Ballyshannon, Co. Kildare
Community Biodiversity Action Plan 2025-2029




Contents

Citation: O'Connell, C. A. (2024) *Ballyshannon, Co. Kildare Community Biodiversity Action Plan 2025-2029.* Prepared for Ballyshannon Action Group, Co. Kildare. A copy of this Biodiversity Action Plan is available on https://actionforbiodiversity.ie/

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Cover Photo: Main photo apple blossum at Ballyshannon, Co. Kildare. Bottom row from left hand side: tall wild hedges of hawthorn on the L8006/7, champion beech tree near Frew's Cross, large white butterfly and confluence of Eaglehill Streams north and south branches at Argulusian Bridge. Photos: © C. O'Connell and John FitzGerald.

Acknowledgements

Thanks to The Community Foundation for Ireland for funding provided under the Environment and Nature Fund 2023 to allow the development of this Community Biodiversity Action Plan for Ballyshannon Village.

The Community Foundation for Ireland

I am grateful to Ballyshannon Action Group for the invitation to work with them over the past year, for their assistance with selecting study areas, for meeting me during the field work in Ballyshannon and for their helpful comments on the draft version of this plan. I wish to thank the community who attended a talk on the plan in Ballyshannon Community Hall and for their warm welcome and hospitality. I am grateful to Sarah and Jim Burke and John FitzGerald for assistance on field days.

1. Executive Summary

The Ballyshannon Community Biodiversity Action Plan 2025-2029 is supported by the Community Foundation for Ireland and is an initiative of Ballyshannon Action Group.

This plan documents the species and habitat richness of the village. 108 plants, 20 birds, 1 mammal and 29 invertebrate animals were identified in the biodiversity survey carried out on 24th April and the 5th June 2024.

Habitat maps are presented for five of the seven study areas targeted by Ballyshannon Action Group based on data collected in the field (see Appendix 1 for survey parameters). The areas surveyed were 1. Dowling's Pub, 2. Ballyshannon Community Hall, 3. Ballyshannon National School Grounds, 4. Ballyshannon Demesne, 5. a portion of the R418 Ballyshannon, 6. R8006/7 from Ballyshannon Cross to Frew's Cross and 7. Eaglehill Stream.

14 habitats were identified in Ballyshannon: Stone walls and other stonework BL1, Buildings and Artificial Surfaces BL3, Amenity Grassland GA2, Dry Meadows/Grassy Verge GS2, Horticultural Land BC2, Flower Beds and Borders BC4, Hedgerow WL1, Treeline WL2, Immature Woodland WS2, Conifer Plantation WD4, Mixed Broadleaved/Conifer Woodland WD2, Mixed Broadleaved Woodland WD1, Drainage Ditch FW4 and Depositing/Lowland River FW2.

71 biodiversity enhancement actions are proposed in Chapter 8 of this plan. Grouped in themes the top six biodiversity actions that need to be undertaken over the 5 year span of this plan are:

1. Change mowing of amenity grassland areas to create wildflower meadow habitat. Target areas are roadside verges on the R418, the L8006/7 and Ballyshannon Demesne.

2. For the farmland located along the Eaglehill Stream where animals are drinking from the stream, the installation of Aquamat pasture pumps is recommended to prevent damage to the stream water quality and its riparian zone through trampling, siltation and pollution of the waterways from soil erosion and animal waste. These are available from https://www.odonovaneng.ie/product/aquamat-pasture-pump/. Target areas for this action are the source of the stream in Ballyshannon Demesne, Clonmoyle Forest and where the stream flows under the L8006/7 in Crawnglass townland. Fencing may also be a requirement of this action.

3. Planting hedgerows of wild hawthorn and other native hedge species (such as blackthorn, apple, guelder rose, elderberry and wild privet) is a theme which should be developed. Target areas are Ballyshannon Demesne and riparian zones along the Eaglehill Stream at its source and where the stream flows under the L8006/7 in Crawnglass townland. New build projects should plant wild hawthorn hedges going forward, not cherry laurel, beech or Leylandii.

4. Greening walls and buildings around the neighbourhood of Ballyshannon. There are opportunities to screen walls and fences with climbers in the National School Grounds, the Community Hall, along the L8006/7 and within Ballyshannon Demesne.

5. Funding could be sought to conduct the specialist surveys suggested in this plan which include a survey of epiphytic lichens to establish a baseline indication of air quality and an ecological assessment of the importance of tufa features in the Eaglehill Stream.

6. Funding could also be sought to provide training in home composting in order to discourage dumping in the hedges and stream and in conducting citizen science surveys particularly the water quality assessment survey promoted by the Local Authority Waters Programme. Liaison should be established with Kildare County Council Environment, Heritage and Water and Communities Officers.

In addition to Biodiveristy Enhancement recommendations, some measures included in the plan focus on sustainability. The top three sustainability issues are:

A. Stop using moss peat compost in the National School. Set up a composting programme in the school.

B. Install a water butt on down pipes in the school grounds to use rainwater for watering raised beds.

C. Do not use pesticides, herbicides or other chemical sprays that are harmful to wildlife anywhere in Ballyshannon.

To achieve these actions wider community engagement will be essential.

Snowberry and Cherry Laurel are two invasive species in Ballyshannon. These must be removed with the consent of landowners from Dowlings Pub, the National School, the coach house on the L8006/7 and part of the hedge on the L8006/7.

The champion and heritage trees growing in two locations along the L8006/7 should be registered with the Tree Council of Ireland with the consent of landowners. The history of these trees might also be established from local knowledge and research.

In addition to enhancing biodiversity, members of the community should engage in citizen science initiatives to help record the difference the measures they undertake are making. Suggestions are made in Chapter 7 of this plan.

Funding sources for biodiversity work are presented in Chapter 9.

Ballyshannon Action Group should register on the all Ireland pollinator map at https://pollinators.biodiversityireland.ie/ and take the opportunity to enter the annual Pollinator Award.

Species data recorded on this survey have been lodged with the National Biodiversity Data Centre (see Appendix 2). 306 data entries are included in the data set for Ballyshannon. These will be available in due course in the public domain at https://biodiversityireland.ie/.

The development of this Community Biodiversity Action Plan for Ballyshannon was well publiciced on social media. An interview was conducted on KFM radio. A talk was delivered to the community on the preliminary results of the survey (see Appendix 3).

A copy of this Biodiversity Action Plan is available to download on https://actionforbiodiversity.ie/

2. Introduction

This Ballyshannon Community Biodiversity Action Plan 2025-2029 has been created as an initiative of Ballyshannon Action Group. The project is funded by The Community Foundation for Ireland. This funding allowed Ballyshannon Action Group to employ Dr Catherine O'Connell as an ecologist to develop the Community Biodiversity Action Plan, devise actions to maintain and enhance local biodiversity and to help the community to gain a better understanding of the biodiversity hot-spots in their locality.

Ballyshannon Action Group

Ballyshannon Action Group was established in 2019 in response to the threat of a proposal from Kilsaran Concrete Products to open a 32.2ha quarry in the townland of Racefield, Ballyshannon. The group has strong community support for their challenge to the quarry which awaits a judical review of the planning decisions made to date on this case.

The top achievements of the Ballyshannon Action Group include:

* Organising a campaign against the proposed quarry in Racefield from 2019 to the present

* Bringing the community together for fundraising and heritage events and clean-ups

* Successful funding application and award from the Community Foundation for Ireland 2023 towards the development of the Ballyshannon Community Biodiversity Action Plan 2025-2029.

Contact Details

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3. Ballyshannon Village Location

Ballyshannon is a village or neighbourhood in County Kildare. It lies on the R418 regional road, between Kilcullen and Athy 1km west north west of the village of Calverstown (see location in Figures 1 and 2). The centre of the village is a cross roads between the R418 and the minor road L8006/L8007. At the cross roads there is a pub, a school and a community hall.

