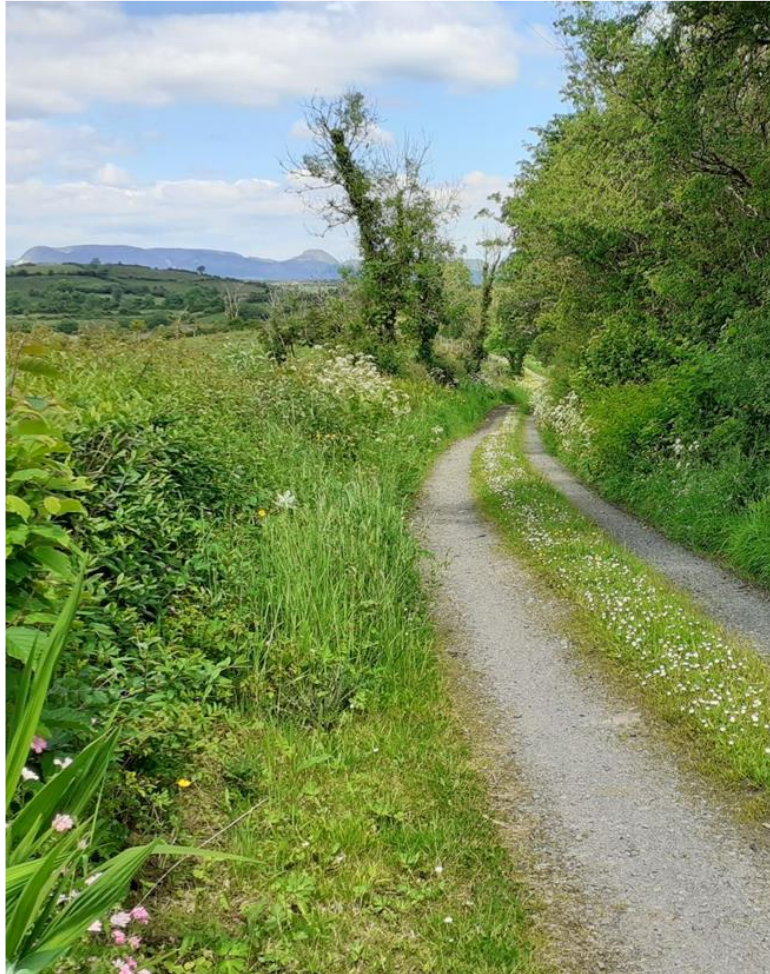


Local Biodiversity Action Plan Ballintogher County Sligo



Summer 2022

Collated in consultation with Ballintogher TidyTowns volunteers,
by Woodrow Sustainable Solutions Ltd.

Acknowledgements

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The workshops, and training materials and recordings of sessions from this whole programme are available to the public at <http://woodrow.ie/resources>

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Introduction

Ballintogher is a village in east County Sligo, with a population of around 330 people (2016). The village is located in a scenic area to the south of Sliabh Daeane and Lough Gill, and there are many archaeological features and historic sites in the surrounding region. Ballintogher has many old and new buildings, often with mature gardens which in themselves can be habitats for rare and threatened species. Old outbuildings at the backs of houses and farmyards can provide great habitat for important species such as swallows, house martins, barn owls and bats.

There is a good network of hedgerows, usually composed of the native Irish species such as hawthorn, blackthorn and ash. The nature of the surrounding landscape is clearly visible in aerial imagery of the village (**Figure 1**).

The village contains churches, a primary school, a community centre, a children's playground, a small community garden with composting facilities, an enterprise centre and a cluster of small, colourful commercial units. There is also a village shop and a few public houses.

The area also has a rich musical heritage, and has been the home of several highly-regarded and influential traditional musicians, such as accordion-player Alfie-Joe Dinneen and flute-player John Egan, who is commemorated by a memorial stone in the village.

Ballintogher is surrounded mainly by farmland, with some areas of bog and forestry also present in the area. Green areas within the town include Kingsfort Manor and Dún na Rí housing estates, as well as the nature trail, the football pitch, and the grounds of St. Theres's Church.

Ballintogher contains some attractive established stone walls which are rich in biodiversity. They support a wide range of mosses, lichens, ferns, grasses and flowering plants, and also provide food and shelter for invertebrates and small birds. The village has some tall, mature trees in the centre which contain rookeries in spring and early summer and are likely to support roosting bats.

Ballintogher Biodiversity Action Plan

The village has residents of all ages, ranging from children to elderly people. The green areas are important, therefore, in a number of ways: for recreational activities, for play by children, for educational purposes, to provide relaxing and peaceful spaces and a pleasant aesthetic, and of course as a home to the many forms of biodiversity that live there.



Mature trees along a street in Ballintogher



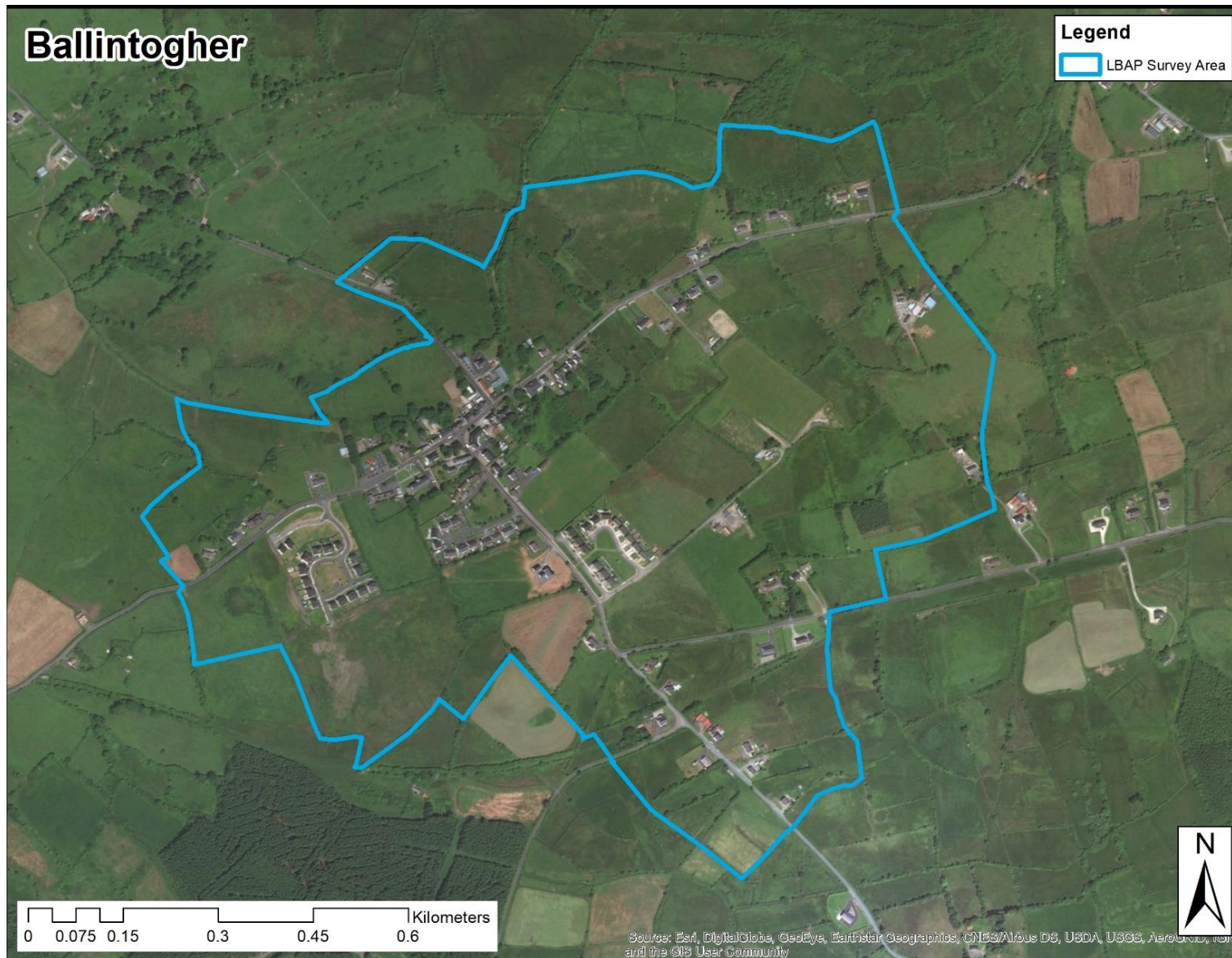
Ferns and moss growing on a stone wall in the village



The memorial to flute-player John Egan, beside the village playground

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Figure 1: Aerial map of Ballintogher and the surrounding area



What is biodiversity?

Biodiversity means the diversity of life in the world around us. It includes all sorts of life, from the tallest trees to the tiniest microorganisms, birds, fish, mosses, reptiles... the list is endless and there are still species that have not yet been discovered.

Biodiversity also includes genetic diversity within species, such as the things that make each creature unique, and the differences in the genetic makeup of animals and plants that come from different places.

Ecology is the study of the way that living things interact both with each other and the places in which they live (known as their **habitats**).

Examples of biodiversity: male house sparrow; large white butterfly on apple blossom; a badger; a hoverfly on a marsh-marigold flower



All of the species in the world, no matter how small, have a specific part to play in the network of life that exists on Earth. Biodiversity has a key role in the formation of soils, availability of clean water, flood prevention, pollination of crops, natural pest control and many other vital functions. Biodiversity provides us directly with food, oxygen and medicines, and its economic value is infinite. Genetic diversity means that life on Earth is able to adapt to changes in climate, natural disasters and outbreaks of disease. Without the resources that biodiversity provides and maintains, we would not exist.

The Benefits of Biodiversity

The network of biodiversity and its interaction with the environment is known as an 'ecosystem'. Ecosystems provide a variety of vital functions, from the large-scale regulation of climate, down to local issues such as flood prevention, breakdown of wastes (including toxic waste), recycling of nutrients and filtering of water. These functions are known as 'ecosystem services' and their value to us cannot be underestimated.

Roles that our habitats and species play in helping our daily lives include:

- Regulating climate - our bogs and woodlands 'lock up' carbon, therefore reducing the amount of CO₂ (a greenhouse gas) in the atmosphere. When these habitats are destroyed, CO₂ increases, contributing to climate change
- Maintenance of soil fertility and recycling of nutrients
- Purification of air and water
- Pollination of plants, including many crops

In Ireland, losses in biodiversity are often the result of small developments, small-scale loss of habitats, and gradual shifts in land management and farming practices. Although each loss may be small, incrementally over time quite large losses have resulted. In the same way that many small losses have led to big losses in biodiversity overall, by making small changes to enhance biodiversity in local areas, it is possible to make a big difference to Ireland's overall biodiversity. This is why a structured approach to helping biodiversity in our local area can really make a difference.

In thinking about ‘ecosystem services’, it is important not to lose perspective. Other creatures are of enormous benefit to us, but they do not exist just to provide ‘services’ to us. Rather, they exist as creatures in their own right, with lives of their own, and they should be respected as such. Humans have taken up so much of the earth that it can now be difficult for other species to find the resources they need in order to live. In planning and managing our towns and villages, let us do all we can to help the creatures with whom we share the world.

Ireland’s National Biodiversity Action Plan

The *National Biodiversity Action Plan 2017-2021*, published by the Department of Culture, Heritage and the Gaeltacht, gives a national framework to local biodiversity town plans. The plan sets out Ireland’s Vision for Biodiversity as follows:

“That biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.”

