Local Biodiversity Action Plan Gurteen, County Sligo



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Collated in consultation with Gurteen TidyTowns volunteers,

by Woodrow Sustainable Solutions Ltd.



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Authorship

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The workshops, and training materials and recordings of sessions are available to the public at http://woodrow.ie/resources

Contents

| Authorship2 |
|---|
| Acknowledgements2 |
| Introduction4 |
| Aims of the plan5 |
| Local Wildlife & Biodiversity Records5 |
| Invasive Species |
| Japanese knotweed8 |
| Cherry Laurel and Rhododendron ponticum9 |
| Public Areas in the Neighbourhood10 |
| Enhancement 1: Mini Meadows and Roadside Verges11 |
| Enhancement 2: Plant Trees15 |
| Enhancement 3: Pollinator Friendly Plants19 |
| Enhancement 4: Allotment or fruit garden23 |
| Appreciating What We Have24 |
| Enhancing Existing Features |
| Birds28 |
| Invertebrates |
| Bats |
| Ideas for gardeners |
| Appendix 1: Biodiversity Records from Gurteen |

Introduction

Gurteen is a village in south County Sligo, with a population of around 400 people (2016). Several businesses are centred around Gurteen Crossroads and the Main Street, including shops, pubs and foot outlets. There are a few small housing estates off the Main Street.

Gurteen has an important musical and cultural heritage and is home to Ceoláras Coleman (the Coleman Heritage Centre), located at the crossroads in the village. This includes a theatre, recording studio, musical exhibition area and shop, and regularly hosts concerts and music classes. Several influential traditional musicians are associated with Gurteen and the surrounding area, including Michael Coleman, Peter Horan and Fred Finn.

Built heritage features of note in Gurteen include the 19th Century St. Patrick's Church, as well as the old church in the graveyard on the outskirts of the village.



Figure 1: View of the ruined church and biodiversity area

The old church on the outskirts of Gurteen is potentially a great location for biodiversity, especially given its location adjacent to a grassland managed for nature.

Enhancement of the area leading to the church site could include planting of native hedgerows and trees within the village connecting to the church site, to provide habitat stepping stones through the village.

Aims of the plan

- To enhance the town for wildlife and biodiversity
- To provide recreational and relaxing spaces
- To emphasise the interesting and educational aspects of biodiversity in the town
- To make Gurteen a pleasant and attractive town for local people and visitors alike
- To improve existing green spaces in the town both aesthetically and for nature
- To encourage community involvement in protecting and enhancing the environment in the town
- To suggest further projects or biodiversity surveys that could be carried out in the town

Local Wildlife & Biodiversity Records

It is often interesting to find out about the species of animals and plants that have been recorded in our local area. These records may also give us ideas for ways in which we could enhance the conditions in the locality for wildlife.

The National Biodiversity Data Centre (NBDC) collates biodiversity records from all around the country and makes them available through its website (biodiversityireland.ie). For this purpose, the country is divided into grid squares, and records of species can be accessed for each square. The map below shows that Gurteen is partly within four 1-km squares.





Many species have been recorded from the area within these grid squares, including birds, plants, mammals, spiders and insects. A full list of these is given in Appendix 1. Some of the more familiar species, and some of those most likely to be seen, are given here in Table 1 on the following page.

When considering birds that have been recorded in the area, there is an assessment system for the conservation status of bird species, known as BoCCI (Birds of Conservation Interest in Ireland). In this system, each bird is given a red, amber or green status, reflecting how common or rare it is, and whether populations are in decline, growing or remaining steady. The current status for each species of bird is also given in Table 1. More information on BoCCI is available on the BirdWatch Ireland website¹.

¹ <u>https://birdwatchireland.ie/birds-of-conservation-concern-in-ireland/</u>

| Table 1: Species Recorded Around Gurteen ² | | | | |
|---|------------------------------|---|--------------------|--|
| Species | Scientific Name | Birds of Conservation Concern Status (2021-2026) | Most Recent Record | |
| Mammals | | · | | |
| Badger | Meles meles | - | 2006 | |
| Fox | Vulpes vulpes | - | 2013 | |
| Hedgehog | Erinaceus europaeus | - | 2012 | |
| Birds | | | | |
| Bullfinch | Pyrrhula pyrrhula | Green | 2020 | |
| House martin | Delichon urbicum | Amber | 2018 | |
| Long-tailed tit | Aegithalos caudatus | Green | 2018 | |
| Swallow | Hirundo rustica | Amber | 2018 | |
| Plants | | | | |
| Ash | Fraxinus excelsior | - | 2009 | |
| Branched burr-reed | Sparganium erectum | | 2009 | |
| Cuckooflower | Cardamine pratensis | - | 2018 | |
| Grass vetchling | Lathyrus nissolia | - | 2019 | |
| Hawthorn | Crataegus monogyna | - | 2009 | |
| Hazel | Crataegus monogyna | - | 2006 | |
| Smooth hawk's-beard | Crepis capillaris | - | 2019 | |
| Marsh foxtail | Alopecurus geniculatus | - | 2019 | |
| Rosebay willowherb | Chamerion angustifolium | - | 2019 | |
| Purple loosestrife | Lythrum salicaria | - | 2009 | |
| Reed canary-grass | Phalaris arundinacea | - | 2009 | |
| Smooth lady's-mantle | Alchemilla glabra | - | 2019 | |
| Soft brome | Bromus hordeaceus | - | 2019 | |
| Wall speedwell | Veronica arvensis | - | 2019 | |
| Sycamore | Acer pseudoplatanus | - | 2009 | |
| Yellow iris | Iris pseudacorus | - | 2009 | |
| Fish | | | | |
| Minnow | Phoxinus phoxinus | - | 2009 | |
| Insects | | | | |
| Seven-spot ladybird | Coccinella septempunctata | - | 2018 | |
| Red admiral butterfly | Vanessa atalanta | - | 2021 | |
| Bumblebee | Bombus lucorum agg. | - | 2018 | |