Figure 1: Location Map of Ballyshannon, Co. Kildare shown with an asterick. Discovery map Source: osi.ie.

Figure 2: Satellite image of Ballyshannon, Co. Kildare. Source: googlemaps.com.

Ballyshannon Action Group is active on facebook at https://www.facebook.com/ballyshannonactiongroup/ and have their own web site at //www.ballyshannonactiongroup.ie. Ballyshannon National School have their own website at https://www.ballyshannonschool.eu/.

There are a number of sites of historic and archaeological importance located in the neighbourhood of Ballyshannon. These are shown in Figures 3A, 3B and 4. Details of the sites are taken from the Historic Environment Inventory which can be accessed at https://maps.archaeology.ie/HistoricEnvironment/. A cluster of sites occurs in Ballyshannon Demesne including: KD028-058001 Castle - motte, KD032-003002 Castle - unclassified, KD032-003001 Bastioned fort, 11902811 Saint James's Church (Ballyshannon), KD028-058004 Graveyard, KD028-058002 Church. Another historic building occurs in Martinstown as follows: 11902809 The Rectory, Martinstown Crossroads. These features date from Medieval times to the 19th century.

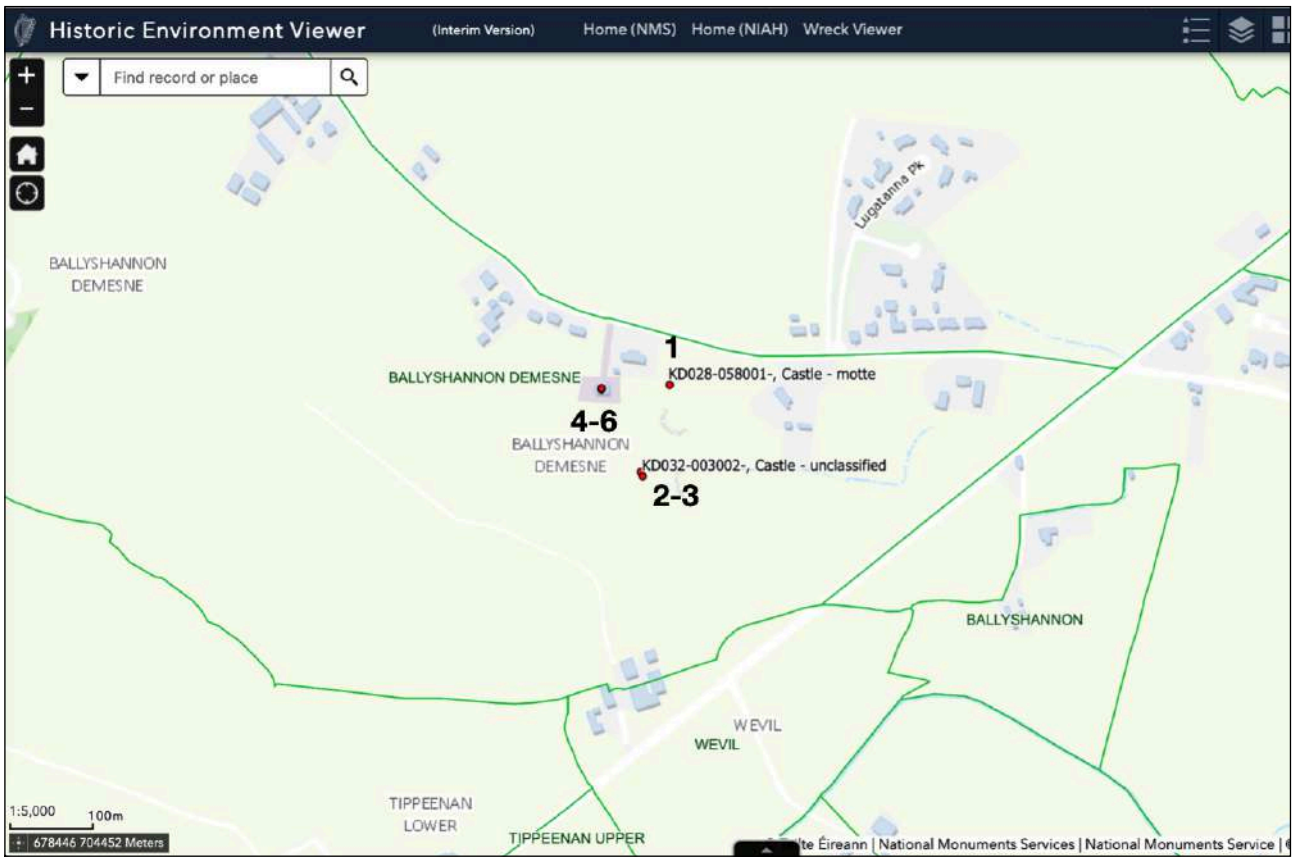


Figure 3A: Map showing sites of historic importance in Ballyshannon, Co. Kildare and its hinterland. The numbered sites on the map are as follows: 1. Ballyshannon Demesne KD028-058001 Castle - motte, 2. KD032-003002 Castle - unclassified, 3. KD032-003001 Bastioned fort, 4. 11902811 Saint James's Church (Ballyshannon), 5. KD028-058004 Graveyard and 6. KD028-058002 Church. Source: https://maps.archaeology.ie/HistoricEnvironment/.

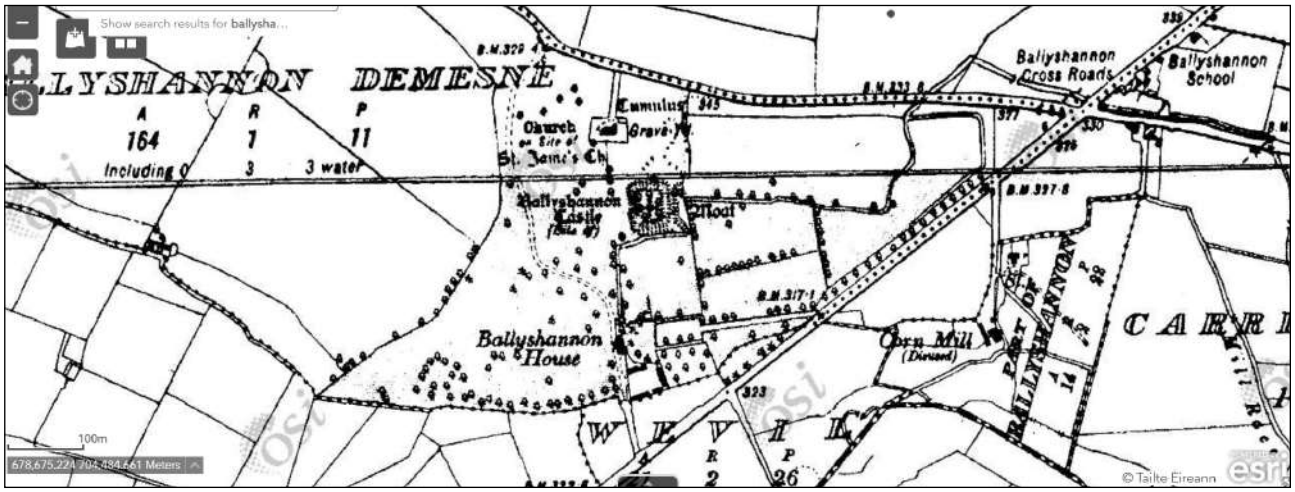


Figure 3B: Historic map from the early 19th century showing details of the treelines, buildings and historic structures located in Ballyshannon Demesne at that time. Source: © https:// webapps.geohive.ie/mapviewer/index.html.