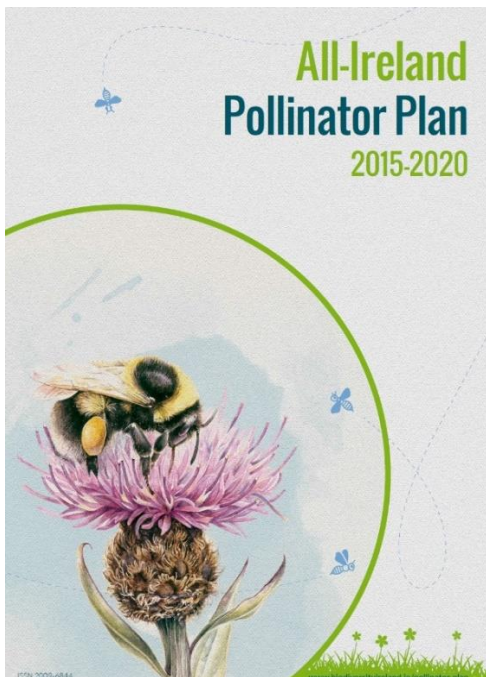


Seven objectives are to:

1. Mainstream biodiversity into decision-making across all sectors.
2. Strengthen the knowledge base for conservation, management and sustainable use of biodiversity.
3. Increase awareness and appreciation of biodiversity and ecosystem services.
4. Conserve and restore biodiversity and ecosystem services in the wider countryside.
5. Conserve and restore biodiversity and ecosystem services in the marine environment.
6. Expand and improve the management of protected areas and species.
7. Strengthen international governance for biodiversity and ecosystem services.

The All-Ireland Pollinator Plan

The first All-Ireland Pollinator Plan was published by the National Biodiversity Data Centre as an action plan for conservation organisations, national and local public bodies, farmers, gardeners, schools and colleges, businesses, and local community groups. Further details of the plan, along with several useful downloadable guides, are available at www.pollinators.ie. The plan emphasises the importance of pollinators, and aims to bring about a landscape where pollinators can thrive and flourish into the future. A subsequent All-Ireland Pollinator Plan 2021-2025 was launched in 2021.



Several useful guides have been produced as part of the All-Ireland Pollinator Plan and are available at <https://pollinators.ie/resources/>



Aims of the Ballintogher Local Biodiversity Action Plan

- To enhance the village for wildlife and biodiversity
- To provide recreational and relaxing spaces
- To emphasise the interesting and educational aspects of biodiversity in the town
- To improve existing green spaces in the town both aesthetically and for nature
- To suggest further projects or biodiversity surveys that could be carried out in the town

Habitats in Ballintogher

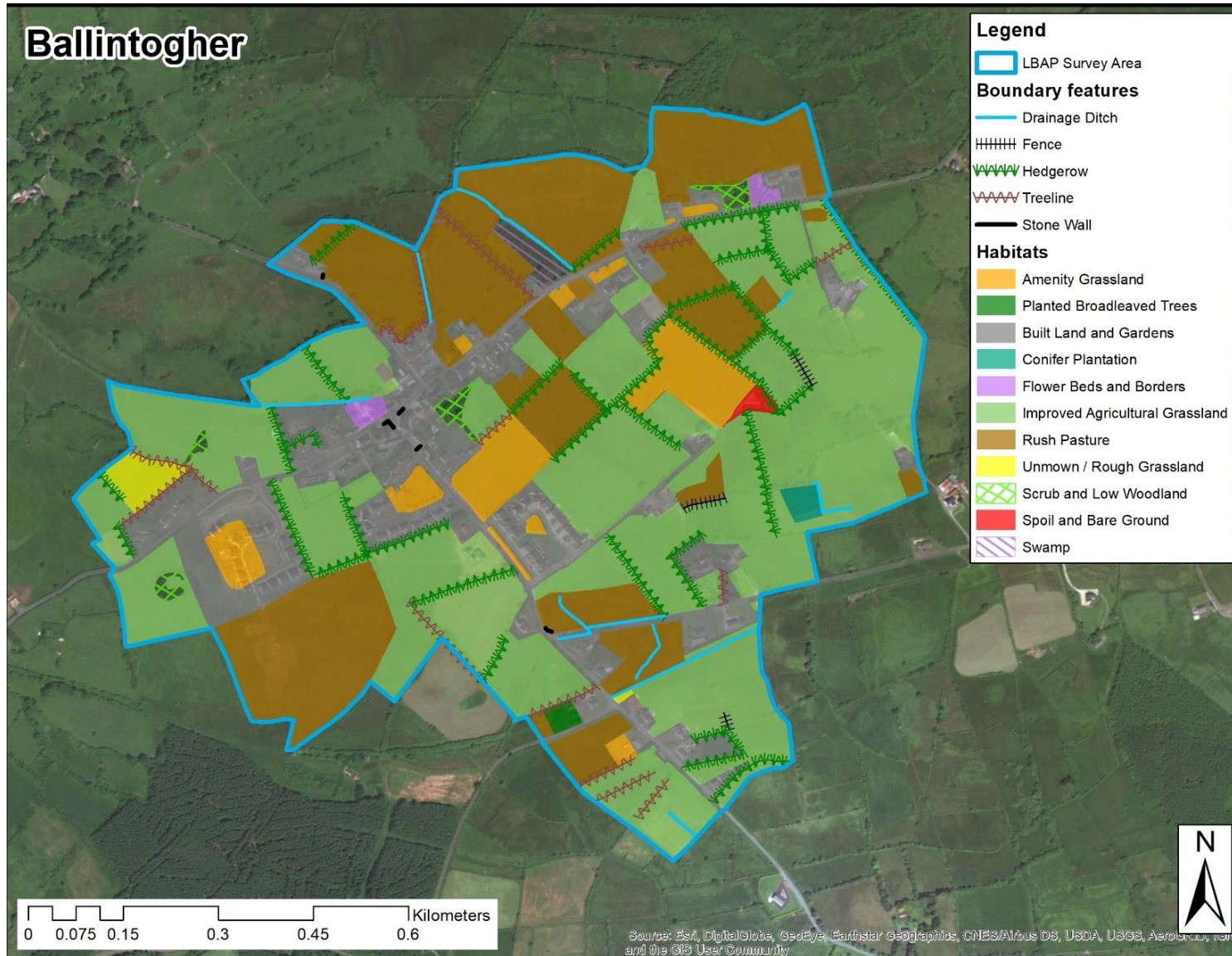
The habitats previously recorded in the Ballintogher area are listed in **Table 1** and are shown in **Figure 2**. Some of these have a high value for biodiversity, as shown in **Table 1**.

Table 1: Habitats recorded in the Ballintogher area

Code and Habitat Description (Fossitt, 2000)	Corresponding Habitat in Figure 3	Biodiversity Value
BL1 Stone walls & other stonework	Stone wall	High
BL3 Buildings & artificial surfaces	Built land and gardens	Medium
BC4 Flower beds and borders	Flower beds and borders	Medium
ED2 Spoil and bare ground	Spoil and bare ground	Low to medium
GA1 Improved agricultural grassland	Improved agricultural grassland	Low
GA2 Amenity grassland	Amenity grassland	Low to Medium
GS2 Dry meadows and grassy verges	Unmown / rough grassland	High
GS4 Wet grassland	Rush pasture	High
FS2 Tall herb and swamp	Swamp	High
WL1 Hedgerows	Hedgerows	High
WL2 Treelines	Treelines	High
WS1 Scrub	Scrub and low woodland	High
WD1 (Mixed) broadleaved woodland	Planted broadleaved trees	High
WD4 Conifer plantation	Conifer plantation	Medium
FW4 Drainage ditch	Drainage ditch	Medium

Ballintogher Biodiversity Action Plan

Figure 2: Habitats recorded in Ballintogher



Habitats providing biodiversity in and around Ballintogher

Some of the most notable biodiversity habitats in and around the village include hedgerows, grasslands and gardens, described in more detail below. The locations of each of these habitats is illustrated in the Habitat Map for Ballintogher (**Figure 2**).

Hedgerows

The most notable biodiversity feature of the area surrounding the village is the extensive network of high-quality native hedgerows and treelines that separate the surrounding fields. Many of the fields are quite small, and only in a few areas have boundaries been removed to create bigger fields.

The hedgerows are principally composed of hawthorn *Crataegus monogyna*, a valuable food source for a wide variety of mammals, birds and invertebrate species. Its pollen and nectar-rich flowers, borne in May, provide food for bees and other pollinating species, while its berries, ripening in early autumn and persisting for much of the winter, are favoured by a range of birds such as song thrush and redwing. Hawthorn is also the food plant of many moth species, for example the emperor moth and the lesser yellow underwing.

A mixed hedgerow along the nature trail in Ballintogher



Hedgerows also provide shelter for a wide range of small mammals, nesting birds and invertebrates, and provide an invaluable network of 'wildlife corridors' along which bats can feed, and wildlife can travel from one feeding area to another without having to cross areas of open land.

Other shrub and tree species commonly encountered in the hedgerows around Ballintogher include blackthorn *Prunus spinosa*, ivy *Hedera helix* ssp. *hibernica*, hazel *Corylus avellana*, willow *Salix* spp., bramble *Rubus fruticosus* agg. and ash *Fraxinus excelsior*.

Grasslands

The fields around Ballintogher are mostly managed for agriculture, but this is generally low-intensity cattle grazing, with some fields of horses and sheep. Such areas require little chemical input, although slurry tends to be spread seasonally, to increase nutrient levels and encourage growth of grasses. Rushes are generally controlled by topping in spring or early summer. Most of the fields in the Ballintogher area have undergone some degree of agricultural improvement, and are therefore classified as **improved grassland**, but many of these still contain varying quantities of rushes *Juncus* spp. The wettest fields, where the rushes are accompanied by herbs such as creeping buttercup *Ranunculus repens*, cuckooflower *Cardamine pratensis*, marsh thistle *Cirsium palustre*, meadowsweet *Filipendula ulmaria*, and sometimes spotted-orchids *Dactylorhiza* spp., are classified as **wet grassland**.

A flowery meadow on the outskirts of Ballintogher



One area of wet grassland that lies between the R290 Dromahair road and the nature trail also contains some greater reedmace or 'bulrush' *Typha latifolia* and can be classified as '**tall herb swamp**'.

Gardens

The residential part of the village is mainly linear, following the four principal roads leading from the village centre. There are also three housing estates, which are relatively small, incorporating large expanses of grass and some planted trees and shrubs. Most of the houses have gardens, which can also contribute to the biodiversity of the village: pollen and nectar is provided by flowers, vegetables and fruit trees, while berry-bearing shrubs and bird feeders provide supplementary food for birds. Mature and semi-mature trees provide habitat for birds, bats and invertebrates. There is an established rookery in mature trees at the very centre of the village, around Kingsfort House.

Trees are important for biodiversity, such as these well-established ones near the playground in Ballintogher



Invasive Species

Invasive species are generally defined as those that do not naturally occur in Ireland and which, as a result of their vigour, persistence and competitive advantage, have become established in Ireland to the detriment of our native species. Well known examples of invasive species in Ireland include the grey squirrel, which was introduced from North America and outcompetes our native red squirrel for food and territory. The New Zealand flatworm, which was accidentally brought into the country on imported plants, eats the native earthworms, to the detriment of our gardens and soil.

