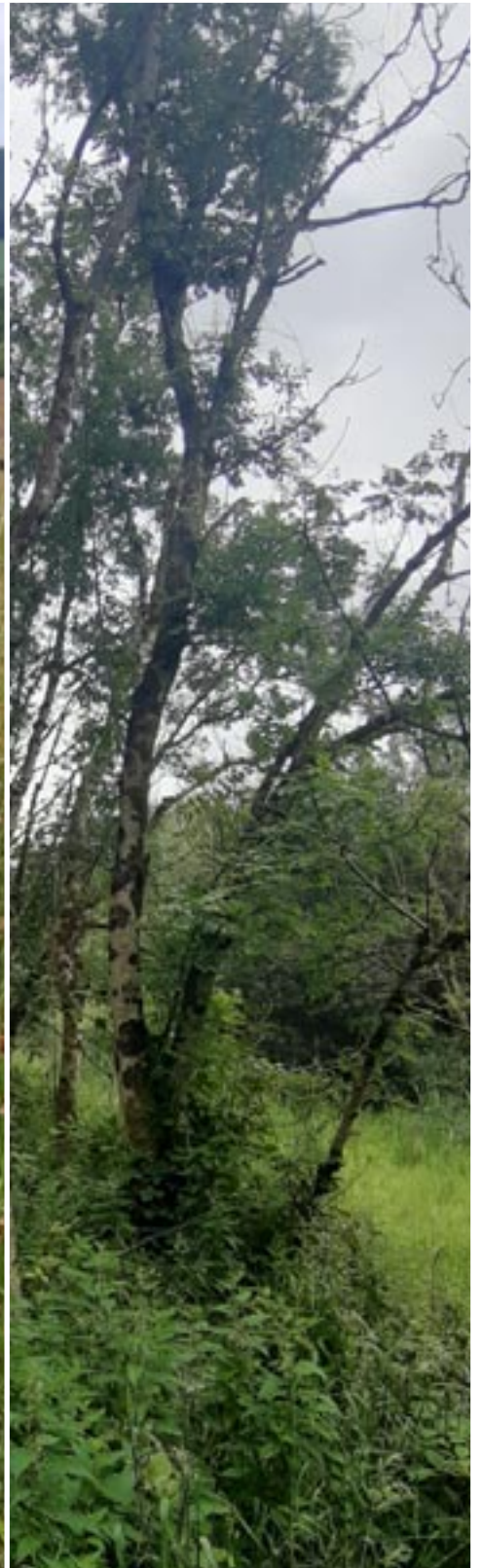




# Griston Bog Nature Reserve Community Biodiversity Action Plan

an initiative of Ballyhoura Heritage and Environment CLG  
with funding support from the Community Foundation for Ireland.





Griston Bog Community Biodiversity Action Plan  
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**Cover Images: Griston Bog Nature Reserve has a number of habitats including a cutover bog regenerating as alkaline marsh, acid raised bog, planted native woodland, conifer plantation and constructed pond © Nuala Madigan**

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# 1. Acknowledgements



The development of Griston Bog Nature Reserve Community Biodiversity Action Plan 2024-2034 was made possible with funding support from the Community Foundation for Ireland.

I would like to thank and acknowledge Ballyhoura Heritage and Environment CLG for the support given during the development of the plan including, but not limited, to site orientation, biodiversity survey days and planning.

I would also like to acknowledge my colleagues and volunteers at the Irish Peatland Conservation Council for their expertise and support that was extended to me during the course of this project.



Image: Griston bog raised bog habitat and welcome sign at the entrance to the nature reserve  
© Nuala Madigan

## 2. Executive Summary

Griston Bog Nature Reserve is located 1.3km south of the village of Ballylanders in Co. Limerick. The site has an area of approximately 3.7ha and contains a range of different habitats including raised bog, cutover bog regenerated as marsh, woodland and pond habitats. It is managed by Ballyhoura Heritage and Environment CLG and has a number of facilities including an outdoor classroom, boardwalk, picnic area and bird hide. In 2023, with funding support from the Community Foundation for Ireland, Ballyhoura Heritage and Environment employed the services of Ecologist Nuala Madigan to develop a Community Biodiversity Action Plan. The development of this community biodiversity action plan aims to complement the National Biodiversity Action Plan 2023–2030 and future related plans by acting at a local level.

Desktop research was carried out for the area, this included:

- A review of species recorded online on the National Biodiversity Data Centre
  - 92 species identified in the area (for details see page 13 and 14)
- Review of sites and monuments of cultural importance available online at [www.archaeology.ie](http://www.archaeology.ie)
  - No sites of cultural significance identified (for details see page 7)
- Review of SAC, SPA and NHA boundaries
  - No designations identified in the area
- Review of water data available from [www.catchments.ie](http://www.catchments.ie)
  - One river water body (with good ecological status) identified nearby Griston Bog

Bog

Nature Reserve but outside the boundary of the site

A biodiversity survey of the site was completed over two dates in June and July 2023. 118 species were recorded during the biodiversity survey. This included 55 wildflowers, 13 grasses/sedges/rushes, 6 mosses, 13 trees/shrubs, 3 ferns/horsetails, 3 fungi/lichens, 2 butterflies, 13 other invertebrates, 9 bird species and 1 mammal. The full list of species recorded is presented on pages 16-20 of this plan. The species list presented in this plan should be considered as a representative sample of the diversity of wildlife in the area and not considered a complete list. Weather, time of year and even the time of the day the survey was undertaken can all have an impact of the variety of biodiversity recorded. It does however provide an increased sample of biodiversity within the area that will improve the online presence of diversity of species on the National Biodiversity Data Centre.

Biodiversity can be simply defined as the variety of life on earth. A number of basic guidelines for maintaining and enhancing biodiversity in a community are presented herein, including choosing peat-free composting approaches and products, improving the height and structure of habitats, keeping your local area clean and choosing native species within your planting plans (pages 11 & 12).

A habitat map (page 25) was drawn up for the area and biodiversity actions for the Griston Bog Nature Reserve have been recommended (pages 26-30).



Image: Ling Heather on Griston Bog © Nuala Madigan

### 3. Introduction to Griston Bog

#### 3.1 Location

Griston Bog is located in County Limerick, 1.3km south of the village of Ballylanders, off the N513, at coordinates 52.360867, -8.353141. The site for this Community Biodiversity Action Plan (see Figure 1) consists of the section of bog and adjoining woodland area which is owned by Ballyhoura Heritage & Environment CLG. The north section (bog area) is located in the townland of Griston East and the south section (woodland area) in the townland of Ahnagurra. The site has an area of approximately 3.7ha.



Image: TerraMetrics, Map data ©2023

#### 3.2 Site Description

Griston Bog contains a range of different habitats including raised bog, cutover bog regenerated as marsh, woodland and pond habitats. Turf cutting was carried out on Griston Bog in the 19th century. Since cutting ceased on the bog over 100 years ago the cut area has naturally regenerated into alkaline marsh habitat. The land adjoining the raised bog and alkaline regenerating Marsh habitat contains planted conifers and mixed native tree species and constructed pond. Griston Bog Nature Reserve is managed by Ballyhoura Heritage & Environment CLG. The conservation of the site came about through community action in 2008 when Ballyhoura Development, working with the local Gun Club in Ballylanders, the Community Council in Ballylanders, local schools, Limerick Heritage Officer and other local interest groups, began to plan for the development of Griston Bog.

The reserve is known today as Ballyhoura Outdoor Classroom, where schools and educational groups can learn about and explore the reserve. Facilities on the site include a boardwalk, picnic area, outdoor classroom cabin, bird hide and feeding-station, insect hotel, dipping ponds, information boards, parking and compost toilet.



Image: Survey site for Griston Bog Nature Reserves Community Biodiversity Action Plan identified by Ballyhoura Heritage and Environment CLG.

### 3.3. Historic Environment of Griston Bog

Although this Community Biodiversity Action Plan focuses on natural heritage as a group you must be aware of buildings, monuments and settings with a cultural heritage value to your community. Any biodiversity actions that your group undertake should not have a negative impact on your local cultural heritage. It is advised that before you undertake any biodiversity actions that you contact your local Heritage Officer within Limerick County Council, Tom O'Neill (061 557229 or [heritage@limerick.ie](mailto:heritage@limerick.ie)) to seek advice and confirm if permissions for your biodiversity actions are required.

Information on sites and monuments and buildings of architectural heritage within an area may be obtained on the website of the National Monuments Service (NMS), which is part of the Department of Culture, Heritage and the Gaeltacht and plays a key role in the protection of our archaeological heritage.

Monuments are protected under the National Monuments Acts in a number of ways:

- \* National monuments in the ownership or guardianship of the Minister or a local authority;
- \* National monuments which are subject to a preservation order;
- \* Historic monuments or archaeological areas recorded in the Register of Historic Monuments;
- \* Monuments recorded in the Record of Monuments and Places.

For national monuments in the ownership or guardianship of the Minister or a local authority or which are subject to a preservation order, the prior written consent of the Minister is required for any works at or in proximity to the monument (About NMS, 28th July 2020).

The area identified for this Community Biodiversity Action Plan was reviewed using the Historic Map Viewer located online at <https://maps.archaeology.ie/HistoricEnvironment/>.

Within the survey area, there were no sites and monuments or buildings of architectural heritage, according to the National Monuments Service. There is an enclosure (LI049-175), which is listed on the Record of Monuments and Places, adjacent to the site (see Figure 2). Although this monument is not on the site, it is useful to be aware of it.



**Image: Enclosure (red) located near Griston Bog source [archaeology.ie](https://maps.archaeology.ie) © Ordnance Survey Ireland**

### 3.4 Water catchment and water bodies

Griston Bog is located in the Morningstar\_SC\_010 subcatchment (subcatchment ID 24\_3), within the Shannon Estuary South catchment (catchment ID 24). A review of data on [catchments.ie](https://catchments.ie) identified one river water body, Morningstar\_010, near to the survey site (see Figure 1). This water body has good water quality. It was assessed as Not at Risk of not meeting the Water Framework objectives and of Good Ecological Status in both Cycle 2 and Cycle 3 Water Framework Directive status assessments, based on monitoring data from the periods 2010-2015 and 2013-2018 (EPA, 2021, 3rd Cycle Draft Shannon Estuary South Catchment Report (HA 24). The river was outside the boundary of the Griston Bog nature reserve and as such no biodiversity survey or freshwater invertebrate identification took place at the Morningstar river.

## 4 What is Biodiversity?

Biodiversity is shortened from 'biological diversity'. It is the variety of all life forms on Earth, from the tiniest bugs living in the soil, to the butterflies in your garden, the plants they feed from, and the biggest whales in the sea. Biodiversity includes the diversity of:

- Individuals within a species (genetic diversity),
- Species within an ecosystem or habitat (species diversity) and
- Ecosystems or habitats (habitat diversity).

The biological diversity we see today is the result of millions of years of evolution. Biological diversity is constantly changing and evolving as some species adapt to new surroundings, become extinct, and others, over time, evolve into new species. We as human beings are an integral part of biodiversity and we can influence it in a positive or negative way

(<http://www.noticenature.ie/learn.html>).

### 4.1 Why is Biodiversity Important?

Biodiversity has many benefits and it is the basis for life on earth. We are also part of Ireland's biodiversity! An ecosystem is the interaction between living organisms and their physical environment. Although many of us enjoy watching biodiversity visiting our gardens or communities we often forget about the services they offer us from pest control, a source of food, air filtration and maintenance of soil fertility. These services are referred to as ecosystem services, that is the benefit people obtain from nature. To follow are four categories identified within our ecosystems and some examples of the services biodiversity offers us all:

1. Provisioning Service	2. Supporting Service	3. Regulating Service	4. Cultural Service
Nutrient Cycling Primary Production Soil Formation	Nutrient Cycling Primary Production Soil Formation	Climate Regulation Flood Regulation Disease Regulation Water Purification	Aesthetic Spiritual Educational Recreational

#### \* Biodiversity & Health

Did you know that many of our modern day medicines are made from extracts from plants and animals. Digoxin is a drug that is used to treat heart disease - *Digitalis lancata* is the extract taken from foxglove for the manufacture of this drug. Retreating to our wild spaces in our community also offers health benefits both physically and mentally.

#### \* Biodiversity & Food

Bees and butterflies are important pollinators within our communities. For plants to produce their fruit they first need to be pollinated. Plants also need a healthy nutrient rich soil, soil decomposers recycled dead plant litter enriching our soil for food production.

#### \* Biodiversity & Business

Around the world Ireland is known as the 'Emerald Isle'. We have promoted ourselves in tourism as the island of lush green fields and wild spaces. Business who manufacture products including the world famous Guinness need a clean fresh supply of water.