² Source: National Biodiversity Data Centre. Additional records are given in Appendix 1.

Invasive Species

Invasive species are non-native plants or animals which cause problems in Irish habitats, often by outcompeting or damaging the populations of native species.

Japanese knotweed

Japanese knotweed is an invasive species that has been registered on the NBDC database from the Gurteen area.

Japanese knotweed is a very troublesome plant which can cover large areas, grow to 2-3 metres tall, and exclude most other plants. As it is spread easily and can re-grow from small pieces of rhizome, it should not be dug up, cut or strimmed. Information for dealing with this plant (and other invasive species), is available from Sligo County Council³ and from the Invasives.ie website⁴.



Figure 3: Japanese knotweed (Fallopia japonica)⁵

³https://www.sligococo.ie/Services/RoadsandParking/Roads/InvasiveAlienPlantSpecies/#maincontent

⁴ https://invasives.ie/

⁵ Photo by Maja Dumat, Attribution 2.0 Generic (CC BY 2.0)

Cherry Laurel and Rhododendron ponticum

These two plants are both high-impact invasive species that have the potential to negatively impact the species diversity in the area. These plants both form very dense thickets and can be difficult to remove. These plants can also spread by layering, suckering or by seed spreading.

These plants can have a serious negative impact on the habitats they invade and should not be planted or encouraged to spread. The 'Delivering Alien Invasive Species In Europe' (DAISIE) project list rhododendron as one of the 100 Worst Invaders in Europe.⁶

Figure 4: Cherry laurel leaves andFigure 5: Rhododendron ponticum leaves andflowers. © Copyright GBNNSSflowers. © Copyright Wikimedia Commons





⁶Catalogue of Ireland's Non-native Species, Invasives.ie Available at: <u>https://invasives.ie/about/catalogue/</u>

Public Areas in the Neighbourhood

The best way to encourage wildlife and biodiversity is to provide suitable habitats for native species. In towns and built-up areas, the natural habitats or vegetation will often have been removed or altered. Beginning to restore pieces of these natural habitats in public areas in the town, even on a small scale, is a great way to improve biodiversity in the area. As well as helping native species, this work can also enhance the area visually, and improve the pleasant atmosphere and aesthetics in the town.

Gurteen has already made some great steps towards this by setting aside the nature area beside the ruined church and reducing mowing along grassy strips within the town.

Other potential enhancements within the village include:

- 1. Leaving some areas of long meadows in green areas of housing estates and roadside verges
- 2. Introducing suitable trees into areas along the streetscape would help create habitat stepping stones within the village
- 3. Planting pollinator friendly plants into public planters and public spaces, with an emphasis on extending the flowering period from spring through to winter using a diversity of plants, including perennial planting.
- 4. Establishing an allotment or edible garden space within the village, using fruit trees or shrubs.

Enhancement 1: Mini Meadows and Roadside Verges

Mini Meadows

Allowing green areas to grow more naturally by reducing mowing is an easy way to increase biodiversity. When mowing is reduced, lots of wildflowers tend to pop up without any extra effort being needed.

Roadside Verges

Roadside verges are often cut short in the manner of a lawn. While this looks tidy, it does nothing for biodiversity and can also look a bit boring. The photo on the following page shows an example where the grass is not cut so short or so often, allowing various native flowers to bloom.

The All-Ireland Pollinator Plan includes short, useful guide for councils⁷ and local communities⁸, containing lots of practical information for managing public areas for biodiversity.



Figure 6: Mown path through long meadow

These pictures show examples of how areas of grass can be left uncut for part of the year in order to let wildflowers develop. These flowers are of benefit to pollinating insects such as bees and butterflies, and also are attractive and cheerful for people.

Roadside verges and areas along footpaths could be allowed to grow longer between cuts so that native flowers can develop. These in turn are useful to pollinators such as bees and butterflies.

⁷ https://pollinators.ie/wordpress/wp-content/uploads/2018/05/Councils_actions-to-help-pollinators-2018-WEB.pdf

⁸ https://pollinators.ie/wp-content/uploads/2021/08/Local-Communities_actions-to-help-pollinators-July-2021-WEB-JB.pdf



Figure 7: A roadside area (in Sligo Town) where native flowers such as red clover, white clover, daisies and selfheal have been allowed to flower by not mowing the area too short.