Irish legislation¹ makes it illegal to ‘introduce, breed, release, or disperse’ certain invasive species. Other, less noxious, species are not directly covered by this legislation, but it is still recommended that they are controlled where possible and are not allowed to spread.

Several invasive plant species were noted in Ballintogher. Of most concern is **Japanese knotweed** *Fallopia japonica*, the propagation and/or dispersal of which is illegal under Irish law. This species is extremely persistent, propagates vegetatively from minute fragments, and spreads very rapidly. It is notoriously difficult to eradicate, and fragments of rhizome may remain viable for over twenty years.

Japanese knotweed in Ballintogher



¹ Statutory Instrument No. 477/2011 - European Communities (Birds and Natural Habitats) Regulations 2011, Articles 49 and 50.

Control is only achieved using systemic herbicide and should be undertaken only by trained operators with the permission of the landowner where relevant. Control must be repeated in successive years and great care must be taken, especially near watercourses; herbicide can be injected into the stems rather than sprayed. Care should be taken not to cut or trim this plant as it propagates readily from fragments.

Snowberry *Symphoricarpos albus* has often been planted in hedgerows in the past, and is relatively easy to eradicate. It was originally introduced into Ireland to provide food and cover for pheasants on large estates. Snowberry is not listed under Irish invasive species legislation but was Amber-listed following an invasive Species Risk Assessment undertaken by Invasive Species Ireland². It is advisable that it is not propagated or encouraged to spread, as it forms dense thickets that exclude our more desirable native species.

Montbretia *Crocsmia X crocosmiiflora*, like snowberry, is listed on Invasive Species Ireland's Amber List of invasive species. It is an attractive hybrid plant, and is commonly grown in gardens. It readily reproduces by means of corms and rhizomes (and occasionally by seed), spreading rapidly to form dense clumps that can completely dominate an area, eventually excluding existing native plants.

Montbretia (left) and Rhododendron



²<https://invasivespeciesireland.com/wp-content/upload-post-to-pdf-enhanced-cache/1/amber-list-recorded-species.pdf>

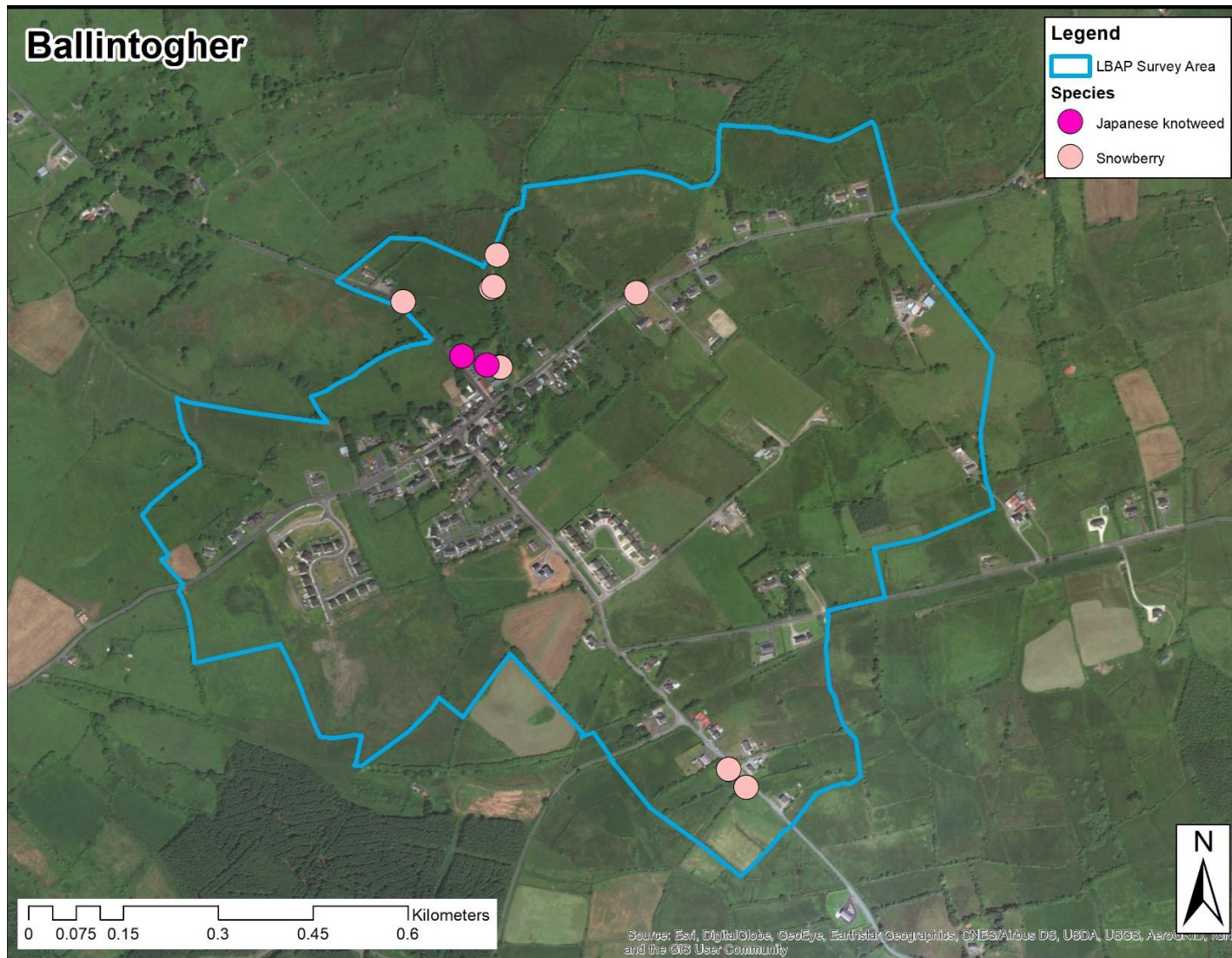
Another invasive plant species that is common amongst garden plants and is likely to occur around Ballintogher, is the scheduled invasive alien species **Rhododendron** *Rhododendron ponticum*. This species often occurs within woodlands and old estates. Rhododendron, like Japanese Knotweed, is listed under Irish invasive species legislation and thus it is illegal to plant it or cause it to spread. This species grows rapidly in the Irish climate, can tolerate shading and waterlogging, produces vast quantities of wind-dispersed seed, and effectively and rapidly regenerates from cut stems. Its foliage is toxic to mammals and unpalatable to most invertebrates. Its dense evergreen growth excludes light from the ground layer and excludes native species; dense rhododendron forms a monoculture where nothing else is able to thrive.

Cherry laurel *Prunus laurocerasus* is an invasive species which is commonly planted in gardens. It grows in a similar fashion to rhododendron, forming dense evergreen thickets that are also toxic to livestock (its leaves contain cyanolipids that are capable of releasing cyanide). It is widely planted as a hedging species and is readily available in garden centres but is detrimental to biodiversity as it excludes native plant species and provides poor habitat for birds and invertebrates. It is listed as a High Impact Invasive Species, scoring highly in the Invasive Species Risk Assessment undertaken by Invasive Species Ireland.

The locations of the Invasive Alien Species (plants) that were noted in Ballintogher during the 2018 surveys are provided in **Figure 3**.

Ballintogher Biodiversity Action Plan

Figure 3: Locations of invasive plant species recorded in Ballintogher



Notable Biodiversity Features in the Wider Area

As Ballintogher is surrounded by low-intensity agricultural farmland, with areas of species-rich woodland, peatland and wetland all located within a few kilometres of the village, the wider area has the potential to support a very rich biodiversity.

There are a number of areas of special wildlife significance within a short distance of Ballintogher, which greatly add to the biodiversity of the general area. The locations of protected areas in relation to Ballintogher are illustrated in **Figure 4**.

Lough Gill Special Area of Conservation

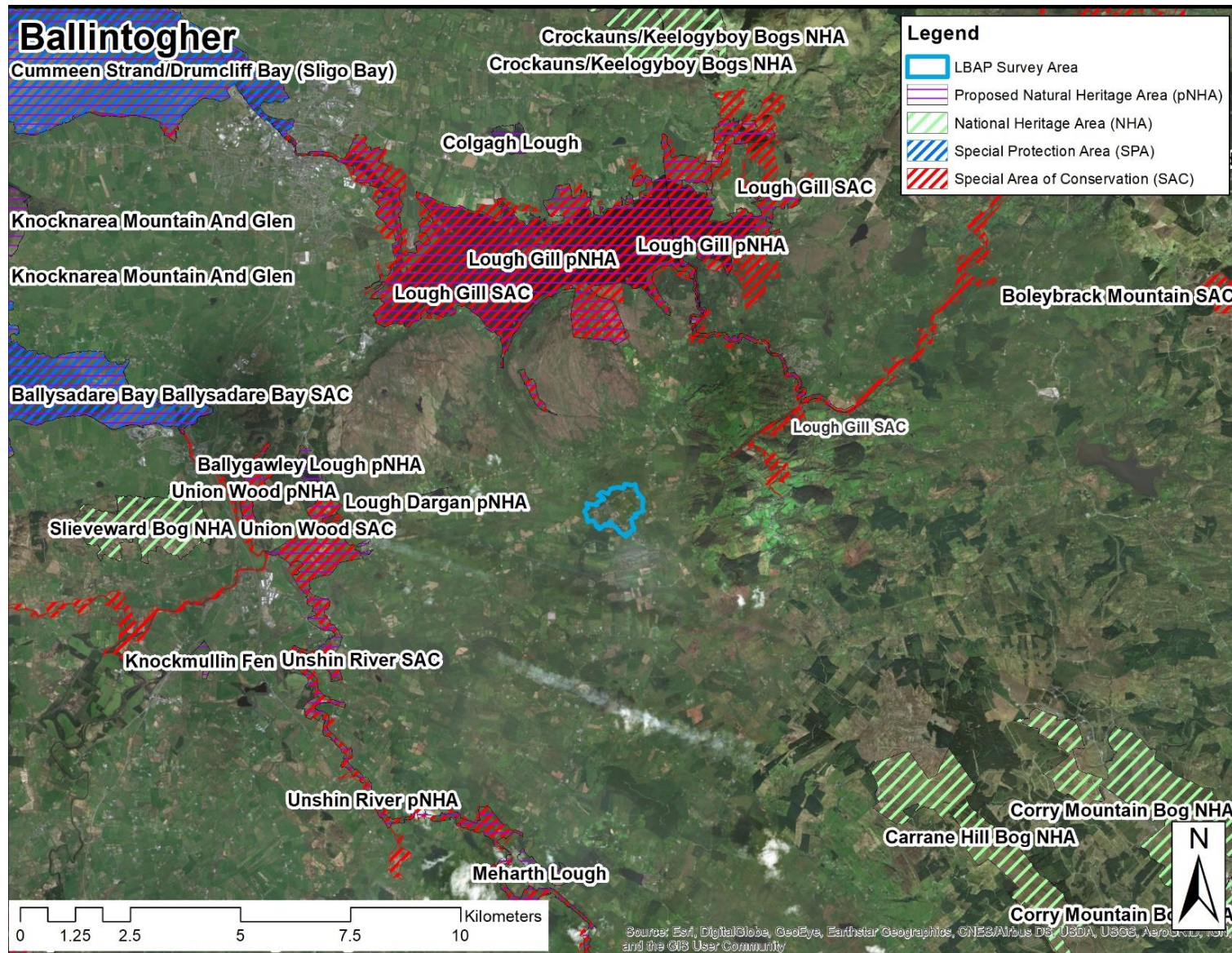
Lough Gill SAC, a European designated site, lies approximately 2 km from the village at its closest point and encompasses lake, river, wetland and woodland habitats as well as supporting the protected aquatic species otter, salmon, white-clawed crayfish, and lamprey. The lake itself lies approximately 4 km north of the village. The Bonet River, which flows into Lough Gill, forms part of the SAC as it passes approximately 3.5 km north-northwest of Ballintogher. The Bonet River supports the protected aquatic species listed above, as well as bird species such as dipper and grey wagtail. The drainage ditches and surface streams north of Ballintogher generally drain towards Lough Gill SAC.

