners, donors and sponsors. With your help we can harness the power of horticulture, one gardener at a time.

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The Bat Conservation Trust (BCT)

BCT are the leading NGO solely devoted to the conservation of bats and the landscapes on which they rely. We work closely with many organisations including over 100 bat groups across the UK.

Bats are unique and play a vital role in our environment but during the last century bat populations suffered severe declines. We are working to secure the future of bats in our ever changing world by tackling the threats to bats, from persecution to loss of roosts and changing land use.

As the authoritative voice for bat conservation we work locally, nationally, across Europe and internationally.

National Bat Helpline: 0345 1300 228
e: enquiries@bats.org.uk w: bats.org.uk

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Sharing the best in Gardening



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