Figure 8: Example of selective mowing of grassy area



Enhancement 1: Leaving some areas of long meadows in green areas of housing estates and roadside verges, with reduced mowing in other areas

• Don't Mow, Let It Grow

Delaying the first grass cut of the year **until April** to allow dandelions to bloom, providing pollinators with a very important food source in spring as they emerge from hibernation.

Where:

Any green areas in the village

• Short flowering meadow

Cutting sections of grass on a 6-week rotation to allow flowers like clover, birds-foot trefoil and selfheal to bloom. Allowing some of these plants to go to seed also provides seeds for seed eating birds like finches.

Where:

Any green areas in the village

• Creating strips of long grass/ meadow patches

Allow some areas of grasses to grow long into a long flowering meadow. To do this, wait to cut do the first cut until April, then let the meadow strip/patch to grow long throughout the summer and then cut again in early September. If the grasses start to fall over under its own weight, do an earlier cut (e.g., in July and September). Remember to remove the cuttings to reduce the soil fertility over time.

Where:

Around the edges or in patches in green areas in the village (e.g., strips of grass along the entry roads into the village) and in housing estates (e.g., In Cluain Dara, Gurteen View and Church Gate). Reduced mowing could be done along boundaries with field margins so that meadow strips are created. Longer grass areas could also be left at the base of the trees.

Patches of grass could be set aside for reduced mowing in the following areas, to allow wildflowers to develop

Figure 9: Church Gate Estate



Figure 11: Grassy strip along entry road along the R293



Figure 13: Reduced mowing could be done along the edge closest to the river here, which may help prevent nutrients running off into the waterway.





Figure 12: Grassy strip along entry road along the R294.



Figure 14: This Image is a great example of an existing area of reduced mowing in Gurteen along the R293.





Enhancement 2: Plant Trees

Trees are important in towns for a number of reasons:

- They provide visual structure and interest in public spaces
- They provide shade and shelter
- When planted along streets, they not only beautify the area, but help to delineate routes and emphasise boundaries
- They provide nesting sites and roosting sites for birds and bats, and cover for birds when they need to hide from birds of prey or cats
- Some trees provide pollen and nectar for pollinating insects

Enhancement 2: Introducing suitable trees into areas along the streetscape would help create habitat stepping stones within the village

It is best to plant bare root trees between November- March when they are dormant. Below are some suggestions for pollinator friend trees and shrubs that could be introduced into Gurteen.

When picking which trees to plant where, it is important to consider the eventual size of the tree and take that into account when planting any trees. Avoid planting new trees in heavy shade or dry areas as they may struggle to establish. The below table list suggestions for small- large trees which are suitable for along roadsides according to the All-Ireland Pollinator Plan.⁹

| Table 2: Examples of trees for along the roadside | | | | |
|--|--|--|--|--|
| Small Trees | Medium Trees | Large Trees | | |
| <i>Crataegus monogyna</i> 'Stricta' (May) <i>Prunis avium</i> 'Pleana' (May) <i>Sorbus aucuparia</i> var (May – June) <i>Alnus glutinosa</i> (February) <i>Malus var</i> eg 'John Downie' 'Profusion' etc. (April- May) | Acer campestre 'Elsrijk' (May) Sorbus intermedia (May- June) Tilia cordata 'Green Spire' (June- July) Pyrus calleryana 'Chanticleer' (April- May) Sorbus aria 'Majestica' (May) Prunus sp (April-May) Rowan (May-Jun) | Corylus colurna (Feb- March) Aesculus var. (May-June) Tilia tomentosa var (Summer) Tilia platyphlios var (Summer) Acer planinoides 'Emerald Queen' (April) | | |

⁹ <u>https://pollinators.ie/wp-content/uploads/2019/10/Transport-Corridors_actions-to-help-pollinators-2019-WEB.pdf</u>

Groves of Trees

A grove is a small group of trees, usually with little natural undergrowth. A copse is a group of trees or bushes forming a thicket, often with dense vegetation underneath that can provide cover for birds and mammals. Groves and copses of trees are more useful to wildlife than individual trees and are also attractive features that have a natural appearance. They can also be useful in providing shelter and for screening off unsightly views or busy roads.

Trees of several species, especially natives, can be bought in bare-root form between November and March. These are cheap and easy to plant, and small trees such as these can establish much easier than larger trees. Some do not need to be staked, or if planted in an exposed position they can be staked with bamboo canes for the first year.

This table lists suggestions of other trees and shrubs which are valuable for wildlife, but which may be most suitable if placed away from the roadside, for instance as a grove or copse.

| Table 3: Examples of trees and shrubs for areas away from the roadside | | | | |
|--|---|---|--|--|
| Plant Type | Spring (March- May) | Summer (June- August) | | |
| Shrubs | Hazel (Feb-Apr) Blackthorn (Mar-May) Broom (Apr-Jun) Gorse (Jan-Dec) | Wild Privet (May-Jul) Elder (May-Jun) Whitebeam (May-Jun) Wild Rose (Jun-Jul) Guelder Rose (Jun-Jul) Raspberry (Jun-Aug) | | |
| Moderately tall trees (up to approx. 15m) | Hawthorn (Apr-Jun) | Crab apple (May-Jun) Holly (May- July) | | |
| Large Trees (>15m) | Grey/ Goat Willow (Mar-May) Wild Cherry (Apr-May) Silver or Downey Birch (Apr- May) | Pedunculate or Sessile Oak (May) | | |