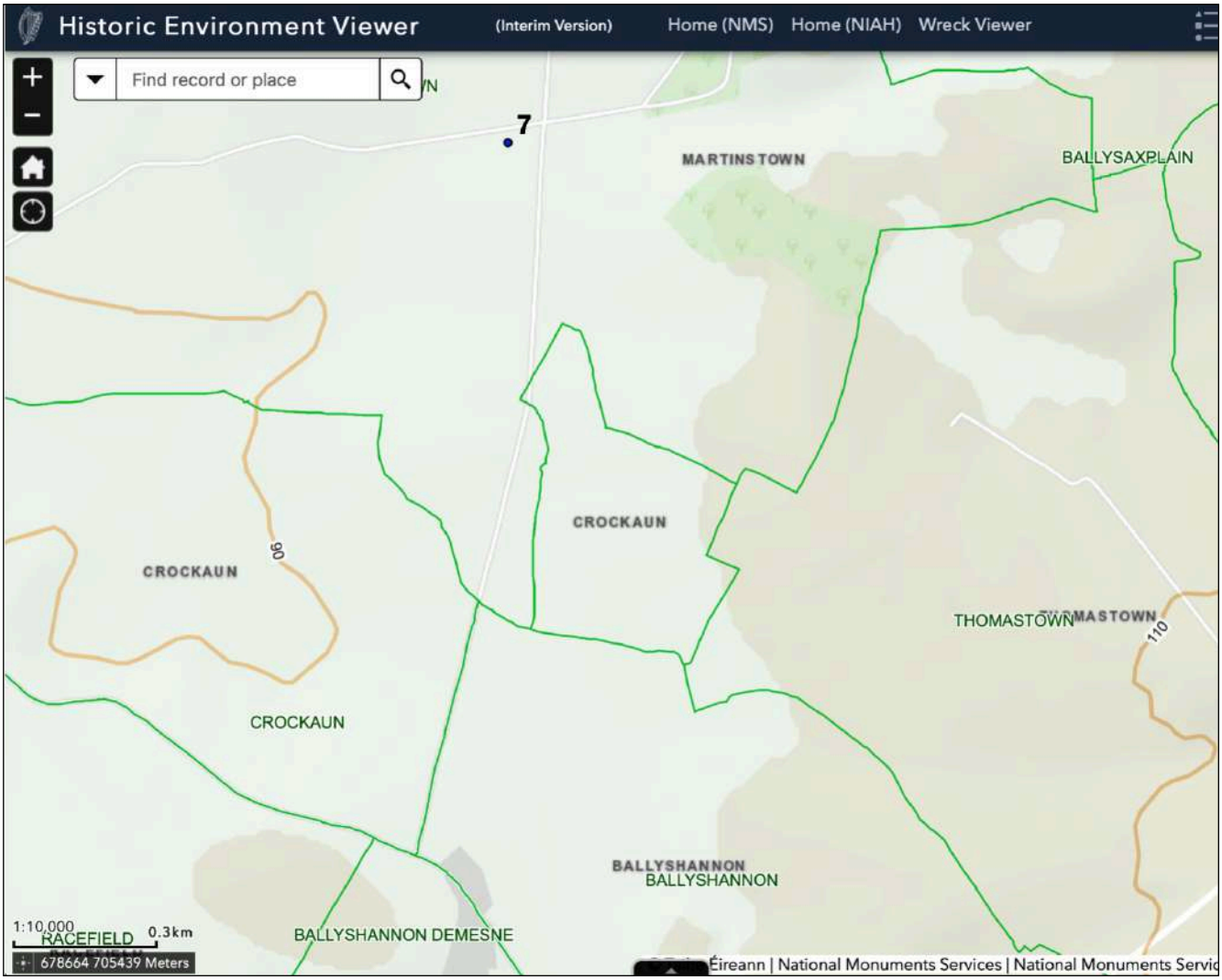


Figure 4: Map showing sites of historic importance in Ballyshannon, Co. Kildare and its hinterland. The numbered site 7. occurs in Martinstown and is 11902809 The Rectory, Martinstown Crossroads. Source: https://maps.archaeology.ie/HistoricEnvironment/.

4. Methods

Meetings and Project Management
Regular email, zoom meetings and phone calls were conducted throughout the project with members of Ballyshannon Action Group.

Study Sites
Following discussions by zoom meeting and emails, 7 sites were chosen for study. At these sites the ecologist would determine the biodiversity present and make recommendations on its enhancement or maintenance. A map was drawn up of the location of the sites and approved by the community.

Site Access
Ballyshannon Action Group secured the agreement of local landowners for the ecologist to enter their property for the purpose of collecting information for this biodiversity action plan.

Biodiversity Field Visits
Field visits were undertaken to document the habitats and species present in the study sites with a view to mapping the information and making recommendations on biodiversity enhancement and maintenance. Visits took place on the 24th April and the 5th June 2024.

Desk Top Studies
A desk top study was undertaken to establish information in the public domain about Ballyshannon, its history, archaeology, habitats and biodiversity. Information was searched on the following web sites, all of which have map viewer facilities: National Biodiversity Data Centre website (biodiversityireland.ie), the National Parks and Wildlife Service (npws.ie), Ordnance Survey Ireland (osi.ie), Archaeology Ireland (archaeology.ie) and Wetland Surveys Ireland (https://www.wetlandsurveys.ie).

Ballyshannon Action Group also provided detailed information for the study relating to the planning application to develop a quarry in Racefield townland. This included an Environmental Impact Assessment Report for the planning application, a Natura Impact Statement, a report by Inland Fisheries Ireland on Eaglehill Stream and a Bord Pleanála Report relating to their planning decision on the quarry. Ecological information relevent to this Biodiversity Action Plan was extracted from these sources.

Biodiversity Survey Work Sheet
A field recording sheet for biodiversity was developed for the project and is presented in Appendix 1. The information collected at each study sites was as follows: plants, animals and birds present, invasive species, threats, land management, habitat description and classification, biodiversity enhancement recommendations, soil type and location co-ordinates.

National Biodiversity Data Centre
Species data recorded on this survey have been lodged with the National Biodiversity Data Centre in the format recommended (see Appendix 2).

Community Engagement
A talk on the project was given to the community on the 24th April 2024 which was attended by 14 people and publicised on the Ballyshannon Action Group facebook site. Follow on information was circulated to participants at the talk. An interview was given on KFM radio in relation to the Biodiversity Action Plan. On both site visits, members of the community joined the ecologist and showed a very strong interest in the project (see Appendix 3).

Social Media
Ballyshannon Action Group have a facebook site. A number of posts about the Biodiversity Action Plan were uploaded (see Appendix 3).

5. Biodiversity in Ballyshannon

Desk top research of biodiversity information available about Ballyshannon and its surrounding countryside was undertaken. A search for designated sites within the National Parks and Wildlife Service map viewer facility (see https://experience.arcgis.com/experience/edf34d92e28040fd87d3d14f55d8d95f) in the area indicated the presence of five designated sites to the north, east and west of the Ballyshannon study area. These are shown in Figure 5 and include four proposed Natural Heritage Areas (pNHA) and one Special Area of Conservation (SAC). The sites and the principal reason for their designation are:

1. Curragh Kildare pNHA 000392 - geologically important and unique deposit of fluvio-glacial gravels up to 70m thick. Water source for local rivers and wetlands.