#### \* Biodiversity & People

We are part of Ireland's biodiversity and as our towns and cities expand we enjoy exploring our local wildlife and habitats and for some our biodiversity offers inspiration to artists and poets. Encouraging biodiversity offers opportunities for people to get involved in creating and looking after parts of their local neighbourhood or park or for recording species through citizen science initiatives.

Image: Common red soldier beetle identified on Griston Bog Nature Reserve. © N. Madigan





## 4.2 Legislation protecting Biodiversity and Nature Conservation in Ireland

The two principal pieces of legislation protecting wildlife are the Wildlife Acts, 1976 and the European Communities (Birds and Natural Habitats) Regulations 2011, which transposes the E.U. Birds Directive and the Habitats Directive into Irish law. Both of those statutes are administered by the Minister for Arts, Heritage and the Gaeltacht through the National Parks and Wildlife Service of that Department.

The Wildlife Act, 1976, is the principal national legislation providing for the protection of wildlife and the control of some activities that may adversely affect wildlife. The Wildlife Act, 1976, came into operation on 1<sup>st</sup> June 1977. It was the only major legislation concerned with wildlife that was passed in the previous 45 years. It replaced the Game Preservation Act, 1930, and the Wild Birds (Protection) Act, 1930 (Wildlife Act, 1976, 28<sup>th</sup> July 2020).

Your community must be aware of these legislations and when preparing to take action for biodiversity within your community confirm that your actions are not in violation of legislation. Make contact with your local Heritage Officer in Westmeath County Council who will support you to ensure your actions are in compliance with the acts. To follow are some areas you should be aware of:

### **Hedge Cutting Season**

Wildlife Act Section 40 of the Wildlife Act 1976 as amended by the Wildlife (Amendment) Act 2000 states that these Acts stipulate that it is an offence to destroy vegetation on uncultivated land between the 1st March and the 31st August each year. This includes the cutting of trees and hedgerows.

### **Flora Protection Order**

The Flora (Protection) Order, 2022 lists the plant species which are protected by Section 21 of the Wildlife Act, 1976. It is illegal to cut, uproot or damage the listed species in any way, or to offer them for sale. This prohibition extends to the taking or sale of seed. In addition, it is illegal to alter, damage or interfere in any way with their habitats. This protection applies wherever the plants are found and is not confined to sites designated for nature conservation. For a full list of species visit <https://www.irishstatutebook.ie/eli/2022/si/235/made/en/print> (S.I. No. 235/2022 - Flora (Protection) Order, 2022).

### **Interfere with or Destroy the Breeding Places of Any Wild Animals**

Wildlife Act Section 23 (5)(d) of the Wildlife Act 1976 as amended states that any person who wilfully interferes with or destroys the breeding place or resting place of any protected wild animal, shall be guilty of an offence.

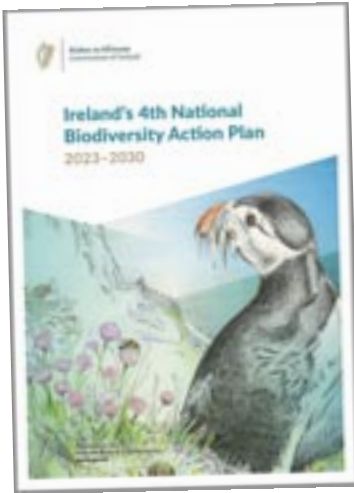
### **Birds of Conservation Concern in Ireland**

A number of birds are listed of conservation concern. A traffic light system using green, amber and red is used to describe their current status. Red listed birds are those of global conservation concern and with declines in population or breeding range. Amber listed birds are those with unfavourable conservation status in Europe and moderate declines in population or breeding range. Birds that do not meet the criteria for either of these lists are placed on the Green list. Reviewing the lists, a number of species listed as red or amber that could potentially be found in Griston Bog have been identified. Red list: Snipe, Meadow Pipit. Amber list: Skylark, Swallow, Starling, Willow Warbler.

### **Protected Areas**

Habitats can be designated as Special Areas of Conservation (SACs) under the European Union Habitats Directive, Special Protected Areas (SPAs) under the European Union Birds Directive and Natural Heritage Areas (NHAs) under the Wildlife Act. No SACs, SPAs or NHAs were identified within the Griston Bog site (<https://www.npws.ie/maps-and-data>).

### 4.3 National & County Biodiversity Action Plans



Ireland's National Biodiversity Action Plan 2023–2030 is the fourth national biodiversity action plan published in Ireland. It reports that, globally, biodiversity is declining, and despite increased awareness and efforts to halt its loss, biodiversity remains threatened by human activities worldwide (Secretariat of the Convention on Biological Diversity, 2014). Major causes of global biodiversity loss include over-exploitation of wild species (Maxwell et al, 2016) and conversion of land to agricultural use (Newbold et al, 2016). Loss of biodiversity worldwide has led to the wide acceptance of the need to co-ordinate action for biodiversity on a global scale. In 1992, the United Nations established the Convention for Biological Diversity, and Ireland ratified the Convention in 1996. The objectives of the Convention for Biological Diversity are the conservation of biological diversity and the sustainable use of its components.

Ireland in 2050 – A Vision for Biodiversity within the plan states:

*‘Biodiversity in Ireland is valued, conserved, restored and sustainably used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people’*

**National Biodiversity Action Plan 2023-2030**

Ireland's National Biodiversity Action Plan identifies five objectives, each with specific targets and actions:

- Objective 1: Adopt a Whole-of-Government, Whole- of-Society Approach to Biodiversity
- Objective 2: Meet Urgent Conservation and Restoration Needs
- Objective 3: Secure Nature's Contribution to Peoples
- Objective 4: Enhance the Evidence Base for Action on Biodiversity
- Objective 5: Strengthen Ireland's Contribution to International Biodiversity Initiative

Each local authority has also prepared a county Biodiversity Action Plan. The first such plan, that Co. Limerick produced was the Limerick City Biodiversity Action Plan. The overall aim Limerick City Biodiversity Action Plan was:

*‘To maintain, protect and enhance the biodiversity of Limerick City for future generations and to educate and promote the importance of Limerick City's biodiversity for all.’*

**Limerick City Biodiversity Action Plan**



At the National Biodiversity Conference in June 2022, Malcom Noonan TD, Minister for Heritage and Electoral Reform announced a national roll out of a dedicated Biodiversity Officer for each Local Authority. County Limerick have appointed Sinead McDonnell (sinead.mcdonnell@limerick.ie) as the Counties Biodiversity Officer. It is expected a new county wide Biodiversity Action Plan will be developed for County Limerick in the coming years. During the development of the plan Ballyhoura Heritage and Environment should engage through the consultation process and provide recommendations that will support the biodiversity of Griston Bog Nature Reserve.

#### 4.4 Why develop a Community Biodiversity Action Plan?



While the National Biodiversity Action Plan 2017-2020 sets objectives, targets and actions for the whole of the country a Community Biodiversity Action Plan (CBAP) is a means of managing your resources to contribute to the conservation of biodiversity, or wildlife at a local level. A CBAP is basically a management system to maintain and enhance biodiversity within your local area. A management system helps to reduce risk and maximise opportunity in a planned way. Developing a CBAP for your local area provides you with a managed plan that will help you to put the correct procedures in place to conserve and enhance biodiversity.

#### 4.5 Basics of Biodiversity Management

When starting out on your journey to maintain and enhance biodiversity within your community there are some general principles that should be remembered and considered before any action is acted upon:

##### **Sometimes you don't need to do anything!**

Today we accept that our actions have had an impact on both the habitats and populations of biodiversity within our communities. However sometimes we don't need to do anything for the biodiversity present in our communities it may be thriving without any action. For example a mature tree may have stood for hundreds of years supporting a wide variety of biodiversity in your community. Just because we now support biodiversity by erecting bird boxes and bat boxes it does not mean that we need to fill the mature tree with them - birds and bats have been nesting in trees for many years!

##### **Myth buster**

It was once thought that to be a community for biodiversity acres and acres of land were required. Habitats come in all shapes and sizes and even in a small corner of your local park you can create a haven for biodiversity.

##### **Your biodiversity actions should not have a negative impact on another habitat**

Enhancing biodiversity can be achieved by increasing the diversity of plants in your community, however this should not be at the expense of another habitat. Peat moss compost is used as a potting mix and is widely available for sale. Harvesting of peat moss compost has resulted in the dramatic decline in peatland habitat nationwide. Always choose peat free in your community.

##### **Choose native**

We have learned a hard lesson in Ireland by introducing a variety of ornamental species often for their 'beautiful' flowers. Today we know the negative impacts introducing these species has had on native habitats and biodiversity and many are now considered invasive. When taking action for biodiversity we should choose native over ornamental species.

##### **Diversity diversity diversity**

Regular mowing of our grassland's is an accepted method of keeping our communities tidy, however this monoculture of mown grass does not support a rich diversity of species. The more diverse the habitat the more food and shelter offered for biodiversity. When looking at an area always considered how best to maximise the range of habitats and the structure of them by including tall trees and grasses (wildflower meadow), unmown swards, lower layers of herbs and plants, rotting wood and yes, mown grass has a place aswell.

## Keep it clean

Although as a group your role within the community has grown and changed from painting and litter picking don't forget your foundation. Litter can have a negative impact on our biodiversity and your actions keeping your community tidy are just as valuable for supporting biodiversity as other actions.


## You can't do it on your own

Your community group is made of a dedicated committee of volunteers. To maintain and enhance biodiversity always bring your wider community along with you. Let people know what you are doing, how they can get involved to support you and inform them of your projects values not just for biodiversity but for them aswell.

## Choose chemical free

These can pollute our watercourses and harm biodiversity. Nature has its own pest controllers, so if you can attract them to your community, you won't need to use chemicals. For instance, ladybirds, hoverflies and lacewings feed on greenfly and aphids while frogs and hedgehogs feast on slugs. You can attract hoverflies by planting the poached egg plant amongst your vegetables or flower beds. A hoverfly can eat a thousand greenfly in its short lifetime! Use mulch to suppress weeds in flower beds rather than using herbicides. Make your own nutrient rich liquid feed using comfrey.

## Keep it sustainable

 The United Nations Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including poverty, inequality, climate change, environmental degradation, peace and justice. There are 17 goals identified and while not all of them relate to biodiversity each of your actions should align with these goals supporting your community today and in the future.

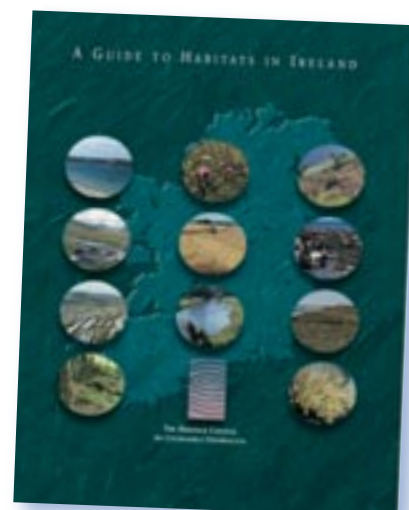
## Review

When we complete a task in our community a sense of achievement is felt. However just because we have completed the biodiversity action does not mean we can forget about it. Some of your actions may need regular maintenance and having a system in place to review the completed projects is just as important as getting started on new biodiversity enhancing project.

When taking action for biodiversity in your community always remember these basic principles for managing biodiversity.

## 4.6 Habitats for biodiversity in Ireland

All biodiversity, that is living plants and animals, require shelter or a home. A place of shelter or a home used by biodiversity is referred to as a habitat. Habitats are the basic building blocks of the environment that are inhabited by animals and plants, and which are important as units for site description and conservation management. Habitats can range in size from an open water canal to a small pond. All habitats in Ireland are classified according to 'The Habitats of Ireland' by J. A. Fossitt. published in 2000 by the Heritage Council. This guide provides a standard scheme for describing habitats in Ireland. The publication of this guide, for the first time, provided consistent or complementary habitat data collection and such consistency in the work of habitat classification is recognised as following best practice (Fossitt, 2000).



Maintaining and enhancing biodiversity in your community includes habitat management. This plan will present a habitat map for Griston Bog Nature Reserve.