Native Hedgerows

Native hedgerows are very important to a whole range wildlife and biodiversity, especially since so much land is now taken up by hard surfaces, roads and farms. They benefit birds, pollinating insects, bats and other small creatures, and provide a habitat for various native plants which grow naturally in such places. Hedges can also greatly improve the appearance of public areas, as well as providing shelter. In urban areas, many hedges tend to consist of non-native plants such as laurel (*Prunus laurocerasus*), whereas rural hedges often consist of hawthorn and other native plants. Hedgerows containing native plants have a much higher biodiversity value. Good plant choices for native hedges include hawthorn, holly, honeysuckle, blackthorn, rowan, spindle, Guelder rose, elder and wild roses. The National Biodiversity Data Centre has produced a useful short guide on planting and maintaining hedgerows for pollinators and other wildlife¹⁰.

Figure 15: Hawthorn in blossom and in fruit



¹⁰ https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Hedgerows-2018-WEB.pdf

Gurteen Biodiversity Plan

Figure 16: Planting a native, flowering hedgerow along this fence would enhance the biodiversity value of the area by adding connective habitat leading towards the church and add visual interest.

Figure 17: Housing estates such as Cluain Dara have various green spaces away from the open areas used for playing where a grove of trees would enhance the area.



Figure 18: The raised garden would be the idea location of 2-3 large trees if the landowner was interest in being involved.



Enhancement 3: Pollinator Friendly Plants

Enhancement 3: Planting pollinator friendly plants into public planters and public spaces, with an emphasis on extending the flowering period from spring through to winter using a diversity of plants, including perennial planting.

Planting a variety of pollinator plants is of huge benefit to biodiversity. By having plants that bloom throughout the year, there is a more even supply of flowers for pollinators.

Planting bulbs and perennial plants also minimises the amount of repeat planting required on an annual basis. Perennial plants are generally better sources of pollen and nectar than annuals.

In areas where watering is an issue, consider planting drought tolerant plants and herbs in planters, such as thyme, oregano, chives and rosemary.

| Table 4: Planting Suggestions For Public Areas | | | | |
|--|---|--|--|--|
| Plant Type | Spring (March- May) | Summer (June- August) | Autumn (Sept-Oct) | |
| Herbs | Borage Thyme Chives Sage | Fennel, Rosemary, Savoury Oregano, Marigold, Lavender Angelica | - | |
| Bulbs | Common snowdrop (<i>Galanthus nivalis</i>), Armenian grape hyacinth (<i>Muscari</i> <i>armeniacum</i>), Common star of Bethlehem (<i>Ornithogalum</i> <i>umbellatum</i>), Crocus species (Crocus, spring-flowering) | Allium species ornamental and edibles (when allowed to flower) (Allium) | Colchicum species (Autumn crocus), Crocus species (Crocus, autumn- flowering), | |

| Perennials ¹¹ | <i>Erysimum</i> 'Bredon' (Wallflower 'Bredon'), <i>Helleborus</i> species & hybrids (Hellebore, spring flowering), <i>Lamium maculatum</i> (Spotted dead nettle), <i>Pulmonaria</i> species (Lungwort), | Agastache species (Giant hyssop), Aquilegia species (Columbine), Calamintha nepeta (Lesser calamint), Campanula carpatica (Tussock bellflower), Centaurea atropurpurea (Purple knapweed), Cirsium rivulare 'Atropurpureum' (Purple plume thistle, Dahlia species (Dahlia), Echinops species (Globe thistle), Lathyrus latifolius (Broad-leaved everlasting pea) | Aster species and hybrids (Michaelmas daisy) Campanula poscharskyana (Trailing bellflower) Dahlia species & hybrids (Dahlia) Salvia species (Sage, autumn flowering) Helleborus species and hybrids, (Hellebore, winter flowering) |
|---|---|---|---|
| Night- flowering plants ^{12,13} (F: Foodplant for moth caterpillars) | Night Scented Stock Oak ^f Hazel ^f Holly ^f Aubretia, Candytuft, Phacelia | Hebe, Honeysuckle, Sweet rocket, Jasmine, Globe artichoke, Purpletop vervain (Verbena), Echinacea, Red Valerian, Honesty | Ivy ^f Stinging Nettle ^f |

 ¹¹ For more suggestions for pollinator friendly plants, please see: <u>https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Planting-Code-2018-WEB.pdf</u>
¹² <u>https://butterfly-conservation.org/sites/default/files/moth-foodplant.pdf</u>
¹³ <u>https://www.wildlifetrusts.org/actions/how-attract-moths-and-bats-your-garden</u>

Figure 19: Perennial planting of low growing plants like thyme and aubretia could be used by welcome signs to promote pollinators and add colour. Figure 20: Planting of herbs and lavender into the planters can benefit pollinators and people by adding some 'edible landscaping' into the village





Figure 21: Pollinator friendly planting such as
bidens and bacopa can be used in boxesFigure 22: Hardy plants like wallflowers
and sedums may be suitable for stony
areas





Figure 23: Planting the pollinator friendly bulbs Figure 24: Planting of groundcover listed above along this wall would provide a lovely addition to this green space



plants such as aubretia or using bark mulch in this area could help suppress the growth of unwanted plants



Figure 25: If the landowner is interested in participating, planting climbing flowering plants such as honeysuckle and jasmine along this fence could enhance the area for biodiversity and add visual interest.