2. Dunlavin Marshes pNHA 001772 - calcareous marsh and fen habitats within an area of alkaline glacial moraines

3. Derryvullagh Island pNHA 001930 - deciduous woodland, calcicole flora and ornithological importance (see https://www.npws.ie/sites/default/files/publications/pdf/Goodwillie_1972_ASI_Kildare.pdf)

4. Grand Canal pNHA 002104 - ecological, botanical and zoological importance, water supply from many feeder streams (see https://www.npws.ie/sites/default/files/publications/pdf/Goodwillie_1972_ASI_Kildare.pdf)

5. River Barrow and River Nore SAC 002162 - This site consists of the freshwater stretches of the Barrow and Nore River catchments as far upstream as the Slieve Bloom Mountains, and it also includes the tidal elements and estuary as far downstream as Creadun Head in Waterford. It occurs in eight counties including Kildare. Its designation as an SAC is based on numerous qualifying interests including habitats and species as follows: Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Reefs [1170], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Mediterranean salt meadows (Juncetalia maritimi) [1410], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], European dry heaths [4030], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Petrifying springs with tufa formation (Cratoneurion) [7220], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016], Margaritifera margaritifera (Freshwater Pearl Mussel) [1029], Austropotamobius pallipes (White-clawed Crayfish) [1092], Petromyzon marinus (Sea Lamprey) [1095], Lampetra planeri (Brook Lamprey) [1096], Lampetra fluviatilis (River Lamprey) [1099], Alosa fallax fallax (Twaite Shad) [1103], Salmo salar (Salmon) [1106], Lutra lutra (Otter) [1355], Trichomanes speciosum (Killarney Fern) [1421] and Margaritifera durrovensis (Nore Pearl Mussel) [1990] (see https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY002162.pdf).

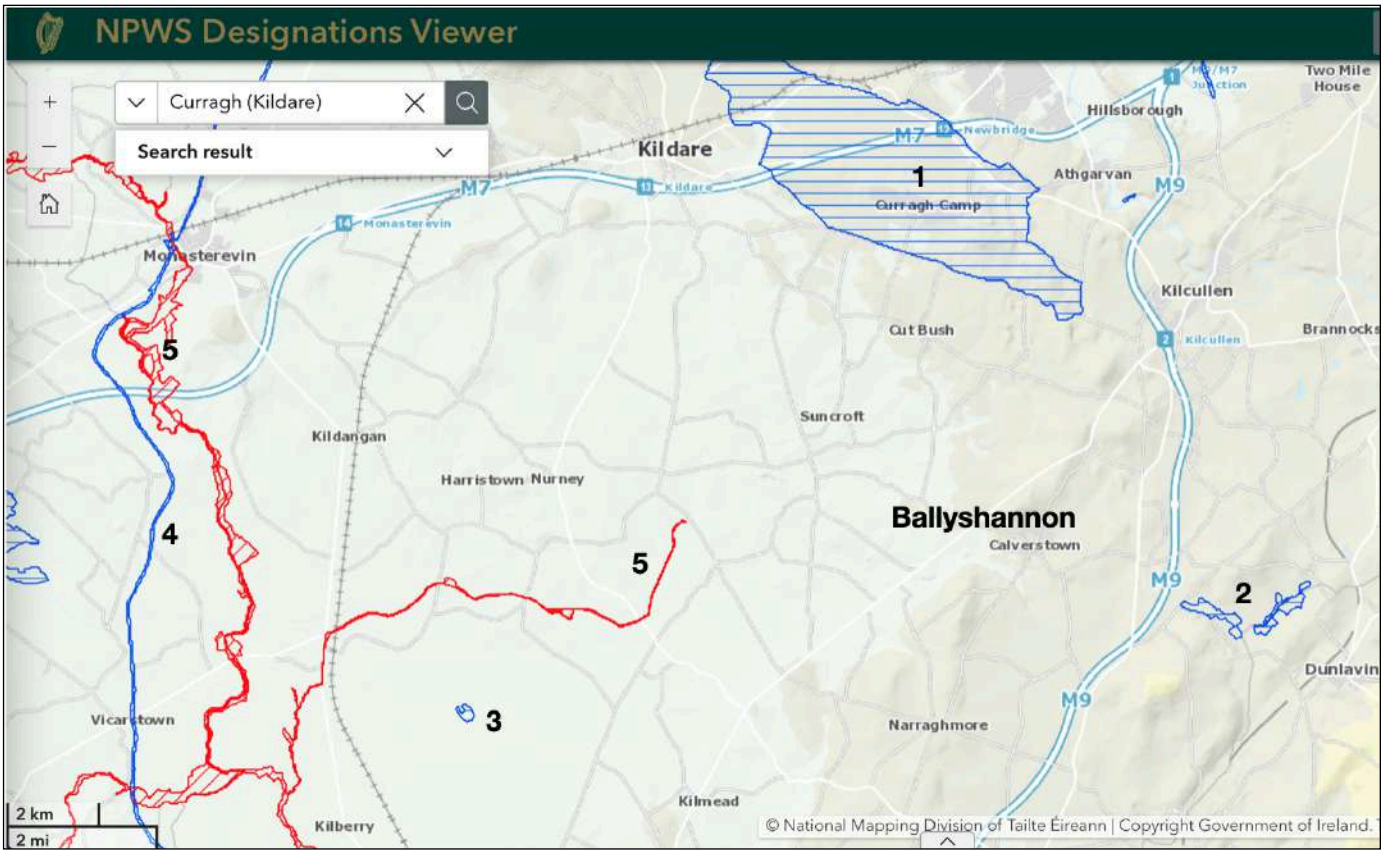


Figure 5: Designated sites of conservation importance in the vicinity of Ballyshannon, Co. Kildare. Sites mapped in blue are proposed Natural Heritage Areas and include 1. Curragh Kildare pNHA 000392, 2. Dunlavin Marshes pNHA 001772, 3. Derryvullagh Island pNHA 001930 and the 4. Grand Canal pNHA 002104. Special Areas of Conservation are shown in red and include the 5. River Barrow and River Nore SAC 002162. Source: npws.ie.

Further information about sites of conservation value is available from the Kildare Wetland Survey reports conducted by Wetland Surveys Ireland in 2012, 2013 and 2014. The sites are mapped at https://www.wetlandsurveys.ie/miw-intro and are shown in Figure 6. Four sites are identified within the vicinity of Ballyshannon to the north, east and west. The sites and the principal reason for their conservation value are:

1. Martinstown WMI_KE80 - Wet woodland of oak-ash or willow-alder, seasonally flooded when soil hydrology is impeded. The site was once part of a larger woodland most of which was planted between 1815 and 1850

2. Moortowncastle WMI_KE153 - Artificial, man-made pond with marginal reed swamp habitat

3. Halverstown Gravel Pit WMI_KE251 - artificial pond within an active gravel quarry

4. Mullaghmoyne West WMI_KE143 - Former wet grassland habitat that has been extensively drained. Area now used for cattle grazing and arable crops.