## 5. Biodiversity of Griston Bog

As a community you cannot take action for biodiversity until you know what you already have. In developing this plan two approaches were taken to investigate the variety of biodiversity present in Griston Bog Nature Reserve:

1. Review of biodiversity records available through the National Biodiversity Data Centre
2. Complete a biodiversity survey 2023

### 5.1 Records from the National Biodiversity Data Centre

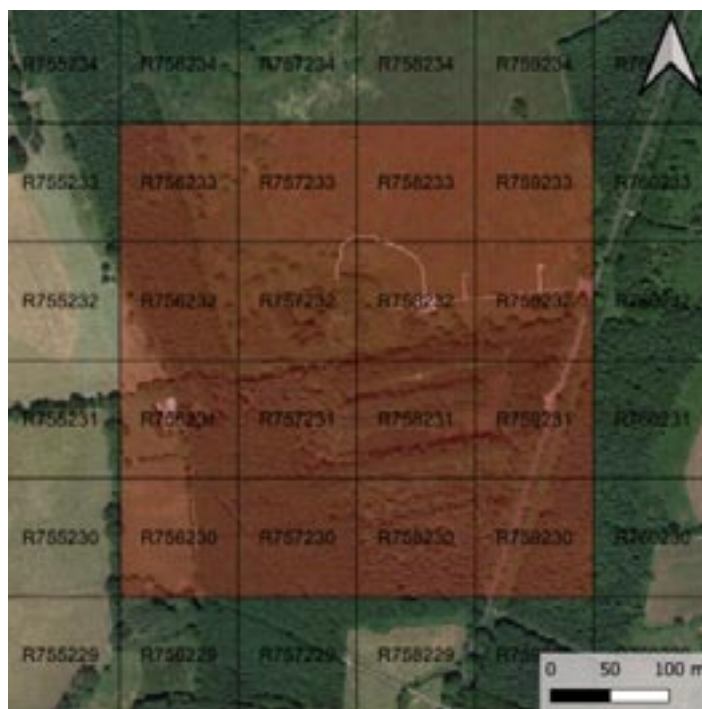


The National Biodiversity Data Centre is Ireland's national centre for the collection, collation, management, analysis and dissemination of data on Ireland's biological diversity. Biodiversity data is a key requirement for understanding our natural surroundings, for tracking change in our environment and for gaining a greater insight on how we benefit from, and impact upon, the ecosystem goods and services provided by biological diversity; a national asset which contributes at least €2.6 billion

to the Irish economy each year. The National Biodiversity Data Centre is an Initiative of the Heritage Council and is operated under a service level agreement by Compass Informatics. The data centre is funded by the Department of Culture, Heritage and the Gaeltacht and the Heritage Council ([www.biodiversityireland.ie/about-us/](http://www.biodiversityireland.ie/about-us/)).

Supporting the National Biodiversity Data Centre are professional recorders but also citizen scientists. All data gathered and records are shared online through Biodiversity Maps (<https://maps.biodiversityireland.ie>) which serves as a portal to access biodiversity data published as open data, and as a shop window to display other existing sources of data on Ireland's biodiversity.

In developing this Community Biodiversity Action Plan, a review of data available from the National Biodiversity Data Centre was completed for the area. The 100m grid squares reviewed are shown below (see Figure 3 and Table 1). Data was accessed on the 11/04/2023. There was a total of 105 records for the area, with 92 different plant and animal species recorded. A breakdown of species groups is shown in Table 2. Further details are available in Appendix 1.



**Image: 100m grid squares reviewed for records from the National Biodiversity Data Centre**

Grid Square	Number of species	Number of records
R756230	0	0
R756231	0	0
R756232	0	0
R756233	0	0
R757230	0	0
R757231	1	1
R757232	4	4
R757233	13	15
R758230	0	0
R758231	5	5
R758232	4	5
R758233	29	35
R759230	0	0
R759231	0	0
R759232	0	0
R759233	36	40

**Table: Number of species and number of records in each 100m grid square reviewed from the National Biodiversity Data Centre. Data accessed on 11/04/2023.**

Completing the review online at the National Biodiversity Data Centre the results presented identify 92 records for Griston Bog Nature Reserve. On closer assessment it is noted that 78 of these records are associated with the acidic raised bog habitat of Griston Bog Nature Reserve within three grid squares R757233, R758233 and R759233. The diversity of species present in a community provides an indication on the health of the communities environment. Reviewing these data online it was considered by the ecologist that while important biological data was already available for the acidic raised bog habitat few records were available for the alkaline marsh or woodland with constructed pond. A wider 1km grid square encompassing a larger sample area of the community was also reviewed and identified that 97 biodiversity records were identified meaning only an additional five biodiversity records are available online for the surrounding land of Griston Bog Nature Reserve.

### 1km Grid Square

Grid square	Number of species recorded
R7523	97

**Table: Number of species recorded in a 1km grid square surrounding Griston Bog Nature Reserve.**  
**Data accessed on 11/04/2023.**

To compliment the species recorded online, a biodiversity survey was completed in 2023 within the four biodiversity areas. The results of this survey are presented on pages 16-20. A species dataset will be submitted to the National Biodiversity Centre, which will improve the records of species diversity available online within the habitats surrounding the acidic raised bog habitat of griston Bog and complement the biodiversity records already known for the site.



**Image: Grey heron rests at the constructed pond, Herb-Robert, Heath Spotted-orchid, and Marsh Cinquefoil identified during the 2023 Griston Bog Nature reserve biodiversity survey © N. Madigan**

## 5.2 Biodiversity Survey 2023 Methods

Desktop research was carried out for the area, this included:

- Review of species recorded online on the National Biodiversity Data Centre
  - 92 species identified in the area (for details see page 13 and 14)
- Review of sites and monuments of cultural importance available online at [www.archaeology.ie](http://www.archaeology.ie)
  - No sites of cultural significance identified (for details see page 7)
- Review of SAC, SPA and NHA boundaries
  - No designations identified in the area
- Review of water data available from [www.catchments.ie](http://www.catchments.ie)
  - One river water body (with good ecological status) identified near Griston Bog Nature Reserve but outside the boundary of the site

Surveys of the site were completed on 12/06/2023 and 12/07/2023. All species observed while walking the site were identified and recorded. The route walked included all paths and boardwalks on the reserve as well as a transect off-path through the acid raised bog area. For safety, areas such as the Ash plantation where Ash dieback was evident and areas that required access only by crossing deep drains and waterlogged areas of the cut bog regenerating as alkaline marsh were not surveyed.

## 5.3 Biodiversity Survey 2023 Results

118 species were recorded during the biodiversity survey. This included 55 wildflowers, 13 grasses/sedges/rushes, 6 mosses, 13 trees/shrubs, 3 ferns/horsetails, 3 fungi/lichens, 2 butterflies, 13 other invertebrates, 9 bird species and 1 mammal. A breakdown of the variety of species in each area is shown below. To review a full list of species recorded please see pages 16-20 of this plan.

### Acid Raised Bog

- \* 11 Wildflowers
- \* 8 Grasses/Sedges/Rushes
- \* 3 Trees/Shrubs
- \* 2 Ferns
- \* 5 Mosses
- \* 2 Lichens
- \* 5 Invertebrates
- \* 2 Birds

### Alkaline Marsh

- \* 27 Wildflowers
- \* 3 Grasses/Sedges/Rushes
- \* 6 Trees/Shrubs
- \* 3 Ferns/Horsetails
- \* 1 Lichen
- \* 1 Butterfly
- \* 7 Invertebrates
- \* 4 Birds

### Plantation and Pond

- \* 39 Wildflowers
- \* 3 Grasses/Sedges/Rushes
- \* 12 Trees/Shrubs
- \* 2 Ferns/Horsetails
- \* 1 Fungus
- \* 1 Butterfly
- \* 6 Birds

It should be noted that the species list presented in this plan should be considered as a representative sample of the diversity of wildlife in the area and not considered a complete list. Weather, time of year and even the time of the day the survey was undertaken can all have an impact on the variety of biodiversity recorded. It does however provide an increased sample of biodiversity within the area that will improve the online presence of diversity of species on the National Biodiversity Data Centre.

Ballyhoura Heritage and Environment CLG should be aware that two invasive species, *Rhododendron ponticum* and *Lagarosiphon major* (Curley pondweed) were identified during the survey and by an independent ecologist. *Rhododendron* was located by the path to the south of the pond while *Curley pondweed* was located within the pond. According to the National Biodiversity Data Centre both are considered invasive species of high impact and any work to remove these species from the area should be done in collaboration and guidance with and from Limerick City and County Council.

## 5.3 Griston Bog Biodiversity Survey Results 2023

### Wildflowers

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Ground Elder	<i>Aegopodium podagraria</i>	Lus an easpaig		x		Introduced
Wild Angelica	<i>Angelica sylvestris</i>	Gallfheabhrán		x	x	Native
Common Daisy	<i>Bellis perennis</i>	Nóinín		x	x	Native
Ling Heather	<i>Calluna vulgaris</i>	Fraoch mór	x			Native
Marsh-marigold	<i>Caltha palustris</i>	Lus buí Bealtaine		x		Native
Hedge Bindweed	<i>Calystegia sepium</i>	Lalus fáil		x	x	Native
Cuckooflower	<i>Cardamine pratensis</i>	Biolar gréagháin		x	x	Native
Wavy Bittercress	<i>Cardamine flexuosa</i>	Searbh-bhiolar casta			x	Native
Rosebay Willowherb	<i>Chamaenerion angustifolium</i>	Lus na tine			x	Native
Enchanter's-nightshade	<i>Circaea lutetiana</i>	Fuinseagach			x	Native
Marsh Thistle	<i>Cirsium palustre</i>	Feochadán corraigh		x	x	Native
Marsh Cinquefoil	<i>Comarum palustre</i>	Cnó léana		x		Native
Heath spotted-orchid	<i>Dactylorhiza maculata</i>	Na circíní	x			Native
Great Willowherb	<i>Epilobium hirsutum</i>	Lus na Tríonóide		x		Native
Broad-leaved Willowherb	<i>Epilobium montanum</i>	Saileachán leathan			x	Native
Square-stalked Willowherb	<i>Epilobium tetragonum</i>	Onagraceae	x			Introduced
Cross-leaved Heath	<i>Erica tetralix</i>	Fraoch naoscaí	x			Native
Meadowsweet	<i>Filipendula ulmaria</i>	Airgead luachra	x	x		Native
Cleavers	<i>Galium aparine</i>	Garbhlus		x	x	Native
Heath Bedstraw	<i>Galium saxatile</i>	Luibh na bhfear gonta	x			Native
Herb Robert	<i>Geranium robertianum</i>	Ruithéal rí		x		Native
Wood Avens/Herb Bennet	<i>Geum urbanum</i>	Machall coille		x	x	Native
Ivy	<i>Hedera hibernica</i>	Eidhneán		x	x	Native
Yellow Flag Iris	<i>Iris pseudacorus</i>	Feileastram		x	x	Native
Marsh Ragwort	<i>Jacobaea aquatica</i>	Buachalán corraigh			x	Native
Meadow Vetchling	<i>Lathyrus pratensis</i>	Peasairín buí		x	x	Native
Common Nipplewort	<i>Lapsana communis</i>	Duilleog Bhríde			x	Native
Duckweed	<i>Lemna minor</i>	Ros lachan		x	x	Native
Greater Bird's-foot-trefoil	<i>Lotus pedunculatus</i>	Crobh éin corraigh		x	x	Native
Purple-loosestrife	<i>Lythrum salicaria</i>	Créachtach		x	x	Native
Pineappleweed	<i>Matricaria discoidea</i>	Lus na hiothlann			x	Native
Water-cress	<i>Nasturtium officinale</i>	Biolar			x	Native
Greater Plantain	<i>Plantago major</i>	Cuach Phádraig			x	Native



## Wildflowers

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Broad-leaved Pondweed	<i>Potamogeton natans</i>	Liach Bhríde			x	Native
Bramble	<i>Rubus fruticosus</i>	Dris	x	x	x	Native
Tormentil	<i>Potentilla erecta</i>	Néalfartach	x			Native
Meadow Buttercup	<i>Ranunculus acris</i>	Fearbán féir			x	Native
Creeping Buttercup	<i>Ranunculus repens</i>	Fearbán (reatha)		x	x	Native
Rhododendron	<i>Rhododendron ponticum</i>	Róslabhras			x	Invasive
Common Sorrel	<i>Rumex acetosa</i>	Samhadh bó	x	x		Native
Ragged Robin	<i>Silene flos-cuculi</i>	Lus síoda			x	Native
Prickly Sowthistle	<i>Sonchus asper</i>	Bleachtán colgach			x	Native
Lesser Stitchwort	<i>Stellaria graminea</i>	Tursarraing chorraigh			x	Native
Devil's-Bit Scabius	<i>Succisa pratensis</i>	Odhrach bhallach	x			Native
Common Comfrey	<i>Symphytum officinale</i>	Compar			x	Introduced
Dandelion	<i>Taraxacum vulgaria</i>	Caisearbhán		x	x	Native
Upright Hedge-parsley	<i>Torilis japonica</i>	Fionnas fáil			x	Native
White Clover	<i>Trifolium repens</i>	Seamair bhán		x	x	Native
Bulrush	<i>Typha latifolia</i>	Coigeal na mban sí		x	x	Native
Billberry	<i>Vaccinium myrtillus</i>	Fraochán	x	x	x	Native
Valerian	<i>Valeriana officinalis</i>	Caorthann corraigh	x	x	x	Native
Germander Speedwell	<i>Veronica chamaedrys</i>	Lus cré talún			x	Native
Bush Vetch	<i>Vicia sepium</i>	Peasair fhiáin		x	x	Native
Common Nettle	<i>Urtica dioica</i>	Neantóg			x	Native
Curly Waterweed *	<i>Lagarosiphon major</i>				x	Invasive