Figure 26: The boundary of this raised garden would be a lovely spot for a line of pollinator friendly bulbs mixed with trailing plants such as aubretia, provided the landowner is interested in participating in the plan.



Enhancement 4: Allotment or fruit garden

Enhancement 4: Establishing an allotment or edible garden space within the village, using fruit trees or shrubs.

The below photos show an area of unused grassland which has potential to be used as an allotment or as a community fruit garden. The table shows suggestions for pollinator friendly fruits, herbs and vegetables which could be planted in raised beds in the area, or into the ground.

If planting fruit trees, it is worth considering planting heritage Irish varieties to help preserve this aspect of Irish history and have lovely fresh fruit at the same time!

| Table 5: Planting Suggestions For Allotment Area | | | | |
|--|--|---|--|--|
| Plant Type | Spring (March- May) | Summer (June- August) | Autumn (Sept-Oct) | |
| Fruits, Vegetables and Herbs | Apples Blueberries Cherry plum Currants Rosemary Borage | Blackberries Courgettes Field/runner beans Pumpkins, Raspberries Strawberries, Tomatoes | Letting a small portion of Brassica plants (e.g., Cabbage, Kale, Brussel sprouts) flower can help provide food for pollinators in your garden | |



Figure 27: Area that could be used for a fruit garden or allotment

Appreciating What We Have

Sometimes it is easy to overlook the ordinary or common things that we have in our neighbourhood, and yet these features are often useful and important to other species. For example, ivy is a plant that is often cut, pulled down or criticised, and yet it is particularly valuable to several of our native species of wildlife. Ivy is important to small nesting birds, such as robins, wrens, and dunnocks. A bare tree trunk, garden wall, or earth bank provides little in the way of nesting sites; however, if these surfaces are covered with a luxuriant, evergreen layer of ivy, there are many hidden nooks and recesses where birds can build a nest. Ivy also provides important cover and places of refuge for small birds, where they can hide from predatory birds, cats or other disturbances. In addition to providing shelter for birds, ivy provides a habitat for a range of native insects and is an important food for the caterpillars of some butterfly species.



Figure 28: Ivy-covered walls and tree trunks provide benefits to a range of biodiversity

Ivy flowers are great sources of nectar and pollen. They are particularly important to pollinating insects, as they are produced in autumn, when many other plants have stopped flowering. In early winter, clusters of black fruits are produced, and these are eaten by many birds, such as blackbirds and thrushes, and in some areas are also important winter food for pine martens. The idea that ivy kills trees is a myth. As a plant that is native to much of Europe, ivy has evolved in the company of those trees, such as oak, ash and birch, which are native to Ireland. It is therefore normal and natural for ivy to grow on these trees.

Waterways can support a range of biodiversity

Water can be attractive and useful to many species, such as birds and mammals that come for a drink or to bathe, or amphibians such as newts that breed in water. There are two small rivers that flows through Gurteen.

These streams are likely to be used by insects that have an aquatic larval stage, as well as providing a habitat for plants that grow in wet areas along its banks. It is important to protect these waterways from nutrient and chemical inputs, such as grass clipping, fertiliser or chemical sprays (herbicides, pesticides etc.). Leaving long areas of grass directly adjacent to the river can prevent some nutrients from washing into the river.

Signage about the importance of water for nature could be added at one of the bridges in the village to raise awareness.



Figure 29: One of the streams that flows through Gurteen

Figure 30: Walls built of natural stone provide habitats for native plants and small animals, as well as having a natural and pleasant appearance



Walls that are built of natural stone are often very attractive features in their own right, as well as providing habitats for plants and small creatures. Small attractive ferns often colonise these walls, such as maidenhair spleenwort, rusty-back fern or wall rue. An example can be seen at the small green area at the entrance to Cois Na hÁbhainn

Enhancing Existing Features

Birds

Existing habitats such as trees and hedges are important nesting spots for birds, particularly native, flowering hedgerows that provide shelter for nests and berries/ nuts for food.

While hedges and trees take a little time to become established, nest boxes can be put up quickly. Nest boxes can also be made easily enough, and different types can be made to suit a variety of bird species. Locate your nest boxes as high as possible (2.5m from the ground) on a tall tree where possible. Place the boxes in a sheltered spot, facing north-east to offer shelter from wind, rain and direct sunlight.

Providing cover with creeping plants like ivy and honeysuckle can also promote birds, which will nest behind the cover of the plants. This can be useful in areas when trees would not be suitable.

There is no need to remove moss from trees or grassy areas. Moss doesn't cause harm and is useful to birds as a nest-building material. Mosses are also beautiful little plants when you look closely.