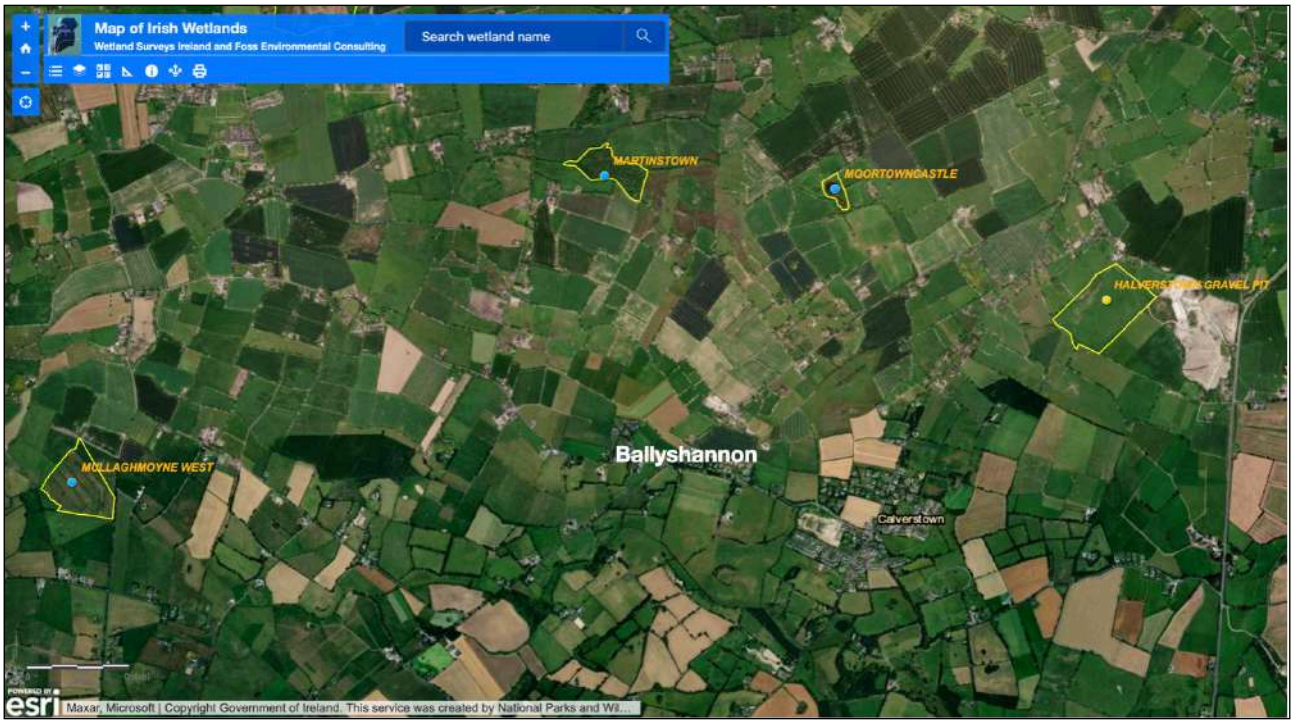
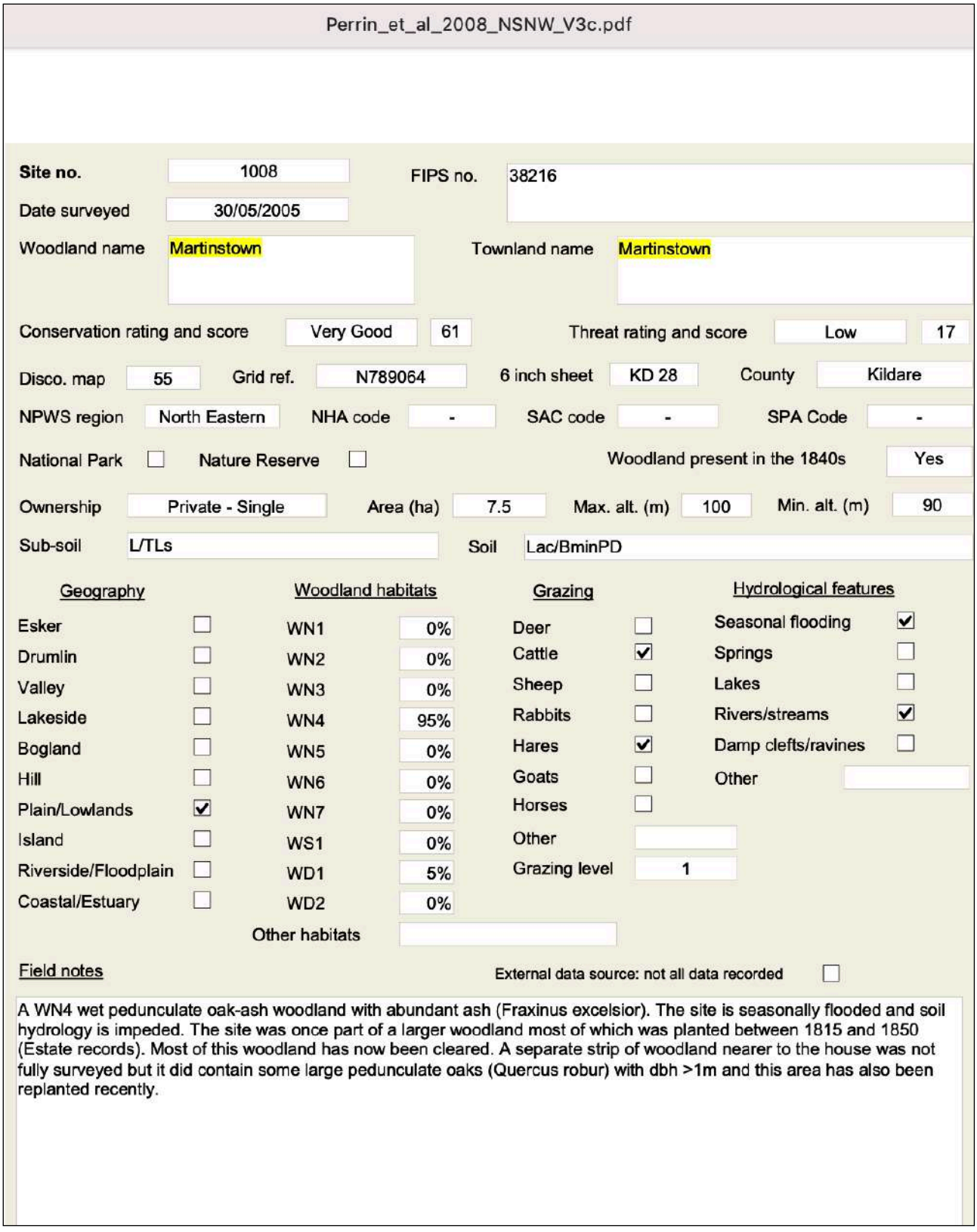


Figure 6: Map of the wetlands located in the hinterland of Ballyshannon, Co. Kildare outlined in yellow. These include: Martinstown WMI_KE80, Moortowncastle WMI_KE153, Halverstown Gravel Pit WMI_KE251 and Mullaghmoyne West WMI_KE143. Source: Wetland Surveys Ireland (https://wetland.maps.arcgis.com/apps/View/index.html?appid=e13b75c3bcab4932b992aa0169aa4a32&extent=-12.6266,51.3236,-3.2168,55.4102).

The wet woodland habitat at Martinstown was surveyed as part of the National Survey of Native Woodlands from 2003 to 2008 by Perrin et al (see http://www.botanicalenvironmental.com/wp-content/uploads/2011/03/Volume-I.pdf). These workers ranked the woodland in the top ten woods surveyed in Co. Kildare. A site report on Martinstown Woods taken from the report is presented in Figure 7.



Perrin_et_al_2008_NSNW_V3c.pdf

Site no.	1008	FIPS no.	38216
Date surveyed	30/05/2005		
Woodland name	Martinstown	Townland name	Martinstown
Conservation rating and score	Very Good 61	Threat rating and score	Low 17
Disco. map	55	Grid ref.	N789064
6 inch sheet	KD 28	County	Kildare
NPWS region	North Eastern	NHA code	-
SAC code	-	SPA Code	-
National Park	☐	Nature Reserve	☐
Woodland present in the 1840s	Yes		
Ownership	Private - Single	Area (ha)	7.5
Max. alt. (m)	100	Min. alt. (m)	90
Sub-soil	L/TLs	Soil	Lac/BminPD

Geography		Woodland habitats		Grazing		Hydrological features	
Esker	☐	WN1	0%	Deer	☐	Seasonal flooding	☑
Drumlin	☐	WN2	0%	Cattle	☑	Springs	☐
Valley	☐	WN3	0%	Sheep	☐	Lakes	☐
Lakeside	☐	WN4	95%	Rabbits	☐	Rivers/streams	☑
Bogland	☐	WN5	0%	Hares	☑	Damp clefts/ravines	☐
Hill	☐	WN6	0%	Goats	☐	Other	
Plain/Lowlands	☑	WN7	0%	Horses	☐		
Island	☐	WS1	0%	Other			
Riverside/Floodplain	☐	WD1	5%	Grazing level	1		
Coastal/Estuary	☐	WD2	0%				
		Other habitats					

Field notes

External data source: not all data recorded ☐

A WN4 wet pedunculate oak-ash woodland with abundant ash (Fraxinus excelsior). The site is seasonally flooded and soil hydrology is impeded. The site was once part of a larger woodland most of which was planted between 1815 and 1850 (Estate records). Most of this woodland has now been cleared. A separate strip of woodland nearer to the house was not fully surveyed but it did contain some large pedunculate oaks (Quercus robur) with dbh >1m and this area has also been replanted recently.