## Ferns & other non-seed plants

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Horsetail	<i>Equisetum</i> spp.	Broimín/Scuab eich		x	x	Native
Royal fern	<i>Osmunda regalis</i>	Raithneach riúil	x	x		Native
Bracken Fern	<i>Pteridium aquilinum</i>	Raithneach mhór	x	x	x	Native

## Trees & shrubs

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Horse Chestnut	<i>Aesculus hippocastanum</i>	Crann cnó capaill			x	Introduced
Sycamore	<i>Acer pseudoplatanus</i>	Seiceamóir			x	Introduced
Silver Birch	<i>Betula pendula</i>	Beith gheal		x		Native
Hawthorn	<i>Crataegus monogyna</i>	Sceach gheal			x	Native
Common Beech	<i>Fagus sylvatica</i>	Feá			x	Introduced
Ash	<i>Fraxinus excelsior</i>	Fuinseóg		x	x	Native
European Larch	<i>Larix decidua</i>	Learóg			x	Introduced
Norway spruce	<i>Picea abies</i>	Sprúis Iorua			x	Introduced
Douglas Fir	<i>Pseudotsuga menziesii</i>	Giúis Dhuchlais			x	Introduced
Pedunculate Oak	<i>Quercus robur</i>	Dair ghallda	x	x	x	Native
Willow	<i>Salix spp.</i>	Saileach	x	x	x	Native
Elder	<i>Sambucus nigra</i>	Trom			x	Native
Rowan	<i>Sorbus aucuparia</i>	Caorthann		x		Native

## Grasses/Sedges/Rushes

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Meadow Fox-tail	<i>Alopecurus pratensis</i>	Fiteog léana	x			Native
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>	Féar cumhra	x			Native
False Oat-grass	<i>Arrhenatherum elatius</i>	Coirce bréige			x	Native
Star Sedge	<i>Carex echinata</i>	Cíb na réaltaí	x			Native
Bottle Sedge	<i>Carex rostrata</i>	Cíb ghobach	x			Native
Common Couch	<i>Elytrigia repens</i>	Broimfhéar			x	Native
Hare's-tail Cottongrass	<i>Eriophorum vaginatum</i>	Ceannbhán gaelach	x			Native
Yorkshire Fog	<i>Holcus lanatus</i>	Féar an chinn bháin		x		Native
Soft rush	<i>Juncus effusus</i>	Geataire	x	x		Native
Hairy Woodrush	<i>Luzula pilosa</i>	Giúnach coille	x			Native
Great Woodrush	<i>Luzula sylvatica</i>	Giúnach mór			x	Native
Purple Moor-grass	<i>Molinia caerulea</i>	Fionnán	x	x		Native
Reed Canary-grass	<i>Phalaris arundinaceae</i>	Cuisreach			x	Native

## Mosses

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Haircap Moss	<i>Polytrichum</i> spp.		x			Native
Sphagnum moss	<i>Sphagnum cappillifolium</i>	Sfagnam	x			Native
Sphagnum moss	<i>Sphagnum cuspidatum</i>	Sfagnam	x			Native
Sphagnum moss	<i>Sphagnun magellanicum</i>	Sfagnam	x			Native
Sphagnum moss	<i>Sphagnum papillosum</i>	Sfagnam	x			Native
Feather moss	<i>Hypnum jutlandicum</i>	Cleitchaonac	x			Native

## Fungi/Lichens

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Oak Moss Lichen	<i>Evernia prunastri</i>	Crotal	x	x		Native
Meadowsweet Rust Fungus	<i>Triphragmium ulmariae</i>				x	Unknown
Bearded lichen	<i>Usnea</i>	Crotal	x			Native

## Butterflies

Common Name	Scientific Name	Irish Name	Bog	Alkaline Marsh	Pond & Woodland	Status
Meadow Brown	<i>Maniola jurtina</i>	Donnóg fhéir			x	Native
Orange-tip	<i>Anthocharis cardamines</i>	Barr buí		x		Native

## Mammals

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Otter *	<i>Lutra lutra</i>	Madra uisce			x	Native

## Birds

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Meadow Pipit	<i>Anthus pratensis</i>	Riabhóg Mhóna	x			Resident
Grey Heron	<i>Ardea cinerea</i>	Corr réisc			x	Resident
Woodpigeon	<i>Columba palumbus</i>	Colm coille	x			Resident
Robin	<i>Erithacus rubecula</i>	Spideog		x	x	Resident
Chaffinch	<i>Fringilla coelebs</i>	Rí rua		x	x	Resident
Moorhen	<i>Gallinula chloropus</i>	Cearc uisce			x	Resident
Chiffchaff	<i>Phylloscopus collybita</i>	Tiuf-teaf			x	Resident
Willow Warbler	<i>Phylloscopus trochilus</i>	Ceolaire sailí		x		Resident
Wren	<i>Troglodytes troglodytes</i>	Dreolín		x	x	Resident

## Birds

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
Song Thrush	<i>Turdus philomelos</i>	Smólach ceoil			x	Resident
Great Tit	<i>Parus major</i>	Meantán mór			x	Resident
Blackcap	<i>Sylvia atricapilla</i>	Caipín dubh			x	Migratory

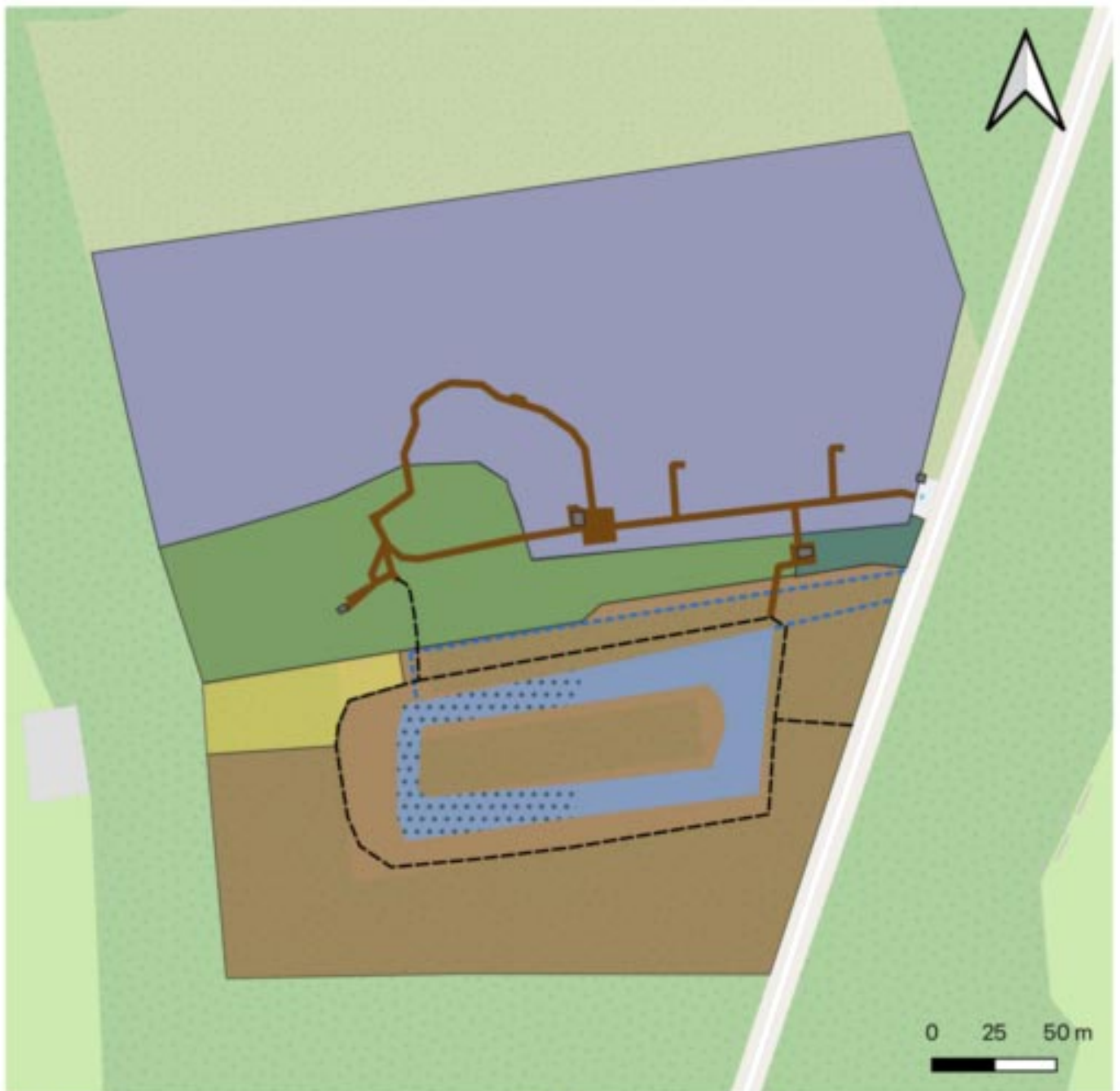
## Invertebrates

Common Name	Scientific Name	Irish Name	Acidic Bog	Alkaline Marsh	Pond & Woodland	Status
White-tailed Bumblebee	<i>Bombus lucorum</i> agg.	Bumbóg	x			Native
Common Carder Bee	<i>Bombus pascuorum</i>	Bumbóg		x		Native
Beautiful Demoiselle	<i>Calopteryx virgo</i>	Brídeog	x			Native
Hoverfly	<i>Chrysogaster</i> sp.	Cuilleag hoghair		x		Native
Hoverfly	<i>Leucozona glauca</i>	Cuilleag hoghair		x		Native
Median Wasp	<i>Dolichovespula media</i>	Foiche		x		Native
Tapered Drone Fly	<i>Eristalis pertinax</i>	Eitilt drone barrchaolaithe		x		Native
Green Shield Bug	<i>Palomena prasina</i>	Fríd scéithe ghlas	x			Native
Red Soldier Beetle	<i>Rhagonycha fulva</i>	Moltán rua		x		Native
Yellow Dung Fly	<i>Scathophaga stercoraria</i>	Eitilt aoileach buí		x		Native
Hoverfly	<i>Syrphus</i> sp.	Cuilleag hoghair		x		Native
Funnel web-spider web			x			Native
Red ant	<i>Myrmica rubra</i>	Seangán dearg	x			Native
Large Red Damselfly	<i>Pyrrhosoma nymphula</i>	Cromán mór dearg			x	Native

Note: Those species marked with an \* were identified by members of the public who submitted their observations to the project ecologist.

## 5.4 Habitat Map of Griston Bog

During the development of the Griston Bog Nature Reserve Community Biodiversity Action Plan a number of different habitats were identified in the survey area. Each habitat was classified according to Fossitt (2000) and the following map presents the location of habitats and built features across the site.



- |  |  |
|--|--|
| Raised Bog (PB1)                             | Wet pedunculate oak-ash woodland (WN4) |
| Cutover Bog (PB4) regenerated as Marsh (GM1) | Conifer Plantation (WD4)               |
| Wet Grassland (GS4)                          | Buildings (BL3)                        |
| Artificial Pond (FL8)                        | Boardwalk (BL3)                        |
| Reed and large sedge swamps (FS1)            | Woodland path                          |
| Drainage ditches (FW4)                       |  |

## 5.5 Habitats of Griston Bog

Griston Bog has a variety of habitats including cutover bog (PB4) regenerated as marsh (GS1), raised bog (PB1), wet grassland (GS4), artificial pond (FL8), reed and large sedge swamps (FS1), drainage ditches (FW4), wet pedunculate oak-ash woodland (WN4) and conifer plantation (WD4). The following habitat descriptions are from 'A Guide to the Habitats of Ireland', J. A. Fossitt, 2000.



### Raised bog (PB1)

Raised bogs are accumulations of deep acid peat (3-12 m) that originated in shallow lake basins or topographic depressions. The vegetation is open and *Sphagnum* mosses dominate the ground layer. Small-scale mosaics of plant communities are characteristic and reflect the complex microtopography of hummocks and hollows on the bog surface. Dry areas and hummocks usually support Ling (*Calluna vulgaris*), Hare's-tail Cottongrass (*Eriophorum vaginatum*), Deergrass (*Trichophorum caespitosum*), Cross-leaved Heath (*Erica tetralix*), lichens (*Cladonia* spp.), and *Sphagnum* (*S. capillifolium*, *S. imbricatum*, *S. papillosum*). Wet areas and pools are characterised by Common Cottongrass (*Eriophorum angustifolium*), White Beak-sedge (*Rhynchospora alba*), Bog Asphodel (*Narthecium ossifragum*), sundews (*Drosera* spp.) and *Sphagnum* mosses (*S. cuspidatum*, *S. auriculatum*).