Figure 31: Bird boxes of different designs can be built to suit different bird species





- Nesting boxes or feeders for birds are useful to the birds of course, but they can also provide a lovely place to watch a variety of birds and to learn more about them. This can be a good way to get children interested in wildlife.
- It is good to provide a variety of nest boxes, including both the traditional boxes with a round hole in the front, as well as open-fronted nest boxes. The latter are preferred by some birds, such as robins and blackbirds.
- With traditional boxes, the size of the entrance hole will determine which species can use the box. Boxes with very small (25 mm) entrances can be used by blue tits or coal tits, whereas boxes with larger openings can be used by a range of species, including sparrows and great tits.
- Many birds are territorial, so nest boxes shouldn't all be placed together, or very close to each other, but instead spaced out within the space available. However, house sparrows are exceptions to this, as they like to live in groups. Terrace nesting boxes are suitable for sparrows.
- Birds are more likely to use nesting boxes that are positioned among some sort of cover, such as a tree, as these are less vulnerable to predators, rather than a box on a bare wall or fence.

Figure 32: A sparrow nesting box (photo from BirdWatch Ireland); a male house sparrow at a garden feeder



BirdWatch Ireland and the Heritage Council have produced a simple and useful guide to building bird boxes¹⁴, and the BirdWatch Ireland website also shows the various types of nesting boxes that are available¹⁵.

Swifts

Swifts are red-listed birds which live almost entirely in the air, landing only to raise their young in the summer. Swifts traditionally nested in cracks and crevices in buildings and as abandoned or vacant buildings are renovated; swifts lose access to these nesting sites. Swifts are very loyal to their nest sites and will return to the same nest site, even after it has been closed up. The swift population has declined by close to 50% in the last 30 year, mostly due to the loss of nesting sites! No recent data of breeding swifts in Gurteen was found, with the last recordings of swifts in the area coming from the 'Second Atlas of Breeding Birds in Britain and Ireland: 1988-1991'.

While currently not know to be in the area, if swifts are seen in Gurteen, providing permanent nesting spots for them would be a vital act in protecting the existing swift population and ensuring it can recover into the future.

Incorporating swift boxes into buildings and protecting existing nesting sites are the best way of providing permanent nesting spots for swifts. Swift Conservation Ireland provides a variety of guidance on creating nesting habitats for swifts including external and built-in nest boxes.16 Built-in nest boxes are specially created concrete boxes that can be included in new buildings or as part of renovation works.

¹⁴ Available at: https://birdwatchireland.ie/app/uploads/2021/01/5362-BirdWatchIreland-Nest-Boxes_leaflets_v5.pdf

¹⁵ Available at: https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/garden-birds/nestboxes/

¹⁶ <u>https://www.swiftconservation.ie/nest-box-advice/</u>

Figure 33: Two swifts at nest box site – Copyright © Martin Leak. Source: Swift Conservation Ireland



Figure 34: External Swift boxes at Tralee, Co. Kerry – Copyright © Anthony Dawson. Source: Swift Conservation Ireland

Figure 35: Built-in Swift boxes at Westport Town Hall. Source: Swift Conservation Ireland





Invertebrates

Leaving areas of dead wood, leaf piles, hollow-stemmed plants, bare earth banks, dry stone walls or unmown areas provide shelter for a variety of invertebrates such as ladybirds and bees in the village.

Bats

Bats are natural controls for spiders and night-flying insects such as midges. A single Common Pipistrelle Bat eats about 3,000 midges and other small flies in a single night! *Food:*

Planting night-flowering plants will attract nocturnal pollinators which will in turn support bats. Examples of night-flowering plants are provided in the 'Pollinator Friendly Planting' section below. Hedgerows also host many insects that provide food for bats as they fly along them.

Lighting:

Avoiding lighting in areas where bats are commuting will encourage bats and allow them to move across the landscape more easily.

Commuting:

Bats need connected habitats, particularly linear hedgerows to navigate across the landscape. In towns, this could mean planting a row of hedging along an open field or including a treeline in an open green area.

Housing:

Bats can roost in cracks and crevices in trees. Protecting old trees in villages not only adds character to the area but also provides habitats for many species including birds and bats!

Erecting bat boxes in the village can also promote bat species in the area. Locate your boxes as high up as possible on trees (4m + ideally) or in the eaves of houses. Ideally, place multiple boxes in the area, in sheltered areas facing in south, south-east or south-west to provide warmth. ¹⁷

¹⁷ <u>https://www.bats.org.uk/our-work/buildings-planning-and-development/bat-boxes/putting-up-your-box</u>

Figure 36: Two types of bat boxes. One the left is a woodcrete bat box and on the right is a wooden bat box. © Copyright Kenneth Allen. Source: Geograph.ie



Ideas for gardeners

In the modern world, now that so much natural vegetation has been cleared, gardens can provide useful refuges for wildlife. Many people, including those who are elderly or retired, get a lot of enjoyment from watching the creatures that visit their gardens. All gardens can attract wildlife and help to enhance local biodiversity. The following is a list of recommendations to help achieve this. The All-Ireland Pollinator Plan also includes a guide to enhancing gardens for pollinators, with lists of good species to use.¹⁸

- Set up bird nesting boxes on trees or walls
- Set up bird feeders or a bird table in a place that is not accessible to cats.

