



BAT CONSERVATION
IRELAND

MANAGING HEDGEROWS FOR BATS



WHAT ARE HEDGEROWS?

Hedgerows are lines of densely planted shrubs and trees that form a barrier for livestock or delineate boundaries.

Most hedgerows in Ireland are composed of shrubs and they often include mature trees. Hedgerow plants are often native to Ireland – such as ash, oak, elm, willows, hawthorn, blackthorn and hazel. Because these plant species are mostly native they are extra-important for providing good habitat for wildlife of all kinds – from beetles to bats.

Hedgerows provide nesting for birds, roosting sites for bats, sources of food such as seeds and berries and shelter for dispersing animals. About 6% of Ireland is covered in hedgerows. Ireland's scenery would be far less interesting without its interlaced network of criss-crossing hedgerows.

WHY ARE HEDGEROWS IMPORTANT FOR BATS?

Hedgerows provide food

Many types of insects are associated

with shrubs and trees, particularly native species like oak and ash. Bats like to fly along hedgerows and eat the insects there. On windy days, insects swarm on the calm side of the hedge and bats will fly along, sheltered from the wind, while having a tasty snack.



Hedgerows provide shelter

Bats will often roost in the crevices and cavities of mature trees and / or behind the ivy-growth on hedgerow trees.

Hedgerows help bats navigate

All bats can see, but in darkness they rely more on echolocation

for hunting and orientation. Echolocation allows bats to create sound images of their environment and each bat species produces different types of echolocation calls.

High pitched echolocation sounds do not travel far through the air so some bats have limited information on their surroundings. As a consequence some bat species prefer to fly close to hedgerows to orientate themselves.

Hedgerows help keep bats safe

Bats like to fly along hedgerows because the tall vegetation helps protect them and it is harder for predators like owls to catch them.

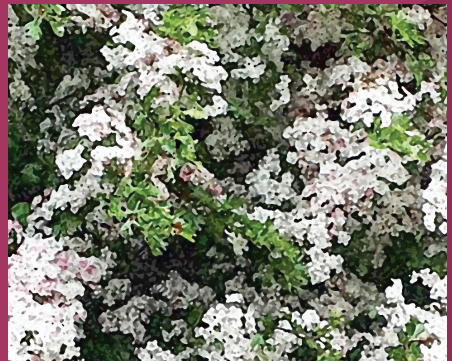
Hedgerows keep the landscape connected

The continuous links that hedgerows form throughout the landscape allow bats to travel. When bats commute from their roosts to foraging areas they almost always fly along hedgerows or tree lines. In fact, some species will deliberately avoid gaps and travel the long way around rather than fly across open space of greater than 5 - 10m.

HOW TO MANAGE A HEDGEROW FOR BATS

1. Native species

Native plants support a wider variety and abundance of native insects. This in turn means that there is more food for bats and other insectivorous birds and animals to eat. When creating new hedgerows or restoring old ones, 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.



2. Standard trees

A wider variety of bat species are more likely to be found along hedgerows with mature trees. Trees provide more structure and potential roosting locations.



Retain mature trees and if there are none at present, allow some to develop to maturity or plant trees in gaps. If tree surgery is necessary on existing trees for safety reasons, retain the tree trunk and keep pieces of dead wood at the base of the hedge to provide more habitats for invertebrates.

3. Management – trimming & cutting

A recent UK study showed that insect diversity was greater and bat activity was higher around hedgerows that had not been cut in three or more years. While it is sometimes necessary to trim hedgerows for safety concerns, in many instances excessive cutting massively reduces benefits for wildlife, not just bats. Trimming native hedgerows **less often than every three years** will increase bat activity and have a positive knock-on effect of improving the hedgerow for song birds. Always trim outside of the bird nesting season (March 1st to August 31st).

4. Management – herbicides

With the exception of controlling invasive exotic species (like Japanese knotweed) there is no need to spray the base of any

hedgerow. While herbicidal spray may not impact bats directly, it reduces potential food sources for insects and this, in turn, will negatively impact on bats and many other animals. Always avoid using herbicidal, insecticidal or fungicidal sprays anywhere near hedgerows.

5. Bat boxes – boost roosts

You can increase the potential roosts available to your local bats by providing roost boxes.



Bat box

6. Mind the Gap!

Some bats don't mind flying out in the open, but some rarer species in Ireland like the lesser horseshoe bat which is found in the west of Ireland, rarely crosses open fields or gaps in hedgerows greater than 10m length. If you are responsible

for maintaining a hedge that has become gappy over the years, consider planting hawthorn slips in the gaps to provide more cover for slow flying bat species.

7. Lighting

Bats are nocturnal and therefore most Irish bat species are deterred by artificial light at night. Lighting is a barrier to commuting and foraging bats and hedgerows should remain dark to allow bats to commute through the landscape.

NATIVE TREE AND SHRUB SPECIES

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.

A note about garden centres. For obvious reasons, 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.

Tree species native to Ireland

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)

Strawberry tree – *Arbutus unedo* (acid, neutral, well-drained, full sun)

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

Aspen – *Populus tremula* (fertile, neutral, heavy)

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

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

Irish whitebeam – *Sorbus hibernica* (well-drained)

Willows – e.g. *Salix caprea*, *Salix aurita*, *Salix pentandra*, *Salix cinerea*, *Salix purpurea* (heavy or waterlogged soil, riverbanks/streambanks)

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*

Gelder rose – *Viburnum opulus*

Holly – *Ilex aquifolium*

Hazel – *Corylus avellana*

Elder – *Sambucus nigra*

Alder buckthorn – *Frangula alnus*

Spindle – *Euonymus europaeus*

Broom – *Cytisus scoparius*

Bird cherry – *Prunus padus*

Wych elm – *Ulmus glabra*

Note that elm is normally considered a tree species but rarely grows to maturity in Ireland due to Dutch elm disease.

Furze – *Ulex europaeus*





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