### Cutover bog (PB4) regenerated as Marsh (GS1)

Marsh is found on level ground near river banks, lakeshores, and in other places where mineral or shallow peaty soils are waterlogged, where the water table is close to ground level for most of the year and are not peat forming. Marsh is comparatively species-rich and supports a high proportion of wetland species in addition to the typical dominants: rushes (*Juncus* spp.), sedges (*Carex* spp.) and Meadowsweet (*Filipendula ulmaria*). Grasses may be present but not abundant. To be considered as marsh, the proportion of sedges and grasses should not exceed 50%. The broadleaved herb component may include Water Mint (*Mentha aquatica*), Marsh Thistle (*Cirsium palustre*), Wild Angelica (*Angelica sylvestris*), Marsh Pennywort (*Hydrocotyle vulgaris*), Marsh-marigold (*Caltha palustris*), Common Valerian (*Valeriana officinalis*), Ragged-robin (*Lychnis flos-cuculi*) and Purple-loose strife (*Lythrum salicaria*) to name a few.



### Artificial pond (FL8)

Used for artificial or ornamental bodies of standing water that may be found in parks, demesnes, gardens or golf courses. Flooded quarries, tailings ponds and water treatment plants (with open water) should also be included. The nutrient status of these artificial water bodies is variable and may be high as in the case of hypertrophic lakes in urban parks.



### Reed and large sedge swamps (FS1)

Swamps are stands of emergent herbaceous vegetation that generally occupy a zone at the transition from open water to terrestrial habitats. Water levels may fluctuate but swamps typically remain wet with the water table above ground level for most of the year. This category includes species-poor stands of herbaceous vegetation that are dominated by reeds and other large grasses or large, tussock-forming sedges. Most reed and large sedge swamps are overwhelmingly dominated by one or a small number of species, as in the case of reed beds. Typical components include Common Reed (*Phragmites australis*), Common Club-rush (*Schoenoplectus lacustris*), Reed Sweet-grass (*Glyceria maxima*), Branched Bur-reed (*Sparganium erectum*), Reed Canary-grass (*Phalaris arundinacea*), Great Fen-sedge (*Cladium mariscus*), Greater Tussock-sedge (*Carex paniculata*), Bulrush (*Typha latifolia*) and Water Horsetail (*Equisetum fluviatile*).

### Conifer plantation (WD4)

This category is used for areas that support dense stands of planted conifers where the broad leaved component is less than 25% and the overriding interest is commercial timber production. Conifer plantations are characterised by even-aged stands of trees that are usually planted in regular rows, frequently within angular blocks. Species diversity is low and single species stands are common. The majority of planted conifers are non-native species such as Sitka Spruce (*Picea sitchensis*), Lodgepole Pine (*Pinus contorta*), Norway Spruce (*Picea abies*) and larches (*Larix spp.*).



### Wet pedunculate oak-ash woodland WN4

This type of woodland is associated with areas that are flooded or waterlogged in winter but which dry out in summer. Woodland is dominated by Pedunculate Oak (*Quercus robur*) and/or Ash (*Fraxinus excelsior*); other common components include Hazel (*Corylus avellana*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*) and willows (*Salix spp.*). Alder (*Alnus glutinosa*) can be locally abundant. The ground flora typically comprises Meadowsweet (*Filipendula ulmaria*), Primrose (*Primula vulgaris*), Enchanter's-nightshade (*Circaea lutetiana*), Ivy (*Hedera helix*), Bramble (*Rubus fruticosus agg.*), Remote Sedge (*Carex remota*) and Ramsons (*Allium ursinum*).



#### Drainage ditches (FW4)

This category includes linear water bodies or wet channels that are entirely artificial in origin. To be included here, drainage ditches should either contain water (flowing or stagnant) or be wet enough to support wetland vegetation. drainage ditches must be maintained and cleared in order to keep them open. Those that are overgrown with vegetation are likely to be cleared intermittently. Note that water levels are also likely to undergo seasonal fluctuations.

#### Wet Grassland (GS4)

This type of grassland can be found on flat or sloping ground in upland and lowland areas. It occurs on wet or waterlogged mineral or organic soils that are poorly-drained or, in some cases, subjected to seasonal or periodic flooding. Wet grassland frequently grades into marsh - GM1 and there are many similarities in the range of species present in both habitats. To be included in the wet grassland category, the cover of grasses should exceed 50%, except in areas where rushes or small sedges predominate, and the total cover of reeds, large sedges and broadleaved herbs should be less than 50%. Among the suite of broadleaved herbs that are present, there should be a significant proportion of drier grassland species in addition to those that are more commonly associated with wetlands. Species composition varies considerably. Wet grassland often contains abundant rushes (*Juncus effusus*, *J. acutiflorus*, *J. articulatus*, *J. inflexus*) and/or small sedges (*Carex flacca*, *C. hirta*, *C. ovalis*), in addition to grasses such as Yorkshire-fog (*Holcus lanatus*), Creeping Bent (*Agrostis stolonifera*), Marsh Foxtail (*Alopecurus geniculatus*), Rough Meadow-grass (*Poa trivialis*) and Tufted Hair-grass (*Deschampsia caespitosa*). Purple Moor-grass (*Molinia caerulea*) may also be present but should not dominate. The proportion of broad leaved herbs is often high; those that commonly occur in wet grassland include Creeping Buttercup (*Ranunculus repens*), Marsh Thistle (*Cirsium palustre*), Silverweed (*Potentilla anserina*), Meadowsweet (*Filipendula ulmaria*), Water Mint (*Mentha aquatica*), Common Marsh-bedstraw (*Galium palustre*), Devil's-bit Scabious (*Succisa pratensis*).







### **Buildings and artificial surfaces (BL3)**

This broad category incorporates areas of built land that do not fit elsewhere in the classification. It includes all buildings (domestic, agricultural, industrial and community) other than derelict stone buildings and ruins. It also includes areas of land that are covered with artificial surfaces of tarmac, cement, paving stones, bricks, blocks or astroturf (e.g. roads, car parks, pavements, runways, yards, and some tracks, paths, driveways and sports grounds). Griston Bog Nature Reserve offers built structures including a classroom, bird hide, covered picnic area, toilets and constructed wooden boardwalk and woodland path. Each of the buildings is framed using natural wood materials.



**Images: Selection of buildings artificial surfaces and paths allowing access at Griston Bog Nature Reserve to members of the public. © N. Madigan**

## 6. Recommended Biodiversity Actions

The following biodiversity actions are recommendations, Griston Bog Nature Reserve is part of your community and your environment therefore as a group it is your choice to consider these biodiversity actions and whether these suggested biodiversity actions are to be implemented in your community. It is evident the community have already completed a number of biodiversity projects in your area. As a reminder before any action is taken it is suggested you engage with landowners, your local Heritage Officer and any other interested party. To complete many of these projects funding may be required please see suggested funding streams on page 31.

### Objective 1: To raise public awareness, understanding and appreciation of biodiversity

Action Number	Action	Priority	Time-frame	What will benefit
1	Organise events to link with national weeks of importance that celebrate biodiversity and can be used by the committee to raise the profile of biodiversity locally. Some suggested events to consider include World Wetlands Day (February), National Biodiversity Week (May), International Bog Day (July), National Heritage Week (August), Water Heritage Day (August).	High	Year 1-10	Community & biodiversity
2	Art can be a great method to communicate the importance of biodiversity. Consider implementing a longterm art project centred around Griston Bog Nature Reserve supported by the local schools and the community. Creative Ireland may be a source of funding to explore.	Medium	Year 1-10	Community & biodiversity
3	Continue to use Griston Bog Nature Reserve as an outdoor classroom, providing visits to school groups. Consider establishing an outreach programme to deliver in schools during the winter months. Consider applying to the Heritage Council Organisational Fund to support an education officer for the reserve or work with a Heritage in School Specialist to use the facilities.	High	Year 1-5	Community & biodiversity
4	To support community members to engage and learn about nature, the variety of courses that are available for community members to engage with could be promoted through social media. One example is the annual series of workshops hosted by the National Biodiversity Data Centre. They also have identification courses that can be completed online such as Bumblebee, Butterfly and Damselfly & Dragonfly identification courses. <a href="https://biodiversityireland.ie/workshops/">https://biodiversityireland.ie/workshops/</a> <a href="https://learn.biodiversityireland.ie/collections">https://learn.biodiversityireland.ie/collections</a> • <a href="https://biodiversityireland.ie/surveys/dragonfly-ireland/dfi_id_course/">https://biodiversityireland.ie/surveys/dragonfly-ireland/dfi_id_course/</a>	Medium	Year 1-5	Community & biodiversity
5	Establish a network of volunteers to support with biodiversity surveys and habitat management such as scrub clearing, species monitoring and education.	Short	Year 1-10	Community & biodiversity
6	The bog habitat at Griston Bog Nature Reserve is well developed with Biodiversity signage consider also designing biodiversity signage for the woodland and pond area.	Medium	Year 1-10	Community & biodiversity

## Objective 2: To facilitate the collection and dissemination of biodiversity information

Project Number	Action	Priority	Time-frame	What will benefit
7	Support and promote the collection of biological data and the lodging of these data in the National Biodiversity Data Centre. Citizen Science is a great opportunity for the community. Options include to participate in the: <ul style="list-style-type: none"> <li>• National Butterfly Monitoring Scheme. Butterflies are monitored weekly from April to September</li> <li>• National Bumblebee Monitoring Scheme. Bumblebees are monitored monthly March to October</li> <li>• National Hop to It Frog survey co-ordinated by the Irish Peatland Conservation Council</li> <li>• Dragonfly Ireland Survey - Dragonfly Monitor</li> </ul>	High	Year 1-10	Biodiversity data collection
8	In developing the Griston Bog Nature Reserve Community Biodiversity Action Plan a dataset of all species recorded was submitted to the National Biodiversity Data Centre Ballyhoura Heritage and Environment should update this data set annually with casual species observations and those species records identified during specific monitoring programmes.	Short	Year 1-10	Biodiversity data collection
9	While this plan has completed a survey limitations included the time allocated for the survey and time of year. It is suggested that Ballyhoura Heritage and Environment engage with local wildlife groups to increase the biodiversity records for the community. One example is to invite local groups to your community to complete surveys or host a walk examples include Limerick Bat Group (City and County) or BirdWatch Ireland Limerick Branch	Medium	Year 3-10	Biodiversity data collection
10	Peatlands are habitats to some very specific fauna including the Large Heath Butterfly and Black Darter Dragonfly both raised bog specialists. Neither species were identified during the survey days for this project however it does not mean that these are not present on the bog area of the reserve. Monitor for these two raised bog specialist June-July for the Large Heath Butterfly and June to October for the Black Darter Dragonfly.	High	Year 1-5	Biodiversity data collection
11	Two invasive species were identified during the development of this plan. Rhododendron within the woodland area and curley pondweed within the pond. Both are considered high impact invasive species. Ballyhoura Heritage and Environment CLG should not try and eradicate these species. Ballyhoura Heritage and Environment should map the location of each species and work with Limerick City and County Council Biodiversity Officer to put in place a control plan for the safe removal of these species from the site. Having a control plan in place is essential to avoid the spread of these invasive species to the surrounding area.	High	Year 1-5	Biodiversity data collection
12	In 2024 a wild honey bee hive was identified at Griston Bog. Due to its location a bee keeper moved the hive. The National University of Ireland, Galway are co-ordinating a wild honey bee study and are asking for members of the public to report their observations of wild hives to Wild Honey Bee Study at the National Biodiversity Data Centre <a href="http://www.biodiversityireland.ie">www.biodiversityireland.ie</a> .	High	Year 1-5	Biodiversity data collection