Grey wagtail and European otter, both found within Lough Gill SAC



Ballintogher Biodiversity Action Plan

Figure 4: Protected Sites in the broader area surrounding Ballintogher



Dooney Rock and Slish Wood

These two well-known areas of species-rich mature woodland are associated with the Lough Gill SAC and lie less than 5 km from Ballintogher. There are also further areas of woodland, both coniferous and broadleaved, associated with nearby Killery Mountain, which forms the easternmost part of the Ox Mountains.

Lough Dargan proposed Natural Heritage Area (pNHA)

Lough Dargan is a small lake located approximately 3k m west of Ballintogher village. This lake is a source of drinking water for the local area and supports a good diversity of aquatic plants and has some woodland on the eastern margin and around the ruins of the nearby castle. The lake is also used by mallard and tufted duck in the winter, and by a pair of mute swans throughout the year.

Ballygawley Lough pNHA

Ballygawley Lough lies approximately 6 km west of Ballintogher. It is fringed with reed swamp, wet woodland and cutaway bog, and supports a considerable number of waterfowl during the winter months, as well as an interesting dragonfly fauna. Ballygawley Lough lies close to both the Union Wood SAC and the Unshin River SAC.

Union Wood

Union Wood lies adjacent to Ballygawley Lough, and some of this extensive woodland area is designated as a SAC under EU legislation because of its old oak woodland. The designated part of Union Wood lies approximately 7 km from Ballintogher. Union Wood supports a wide range of flora and fauna including pine marten, red squirrel and badger, as well as a large herd of fallow deer. The area is also known for two rare species of fly (*Chrysogaster virescens* and *Xylophagus ater*) and the Dingy Skipper butterfly.

Dingy skipper butterfly and pine marten – features of Union Wood SAC



Unshin River SAC

The Unshin River flows from Lough Arrow, south of Ballintogher, northwards to Ballysadare Bay, and supports a valuable flora and fauna. This includes otter and salmon, which are dependent upon its excellent water quality. The Unshin River SAC includes the river itself and also adjacent areas of wet woodland and grassland that lie along its banks. The Unshin River, along with its tributaries, is the most important salmon-producing river in Co. Sligo, and also supports a good population of trout. Whooper swan and kingfisher are two European protected bird species that are closely associated with this river. The Unshin River is of particular relevance to Ballintogher, because the network of drainage ditches in the farmland to the west of the village ultimately drain into the Unshin catchment.

Whooper swan and kingfisher- EU Annex I Bird species that are associated with the Unshin River



Species Recorded in Ballintogher

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. Ballintogher is partly within four 2-km squares; these are numbered G72U, G72T, G72P and G72N. Records were obtained from the National Biodiversity Data Centre (NBDC) database for these four squares.

A data request for biological records from the wider area around Ballintogher area was submitted to National Parks and Wildlife Service (NPWS). Biological records were provided for the region that lies within 5 km of the Ballintogher survey area. This includes records from 10 km grid squares G72, G73, G82 and G83.

All species records from these sources are given in **Appendix 1**.

Biodiversity Enhancement Already Achieved

The Ballintogher TidyTowns group is very active and, in addition to its ongoing flower planting, painting and tidying initiatives, it has undertaken a number of actions that have enhanced and raised awareness of biodiversity in the area:

- **Planting hedges** – hawthorn, beech and cotoneaster hedges have been planted at several locations in the village. Cotoneaster was selected specifically because it provides abundant pollen and nectar for pollinators, and berries for bird in the autumn. It was propagated from cuttings from existing hedging.
- **Establishing a signposted nature trail** along the route of an old farm track, with large colourful, attractive signs providing information on the hedgerows, animals and birds present along the trail.
- **Planting oak, ash, rowan, alder, birch and fruit trees.** Over 500 native trees and shrubs have been planted in Ballintogher village in the last 10-15 years.

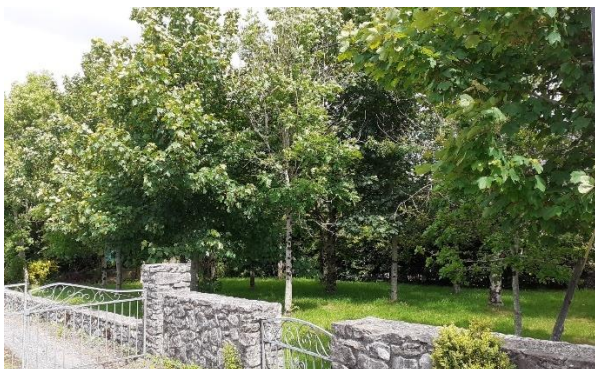
- **Bird and bat boxes** have been erected at a number of locations, for example along the nature trail and in the community garden.
- **Planting nasturtiums and marigolds** along all approach roads to the village, which are propagated by the TidyTowns group using locally gathered seed and home-made compost. These species have a long flowering season, are attractive to bees and are a good source of both pollen and nectar. This is an ongoing project which is undertaken annually.
- **Setting up composting areas** for grass cuttings and leaves has been done at two locations in the village and the compost is used annually for the TidyTowns planting programme.

The following photographs highlight some of the great work that has been done in Ballintogher.

The community garden and composting area in the centre of Ballintogher



The trees in the community garden look lovely in summer and provide habitats for a range of wildlife



Respecting and encouraging native species is an important way to improve the diversity of the village. Plants such as birch and yellow Iris look very attractive as well as being good for biodiversity



A meadow of wildflowers in Kingsfort Manor. A mowing regime that allows wildflowers to flower in summer is great for pollinating insects, and also reduces maintenance costs and labour



Hedgerows and shrubberies can provide important cover and nesting areas for birds, even when non-native shrubs are used, as in this shrub border



Non-native shrubs such as Berberis can provide a useful supply of food for birds such as thrushes and blackbirds



Public planting areas allow for growing of plants which can be useful to pollinators and other invertebrates



Ballintogher Biodiversity Action Plan

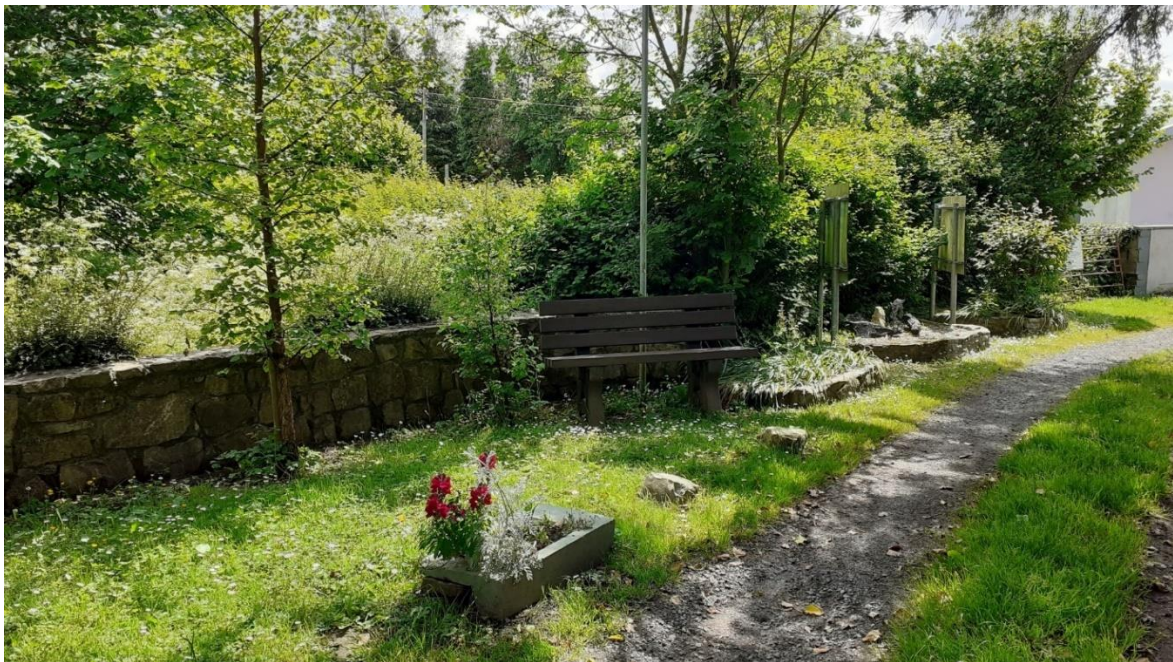
A lot of care and attention is given to the appearance of the streets in Ballintogher, with well-maintained planters and window boxes



Educational signs celebrate the local biodiversity along the nature trail



The nature trail is a very attractive part of the village, and a nice recreational area as well as being good for nature and biodiversity



