



BAT CONSERVATION
IRELAND

GARDENING FOR BATS



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Gardens cover a huge area of the Irish landscape, and more and more homeowners are recognising the importance of their own gardens for helping wildlife. In this leaflet, not only will Bat Conservation Ireland provide some tips and ideas on how to encourage bats to your garden, but we will also help you to do less work and put your feet up! Less trimming, mowing, spraying and leaf raking means less effort but doing more to help wildlife thrive in Ireland!

WHY ARE GARDENS IMPORTANT FOR BATS?

Gardens provide food

A garden is a green space that may be available to wildlife for foraging. Flying insects –the food of Irish bats - tend to be present in most gardens. Gardens are particularly important in urban landscapes where so much of the land is otherwise covered in concrete and buildings.

In areas of intensive agriculture where fields provide little refuge for wildlife, the same can also be true. Bats often fly along boundary walls or hedges eating insects there. On windy days, insects swarm to the lee side of hedges and bats will fly along, sheltered from the wind, while having a tasty snack.

Gardens provide shelter

Bats sometimes roost in the crevices and cavities of mature and ivy-covered garden trees, but also in roofs of domestic houses or in sheds/outbuildings.



Oxeye daisies

Gardens tend to be dark at night

Bats usually avoid street lighting so, if the front of your house is on a brightly lit street, you are far more likely to observe bats in your unlit back garden.



White clover

Improving or managing a garden for bats

1. Mindset. This is the first thing to tackle. Take one step at a time. Decide what level of change you will be happy with. Making bat (and other wildlife) friendly changes do not have to encompass the whole garden, the changes can be

small e.g. just in one corner or along one boundary. Even so, you may need to modify how you think about your garden in that area.

2. Native species. Native plants are ones that spread to Ireland naturally since the last Ice Age. These support a wider variety and abundance of native insects. This in turn means that there is more food for bats. Include as many native species and specimens as possible. For a list of native tree and shrub species that will benefit bats, see the last page of this leaflet. If you have a hedgerow bounding your garden, try to retain native shrubs such as hawthorn, hazel and willow, instead of replacing them with evergreen non-natives.

3. Management – trimming & cutting. Allowing patches or edges of lawns to grow tall and flower will improve the garden for night flying insects such as moths. Trimming hedgerows that have native shrubs such as hawthorn

less often will increase bat activity and have a knock-on effect of improving the hedgerow for songbirds. Trim outside of the bird nesting season (March 1st to August 31st).

4. Management – sprays. With the exception of controlling invasive exotic species (like Japanese knotweed), there is rarely a real need to spray pesticides in a domestic setting. While herbicide may not impact bats directly it reduces potential food sources for various insect species and this in turn will negatively impact on bats and many other animals. Always avoid using herbicidal, insecticidal or fungicidal sprays anywhere near hedgerows, ditches, ponds or waterways.

5. Management – lawn clippings and autumn leaves. Did you know that dead autumn leaves provide habitat for lots of creepy crawlies? If you want to keep your lawn leaf-free, rake leaves into a

pile in a corner of the garden to rot down into a leaf mulch, rather than disposing of them or burning them. That way, you get to use the results as compost in a couple of years and bugs get to complete their life cycles in your garden – a win win situation! And why not put all those lawn and other garden clippings to work for you in a compost pile AND save money on bought compost?



6. Trees. A wider variety of bat species are more likely to be found where there are mature trees. Trees also provide

potential roosting locations. Retain mature trees and if there are none at present, allow some to develop to maturity if you have space. If tree surgery is necessary for safety reasons, retain the tree trunk and keep pieces of dead wood in your garden to provide more habitats for invertebrates.



Pond

7. Night scented and pale flowers. Many flowers release scent after sundown and attract night-time pollinators. Also, some of the pale and blue/purple flowered plants

are particularly attractive to night flying insects. Examples of night- time insect-friendly flowers are shown on the last page.

8. Ponds – incorporating a water feature into your garden could provide a real boost to wildlife in your garden. Ponds are used by bats for drinking and many insects have an aquatic larval stage so a pond will increase insect numbers for feeding bats.