Figure 7: Site survey report for Martinstown wood taken from the National Survey of Native Woodlands conducted by Perrin et al on behalf of the National Parks and Wildlife Service 2003-2008 (see http://www.botanicalenvironmental.com/wp-content/uploads/2011/03/Volume-I.pdf). These workers gave the site a very good conservation rating and score and ranked it in the top ten woodland sites surveyed in Kildare.

Information on the species diversity present in Ballyshannon is also available from the National Biodiversity Data Centre (NBDC). Species records can be found for areas of the country based on a system of 1km square grids (see https://maps.biodiversityireland.ie/Map). Eleven 1km square grids were screened to cover the biodiversity study sites in Ballyshannon as follows: N7904, N7804, N7704, N7604, N7805, N7705, N7605, N7906, N7806, N7706 and N7606. Table 1 summarises the species diversity data available for each square. The locations of the squares are shown in Figure 8. Biodiversity data has been recorded for the Ballyshannon area in 17 different initiatives including plants, birds, invertebrates and mammals. The area includes threatened and protected species.

Figure 8: Map showing the location and numbers of the 1km grid squares referred to in Table 1. Species data rerports held by the National Biodiversity Data Centre can be downloaded for each square. Source: Data source: https://maps.biodiversityireland.ie/.

Three hot spots are emerging from this species data: Martinstown Woods covering 1km squares N7806 and N7906 for plants, N7904 Carrighill Lower for insects and the square N7805 containing Ballyshannon Stud for insects.

The actions for pollinators web site was checked to determine how many schools, businesses and private gardens have pledged their site for pollinator action (see https://pollinators.biodiversityireland.ie/). Two sites have been registered across the range of study sites. These are Ballyshannon Bees # 3151 and Green Sod Ireland "Bee Aware" Ballyshannon NS #1039.

Table 1: National Biodiversity Data Centre species data for Ballyshannon, Kildare

1km square number - NBDC	N7606	N7706	N7806	N7906	N7605	N7705	N7805	N7604	N7704	N7804	N7904
Plant species data from the national vegetation database			75	24							
Online Atlas of Vascular Plants 2012 Onwards							3				2
Birds of Ireland										1	12
Butterflies of Ireland pre 2022	3		1			2	2			2	15
Bees of Ireland							5				5
Hoverflies of Ireland							5				
True Bugs (Heteroptera) of Ireland							1				1
Mammals of Ireland 2016-2025	1										3
National Bat Database of Ireland	3										
Atlas of Mammals in Ireland 2010-2015	1										
Ladybirds of Ireland			1								2
Dragonfly records			1								
Dragonfly Ireland 2019-2024											3
Moths Ireland			1								1
Irish Squirrel Survey 20121			1								
Badger Setts of Ireland database					1			1			
Hedgehogs of Ireland			1				1			1	1
Total species	**8**	**0**	**81**	**24**	**1**	**2**	**17**	**1**	**0**	**4**	**45**
Protected species	4		1		1		1	1		1	5
Threatened species							1				1
Invasive species (plant or animal)	1		3	1							1

The location of the 1km square grids referred to in the table are shown in Figure 7.
Data source: https://maps.biodiversityireland.ie/

6. Ballyshannon Biodiversity Study Areas

The following areas were targeted by Ballyshannon Action Group for biodiversity study in this Community Biodiversity Action Plan (see Figure 9).

1. Dowlings Pub
2. Ballyshannon Community Hall
3. Ballyshannon National School
4. Hedgerow Ballyshannon Demesne (430m)
5. R418 from Ballyshannon Cross sign to School ahead sign marked with a red line
6. L8006/L8007 Road (3.68km) from Ballyshannon crossroads junction with the R418 to Frew's Cross junction with the L4002
7. Eaglehill Stream from Ballyshannon Demesne to Martinstown (8km) marked with blue line

Figure 9: Biodiversity study sites in the village and neighbourhood of Ballyshannon, Co. Kildare. The numbered sites are as follows: 1. Dowlings Pub, 2. Ballyshannon Community Hall, 3. National School, 4. Hedgerow Ballyshannon Demesne (430m), 5. the R418 from Ballyshannon Cross sign to School ahead sign marked with red line, 6. L8006/L8007 Road (3.68km) from Ballyshannon crossroads junction with the R418 to Frew's Cross junction with the L4002 and 7. Eaglehill Stream from Ballyshannon Demesne to Martinstown 8km marked with blue line. Source: googlemaps.com.

7. What is Biodiversity?

Biodiversity is the variety of living things around us, from mammals and birds to plants and microbes, and the habitats they live in. It is a term used to mean wildlife, but more inclusive, as wildlife is often thought to refer to animals only.

The biodiversity of a site or locality is the range of species found there. A green space in any housing estate includes the familiar biodiversity of the blackbird and the robin, ducks, butterflies and the trees and grass, as well as many hundreds of species of smaller, more elusive and less familiar species such as bats, hoverflies, molluscs and fungi.

The Value of Biodiversity

Biodiversity is a key component of vibrant, rich and attractive open spaces in villages and the surrounding countryside. The values of biodiversity are listed in Table 2. Biodiversity value is reflected in the way that habitats, parks and green spaces are managed. People want nature in their public spaces and want to get involved in its management. Success will be the result of leadership, teamwork and commitment. What to aim for is that the care of parks, habitats and open spaces is informed by ecological principles. The result of this approach is the creation of more self-sustaining, cost-effective landscapes that provide better wildlife habitat and more locally distinctive surroundings. Using the biodiversity approach can put small villages and parks on the visitor map and help local communities to be proud of their village because of it.

Table 2: The Values of Biodiversity

Biodiversity Value	Notes
Biodiversity is good for people	Naturalistic landscapes offer an alternative experience to more formalised, green space, and can be used for both exercise and relaxation.
Biodiversity involves communities	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.
Biodiversity is cost-effective	Because biodiversity schemes, such as planting woodland, require less intensive maintenance, resources, which are always limited, can be directed to other activities in the community.
Biodiversity creates a sense of place	Biodiversity helps to make an area reflect the character of its own locality, rather than looking and feeling the same as everywhere else.
Biodiversity is good for wildlife	Biodiversity is good for wildlife, whether rare and protected species or common, familiar plants and animals, all of which are interconnected.
Biodiversity contributes to sustainability	Less intensive techniques and the reduction of chemicals, water and fertilisers are all aspects of managing for biodiversity. The best ecological systems require low levels of intervention and are therefore readily sustainable.
Biodiversity contributes to a green infrastructure	The network of habitats, parks and green spaces in a village helps to ameliorate the effects of climatic extremes, heavy rainfall and pollutants. Naturalistic green spaces are generally more effective in this respect thanks to their more complex vegetation structure.