¹⁸ https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Gardens_actions-to-help-pollinators-2018-WEB.pdf

- Plant biodiversity-friendly and pollinator-friendly flower beds and pots.
- Plant native shrubs that produce flowers and fruits, such as spindle or holly.
- If you have a lawn, transform it into a wildflower area. This will be cheaper and easier to maintain, more attractive, and much better for the local biodiversity.
- Let dandelions flower in spring before cutting the grass.
- Let moss grow. It does not harm trees and is useful to nest-building birds
- If you have space, plant native trees such as birch, or a native hedge of hawthorn, holly, Guelder rose and elder.
- Encourage your friends to see the benefits of wildlife gardening. Share good biodiversity-friendly plants by exchanging cuttings and growing new plants for free.
- Leave native ferns and ivy to grow on stone walls where possible.
- Do not use traditional slug pellets, which can result in the death of garden birds; use a non-toxic alternative product, or spread grit, sharp sand or crushed eggshells around sensitive plants to deter slugs and snails.
- Do not burn leaves or other garden debris; leave this material in a quiet corner where it may attract hedgehogs and invertebrates.
- Do not cut hedges and shrubs too tightly, and do not cut these during the bird nesting season (March-September).
- Avoid using toxic products to control pests. For greenfly and other aphids, just mix a squirt of liquid eucalyptus soap with water and spray on.
- Avoid buying plants that may be invasive refer to the Royal Horticultural Society guidance on this subject¹⁹.
- Do not use lawn products containing selective weedkillers or moss-killers.

¹⁹ https://www.rhs.org.uk/prevention-protection/invasive-non-native-plants

You can also get lots of information from books or from the leaflets and guides published as part of the All-Ireland Pollinator Plan: https://pollinators.ie/resources/. The book 'Wild Things at School', by Éanna Ní Lamhna, can be downloaded²⁰ free, and contains lots of information about wildlife, for children and adults of all ages!

These useful and practical guides are helpful for wildlife gardeners. These can be downloaded free of charge^{21 22}





²⁰ https://www.treecouncil.ie/_files/ugd/222890_542875fc7e854b6e83a0c186c0eda898.pdf

https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Gardens_actions-to-help-pollinators-2018-WEB.pdf
https://laois.ie/wp-content/uploads/Garden-Wildlife-Booklet-WEB-17MB.pdf

Appendix 1: Biodiversity Records from Gurteen²³

Species Records From Grid Square G6504

| Species name | Record count | Date of last record |
|---|-----------------|---------------------|
| Acari | 2 | 31/07/2018 |
| Lumbricidae | 2 | 22/07/2015 |
| Lumbriculidae | 2 | 22/07/2015 |
| Tubificidae | 3 | 31/07/2018 |
| Asellus aquaticus | 1 | 31/07/2018 |
| Freshwater White-clawed Crayfish (Austropotamobius pallipes) | 3 | 09/08/2006 |
| Gammarus | 3 | 31/07/2018 |
| Gammarus duebeni | 1 | 19/08/2009 |
| Ash (Fraxinus excelsior) | 2 | 19/08/2009 |
| Branched Bur-reed (Sparganium erectum) | 2 | 19/08/2009 |
| Hawthorn (Crataegus monogyna) | 2 | 19/08/2009 |
| Hazel (Corylus avellana) | 1 | 09/08/2006 |
| Japanese Knotweed (Fallopia japonica) | 1 | 27/08/2019 |
| Elmis aenea | 6 | 31/07/2018 |
| Haliplidae | 1 | 31/07/2018 |
| Hydraenidae | 1 | 04/04/2013 |
| Limnius volckmari | 6 | 31/07/2018 |
| Goeridae | 1 | 31/07/2018 |
| Hydropsyche | 3 | 22/07/2015 |
| Limnephilidae | 2 | 31/07/2018 |
| Odontocerum albicorne | 1 | 19/08/2009 |
| Rhyacophila | 4 | 31/07/2018 |
| Sericostoma | 1 | 19/08/2009 |
| Alainites muticus | 1 | 31/07/2018 |

²³ Source: National Biodiversity Data Centre

| Baetidae | 1 | 31/07/2018 |
|---|---|------------|
| Baetis | 4 | 31/07/2018 |
| Baetis rhodani | 1 | 19/08/2009 |
| Ecdyonurus | 3 | 31/07/2018 |
| Heptagenia | 1 | 31/07/2018 |
| Heptageniidae | 1 | 19/08/2009 |
| Rhithrogena | 2 | 22/07/2015 |
| Serratella ignita | 4 | 31/07/2018 |
| Leuctra | 1 | 22/07/2015 |
| Protonemura | 1 | 04/04/2013 |
| Chironomidae | 4 | 31/07/2018 |
| Chironomus | 1 | 19/08/2009 |
| Dicranota | 4 | 31/07/2018 |
| Simuliidae | 1 | 31/07/2018 |
| Ancylus fluviatilis | 1 | 31/07/2018 |
| Jenkins' Spire Snail (Potamopyrgus antipodarum) | 2 | 22/07/2015 |
| Wandering Snail (Radix balthica) | 1 | 09/08/2006 |
| Long-beaked Water Feather-moss (Rhynchostegium riparioides) | 1 | 19/08/2009 |
| Eurasian Badger (Meles meles) | 1 | 31/12/2006 |
| Red Fox (Vulpes vulpes) | 1 | 04/10/2013 |