Areas for invertebrates and birds along the Ballintogher nature trail

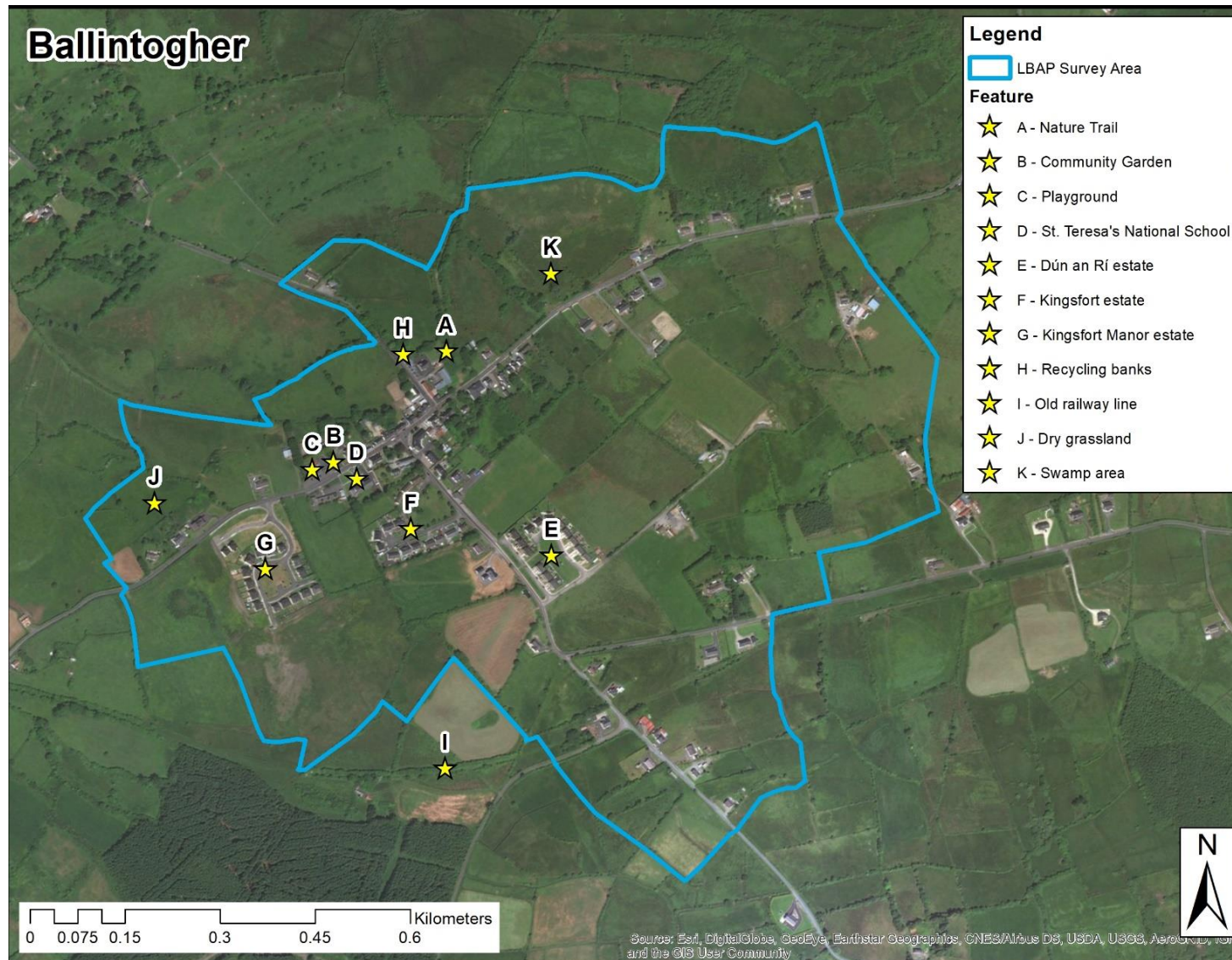


Ballintogher has many planters along the streets and in roadside areas, giving a pleasant and cared-for appearance in the village. Some of the plants in these have been propagated locally and chosen to enhance the area's biodiversity, and the containers themselves are well maintained



Ballintogher Biodiversity Action Plan

Figure 5: Aerial view of Ballintogher showing locations of biodiversity interest or potential



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 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.

An ivy-covered tree behind the church in Ballintogher

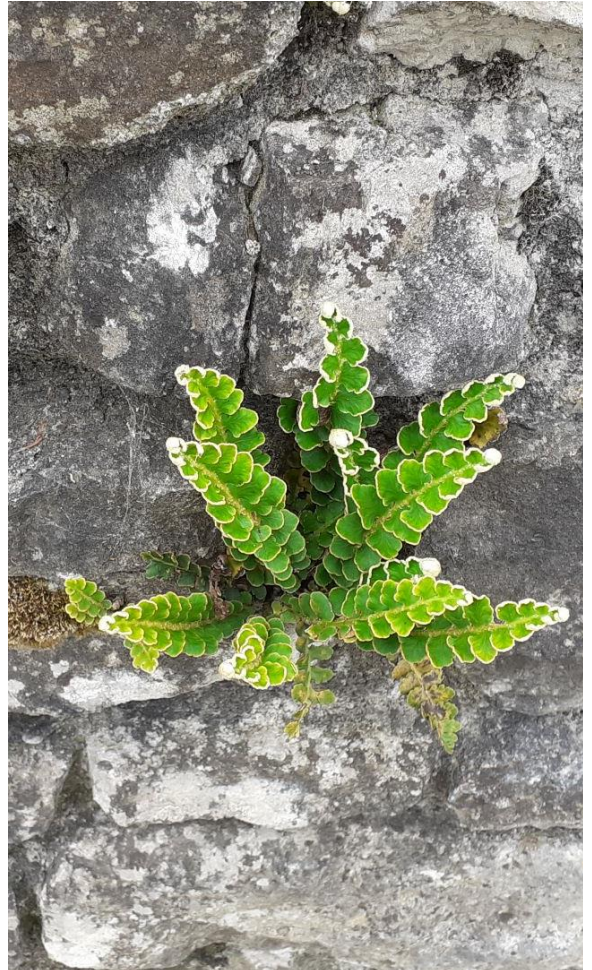


Ivy flowers are great sources of nectar and pollen. They are particularly important to pollinating insects, as they are produced in autumn, when many other plants have stopped flowering. In early winter, clusters of black fruits are produced, and these are eaten by many birds, such as blackbirds and thrushes, and in some areas are also important winter food for pine martens.

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. Examples can be seen along some of the streets in Ballintogher, and at the marian

shrine in the village. Maidenhair spleenwort grows here as well as ivy-leaf toadflax, a plant which is non-native, but nonetheless an attractive and fairly harmless little plant.

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



A stone wall at the old schoolhouse in Ballintogher, covered in ferns and wildflowers



The old schoolhouse on the outskirts of Ballintogher is a very nice biodiversity site, with many wildflowers growing in the unused areas and on the stone walls nearby. The building itself has potential for bat roosts, as there are several places where bats could get into the attic. Part of the building has a luxuriant covering of ivy, providing cover and food for birds, and a habitat for many invertebrates.

A fine variety of wildflowers at the old schoolhouse in Ballintogher



Measures to Enhance Biodiversity

The best way to encourage wildlife and biodiversity is to provide suitable habitats for native species. In towns and farmed areas, the natural habitats or vegetation will often have been removed or altered. Beginning to restore pieces of these natural habitats, 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.

Native Hedgerows

Native hedgerows are very important to a whole range of 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 wildlife³.

Hawthorn in blossom and in fruit



A native hedgerow with hawthorn in blossom



³ <https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Hedgerows-2018-WEB.pdf>

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The following pictures show some places in Ballintogher that could have native hedges added.

The large concrete wall along the sports pitch at St. Michael's GAA Club could have a mixed native hedge planted along its length



Dun Na Rí housing estate has several tall concrete walls. Native mixed hedges could be planted all along these, which would improve their appearance, provide habitats for birds and insects, and also form a network of biodiversity corridors



Trees

Trees are important in towns and villages 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 cover for birds when they need to hide from birds of prey or cats
- Some trees provide pollen and nectar for pollinating insects

The following trees are good choices:

- Birch (*Betula pendula*)
- Fastigate oak (*Quercus robur* 'Fastigiata')
- Field maple (*Acer campestre*)
- Hornbeam (*Carpinus betulus*)
- Upright hornbeam (*Carpinus betulus* 'Fastigiata')
- Rowan (*Sorbus aucuparia*)
- Wild cherry (*Prunus avium*)

Ballintogher is fortunate to have some fine mature trees in the village



This street at Kingsfort, Balintogher, could have a few street trees added. The altered photo on the right gives a suggestion of how this may appear



Dún na Rí has a nice line of trees in this grassy area. Some of the ash trees are suffering from ash dieback disease and may need to be replaced by other species such as birch or rowan



An old tree stump like this can still provide a good habitat for biodiversity and will be used by a range of insects and other invertebrates

Dead trees can still offer habitats to native species, especially invertebrates. In such cases, the dead timber could be cut into logs and stacked in a quiet corner, and the tree replaced



Groves and Copses 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.

The following locations in Ballintogher are suggested as nice locations for groves or copses of trees.

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This housing area at Kingsfort already had several nice trees, and could be enhanced further by one or two copses of trees, birch for example



Dún na Rí housing estate has a lot of open area which is currently occupied by short-mown grass. This area could be greatly enhanced, both visually and for wildlife, by the addition of several groves of trees.



This large area at the entrance to Kingfort Manor would be a suitable site for large copses or bands of trees. These could provide shelter and privacy from the road, as well as being good aesthetically and for biodiversity.



Bird Nest Boxes

Adding hedgerows and trees, as discussed in the preceding pages, are very good measures to encourage nesting and breeding birds. Another thing to consider is putting up nest boxes. 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.

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. This has already been done very nicely at the nature trail in Ballintogher.
- 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.

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 boxes⁴, and the BirdWatch Ireland website also shows the various types of nesting boxes that are available⁵.

Roadside Verges

Verges of the approaching roads to towns and villages 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 a great alternative to this, a roadside area along the Ballintogher nature trail, where native flowers are allowed to bloom.

There are also areas in the village where weedkiller has been used on the roadsides. While glyphosate has often been used in such situations in the past, it should be noted that, in addition to damaging the local biodiversity, glyphosate is considered a likely

⁴ Available at: https://birdwatchireland.ie/app/uploads/2021/01/5362-BirdWatchIreland-Nest-Boxes_leaflets_v5.pdf

⁵ Available at: <https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/garden-birds/nestboxes/>

carcinogen by the International Agency for Research on Cancer (IARC)⁶. Sprayed areas along roads also look unattractive.

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

A roadside area along the Ballintogher nature trail, with several species of wildflower



Unnecessary use of weedkillers is a threat to biodiversity and human health, and makes the area look unattractive



⁶ <https://www.iarc.who.int/featured-news/media-centre-iarc-news-glyphosate/>

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

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. This has already been done in Kingsfort Manor in Ballintogher. Other places where a similar approach could be considered are the grounds of St. Theresa's Church and the green area at Kingsfort, as shown in the following pictures. One option is to allow smaller patches of meadow to grow within these larger areas, mowing around them or through them to form paths. The grass could be trimmed in May, and again in late summer.

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



An example of how areas of grass can be left uncut for part of the year in order to let wildflowers develop, while mown paths still give access to walkers. Meadow flowers are of benefit to pollinating insects such as bees and butterflies, and also are attractive and cheerful for people.



Alpine Bed

There is an area near the entrance to Kingsfort Manor where weed fabric and pebbles have been put down, as shown in the following photograph. This could be considered as a site for an alpine bed. Alpines are hardy, low-growing perennial plants, and can give a great show of colour. Because they are perennials, they flower each year without having to be replaced, reducing maintenance effort and costs. Suitable plants for an alpine bed include creeping bellflower (*Campanula muralis*), thyme (*Thymus vulgaris*), sea thrift (*Armeria maritima*), Corsican mint (*Mentha requienii*), Aubrieta and saxifrages. These are all perennials, would look great in spring and summer, and would also enhance the area for biodiversity.

This roadside area near the entrance to Kingsfort Manor would be suitable for an alpine bed



An example of an alpine bed planted with a variety of low-growing perennial plants⁹



⁹ Photo by [Kay Atherton](#) (CC BY-SA 2.0)

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.¹⁰

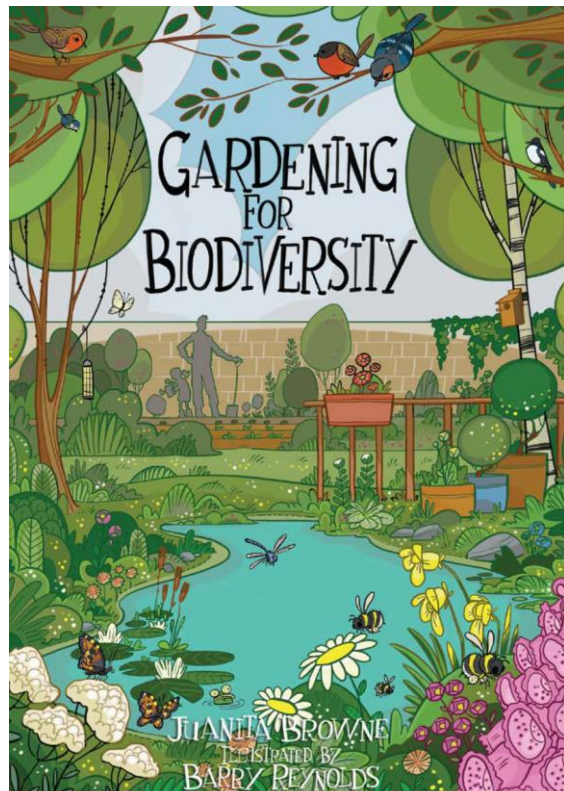
- Set up bird nesting boxes on trees or walls.
- Set up bird feeders or a bird table in a place that is not accessible to cats.
- Plant biodiversity-friendly and pollinator-friendly flower beds and pots.
- Plant native shrubs that produce flowers and fruits, such as spindle or holly.
- If you have a 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.