9. Bat boxes – boost roosts! You can increase the potential roosts available to your local bats by providing roost boxes.

10. Mind the gap! If you have the option of planting a hedge along a boundary, consider planting hawthorn to provide more cover for slow flying bat species. Its beautiful creamy flowers attract night-time pollinators and their fruits (haws) provide food for lots of bird species.

11. Lighting – most Irish bat species are deterred by artificial light at night. Keep outdoor lights to a minimum and only switch them on when you need them.

12. Cats – we all love our pets, but they can injure or even kill bats. Please keep your cat indoors from half an hour before sundown until after sunrise, the times when bats are active.

BAT FRIENDLY PLANTING

Select species that are suitable for growing in your soil conditions. Consider drainage, waterlogging, soil type and pH. If you are unsure, seek advice from a horticulturalist.

Garden centres very often supply varieties of native species that have been artificially selected for certain features, for example to have more showy flowers. So, if for example, you ask for guelder

rose you may get a double-petalled version rather than the wild version, which will be pretty but will be less useful to insect pollinators and may not produce berries in the autumn. For this reason, always ask for native species of local, or at least Irish, provenance. Or you can collect cuttings and seeds from local hedgerows and raise your plants for free.



Honeysuckle

A selection of tree species native to Ireland (soil requirements)

Pedunculate Oak – *Quercus robur* (fertile, neutral or heavy)

Sessile Oak – *Quercus petraea* (neutral or acid soil)

Alder – *Alnus glutinosa* (heavy or waterlogged soil, river / stream banks)

Scots pine – *Pinus sylvestris* (acid, neutral, well-drained soil)

Silver birch – *Betula pendula* (acid soil, peat)

Downy birch – *Betula pubescens* (acid soil, peat)

Yew – *Taxus baccata* (fertile, neutral, well-drained soil)

Wild cherry – *Prunus avium* (fertile, neutral, well-drained soil)

Crab apple – *Malus sylvestris* (neutral, well-drained or heavy)

Rowan (mountain ash) – *Sorbus aucuparia* (sub-fertile, well-drained)

Willows – e.g. *Salix caprea*, *Salix aurita*, *Salix pentandra*, *Salix cinerea*

NOTE: Ash - *Fraxinus excelsior* is one of Ireland's most common native tree species. However, due to the prevalence of ash dieback disease, this species is not currently recommended for planting.

Shrub species native to Ireland

Hawthorn – *Crataegus monogyna*

Blackthorn – *Prunus spinosa*

Guelder rose – *Viburnum opulus*

Holly – *Ilex aquifolium*

Hazel – *Corylus avellana*

Elder – *Sambucus nigra*

Spindle – *Euonymus europaeus*

Broom – *Cytisus scoparius*

Furze – *Ulex europaeus*

Examples of flowering plants attractive to night-time insects

Honeysuckle - *Lonicera periclymenum*

Wild roses – e.g. *Rosa canina*, *Rosa arvensis*

Jasmine – *Jasminum officinale*

Brambles – *Rubus fruticosus*

Forget me not – *Myosotis arvensis*

White clover – *Trifolium repens*

Red clover – *Trifolium pratense*

Primroses – *Primula vulgaris*

Red valerian – *Centranthus ruber*

Irish bluebells – *Hyacinthoides non-scripta*



BAT CONSERVATION
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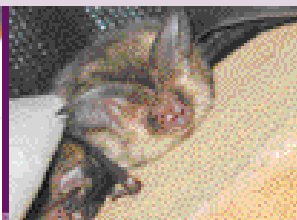
BATS AND THEIR HABITATS



Irish Bats

- Bats are small furry mammals and like all mammals, they suckle their young.
- Bats only have a single baby, giving birth once a year.
- Bats are not blind. At night they use a sonar called echolocation to find food and avoid objects. They do not fly into your hair.
- Bats do not make nests but find small crevices or gaps to roost in.
- Bats are not harmful, but very beneficial. A bat can consume up to 3,000 midges in one night, reducing the need for pesticides.
- There are 10 bat species in Ireland, all of which are protected. Bats have declined in recent years because of a decline in insects and loss of roosting sites.