Species Records From Grid Square G6505

| Species name | Record count | Date of last record |
|---|--------------|---------------------|
| Barn Swallow (Hirundo rustica) | 1 | 05/05/2018 |
| Common Bullfinch (Pyrrhula pyrrhula) | 1 | 30/12/2020 |
| House Martin (Delichon urbicum) | 1 | 05/05/2018 |
| Long-tailed Tit (Aegithalos caudatus) | 1 | 06/05/2018 |
| Cuckooflower (Cardamine pratensis) | 1 | 06/05/2018 |
| Japanese Knotweed (Fallopia japonica) | 1 | 26/06/2017 |
| 7-spot Ladybird (Coccinella septempunctata) | 1 | 06/05/2018 |
| Green-veined White (Pieris napi) | 1 | 06/05/2018 |
| Red Admiral (Vanessa atalanta) | 1 | 11/09/2021 |
| Bombus lucorum agg. | 1 | 06/05/2018 |
| West European Hedgehog (Erinaceus europaeus) | 1 | 15/04/2012 |

Species Records From Grid Square G6604

| Species name | Record count | Date of last record |
|--|--------------|---------------------|
| Grass Vetchling (Lathyrus nissolia) | 1 | 10/06/2019 |
| Marsh Foxtail (Alopecurus geniculatus) | 1 | 10/06/2019 |
| Rosebay Willowherb (Chamerion angustifolium) | 1 | 10/06/2019 |
| Smooth Hawk's-beard (Crepis capillaris) | 1 | 10/06/2019 |
| Smooth Lady's-mantle (Alchemilla glabra) | 1 | 10/06/2019 |
| Soft-brome (Bromus hordeaceus) | 1 | 10/06/2019 |
| Wall Speedwell (Veronica arvensis) | 1 | 10/06/2019 |

Species Records From Grid Square G6605

| Species name | Record count | Date of last record |
|---|--------------|---------------------|
| Acari | 2 | 31/07/2018 |
| Glossiphonia | 2 | 31/07/2018 |
| Glossiphonia complanata | 1 | 31/08/2006 |
| Lumbriculidae | 1 | 19/08/2009 |
| Tubificidae | 2 | 04/04/2013 |
| Minnow (Phoxinus phoxinus) | 1 | 19/08/2009 |
| Asellus | 3 | 31/07/2018 |
| Gammarus | 3 | 31/07/2018 |
| Gammarus duebeni | 1 | 19/08/2009 |
| Dendrocoelum | 1 | 31/07/2018 |
| Ash (Fraxinus excelsior) | 1 | 19/08/2009 |
| Branched Bur-reed (Sparganium erectum) | 2 | 19/08/2009 |
| Hawthorn (Crataegus monogyna) | 1 | 19/08/2009 |
| Japanese Knotweed (Fallopia japonica) | 1 | 06/05/2018 |
| Purple-loosestrife (Lythrum salicaria) | 1 | 19/08/2009 |
| Reed Canary-grass (Phalaris arundinacea) | 2 | 19/08/2009 |
| Sycamore (Acer pseudoplatanus) | 2 | 19/08/2009 |
| Yellow Iris (Iris pseudacorus) | 1 | 19/08/2009 |
| Dytiscidae | 1 | 22/07/2015 |
| Elmidae | 1 | 31/07/2018 |
| Elmis aenea | 5 | 31/07/2018 |
| Limnius volckmari | 3 | 22/07/2015 |
| Anabolia nervosa | 1 | 04/04/2013 |
| Glossosomatidae | 1 | 31/07/2018 |
| Hydropsyche | 1 | 19/08/2009 |

| Limnephilidae | 2 | 22/07/2015 |
|--|---|------------|
| Polycentropus | 1 | 22/07/2015 |
| Rhyacophila | 2 | 31/07/2018 |
| Sericostoma | 1 | 19/08/2009 |
| Baetidae | 1 | 31/07/2018 |
| Baetis | 3 | 31/07/2018 |
| Baetis rhodani | 1 | 19/08/2009 |
| Caenis | 1 | 22/07/2015 |
| Ecdyonurus | 1 | 04/04/2013 |
| Green Drake (Ephemera danica) | 1 | 22/07/2015 |
| Heptageniidae | 1 | 19/08/2009 |
| Rhithrogena | 1 | 04/04/2013 |
| Leuctra | 1 | 04/04/2013 |
| Ceratopogonidae | 1 | 22/07/2015 |
| Chironomidae | 3 | 31/07/2018 |
| Dicranota | 4 | 31/07/2018 |
| Simuliidae | 3 | 31/07/2018 |
| Jenkins' Spire Snail (Potamopyrgus antipodarum) | 1 | 19/08/2009 |
| Pisidium | 1 | 22/07/2015 |
| Planorbis | 1 | 31/07/2018 |
| Wandering Snail (Radix balthica) | 1 | 22/07/2015 |
| West European Hedgehog (Erinaceus europaeus) | 1 | 15/06/2011 |