¹⁰ https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Gardens_actions-to-help-pollinators-2018-WEB.pdf

- 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 subject¹¹.
- Do not use lawn products containing selective weedkillers or moss-killers.

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 downloaded¹² 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^{13 14}



¹¹ <https://www.rhs.org.uk/prevention-protection/invasive-non-native-plants>

¹² https://www.treecouncil.ie/_files/ugd/222890_542875fc7e854b6e83a0c186c0eda898.pdf

¹³ https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Gardens_actions-to-help-pollinators-2018-WEB.pdf

¹⁴ <https://laois.ie/wp-content/uploads/Garden-Wildlife-Booklet-WEB-17MB.pdf>

A few nettles are okay! Not all parts of a garden need to be kept tidy and manicured, as semi-wild areas can be great for wildlife



Suggestions for future surveys

Learning more about our local biodiversity can often encourage more people to become interested and more involved in protecting wildlife and improving green areas in the community.

Bat Surveys: Ballintogher and its surroundings have some habitat features that are suitable for foraging bats, such as mature trees, hedgerows, and tree lines. The area also has features where bats might be roosting, such as old buildings and mature trees. One species of bat - Natterer's Bat – has previously been recorded in the area (see **Appendix 1**). Bats can be detected and identified by their ultrasonic calls, using either hand-held detectors at night, or by putting up static detectors in trees for about a week. This sort of survey would show whether the area has bats, and which species are present. Appropriate bat boxes could also be added in order to provide extra roosting opportunities for bats. This could be done in public spaces where there are trees or walls, or in private gardens or land where the landowner is in agreement. An information board on the bat species occurring in Ballintogher could also be erected.

Appendix 1: Biodiversity Records from Ballintogher

Records collected during walkover survey in April 2018

During walkover surveys undertaken in Ballintogher in April 2018, the following species were recorded.

Species recorded in the Ballintogher area during surveys in April 2018		
Common name	Irish name	Scientific name
Plants, trees, mosses		
Dandelion	<i>Caisearbhán</i>	<i>Taraxacum</i> sp.
Cow parsley	<i>Peirsil bhó</i>	<i>Anthriscus sylvestris</i>
Primrose	<i>Sabhaircín</i>	<i>Primula vulgaris</i>
Bush vetch	<i>Peasair</i>	<i>Vicia sepium</i>
Wild angelica	<i>Gallfheabhrán</i>	<i>Angelica sylvestris</i>
Meadow buttercup	<i>Fearbán féir</i>	<i>Ranunculus acris</i>
Creeping buttercup	<i>Reatha</i>	<i>Ranunculus repens</i>
Common nettle	<i>Neantóg</i>	<i>Urtica dioica</i>
Creeping thistle	<i>Feochadán reatha</i>	<i>Cirsium palustre</i>
Opposite-leaved golden saxifrage	<i>Glóiris</i>	<i>Chrysosplenium oppositifolium</i>
Hogweed	<i>Feabhrán</i>	<i>Heracleum sphondylium</i>
Lesser celandine	<i>Grán arcáin</i>	<i>Ranunculus ficaria</i>
Daisy	<i>Nóinín</i>	<i>Bellis perennis</i>
Hart's-tongue	<i>Creamh na muice fia</i>	<i>Asplenium scolopendrium</i>
Common polypody	<i>Scim chaol</i>	<i>Polypodium vulgare</i>
Male fern	<i>Raithneach mhadra</i>	<i>Dryopteris felix-mas</i>
Yellow archangel (garden escape)	<i>Neantóg Mhuire</i>	<i>Lamium galeobdolon</i> 'Variegatum'
Wild arum (lords-and-ladies)	<i>Cluas chaoín</i>	<i>Arum maculatum</i>
Common honeysuckle	<i>Táthfhéithleann</i>	<i>Lonicera periclymenum</i>
Atlantic ivy	<i>Eidhneán</i>	<i>Hedera helix</i> ssp. <i>hibernica</i>
Herb-Robert	<i>Ruithéal rí</i>	<i>Geranium robertianum</i>

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Wild strawberry	<i>Súu talún fiáin</i>	<i>Fragaria vesca</i>
Ribwort plantain	<i>Slánlus</i>	<i>Plantago lanceolata</i>
Soft-rush	<i>Geataire</i>	<i>Juncus effusus</i>
Sharp-flowered rush	<i>Fiastalach</i>	<i>Juncus acutiflorus</i>
Sedge	<i>Cíb</i>	<i>Carex</i> sp.
Common reedmace (bulrush)	<i>Coigeal na mban sí</i>	<i>Typha latifolia</i>
Meadow grass	<i>Cuise</i>	<i>Poa</i> spp.
Bent	<i>Feorainn</i>	<i>Agrostis</i> sp.
Ash	<i>Fuinseog</i>	<i>Fraxinus excelsior</i>
Sycamore	<i>Seiceamar</i>	<i>Acer pseudoplatanus</i>
Wild plum	<i>Crann plumaí</i>	<i>Prunus domestica</i>
Beech	<i>Feá</i>	<i>Fagus sylvatica</i>
Blackthorn	<i>Draighean</i>	<i>Prunus spinosa</i>
Hawthorn (whitethorn)	<i>Sceach gheal</i>	<i>Crataegus monogyna</i>
Grey willow	<i>Saileach</i>	<i>Salix cinerea</i> ssp. <i>oleifolia</i>
Hazel	<i>Coll</i>	<i>Corylus avellana</i>
Holly	<i>Cuilleann</i>	<i>Ilex aquifolium</i>
Snowberry	<i>Póirín sneachta</i>	<i>Symphoricarpos albus</i>
Japanese Knotweed	<i>Glúineach bhiorach</i>	<i>Fallopia japonica</i>
Blackcurrant	<i>Cuirín dubh</i>	<i>Ribes nigrum</i>
Bramble	<i>Dris</i>	<i>Rubus fruticosus</i> agg.
Pointed spear-moss	-	<i>Calliergonella cuspidata</i>
<p>Species printed in red are classified as invasive and care should be taken to avoid their spread.</p> <p>Species printed in blue are not native to Ireland and are considered to be somewhat invasive, however where they occur they may still be of some value to wildlife. When planting, avoid introducing these species - choose native, locally-sourced species whenever possible.</p>		
Birds		
Wood pigeon	<i>Colm coille</i>	<i>Columba palumbus</i>
Starling	<i>Druid</i>	<i>Sturnus vulgaris</i>
Jackdaw	<i>Cág</i>	<i>Corvus monedula</i>
Magpie	<i>Snag breac</i>	<i>Pica pica</i>

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Hooded crow	<i>Caróg liath</i>	<i>Corvus corone cornix</i>
Rook	<i>Rúcach</i>	<i>Corvus frugilegus</i>
Robin	<i>Spideog</i>	<i>Erithacus rubecula</i>
Pheasant	<i>Piasún</i>	<i>Phasianus colchicus</i>

Records obtained from other sources

Records were obtained from the National Biodiversity Data Centre (NBDC) website for the four 2km grid squares within which the Ballintogher area lies: G72U, G72T, G72P and G72N. Further information is available at www.biodiversityireland.ie.

A data request for biological records from the wider area around Ballintogher area was submitted to National Parks and Wildlife Service (NPWS). Biological records were provided for the region that lies within 5km of the Ballintogher survey area. This includes records from 10km grid squares G72, G73, G82 and G83.

Source	Species
Plants:	
NBDC	Alder (<i>Alnus glutinosa</i>)
NBDC	Bitter-vetch (<i>Lathyrus linifolius</i>)
NBDC	Bog Asphodel (<i>Narthecium ossifragum</i>)
NBDC	Bogbean (<i>Menyanthes trifoliata</i>)
NBDC	Bulrush (<i>Typha latifolia</i>)
NBDC	Butterbur (<i>Petasites hybridus</i>)
NBDC	Common Cottongrass (<i>Eriophorum angustifolium</i>)
NBDC	Common Reed (<i>Phragmites australis</i>)
NBDC	Common Sedge (<i>Carex nigra</i>)
NBDC	Common Valerian (<i>Valeriana officinalis</i>)
NBDC	Creeping Buttercup (<i>Ranunculus repens</i>)
NBDC	Devil's-bit Scabious (<i>Succisa pratensis</i>)
NBDC	Downy Birch (<i>Betula pubescens</i>)
NBDC	Greater Tussock-sedge (<i>Carex paniculata</i>)
NBDC	Hare's-tail Cottongrass (<i>Eriophorum vaginatum</i>)
NBDC	Heath False-brome (<i>Brachypodium pinnatum</i>)
NBDC	Heath Milkwort (<i>Polygala serpyllifolia</i>)

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NBDC	Heather (<i>Calluna vulgaris</i>)
NBDC	Ivy-leaved Toadflax (<i>Cymbalaria muralis</i>)
NBDC	Japanese Knotweed (<i>Fallopia japonica</i>)
NBDC	Lesser Spearwort (<i>Ranunculus flammula</i>)
NBDC	Lousewort (<i>Pedicularis sylvatica</i>)
NBDC	Mare's-tail (<i>Hippuris vulgaris</i>)
NBDC	Marsh Arrowgrass (<i>Triglochin palustre</i>)
NBDC	Marsh Cinquefoil (<i>Potentilla palustris</i>)
NBDC	Marsh Pennywort (<i>Hydrocotyle vulgaris</i>)
NBDC	Marsh Ragwort (<i>Senecio aquaticus</i>)
NBDC	Marsh Thistle (<i>Cirsium palustre</i>)
NBDC	Marsh Willowherb (<i>Epilobium palustre</i>)
NBDC	Marsh-bedstraw (<i>Galium palustre</i>)
NBDC	Marsh-marigold (<i>Caltha palustris</i>)
NBDC	Meadow Buttercup (<i>Ranunculus acris</i>)
NBDC	Meadow Vetchling (<i>Lathyrus pratensis</i>)
NBDC	Meadowsweet (<i>Filipendula ulmaria</i>)
NBDC	Mountain Everlasting (<i>Antennaria dioica</i>)
NBDC	Purple Moor-grass (<i>Molinia caerulea</i>)
NBDC	Purple-loosestrife (<i>Lythrum salicaria</i>)
NBDC	Ragged-Robin (<i>Lychnis flos-cuculi</i>)
NBDC	Red Clover (<i>Trifolium pratense</i>)
NBDC	Grey willow (<i>Salix cinerea</i>)
NBDC	Sharp-flowered Rush (<i>Juncus acutiflorus</i>)
NBDC	Silverweed (<i>Potentilla anserina</i>)
NBDC	Soft-rush (<i>Juncus effusus</i>)
NBDC	Sweet Vernal-grass (<i>Anthoxanthum odoratum</i>)
NBDC	Tall Fescue (<i>Festuca arundinacea</i>)
NBDC	Tormentil (<i>Potentilla erecta</i>)
NBDC	Tufted Hair-grass (<i>Deschampsia cespitosa</i>)
NBDC	Water Mint (<i>Mentha aquatica</i>)