### Objective 3: Management to maintain and enhance habitats, biodiversity and public access

Project Number	Action	Priority	Time-frame	What will benefit
13	Water is the blood of a bog. Establish quarterly water monitoring. A high water table is required for the growth of <i>Sphagnum</i> moss and a healthy bog. Consider engaging with a hydrologist to identify water movement from the reserve if after two years of monitoring the water table remains below 20cm from the surface of the bog throughout the year.	High	Year 1-2	Peatland habitat & biodiversity
14	Remove emerging scrub such as willow and other tree species from the surface of the raised bog. If scrub is allowed to encroach further it will limit water and light reaching the peatland plants and will lead to water loss from the bog.	High	Year 1-10	Peatland habitats & biodiversity
15	During the winter months, regularly check, clean and refill the bird feeding stations located at the bird hide at Griston Bog. It is important that feeders are regularly cleaned to avoid the spread of disease. There is no need to feed the birds during the summer.	High	Year 1-10	Birds
16	There are a number of bird nest boxes already in place around the site. Nest boxes should be cleaned annually during the autumn. Check the contents before removing and cleaning nest boxes. Information about building and positioning nest boxes can be found on the Birdwatch Ireland and BTO websites: <a href="https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/garden-birds/nestboxes/">https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/garden-birds/nestboxes/</a> <a href="https://www.bto.org/how-you-can-help/providing-birds/putting-nest-boxes-birds">https://www.bto.org/how-you-can-help/providing-birds/putting-nest-boxes-birds</a>	High	Year 1-10	Birds
17	While bird boxes were observed as presence on the site also consider erecting bat boxes. These are an important refuge for male bats and young bats during the breeding season when the main roost becomes a nursery.	Medium	Year 1-10	Bats
18	There is an insect hotel present on the site. If making or buying any more insect or bee hotels, they should be small, no bigger than an average bird box. Large hotels can encourage the spread of disease and attract predators. Information about supporting wild pollinators can be found at <a href="https://pollinators.ie">https://pollinators.ie</a> . In the woodland leave any dead or fallen trees/ branches where they are, with the exception of moving them off the footpath and for health and safety reasons. Rotting wood provides a valuable habitat for many invertebrates and allowing them to rot in place allows the nutrients to be recycled.	Medium	Year 5-10	Invertebrates

Project Number	Action	Priority	Time-frame	What will benefit
19	Ash dieback is caused by the fungal pathogen <i>Hymenoscyphus fraxineus</i> and is present in the woodland area of Griston Bog Nature Reserve. The current management advice at the time of development for ash trees infected with ash dieback is that they should be left alone unless they pose a danger to the public or to property. As the disease progresses monitor the trees - prune or fell them only if the tree or its branches threaten to cause injury or damage or if advice changes. Seek professional advice before any action is taken in the woodland. Care should be taken as severely infected trees can drop branches or shatter due to the vibration of the saw. Learn more: <a href="https://www.teagasc.ie/crops/forestry/advice/forest-protection/ash-dieback/">https://www.teagasc.ie/crops/forestry/advice/forest-protection/ash-dieback/</a> .	High	Year 1-5	Ash tree
20	There is a conifer plantation present in the Griston Bog Nature Reserve. If this is part of a fixed term planting plan a requirement of the plan may include the felling of the plantation in the future. Ballyhoura Heritage and Environment CLG should consider planting native woodland species rather than a single stand of conifers if future felling is required.	Low	Year 1-10	Native Trees
21	At Griston Bog Nature Reserve there are small constructed ponds for students to use for freshwater invertebrate dipping during educational programmes. Ensure these are kept clean by planting water plants including an oxygenating plant and some yellow flag iris in pots	Medium	Year 1-5	Freshwater invertebrate
22	The large pond in the woodland area of the nature reserve is becoming infilled with reeds and other emergent plants creating reed and large sedge swamps (FS1) habitat particularly at the back of the pond. This is now an important habitat for nesting birds and should remain. The front of the pond remains as an artificial pond (FL8) habitat however if left unmanaged in time it will also develop into reed and large swamp habitat. Regular removal of the encroaching vegetation should take place. It must be only done with the guidance of Limerick City and County Council invasive species management team to ensure the safe removal of curly pondweed which was identified in the pond.	Medium	Year 1-5	Freshwater fauna
23	To allow access for members of the public the woodland path will need a new surface. Exposed tree roots and encroaching vegetation can lead to trip hazards. It was identified that the Common Frog uses the path as a crossing point. When installing a new path consider including tunnels under the path to allow for migrating frogs. Teagasc NeighbourWoods scheme may be a source of funding for this project.	High	Year 1-5	People & biodiversity
24	Establish regular checks of all structures and paths to ensure safe access for visitors. Consider alternative materials when replacing structures such as recycled lumbar for fencing, seating or boardwalks.	High	Year 1-10	People and biodiversity

During the timeframe of this plan and indeed as biodiversity guidelines evolve you may find other initiatives to support biodiversity in your community. It is always recommended to record these new initiatives for the purposes of keeping a record which will allow a review of this plan as it ends. Use the table below to record any future biodiversity initiatives that Ballyhoura Heritage and Environment CLG undertake during the timeframe of this plan.

Project Number	Action	Priority	When completed	What will benefit

## 7. Sources of Funding

It is recognised that there is sometimes a financial cost associated with taking action to maintain and enhance biodiversity at a local level. There are a number of organisations that offer financial support through competitive grant awards to formally established community groups. Applying for these grant awards does not mean that your group will secure funding for your proposed project. It is always recommended before applying for any fund that your group carefully read the criteria/guidelines and discuss as a group how your project meets the application requirements. Grant applications take time it is recommended that your group identify competitive grant awards available in a timely manner. For costs associated with your project most grant applications require three quotes this is to ensure value for money and this may also take time. My best advice is be prepared - it will make the application process easier.

### 7.1 Funding Sources for Projects & Events

- Limerick County Council Community Environment Action Fund  
<https://www.limerick.ie/council>
- Heritage Council Grants  
<https://www.heritagecouncil.ie/funding>
- Local Authority Water Programme Development Fund  
<http://watersandcommunities.ie>
- Waterways Ireland Heritage Grant  
[www.waterways.org](http://www.waterways.org)
- Community Foundation for Ireland Environment & Nature Fund  
<https://www.communityfoundation.ie>
- NPWS (National Parks and Wildlife Service) grants for small recording projects  
<https://www.npws.ie>
- Inland Fisheries Ireland Midland Fisheries Fund  
[www.fisheriesireland.ie](http://www.fisheriesireland.ie)
- Waterways Ireland Event programme  
<https://www.waterwaysireland.org>
- Peatlands Community Engagement Scheme  
<https://www.npws.ie/peatlands-and-turf-cutting/>
- Teagasc - NeighbourWoods  
<https://www.teagasc.ie/crops/forestry/grants/neighbourwoods/>
- Creative Ireland  
<https://www.creativeireland.gov.ie/en/>

## 8. Useful Websites



Understanding the variety of biodiversity found within our local habitats is a lifelong learning process. There are government, local government, non-governmental and community groups that can offer you guidance in identifying local biodiversity and how best to manage habitats for biodiversity. To follow are some groups that can offer you guidance with your biodiversity and habitat enquiries:

For enquiries relating to general habitats and biodiversity:

- \* National Biodiversity Data Centre : [www.biodiversityireland.ie](http://www.biodiversityireland.ie)
- \* Biodiversity maps : [maps.biodiversityireland.ie](http://maps.biodiversityireland.ie)
- \* National Parks and Wildlife Service : [www.npws.ie](http://www.npws.ie)
- \* Coillte : [www.coillte.ie](http://www.coillte.ie)
- \* Limerick County Council Environment Section : <https://www.limerick.ie/council/services/environment>
- \* Waterways Ireland : [www.waterwaysireland.org](http://www.waterwaysireland.org)
- \* Local Authority Water Programme : [www.waterandcommunities.ie](http://www.waterandcommunities.ie)
- \* An Taisce : [www.antaisce.org](http://www.antaisce.org)
- \* Irish Wildlife Trust : [www.iwt.ie](http://www.iwt.ie)
- \* Hedgelaying Association of Ireland : <https://hedgelaying.ie/>

For specific species enquiries:

- \* BirdWatch Ireland : [www.birdwatchireland.ie](http://www.birdwatchireland.ie)
- \* Bat Conservation Ireland : [www.batconservationireland.ie](http://www.batconservationireland.ie)
- \* Butterfly Conservation Ireland: [www.butterflyconservtaion.ie](http://www.butterflyconservtaion.ie)
- \* Tree Council of Ireland : [www.treecouncil.ie](http://www.treecouncil.ie)
- \* Crann : [www.crann.ie](http://www.crann.ie)
- \* Irish Peatland Conservation Council: [www.ipcc.ie](http://www.ipcc.ie)
- \* Native Woodland Trust : [www.nativewoodlandtrust.ie](http://www.nativewoodlandtrust.ie)
- \* Vincent Wildlife Trust : [www.vincentwildlife.ie](http://www.vincentwildlife.ie)

For species identification enquiries:

- \* National Biodiversity Data Centre : [www.biodiversityireland.ie](http://www.biodiversityireland.ie)
- \* Wild Flowers : [www.wildflowersofireland.net](http://www.wildflowersofireland.net)
- \* Butterfly : <https://www.biodiversityireland.ie>
- \* Dragonfly & damselflies : <https://www.biodiversityireland.ie>
- \* General wild plants : [www.irishwildflowers.ie](http://www.irishwildflowers.ie)
- \* Invasive Species: <https://invasivespeciesireland.com/>



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Secretariat of the Convention on Biological Diversity. Global Biodiversity Outlook 4. Montréal; 2014.

What is a catchment, and why should you care. [catchments.ie](http://catchments.ie), October 2020.  
<<https://www.catchments.ie/>>

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# Appendix 1: Review of biodiversity records on the National Biodiversity Data Centre

Records were reviewed on 11/04/2023.

**Species list for R756230**






No species recorded online on the National Biodiversity Data Centre website in 2023

**Quality of information**  
The National Biodiversity Data Centre makes every effort to ensure the quality of the information available on this website and updates the information regularly. Before relying on the information on this site, however, users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes. The National Biodiversity Data Centre cannot guarantee and assumes no legal liability or responsibility for the accuracy, currency or completeness of the information.

To assist the Centre in the provision of high quality information, should you identify an error in any of the information provided, please notify the Centre and every effort will be made to rectify the error.

**Species list for R756231**

No species recorded online on the National Biodiversity Data Centre website in 2023

**Quality of information**  
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**Species list for R756232**




No species recorded online on the National Biodiversity Data Centre website in 2023

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**Species list for R756233**




No species recorded online on the National Biodiversity Data Centre website in 2023

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**Species list for R757230**




No species recorded online on the National Biodiversity Data Centre website in 2023

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**Species list for R757231**




1 species recorded online on the National Biodiversity Data Centre website in 2023

**Quality of information**  
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## R757231

Grid square	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	Insect - Hymenopteran	<i>Protenusa pygmaea</i>	1	12/08/2018	Sawflies of Ireland	

Appendix : Review of biodiversity records on the National Biodiversity Data Centre

Species list for R757232



4 species recorded online on the National Biodiversity Data Centre website in 2023

**Quality of information**  
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Species list for R757233



13 species recorded online on the National Biodiversity Data Centre website in 2023

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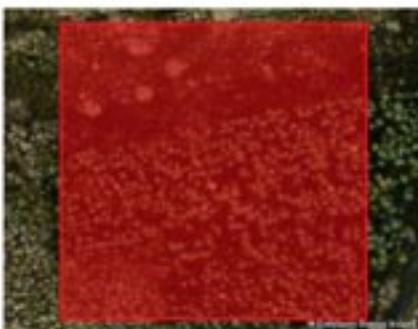
R757232

Grid square	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	bird	Common Moorhen ( <i>Gallinula chloropus</i> )	1	28/06/2017	Birds of Ireland	
Custom	bird	Eurasian Sparrowhawk ( <i>Accipiter nisus</i> )	1	28/06/2017	Birds of Ireland	
Custom	insect - butterfly	Ringlet ( <i>Aphantopus hyperantus</i> )	1	28/06/2017	Atlas of Butterflies in Ireland 2021	
Custom	insect - dragonfly (Odonata)	Blue-tailed Damselfly ( <i>Ischnura elegans</i> )	1	28/06/2017	Dragonfly Records	

R757233

Grid square	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	bird	Water Rail ( <i>Rallus aquaticus</i> )	1	15/07/2015	Birds of Ireland	Protected Species: Wildlife Acts [] Threatened Species: Birds of Conservation Concern [] Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	insect - butterfly	Green-veined White ( <i>Peris napi</i> )	1	01/06/2013	Atlas of Butterflies in Ireland 2021	
Custom	insect - butterfly	Orange-tip ( <i>Anthocharis cardamines</i> )	3	01/06/2013	Atlas of Butterflies in Ireland 2021	
Custom	insect - butterfly	Painted Lady ( <i>Vanessa cardui</i> )	1	30/05/2009	Atlas of Butterflies in Ireland 2021	
Custom	insect - dragonfly (Odonata)	Azure Damselfly ( <i>Coenagrion puella</i> )	1	30/05/2009	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Blue-tailed Damselfly ( <i>Ischnura elegans</i> )	1	30/05/2009	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Hairy Dragonfly ( <i>Brachytron pratense</i> )	1	30/05/2009	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Large Red Damselfly ( <i>Pyrrhosoma nymphula</i> )	1	15/07/2015	Dragonfly Records	
Custom	insect - moth	Bactra lanceolana	1	30/05/2009	Moths Ireland	
Custom	insect - moth	Eupoecilia angustana	1	12/08/2018	Moths Ireland	
Custom	insect - moth	Limnaecia phragmitella	1	01/06/2013	Moths Ireland	
Custom	insect - moth	Stigmella poteri	1	29/09/2012	Moths Ireland	
Custom	insect - moth	Timothy Tortrix ( <i>Aphelia pascana</i> )	1	30/05/2009	Moths Ireland	