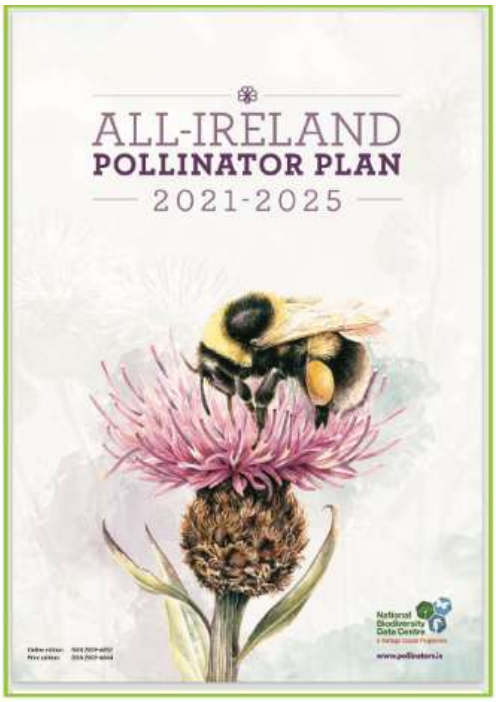
Where Can We Find Biodiversity?

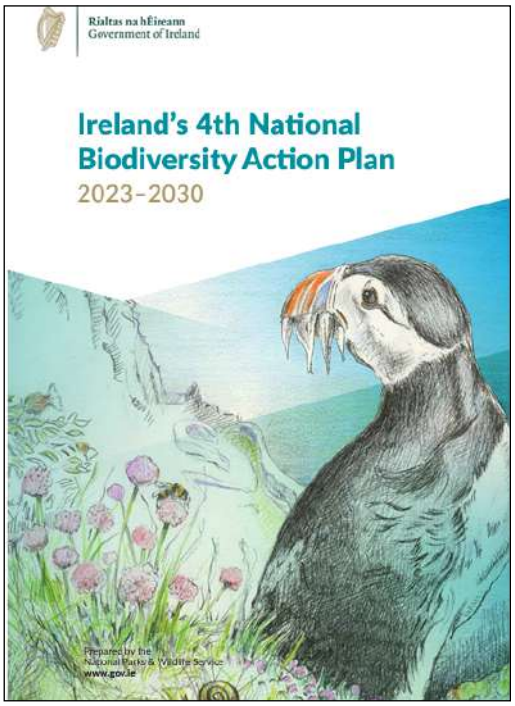
When people think of places to encourage wildlife, it is often the wilder, more out-of-the-way parts of the village or the woodland and hedges at the edge of the village. Actually everywhere has the potential for biodiversity (see Table 3). In order to enhance the opportunities for biodiversity, groups must create and encourage more species-rich and structurally diverse vegetation. Common examples include reducing mowing to encourage wildflowers and the establishment of field and shrub layers under groups of planted trees.

Table 3: Settings for Biodiversity
Potential Biodiversity Locations in Your Area
Parks and public/private gardens
Natural and semi-natural spaces (including wastelands and derelict open land)
Green corridors
Rivers, streams and wetlands
Roadside verges
Cemeteries, churchyards and other burial grounds
Civic spaces, including market squares and other hard-surfaced areas designed for pedestrians
Accessible countryside in urban fringe areas
Urban planting schemes
Amenity green spaces
Playgrounds for children and young people
Allotments, community gardens and city farms
Outdoor sport pitches
Running tracks
Walkways
Farmland: most commonly hedges, field margins and watercourses but less commonly native woodland, bogs and species rich grassland

Why Does Ballyshannon Need a Biodiversity Action Plan?

Global biodiversity is under threat. Action is required at local, national and global levels to protect our natural heritage. Habitat loss from exploitation of resources, agricultural conversion and urbanization are the main factors contributing to the loss of biodiversity. The consequent fragmentation of habitat creates small isolated patches of land that cannot maintain populations of species into the future.





Ireland's 4th National Biodiversity Plan 2023-2030 (see https://www.npws.ie/sites/default/files/files/4th_National_Biodiversity_Action_Plan.pdf) highlights the role that Communities can play in enhancing and protecting the biodiversity in their locality. A key action area arising from the National Biodiversity Plan is the need to take steps to protect pollinators. The All Ireland Pollinator Plan 2021-2025 (see https://pollinators.ie/wp-content/uploads/2021/03/All-Ireland-Pollinator-Plan-2021-2025-WEB.pdf/) aims to help local communities to enhance habitat for pollinators through planting native species that provide food and shelter year round (see the Pollinator-friendly Planting Code at https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-friendly-planting-code-temporary-draft.pdf).

The Basics of Biodiversity Management

Managing sites for biodiversity involves thirteen general principles that may challenge traditional practices.

1. **You don't know what you've got until it's gone.** Make the most of what is already there. Very often the value of this may not be recognised. For example, regularly-mown amenity grassland may in places contain a good number of wildflowers but these never flower because of the frequent mowing. Dandelion and clover, two of the top valuable plants for pollinators are found in grassland (see Table 4). Always make sure you know what you already have before you try to change it.

2. **Challenge the myths.** It is important to seek expert advice to ensure that myths about wildlife do not infiltrate management decisions. For example, not all birds nest in trees; many nest on the ground. Many shrubs promoted as good for butterflies are suitable only for the adults, which drink nectar, and if the food plants of their larvae are not present as well, they will not serve their purpose.

Table 4: Top 5 Plants for Biodiversity
(Source: https://www.fingal.ie/sites/default/files/2020-04/gardening-for-biodiversity-booklet.pdf)

Plant Name	Importance for Biodiversity
Dandelion	• Flowers in early spring providing vital food early in the season. • Seed heads are bird food for greenfinch and goldfinch. • Leaves are food for Garden Tiger Moth Caterpillars
Willow	• Flowers in spring providing vital food (pollen and nectar) early in the season.
Bramble	• Flowers provide vital food for pollinating insects in late summer. • Berries are loved by birds, mammals and people. • Bramble provides secure nesting sites for birds. • In spring moth larvae feed on its leaves.
Red Clover	• Flowers are a rich nectar and pollen source for bees including the common carder bee, honeybee and red-tailed bumblebee.
Ivy	• Ivy flowers in late autumn providing pollen and nectar when food is running low for insects such as bees, wasps, hoverflies and butterflies including Red Admiral, Painted Lady, Small Tortoise Shell and Speckled Wood. • Holly blue butterfly caterpillars feed on ivy flower buds in autumn and then the caterpillars pupate hidden in the ivy until spring when they emerge. • 16 species of moth use ivy as caterpillar food. • Black ivy berries are a very important source of food for birds such as blackbirds, thrushes and pigeons in late winter. • Ivy provides cover for nesting birds and hibernating butterflies.

3. **Keep it appropriate.** Most habitats, parks and green spaces have a local distinctiveness: the species and their habitats generally relate to their locality and are derived from the underlying substrates and geology, climate, hydrology and ecological characteristics. A green space in the South West will have different biodiversity from one in the North East, even if the layout and structure are broadly similar. To ensure that biodiversity has a long-term future, management objectives must be appropriate to the local ecology, as must the species that are planted.

4. **Keep it clean.** Wildness is often thought to mean leaving nature to look after itself. But it is important to make sure the site does not appear neglected. Litter picking is as important in a wildlife area as in a formal rose bed.

5. **Keep it dynamic.** Standard management practice aims to keep elements of the landscape in the same condition: shrubs are pruned to a regular shape, lawns are close mown to the same height, all self-sown plants are removed from flower beds. Change is therefore limited. Management for biodiversity, on the other hand, may actively encourage change so that more varied opportunities are present for wildlife. Some grassland might be allowed to change gradually into woodland or shrubs may be pruned less frequently. Many species have no permanent place in a green space managed to suppress all change, yet continuity of habitat is absolutely vital to many species.

6. **Size matters.** Although the quality of a park is not generally dependent on its size, in the context of increasing biodiversity it can often be crucial. Some species, mainly birds and mammals, have minimum area thresholds. So it is important to provide the largest area or mass of habitat wherever possible, as this enhances the chances for species that have large territories or that are vulnerable to disturbance. This provides the basic rationale to extending biodiversity beyond the bounds of the nature garden and integrating it into the wider management of parks and green spaces.