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NBDC	White Clover (<i>Trifolium repens</i>)
NBDC	White Water-lily (<i>Nymphaea alba</i>)
NBDC	Wild Angelica (<i>Angelica sylvestris</i>)
NBDC	Yellow Iris (<i>Iris pseudacorus</i>)
NBDC	Marsh Horsetail (<i>Equisetum palustre</i>)
NBDC	Water Horsetail (<i>Equisetum fluviatile</i>)
NPWS	A lichen (<i>Cladonia ciliata</i> var. <i>ciliata</i>)
NPWS	Reindeer moss (<i>Cladonia portentosa</i>)
NPWS	Hoary Whitlowgrass (<i>Draba incana</i>)
NPWS	Oak fern (<i>Gymnocarpium dryopteris</i>)
NPWS	Yellow Bird's-nest (<i>Monotropa hypopitys</i>)
NPWS	River Bristle-moss (<i>Orthotrichum rivulare</i>)
NPWS	Small-white Orchid (<i>Pseudorchis albida</i>)
NPWS	Intermediate Wintergreen (<i>Pyrola media</i>)
Invertebrates:	
NBDC	Common Red Soldier Beetle (<i>Rhagonycha fulva</i>)
NBDC	Ringlet Butterfly (<i>Aphantopus hyperantus</i>)
NBDC	Speckled Wood Butterfly (<i>Pararge aegeria</i>)
NBDC	Brown Hawker Dragonfly (<i>Aeshna grandis</i>)
NBDC	Common Carder Bee (<i>Bombus thoracombus pascuorum</i>)
NBDC	Map-winged Swift moth (<i>Hepialus fusconebulosa</i> form <i>gallicus</i>)
NBDC	Common Ground-hopper (<i>Tetrix undulata</i>)
NBDC	Mottled Grasshopper (<i>Myrmeleotettix maculatus</i>)
NBDC	A true fly (<i>Rhingia campestris</i>)
NBDC	A true fly (<i>Syrirta pipiens</i>)
NBDC	A millipede (<i>Brachydesmus superus</i>)
NBDC	Common Flat-backed Millipede (<i>Polydesmus angustus</i>)
NBDC	A millipede (<i>Cylindroiulus britannicus</i>)
NBDC	A millipede (<i>Ophiulus pilosus</i>)
NBDC	Pill Millipede (<i>Glomeris marginata</i>)
NBDC	Snake Millipede (<i>Proteroiulus fuscus</i>)

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Birds:	
NBDC	Black-billed *Magpie (<i>Pica pica</i>)
NBDC	Common Blackbird (<i>Turdus merula</i>)
NBDC	European Goldfinch (<i>Carduelis carduelis</i>)
NBDC	House Sparrow (<i>Passer domesticus</i>)
NPWS	Skylark (<i>Alauda arvensis</i>)
NPWS	Kingfisher (<i>Alcedo atthis</i>)
NPWS	Mallard (<i>Anas platyrhynchos</i>)
NPWS	Grey heron (<i>Ardea cinerea</i>)
NPWS	Kestrel (<i>Falco tinnunculus</i>)
NPWS	Cormorant (<i>Phalacrocorax carbo</i>)
NPWS	Golden Plover (<i>Pluvialis apricaria</i>)
NPWS	Sand Martin (<i>Riparia riparia</i>)
Herpetofauna:	
NBDC, NPWS	Common Frog (<i>Rana temporaria</i>)
NPWS	Smooth newt (<i>Lissitron vulgaris</i>)
Fish:	
NPWS	River lamprey (<i>Lampetra fluviatilis</i>)
NPWS	Brook lamprey (<i>Lampetra planeri</i>)
Mammals:	
NBDC, NPWS	Eurasian Badger (<i>Meles meles</i>)
NBDC	Feral Ferret (<i>Mustela furo</i>)
NBDC	Natterer's Bat (<i>Myotis nattereri</i>)
NBDC	Pine Marten (<i>Martes martes</i>)
NBDC	Red Fox (<i>Vulpes vulpes</i>)
NPWS	Sika Deer (<i>Cervus nippon</i>)
NPWS	Fallow Deer (<i>Dama dama</i>)
NPWS	Irish hare (<i>Lepus timidus</i> ssp. <i>hibenicus</i>)
NPWS	Otter (<i>Lutra lutra</i>)
NPWS	Pine marten (<i>Martes martes</i>)
NPWS	Red Squirrel (<i>Sciurus vulgaris</i>)

Records obtained from Local Recorders

The following description of birds and their habitats in the Ballintogher area has been provided by Martin Enright, a local ornithologist and BirdWatch Ireland member who has closely studied birdlife in the Ballintogher area.

The village of Ballintogher, G763281, is situated on the R290 c.6.00 km east of Ballygawley and c.6.00km south-west of Dromahair. Slish Wood and the nearby shore of Lough Gill lie c.4.00 km to the north-west. The Ballygawley to Ballintogher road runs parallel to a glaciated/drumlin strewn valley which is bounded to the north by Slieve Deane and Killery mountain. The landscape surrounding Ballintogher provides a rich habitat for birdlife throughout the seasons. In Winter small flocks of Whooper Swans filter through from Ballygawley Lake, to Lough Dargan and eastwards towards Lough Nahoo. In Summer the woodlands, the hedgerows and the patchwork of kitchen gardens are teeming with summer warblers.

This mixture of habitat holds good numbers of the resident bird population.

On the southern shore of Lough Gill lie the woodlands of Slishwood and Dooney Rock. Here, the shoreline forest is composed of broadleaf trees, while higher up the slopes are covered in coniferous forest. Common Sandpiper, Mistle Thrush, Blackcap, Willow Warbler, Chiffchaff, Goldcrest, four Tit species and Treecreeper all breed here. The Red Squirrel is an added bonus. Less commonly seen species that have been recorded include Wood Warbler, Woodcock, Crossbill and Jay but the area is not watched regularly.

The woodland around Killery Mountain consists of a mixture of mature broadleaved trees and some conifers. Of regional importance here is The Millenium Forest. The same woodland species found at Slishwood and Dooney Rock also occur here. Jays, Treecreepers, Blackcaps, Woodcock and other woodland birds are regularly seen. In addition to the species already mentioned, Mistle Thrush, Jay and Bullfinch breed here. Whimbrel on passage migration.

The woodland, part of the Markree Estate, comprises an oak wood that is a National Nature Reserve and dates from c.1800. As a result, the oak trees are all of a similar age. There is very little regeneration because of grazing by fallow deer that are common in the area. Walkers are advised to stay close to the paths because ticks are abundant in the bracken and Wood Rush and Lyme disease is present in the area.

Union Wood lies 5 km south of Sligo between the Sligo to Ballygawley road (R284) and the main Dublin road (N4). This is a mixed woodland with the same range of species as those around Lough Gill. On the eastern edge of the woodland there is a medium-sized lake called Ballygawley Lough, which holds small numbers of Whooper Swans, Wigeon, Mallard, Teal, Tufted Duck and Goldeneye in winter; Osprey as a passage migrant. Buzzards are seen regularly in the area. Union Wood a good location for long walks and Fallow Deer are almost always encountered.

Birds and mammals of the woodland: Jay, Raven, Sparrowhawk, Buzzard, Siskin, Crossbill and Wood Warbler. Fallow Deer, Pine Marten, Red Squirrel.

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Birds of the Unshin River (if approaching from the south) Spotted flycatcher, Dipper and Grey Wagtail. Daubenton's Bat.

Birds of prey notably Peregrine Falcon, Kestrel and Sparrowhawk all breed in the nearby hills, woodlands and old farm buildings and will hunt for prey along the surrounding countryside.

Osprey (passage migrant)

Amongst the summer migrants to the Ballintogher area the Cuckoo has been calling in recent weeks (Spring/Summer 2018).

Blackcap, Willow Warbler, Chiffchaff and Whitethroat are calling from the hedgerows and patches of woodland. Though declining in numbers, Swallows and Sand Martins have colonised some of their regular haunts.

The resident populations of Robin, Pied Wagtail, Blackbird, Thrushes, Finches i.e. Chaffinch, Goldfinch & Bullfinch, the Tit family, Starling, Sparrow and the Crow family are in these early summer mornings adding to the cacophony of the Dawn Chorus.

Appendix 2: Guidance on bird boxes, bat boxes & bug hotels

Requirements for bird nesting boxes (Adapted from the RSPB)

Species	Nest box type and hole diameter	Position of nest boxes
Blackbird	A box with 10cm high open front. Dimensions: 28 x 23 x 17 cm	Fix the box 1.5m to 5.5 metres high.
Blue tit	Entrance hole size diameter should be 2.5cm.	Boxes for tits, sparrows or starlings should be fixed 2m to 4m up a tree or a wall.
Great tit	Entrance hole size diameter should be 2.8cm.	
Starling	Entrance hole size diameter should be 4.5 cm.	
Pied wagtail	A small box with 10cm high open front	Should be fixed up to 5m above ground.
Robin	A small box with 10 cm high open front.	Open-fronted boxes for robins and wrens need to be low down, below 2m, well hidden in vegetation.
Wren	A box with a 14 cm high front panel	
<p>Note: It is best to erect nest boxes in the Autumn. Nailing them to trees may damage the trees so it is suggested you erect them with a nylon bolt or wire. Ideally your nest box would be positioned between south east and south west if there is plenty of shade. Make sure that the birds have a clear flight path without any clutter directly in front of the entrance. Tilt the box forward slightly so that any driving rain will hit the roof.</p>		

Building a bug hotel

Advice on building 'bug hotels' to provide habitat for a range of invertebrate species is available at:

<https://www.rspb.org.uk/get-involved/activities/give-nature-a-home-in-your-garden/garden-activities/build-a-bug-hotel/>

https://www.buglife.org.uk/sites/default/files/Gardening%20for%20bugs%20-%20children1_1.pdf

Bat boxes

Advice on choosing, building and erecting bat boxes is provided in the Bat Conservation Ireland Information Leaflet no. 3 – Bat Boxes at https://www.batconservationireland.org/wp-content/uploads/2013/09/Leaflet_3_batboxes.pdf

Appendix 3: Suggested species for planting

Planting for pollinators

The following is an extract from guidelines available from www.pollinators.ie:

Pollinator friendly planting code - professional planting recommendations.

Experts agree that inadequate nutrition is a major cause of pollinator declines. We want pollinators to be there when we need them, but our landscape doesn't provide the abundance and diversity of flowering plants that they need to survive throughout their life cycle. To have a healthy balanced diet, bees need to be able to feed on pollen and nectar from a range of different flowers from early spring to autumn.

It is important to prioritise increasing native plants (trees, shrubs, wildflowers) across the landscape to provide food for pollinators.