Species list for R758230

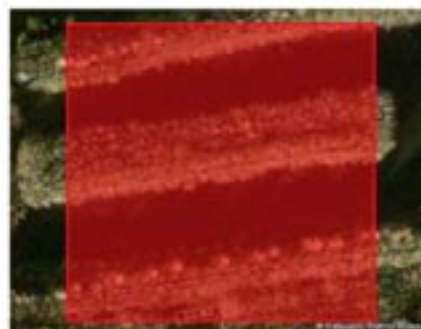


No species recorded online on the National Biodiversity Data Centre website in 2023

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Species list for R758231



5 species recorded online on the National Biodiversity Data Centre website in 2023

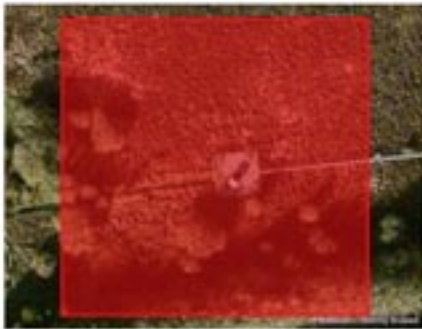
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R758231

Grid square	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	insect - moth	Straw Grass-veneer ( <i>Agriphila straminea</i> )	1	20/07/2020	Moths Ireland	
Custom	insect - moth	<i>Udea lutealis</i>	1	20/07/2020	Moths Ireland	
Custom	insect - true bug (Hemiptera)	<i>Callicorixa praevusta</i>	1	13/08/2011	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	<i>Sigara (Sigara) dorsalis</i>	1	13/08/2011	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	<i>Sigara (Subsigara) distincta</i>	1	13/08/2011	True Bugs (Heteroptera) of Ireland	

 Species list for R758232



4 species recorded online on the National Biodiversity Data Centre website in 2023

Quality of information

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 Species list for R758233



29 species recorded online on the National Biodiversity Data Centre website in 2023

Quality of information

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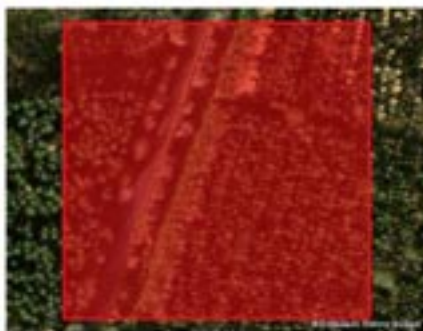
R758232

Grid square	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	insect - butterfly	Orange-tip ( <i>Anthocharis cardamines</i> )	2	05/05/2007	Atlas of Butterflies in Ireland 2021	
Custom	insect - dragonfly (Odonata)	Azure Damselfly ( <i>Coenagrion puella</i> )	1	05/05/2007	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Hairy Dragonfly ( <i>Brachytron pratense</i> )	1	05/05/2007	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Large Red Damselfly ( <i>Pseudischnura elegans</i> )	1	05/05/2007	Dragonfly Records	

R758233

Grid square	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	fern	Royal Fern ( <i>Demunda regalis</i> )	1	09/09/2014	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Common Ragwort ( <i>Senecio jacobaea</i> )	1	09/09/2014	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Devil's-bit Scabious ( <i>Succisa pratensis</i> )	1	09/09/2014	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Heather ( <i>Calluna vulgaris</i> )	1	09/09/2014	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Wild Angelica ( <i>Angelica sylvestris</i> )	1	09/09/2014	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	insect - beetle (Coleoptera)	7-spot Ladybird ( <i>Coccinella septempunctata</i> )	1	31/05/2014	Ladybirds of Ireland	
Custom	insect - butterfly	Green-veined White ( <i>Pieris napi</i> )	1	29/05/2014	Atlas of Butterflies in Ireland 2021	
Custom	insect - butterfly	Orange-tip ( <i>Anthocharis cardamines</i> )	1	29/05/2014	Atlas of Butterflies in Ireland 2021	
Custom	insect - butterfly	Speckled Wood ( <i>Pararge aegeria</i> )	2	29/05/2014	Atlas of Butterflies in Ireland 2021	
Custom	insect - dragonfly (Odonata)	Azure Damselfly ( <i>Coenagrion puella</i> )	1	31/05/2014	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Blue-tailed Damselfly ( <i>Ischnura elegans</i> )	1	31/05/2014	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Large Red Damselfly ( <i>Pseudischnura elegans</i> )	1	31/05/2014	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Variable Damselfly ( <i>Coenagrion pulchellum</i> )	1	31/05/2014	Dragonfly Records	
Custom	insect - moth	<i>Ancylis myrtilana</i>	1	05/05/2007	Moths Ireland	
Custom	insect - moth	<i>Clepis senecioniana</i>	1	05/05/2007	Moths Ireland	
Custom	insect - moth	Common Heath ( <i>Ematurga atomaria</i> )	2	09/06/2007	Moths Ireland	
Custom	insect - moth	<i>Crambus lathoniellus</i>	1	09/06/2007	Moths Ireland	
Custom	insect - moth	<i>Cydia ulicetana</i>	1	05/05/2007	Moths Ireland	
Custom	insect - moth	<i>Epinotia tedella</i>	1	05/05/2007	Moths Ireland	
Custom	insect - moth	<i>Neofaculta ericetella</i>	1	05/05/2007	Moths Ireland	
Custom	insect - moth	<i>Rhopobota myrtilana</i>	1	09/06/2007	Moths Ireland	
Custom	insect - true bug (Hemiptera)	Spined Shieldbug ( <i>Picromerus bidens</i> )	1	09/09/2014	True Bugs (Heteroptera) of Ireland	
Custom	insect - true fly (Diptera)	<i>Baetis elongata</i>	1	31/05/2014	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	<i>Leucozoona glauca</i>	2	09/09/2014	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	<i>Leucozoona lucorum</i>	1	31/05/2014	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	<i>Platycheirus granditarsus</i>	2	09/09/2014	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	<i>Rhinga campestris</i>	2	09/09/2014	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	<i>Senicomyia silens</i>	2	09/09/2014	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	<i>Syrnita pipiens</i>	1	06/09/2014	Hoverflies (Syrphidae) of Ireland	

**Species list for R759230**



No species recorded online on the National Biodiversity Data Centre website in 2023

**Quality of information**  
The National Biodiversity Data Centre makes every effort to ensure the quality of the information available on this website and updates the information regularly. Before relying on the information on this site, however, users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes. The National Biodiversity Data Centre cannot guarantee and assumes no legal liability or responsibility for the accuracy, currency or completeness of the information.

To assist the Centre in the provision of high quality information, should you identify an error in any of the information provided, please notify the Centre and every effort will be made to rectify the error.

**Species list for R759231**



No species recorded online on the National Biodiversity Data Centre website in 2023

**Quality of information**  
The National Biodiversity Data Centre makes every effort to ensure the quality of the information available on this website and updates the information regularly. Before relying on the information on this site, however, users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes. The National Biodiversity Data Centre cannot guarantee and assumes no legal liability or responsibility for the accuracy, currency or completeness of the information.

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**Species list for R759232**



No species recorded online on the National Biodiversity Data Centre website in 2023

**Quality of information**  
The National Biodiversity Data Centre makes every effort to ensure the quality of the information available on this website and updates the information regularly. Before relying on the information on this site, however, users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes. The National Biodiversity Data Centre cannot guarantee and assumes no legal liability or responsibility for the accuracy, currency or completeness of the information.

To assist the Centre in the provision of high quality information, should you identify an error in any of the information provided, please notify the Centre and every effort will be made to rectify the error.

**Species list for R759233**



36 species recorded online on the National Biodiversity Data Centre website in 2023

**Quality of information**  
The National Biodiversity Data Centre makes every effort to ensure the quality of the information available on this website and updates the information regularly. Before relying on the information on this site, however, users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes. The National Biodiversity Data Centre cannot guarantee and assumes no legal liability or responsibility for the accuracy, currency or completeness of the information.

To assist the Centre in the provision of high quality information, should you identify an error in any of the information provided, please notify the Centre and every effort will be made to rectify the error.

**R759233**

Grid square	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	amphibian	Common Frog ( <i>Rana temporaria</i> )	2	10/06/2020	Amphibians and reptiles of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
Custom	flowering plant	Bell Heather ( <i>Erica cinerea</i> )	1	24/08/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Bilberry ( <i>Vaccinium myrtillus</i> )	2	11/07/2022	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Bramble ( <i>Rubus fruticosus</i> agg.)	2	11/07/2022	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Bulrush ( <i>Typha latifolia</i> )	1	28/06/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Common Spotted-orchid ( <i>Dactylorhiza fuchsii</i> )	1	20/06/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Common Valerian ( <i>Valeriana officinalis</i> )	1	28/06/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Creeping Cinquefoil ( <i>Potentilla reptans</i> )	1	24/08/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Heather ( <i>Calluna vulgaris</i> )	2	24/08/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Meadowsweet ( <i>Filipendula ulmaria</i> )	1	28/06/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Purple Moor-grass ( <i>Molinia caerulea</i> )	1	11/07/2022	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	flowering plant	Tormentil ( <i>Potentilla erecta</i> )	1	28/06/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Custom	insect - butterfly	Green-veined White ( <i>Parus napi</i> )	1	21/08/2018	Atlas of Butterflies in Ireland 2021	
Custom	insect - butterfly	Orange-tip ( <i>Anthocharis cardamines</i> )	1	05/06/2004	Atlas of Butterflies in Ireland 2021	
Custom	insect - butterfly	Peacock ( <i>Inachis io</i> )	1	21/08/2018	Atlas of Butterflies in Ireland 2021	
Custom	insect - butterfly	Small Tortoiseshell ( <i>Aglais urticae</i> )	1	21/08/2018	Atlas of Butterflies in Ireland 2021	
Custom	insect - dragonfly (Odonata)	Azure Damselfly ( <i>Coenagrion puella</i> )	1	11/06/2010	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Blue-tailed Damselfly ( <i>Ischnura elegans</i> )	1	11/06/2010	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Common Blue Damselfly ( <i>Erythemis cyathigerum</i> )	1	11/06/2010	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Emperor Dragonfly ( <i>Anax imperator</i> )	1	20/06/2017	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Four-spotted Chaser ( <i>Libellula quadrimaculata</i> )	1	11/06/2010	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Large Red Damselfly ( <i>Pyrrosoma nymphula</i> )	1	11/06/2010	Dragonfly Ireland	