SPECIES	MAIN ROOSTS	PREFERRED FOOD	WHERE THEY FEED
Common and Soprano Pipistrelles	Buildings and trees	Midges, caddis flies, mayflies, and small moths	Over water, marshes, woodland edge, farmland, hedges, gardens, urban areas
Brown long-eared bat	Buildings and trees	Moths, flies, bugs, earwigs, beetles and spiders	Open woodlands and parkland
Daubenton's bat	Bridges, trees, buildings and under-ground	Small flies, caddies flies and mayflies	Over lakes, rivers and ponds
Natterer's bat	Buildings, trees and underground places	Flies, moths, and spiders	Open woodlands, parkland, hedges, waterside vegetation
Lesser Horseshoe bat	Buildings, caves and tunnels	Midges, moths, lacewings, caddies flies and spiders	Open deciduous woodland, parkland, wetland pasture
Whiskered bat	Buildings and underground places	Moths, other small insects and spiders	Wooded areas often near water
Leisler's bat	Tree holes and buildings	Flies, moths, caddis, flies and beetles	Open woodland, parkland, urban areas
Nathusius's pipistrelle	Tree holes and crevices	Small to medium flying insects	Woodland edges, parkland, over water
Brandt's bat	Buildings and trees	Moths, other small insects and spiders	Wooded areas often near water



Increasing Bat Habitats on Farms



Farmland provides important habitat for feeding and roosting bats. Bats fly along linear features, avoiding open spaces. Hedgerows and treelines are essential in providing connectivity in the landscape.



Roof spaces are likely bat roosts

Provide habitats for insect prey for bats:

- Retain hedgerows, treelines and wooded areas.
- Plant native trees and shrubs, connecting existing hedgerows.
- Plant night-scented plants such as honeysuckle to attract insects.
- Retain wetland areas or create new ones.
- Avoid using pesticides.



Hibernating Lesser Horseshoe bat

Provide habitats as bat roosts:

- Allow bats access to potential roosting sites in outbuildings.
- Retain old mature trees and trees with dead wood and split limbs.
- Leave deadwood in-situ.
- Retain crevices in stone buildings as potential roosts – 20mm gaps suffice.



Left to right:
Common pipistrelle,
Brown long eared bat,
Daubenton's bat,
Soprano pipistrelle
and Natterer's bat

Bat Boxes

- Bats like to roost in trees with naturally occurring holes. Bat boxes provide alternative roosts. They tend to use them from April to October.
- Bat boxes range from traditional wooden boxes to woodcrete (mixture of sawdust, concrete and clay) boxes. A basic bat box is constructed from untreated rough sawn timber. Wood preservatives may harm bats; however mammal-friendly preservatives are available. Treated wooden boxes should be fully dried before erection.
- Schwegler woodcrete boxes which come in various designs have excellent thermal insulation properties with less fluctuation of internal temperature conditions providing a more suitable environment for roosting bats. They also last longer than wooden boxes.
- Wooden boxes are simple to make while Schwegler woodcrete boxes can be purchased from www.alanaecology.com and www.jacobijayne.com



Where to Site Bat Boxes

- Erect on trees or buildings with a south-facing aspect.
- Choose trees with few low branches so bats can easily fly in and out.
- Locate at least 4 metres above ground away from predators and vandals.
- Hang from tree branches near the trunk using wire loop or "tree friendly" aluminum nails.
- Place where they will get sunlight but little wind.
- Site away from outdoor lights.
- Wooden boxes are subject to fluctuating temperatures, so site 3 boxes around the tree trunk facing different directions (except west) to provide choice of environment.

Conservation of bats

Bats are a protected species. Under the Wildlife Act 1976 (2000) it is an offence to intentionally kill, disturb, handle, sell or offer for sale a bat without a licence. Contact your local National Parks and Wildlife Service Conservation officer or Bat Conservation Ireland 046 9242882, info@batconservationireland.org or www.batconservationireland.org

For further information contact your local Teagasc office or www.teagasc.ie.
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