Good native hedgerow species for pollinators:

Hazel (Feb-Apr) Willow (Mar-May) Blackthorn (Mar-May) Hawthorn (Apr-Jun) Broom (Apr-Jun) Wild Cherry (Apr-May) Bramble (May-Sept) Wild Privet (May-Jul) Crab apple (May-Jun) Elder (May-Jun) Whitebeam (May-Jun) Rowan (May-Jun) Wild Rose (Jun-Jul) Honeysuckle (Jun-Oct) Guelder Rose (Jun-Jul) Raspberry (Jun-Aug) Ivy (Sept-Nov) Gorse (Jan-Dec)

These species are **not** recommended for hedgerows: Horse Chestnut, Beech, Laburnum, Lilac, Lime.

These species can be **considered invasive** and should not be planted: Fuchsia, Cherry Laurel, Rhododendron, Sycamore, Snowberry.

Deliberately planting horticultural or ornamental plants - Important:

In towns and villages non-native horticultural or ornamental plants can be an important additional food source for pollinators. It is important to choose species that are good sources of nectar and pollen. However, you should **not** plant these in natural or semi-natural habitats. They should also not be planted in farmland (outside of farm gardens).

- Perennial plants are generally better sources of pollen and nectar than annuals. They are also cost effective as they grow and flourish over the following years. In contrast to seasonally replaced annual bedding, perennial plants can look less attractive to the public when they have finished flowering. This can be minimised by carefully selecting perennials and mixing them with ornamental grasses.
- Traditional annual bedding plants like Geraniums, Begonias, Busy Lizzy, Petunias, Polyanthus or *Salvia splendens* have virtually **no pollen and nectar** and are of little value to pollinators. If you are using annuals you should try to select scented, single-flowered varieties. The block planting of these can be an excellent source of food for pollinators.

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- The All Ireland Pollinator Guide have lists of pollinator friendly trees, shrubs, climbers, perennials, annuals and bulbs. Please note that these are not exhaustive lists. The best guide is to observe what the bees themselves are feeding on in parks/gardens and to increase the amount of these plants.

Street trees

Roadside margins can be difficult locations in which to establish trees. Those suggested are pollinator friendly, resistant to pruning and should not cause any structural damage or create health and safety issues.

Species	Flowering
Juneberry Tree <i>Amelanchier x grandiflora</i> 'Robin Hill'	Small white flower April. Good autumn colour
Upright Hawthorn <i>Crataegus monogyna</i> 'Stricta'	White flowers May
Pillar crab <i>Malus tschonoskii</i>	Scented white flowers May. Can set fruit
Callery pear <i>Pyrus calleryana</i> 'Chanticleer'	White flowers April-May. Can set fruit.
Rowan <i>Sorbus aucuparia</i> varieties	White flowers May-June
Lime <i>Tilia cordata</i> 'Greenspire'; <i>Tilia x europaea</i> 'Euchlora'	Pale yellow flowers June-July

Lime (*Tilia*) species have fragrant flowers and produce a lot of nectar, however care is needed in the selection of cultivars as many can grow to large tree size proportions that will exceed allotted roadside space. Some are also very attractive to aphids and can lead to honeydew drip onto cars below (e.g., *Tilia x europaea*, *T. platyphyllos*). Those suggested above are smaller and don't attract aphids, therefore producing no dripping.

A detailed list of bulbs, flowers and climbers suitable for any season is available to view online at: <http://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-friendly-planting-code-temporary-draft.pdf>

All-Ireland Pollinator Plan advice on planting for pollinators:

<http://www.biodiversityireland.ie/projects/irish-pollinator-initiative/all-ireland-pollinator-plan/gardens/>

<http://www.biodiversityireland.ie/projects/irish-pollinator-initiative/all-ireland-pollinator-plan/local-communities/>

Royal Horticultural Society advice on planting for pollinators and other insects:

<https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators>

<https://www.rhs.org.uk/science/pdf/conservation-and-biodiversity/wildlife/plants-used-plants-4-bugs.pdf>



Planting hedgerows

Plant native species and locally-sourced plants whenever possible!

The best time for planting is during the dormant season, between November to March. The best native species to plant for wildlife include:

Hawthorn	Oak
Blackthorn	Birch
Dog rose	Ash
Hazel	Rowan
Elder	Alder
Willow	Crab apple
Guelder rose	Scots pine
Holly	Oak

Guidance on planting native hedgerows is available at:

https://www.heritagecouncil.ie/content/files/conserving_hedgerows_2mb.pdf

<https://www.bordbia.ie/consumer/gardening/organicgardening/Worksheets/Planting%20a%20native%20hedgerow%20or%20woodland.pdf>

Wildflower Meadows

These can be created in several ways

Changing the management of an existing area, to gradually increase the number of wild plant species by natural means

This is achieved by cutting annually, after existing plants have flowered and set seed, in late summer. The cut material is then removed. This process gradually reduces soil fertility, creating conditions where wildflowers can successfully compete with more vigorous grasses.

Pros: This results in hay-meadow type vegetation that is very characteristic of the local environment, with species that occur naturally in the area and are genetically suited to the local conditions.

Cons:

This can take time to achieve.

The process can be accelerated by planting yellow rattle (*Rhinanthus minor*), a hemi-parasitic plant species which obtains nutrients from the roots of grasses, thus reducing their vigour.

Buying and planting wildflower seed

This is best achieved by sourcing Irish wildflower seed that contains species native to Ireland, that are suited to the Irish climate and conditions, and are useful to our local pollinators. Imported seeds should be avoided as they may contain invasive species and may also carry diseases that can negatively affect local biodiversity. Seeds available from supermarkets and garden centres are generally imported, unless they state otherwise. Irish Seedsavers (www.irishseedsavers.ie) and Ecoseeds (<http://www.ecoseeds.co.uk>) are good sources of Irish seed.

Two types of seed mix are available – annual mixes that last for one year only, and perennial mixes that are less “showy” and may be slower to produce results, but will last longer. The two can be mixed for optimum results.

Pros – rapid results, good variety of plants, provide lots of flowers for pollinators.

Cons – can be expensive, and some site preparation is usually needed, to prevent existing grasses from outcompeting the wildflowers. Very fertile ground is not suitable.

Collecting local wildflower seed

It is possible to collect and dry the seeds of the following species for planting in wildflower areas. For best results, grow seeds in a seed tray and plant as individual plugs. Do not collect seeds from more than 20% of the plants in any one population. For more information on how to do this, see the National Pollinator Plan’s How-to-guide “Collecting and Using Pollinator-friendly Wildflower Seed” available to download at:

http://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-2_ALT_FINAL.pdf

Seeds that can be collected, dried and planted to establish a wildflower area:

Knapweed (<i>Centaurea nigra</i>)	Self-heal (<i>Prunella vulgaris</i>)
Devil's-bit scabious (<i>Succisa pratensis</i>)	Red bartsia (<i>Odontites vernus</i>)
Field scabious (<i>Knautia arvensis</i>)	Woundwort (<i>Stachys</i> spp.)
Birds-foot trefoil (<i>Lotus corniculatus</i>)	Yellow rattle (<i>Rhinanthus minor</i>)
Meadow pea (<i>Lathyrus pratensis</i>)	Ox--eye daisy (<i>Leucanthemum vulgare</i>)
Other vetches (<i>Vicia</i> spp.)	Harebell (<i>Campanula rotundifolia</i>)

Plants to attract birds

The following plants provide seeds and berries for a wide variety of birds, for example, blackbirds, thrushes and finches. They also attract insects which in turn provide food for other birds such as robin and wren and some provide cover for nesting and roosting birds.

Holly

Ivy

Hawthorn

Honeysuckle

Rowan

Teasel

Cotoneaster (Note – this plant is not native to Ireland and is invasive)

Sunflower

Guelder rose

Dog rose

Crab apple

Advice on gardening to benefit birds is available at:

<https://www.birdwatchireland.ie/LinkClick.aspx?fileticket=3ti29N9Nfvs=&tabid=386>

<https://www.gardenersworld.com/plants/top-10-plants-for-birds/>

Appendix 4: Other sources of useful information

SLIGO LINKS

Sligo Heritage Office -	www.facebook.com/sligoheritageoffice & www.sligococo.ie/planning/Heritage
Sligo Field Club -	www.SligoFieldClub.com
Sligo BirdWatch Ireland Group –	www.facebook.com/birdwatch.sligo
Sligo IT - Course	www.itsligo.ie CERIS and Environmental Science
Water & Communities Officer	www.watersandcommunities.ie

Bat Conservation Ireland – charity dedicated to conserving Ireland’s bats
www.batconservationireland.org

BirdWatch Ireland – NGO committed to conservation of Ireland’s birds. www.birdwatchireland.ie

Information on building bird feeders and nest boxes.
<http://www.birdwatchireland.ie/Default.aspx?tabid=264>

Butterfly Ireland - Butterfly information and distribution maps in Ireland.
www.butterflyireland.com

Buglife – UK Charity to encourage invertebrates. www.buglife.org.uk/

Coillte – 20% of lands managed for biodiversity.
<http://www.coillte.ie/our-forests/public-goods/biodiversity/>

Crann – NGO dedicated to planting trees and protecting Ireland’s woodlands. www.crann.ie

Floralocale – Practical tips on habitats and wildflower choices.
www.floralocale.org/content.asp?did=23800

Green Schools Ireland - www.greenschoolsireland.org

Heritage Council – Independent body advancing both built and natural heritage in Ireland. Co-ordinates the vitally important network of Heritage Officers across Ireland.
www.heritagecouncil.ie

Inland Fisheries Ireland - <https://www.fisheriesireland.ie/>

Invasive Species Ireland – Info. on invasive species www.invasivespeciesireland.com/

- Japanese knotweed -
<https://invasivespeciesireland.com/species-accounts/established/terrestrial/japanese-knotweed>

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- Montbretia -
<https://www.agriculture.gov.ie/media/migration/farmingschemesandpayments/glastraini ng/MontbretiaFinalDraft230616.pdf>
- Rhododendron
<https://www.woodlandsofireland.com/sites/default/files/No.%203%20-%20Rhododendron%20Control.pdf>
<https://invasivespeciesireland.com/species-accounts/established/terrestrial/rhododendron>
- Rhododendron and cherry laurel -
<https://invasivespeciesireland.com/wp-content/uploads/wp-post-to-pdf-enhanced-cache/1/rhododendron.pdf>
<http://www.forestryfocus.ie/growing-forests-3/threats-to-forests/invasive-species/>

Irish Peatland Conservation Council NGO promoting peatland conservation.

<http://www.ipcc.ie/>

Irish Wildflowers –Over 800 wildflowers with names in Irish, English & Latin.

<http://www.irishwildflowers.ie>

Irish Wildlife Trust – a charity committed to conserving of Ireland’s rich natural heritage.

www.iwt.ie

Local Authority Prevention Network. <http://localprevention.ie/tidy-categories/schools/>

Moths Ireland – Moth information and studies in Ireland. www.mothsireland.com

National Biodiversity Data Centre - National Biodiversity Data Centre - documenting Ireland’s wildlife. Citizen Science Projects www.biodiversityireland.ie/

National Parks and Wildlife Service - Information on important sites and species, wildlife legislation and biodiversity plans. It includes an interactive mapper with information.

<http://www.npws.ie/>

RSPB – Information on building and siting nest boxes.

[RSPB Nest Box Guide](#) [RSPB Feeding Birds Guide](#)

Tree Council of Ireland –A voluntary group concerned with trees in Ireland

<http://www.treecouncil.ie/>