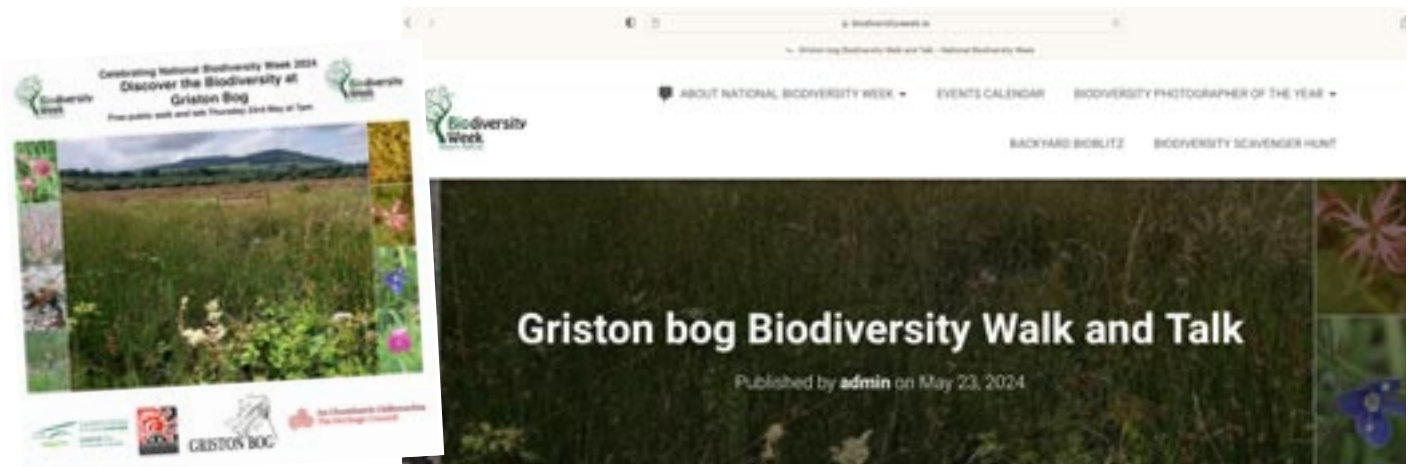
Custom	insect - hymenopteran	Common Carder Bee ( <i>Bombus</i> [ <i>Thoracobus</i> ] <i>pascuorum</i> )	1	11/06/2010	Bees of Ireland	
Custom	insect - hymenopteran	Early Bumble Bee ( <i>Bombus</i> [ <i>Pyrobombus</i> ] <i>pratensis</i> )	1	11/06/2010	Bees of Ireland	
Custom	insect - moth	<i>Ancylis mytilana</i>	1	05/06/2004	Moths Ireland	
Custom	insect - moth	Common Heath ( <i>Ematurga atomaria</i> )	1	05/06/2004	Moths Ireland	
Custom	insect - moth	<i>Crambus lathoniellus</i>	1	05/06/2004	Moths Ireland	
Custom	insect - moth	Early Grey ( <i>Xylocampa areola</i> )	1	20/03/2019	Moths Ireland	
Custom	insect - moth	<i>Elachista kilmunella</i>	1	05/06/2004	Moths Ireland	
Custom	insect - moth	Hebrew Character ( <i>Orthosia gothica</i> )	1	20/03/2019	Moths Ireland	
Custom	insect - moth	March Moth ( <i>Alsophila aescularia</i> )	1	20/03/2019	Moths Ireland	
Custom	insect - moth	<i>Neofaculta ericetella</i>	1	05/06/2004	Moths Ireland	
Custom	insect - moth	Pale Pinion ( <i>Lithophane hepatica</i> )	1	20/03/2019	Moths Ireland	
Custom	insect - moth	Red Sword-grass ( <i>Xylota vetusta</i> )	1	20/03/2019	Moths Ireland	
Custom	insect - moth	Timothy Tortrix ( <i>Aphelia paleana</i> )	1	05/06/2004	Moths Ireland	
Custom	spider (Araneae)	<i>Pachygnatha clercki</i>	1	20/03/2019	Citizen Science Spider Records for Ireland	

## Appendix 2: Community Engagement

To support Ballyhoura Heritage and Environment CLG promote the development of Griston Bog Nature Reserve Biodiversity Action Plan the project ecologist presented four newsletters to the group suitable for sharing on social media or online. The project ecologist also organised to host a walk and talk for members of the public on the reserve on the 23rd May 2024 during National Biodiversity Week. This event was a great success with representatives from Ballyhoura Heritage and Environment CLG, Limerick City and County Council and members of the public in attendance.



Above: A series of four newsletters were prepared by the ecologist and shared with the community to promote the progress of the development of the plan.



Left: The project ecologist facilitated a walk and talk on Griston Big during National Biodiversity Week 2024. The event was promoted on the National Biodiversity Week website [www.biodiversityweek.ie](http://www.biodiversityweek.ie) and locally by Ballyhoura Heritage and Environment CLG and Limerick City and County Council.

## Appendix 3: Biodiversity Species Images

### Wildflowers



Ground Elder  
Lus an easpaig  
*Aegopodium podagraria*



Wild Angelica  
Gallfheabhrán  
*Angelica sylvestris*



Common Daisy  
Nóinín  
*Bellis perennis*



Ling Heather  
Fraoch mór  
*Calluna vulgaris*



Marsh Marigold  
Lus buí Bealtaine  
*Caltha palustris*



Hedge Bindweed  
Ialus fáil  
*Calystegia sepium*



Lady's Smock/Cuckooflower  
Biolar gréagháin  
*Cardamine pratensis*



Wavy Bittercress  
Searbh-bhiolar casta  
*Cardamine flexuosa*



Rosebay Willowherb  
Lus na tine  
*Chamaenerion angustifolium*



Enchanter's-nighshade  
Fuinseagach  
*Circaea lutetiana*



Marsh Thistle  
Feochadán corraigh  
*Cirsium palustre*



Marsh Cinquefoil  
Cnó léana  
*Comarum palustre*



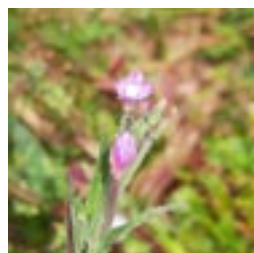
Heath Spotted Orchid  
Na circíní  
*Dactylorhiza maculata*



Great Willowherb  
Lus na Tríonóide  
*Epilobium hirsutum*



Broad-leaved Willowherb  
Saileachán leathan  
*Epilobium montanum*



Square-stalked Willowherb  
*Epilobium tetragonum*  
*Anthriscus sylvestris*



Cross-leaved Heath  
Fraoch naoscaí  
*Erica tetralix*



Meadowsweet  
Airgead luachra  
*Filipendula ulmaria*



Cleavers  
Garbhllus  
*Galium aparine*



Heath Bedstraw  
Luibh na bhfear gonta  
*Galium saxatile*



Herb Robert  
Ruithéal ríí  
*Geranium robertianum*



Wood Avens  
Machall coille  
*Geum urbanum*



Ivy  
Eidhneán  
*Hedera hibernica*



Yellow Flag Iris  
Feileastram  
*Iris pseudacorus*





Ivy  
Eidhneán  
*Hedera hibernica*



Marsh Ragwort  
Buachalán corraigh  
*Jacobaea aquatica*



Common Nipplewort  
Duilleog Bhríde  
*Lapsana communis*



Meadow Vetchling  
Peasairín buí  
*Lathyrus pratensis*



Greater Plantain  
Cuach Phádraig  
*Plantago major*



Greater Bird's-foot-trefoil  
Crobh éin corraigh  
*Lotus pedunculatus*



Purple Loosestrife  
Créachtach  
*Lythrum salicaria*



Pineappleweed  
Lus na hiothlann  
*Matricaria discoidea*



Water-cress  
Biolar  
*Nasturtium officinale*



Rhododendron  
Róslabhras  
*Rhododendron ponticum*



Broad-leaved Pondweed  
Liach Bhríde  
*Potamogeton natans*



Tormentil  
Néalfartach  
*Potentilla erecta*



Meadow Buttercup  
Fearbán féir  
*Ranunculus acris*



Creeping Buttercup  
Fearbán (reatha)  
*Ranunculus repens*



Devil's-Bit Scabius  
Odhrach bhallach  
*Succisa pratensis*



Common Sorrel  
Samhadh bó  
*Rumex acetosa*



Ragged Robin  
Lus síoda  
*Silene flos-cuculi*



Prickly Sowthistle  
Bleachtán colgach  
*Sonchus asper*



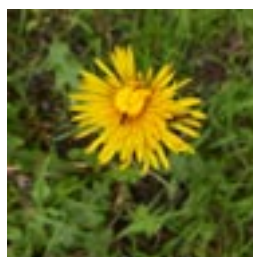
Lesser Stitchwort  
Tursarraing chorraigh  
*Stellaria graminea*



Bulrush  
Coigeal na mban sí  
*Typha latifolia*



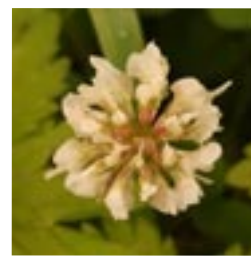
Common Comfrey  
Compar  
*Symphytum officinale*



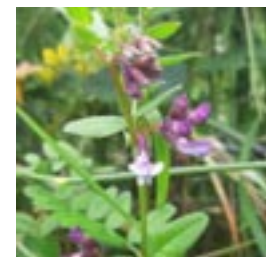
Dandelion  
Caisearbhán  
*Taraxacum vulgaria*



Bramble  
Dris  
*Rubus fruticosus*



White Clover  
Seamair bhán  
*Trifolium repens*



Bush Vetch  
Peasair fhiáin  
*Vicia sepium*



**Common Nettle**  
Neantóg  
*Urtica dioica*



**Billberry**  
Fraochán  
*Vaccinium myrtillus*



**Valerian**  
Caorthann corraigh  
*Valeriana officinalis*



**Germander Speedwell**  
Lus cré talún  
*Veronica chamaedrys*

**Grasses  
Sedges  
Rushes**



**Meadow Foxtail**  
Fiteog léana  
*Alopecurus pratensis*



**Sweet Vernal-grass**  
Féar cumhra  
*Anthoxanthum odoratum*



**False Oat-grass**  
Coirce bréige  
*Arrhenatherum elatius*



**Soft Rush**  
Geataire  
*Juncus effusus*



**Bottle Sedge**  
Cíb ghobach  
*Carex rostrata*



**Common Couch**  
Broimfhéar  
*Elytrigia repens*



**Hare's-tail Cottongrass**  
Ceannbhán gaelach  
*Eriophorum vaginatum*



**Yorkshire Fog**  
Féar an chinn bháin  
*Holcus lanatus*



**Reed Canary-grass**  
Cuisreach  
*Phalaris arundinaceae*



**Hairy Woodrush**  
Giúnach coille  
*Luzula pilosa*



**Great Woodrush**  
Giúnach mór  
*Luzula sylvatica*

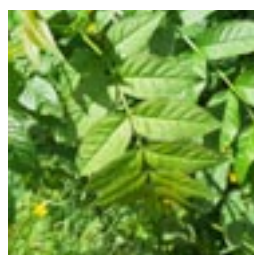
**Trees  
&  
Shrubs**



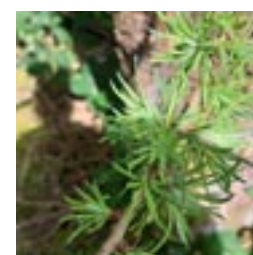
**Sycamore**  
Seiceamóir  
*Acer pseudoplatanus*



**Silver Birch**  
Beith gheal  
*Betula pendula*



**Ash**  
Fuinseóg  
*Fraxinus excelsior*



**European Larch**  
Learóg  
*Larix decidua*



**Norway Spruce**  
Sprúis lorua  
*Picea abies*



**Hawthorn**  
Sceach gheal  
*Crataegus monogyna*



**Common Beech**  
Feá  
*Fagus sylvatica*



Willow  
Saileach  
*Salix* sp.



Elder  
Trom  
*Sambucus nigra*



Rowan  
Caorthann  
*Sorbus aucuparia*



Pedunculate Oak  
Dair ghallda  
*Quercus robur*

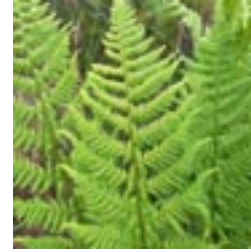
## Ferns & Horsetails



Horsetail  
Broimín/Scuab eich  
*Equisetum* sp.



Royal Fern  
Raithneach riúil  
*Osmunda regalis*



Bracken Fern  
Raithneach mhór  
*Pteridium aquilinum*

## Mosses



Feather moss  
Cleitchaonac  
*Hypnum jutlandicum*



Haircap Moss  
*Polytrichum* sp.



Sphagnum moss  
Sfagnam  
*Sphagnum cappillifolium*



Sphagnum moss  
Sfagnam  
*Sphagnum cuspidatum*

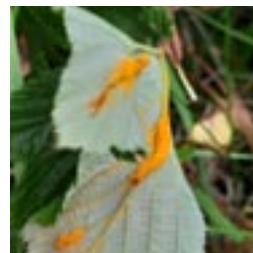


Sphagnum moss  
Sfagnam  
*Sphagnum papillosum*



Sphagnum moss  
Sfagnam  
*Sphagnum magellican*

## Fungi & Lichens



Meadowsweet  
Rust Fungus  
*Triphragmium ulmariae*



Bearded lichen  
Crotal  
*Usnea*

## Invertebrates



Oak Moss Lichen  
Crotal  
*Evernia prunastri*



Hoverfly  
*Leucozona glauca*



Median Wasp  
*Dolichovespula media*



Tapered Drone Fly  
*Eristalis pertinax*



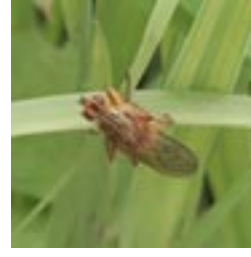
**Red Ant**  
Seangán dearg  
*Myrmica rubra*



**Green Shield Bug**  
Frid scéithe ghlas  
*Palomena prasina*



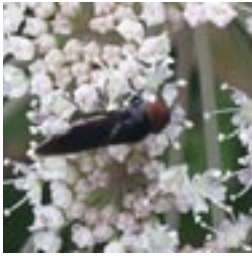
**Common Red  
Soldier Beetle**  
Moltán rua  
*Rhagonycha fulva*



**Yellow Dung Fly**  
*Scathophaga stercoraria*



**Hoverfly**  
*Syrphus* sp.



**Hoverfly**  
*Chrysogaster* sp.



**Large Red Damselfly**  
*Pyrrhosoma nymphula*  
Cromán mór dearg