7. **Safety in numbers.** A greater diversity of plants is likely to support a wider range of animals. For example, a wildflower meadow is usually thought to be better for wildlife than areas of unmown, tall grassland, because the greater variety of flowering plants supports more nectar-feeding insects than grasses alone. Similarly, a mixed planting of shrubs or a mixed hedge may help encourage more species of birds than a planting or hedge made up of a single species.

8. **The sum is bigger than the parts.** Combining different habitat types together creates a more complex and varied environment for wildlife, because of the larger number of opportunities for shelter and feeding. For example, the song thrush feeds both on invertebrates in open lawns and on berries from hedgerows or woodland edge. Thus, combining areas of short-mown grass with shrubs, hedges and woodland provides all sorts of foraging opportunities as well as nesting cover. Rich mosaics of different habitats can also be very attractive to people and are desirable if the size of the site and local circumstances permit.

9. **More structure means more diversity.** The key to providing enhanced habitats for biodiversity is generally increasing the structural diversity of the habitats. For example, long grass meadows provide more opportunities than short swards. A woodland with ground flora, dead wood and a small tree layer provides significantly more habitat than one stripped of everything except its trees.

10. **It's a matter of life and death.** We are used to thinking of nature as the living things we can see all around us, whether they are plants or animals. However, biodiversity – the totality of living things – includes also those myriad species that are scarcely visible. Many organisms are involved in death and decay and in feeding upon and recycling the dead remains of other life into soil nutrients. Therefore, one of the ways of encouraging greater biodiversity is to encourage this natural recycling by, for example, leaving dead wood on the ground in woodland areas.

11. **Life on the edge.** Biodiversity hotspots often occur at the meeting point between two or more habitats. For example, where a shrubby woodland edge meets tall grass or meadow, plants and animals from both grassland and woodland habitats can thrive. Such boundaries and edges can be very useful where space is limited, particularly if allowed to merge rather than being maintained as two or more separate areas. They can be especially valuable in warm and sunny aspects where the greatest diversity of wildlife can be expected.

12. **Remember the bigger picture.** It is easy to focus on an individual site or a particular area or feature within that site, to the exclusion of the surrounding area. However, wildlife rarely takes notice of our site boundaries. We should not forget to look at how an individual site fits into a much wider network of spaces and how that connection can be strengthened. We should also consider the role of private gardens, which extend the habitat available for wildlife beyond the public open space.

13. **Keep it sustainable.** Throughout the 20th century, managers of parks and green spaces (as well as the countryside) often unintentionally used specific techniques to remove biodiversity, which was seen to be a problem. This later rebounded through the food chain, or caused damage well away from the parks themselves. Adopting more sustainable approaches, for example reducing chemical inputs, water extraction and fertilisers, mulching to bulk up soil and avoiding the use of peat, can greatly enhance biodiversity.

Biodiversity Enhancement Actions

Practical ways in which to enhance biodiversity in Rahara are recommended in the biodiversity action tables presented in Chapter 8 of this plan.

Citizen Science Monitoring Biodiversity Change

This plan outlines a series of actions that the community can take to enhance biodiversity in a number of areas in the village. Before, during and after the recommendations in the plan have been achieved it is important that the community take part in citizen science activities (THAT ARE SIMPLE) to monitor for yourselves the increases in biodiversity you are seeing as a result of your work. The easiest activity which you should start is the flower insect timed count.

Flower Insect Timed Count (FIT counts)

The flower insect timed count is probably the simplest thing to do – this can be a once off activity but it is preferable for it to be undertaken over a number of weeks at the same site if possible. You watch a 50x50cm square patch of ground containing a specific target flower such as buttercup, dandelion, hogweed, butterfly bush, thistle, heather or ivy (depending on the time of year). Count the number of insects that land on the flower over a 10 minute period. This activity, repeated over a number of weeks and years helps community groups and others to measure change in local biodiversity. The information you collect is submitted to the National Biodiversity Data Centre either using their APP or by uploading the information from a data sheet you use during the observation period (which can be downloaded from biodiversityireland.ie). Carrying out FIT Counts throughout the year and across future years will help track the impact of your actions on insect numbers and diversity and provides a valuable long term record for your area. See https://biodiversityireland.ie/surveys/fit-counts/ and https://biodiversityireland.ie/app/uploads/2022/05/FIT-Count-survey-guidance_Ireland-2022.pdf for details. FIT counts are a citizen science activity related to the All Ireland Pollinator Plan.

Plate 1: buttercup flower with four visiting pollinator insects. FIT counts (flower insect timed counts) are a handy way for communities to measure improvements in biodiversity in a habitat following intervention. Photo: © J. FitzGerald.

Butterfly Monitoring

In this biodiversity action plan the different habitats in the village are described. A butterfly transect or walk can be developed around the village incorporating these habitats if the community would like to monitor butterflies for the National Biodiversity Data Centre. Butterflies only come out on sunny days after 11 am in the morning. Participating in the butterfly monitoring scheme involves establishing a fixed walking route (transect) of between 1 km and 2km in length that is monitored once a week from April to September. The route should be established close to where you live or work to make it convenient for you to complete the counts when the weather is suitable. The transect should be divided into 5-15 smaller sections to form sample units, and the number of butterflies seen within 2.5 m either side of yourself and 5 m in front (a 5 metre cubed recording 'box', see Plate 2) are counted for each section. Counts should be completed between 11:00 and 17:00hrs, when the temperature is at least 13°C and during good weather conditions. Participation in this scheme involves a considerable time commitment but it generates very high quality data on Irish butterflies. If you would like to get involved please contact butterflies@biodiversityireland.ie and support will be provided to get your transect established. see https://biodiversityireland.ie/surveys/butterfly-monitoring-scheme/#:~:text=The%20transect%20should%20be%20divided,are%20counted%20for%20each%20section. There is a great video by Jesmond Harding you can watch about this although there's a lot of wind noise on it. There are butterfly identification charts and all sorts of resources you can draw on in at this site.

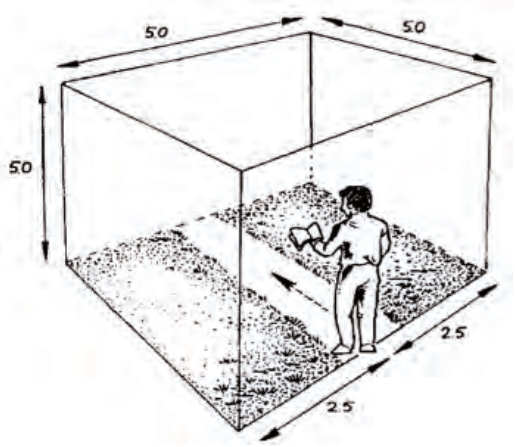


Plate 2: The counting cube area used when conducting a 'Pollard walk' line transect butterfly monitoring. © Dutch Butterfly Conservation.

Pond Dipping

The National Biodiversity Data Centre have a ponds for biodiversity project being launched fully in 2024. If there is a suitable pond in your area this could be signed up to - the adopt a pond network. Pond biodiversity is monitored through pond dipping with nets and white trays. Information about this project is available here: https://biodiversityireland.ie/projects/ponds-for-biodiversity/ and there is a section on how to pond dip (https://freshwaterhabitats.org.uk/get-involved-2/big-pond-dip/dip/) and resources here too. This project could be undertaken as part of biology studies led by school teachers. Pond dipping is carried out for a specific length of time and all the different varieties of bug and the numbers that are caught are counted. The informaton is submitted to the National Biodiversity Data Centre. This might only need to be done once per season but if you start it, ideally you should do it each year in the same pond to see how its biodiversity changes.

Plate 3: Small lake or pond at the Bog of Allen Nature Centre, Co. Kildare. The wildlife in the pond can be monitored by pond dipping and the information collected can be used to assess how well the pond is doing for biodiversity. Photo: © C. O'Connell.

Biodiversity on Your Farm

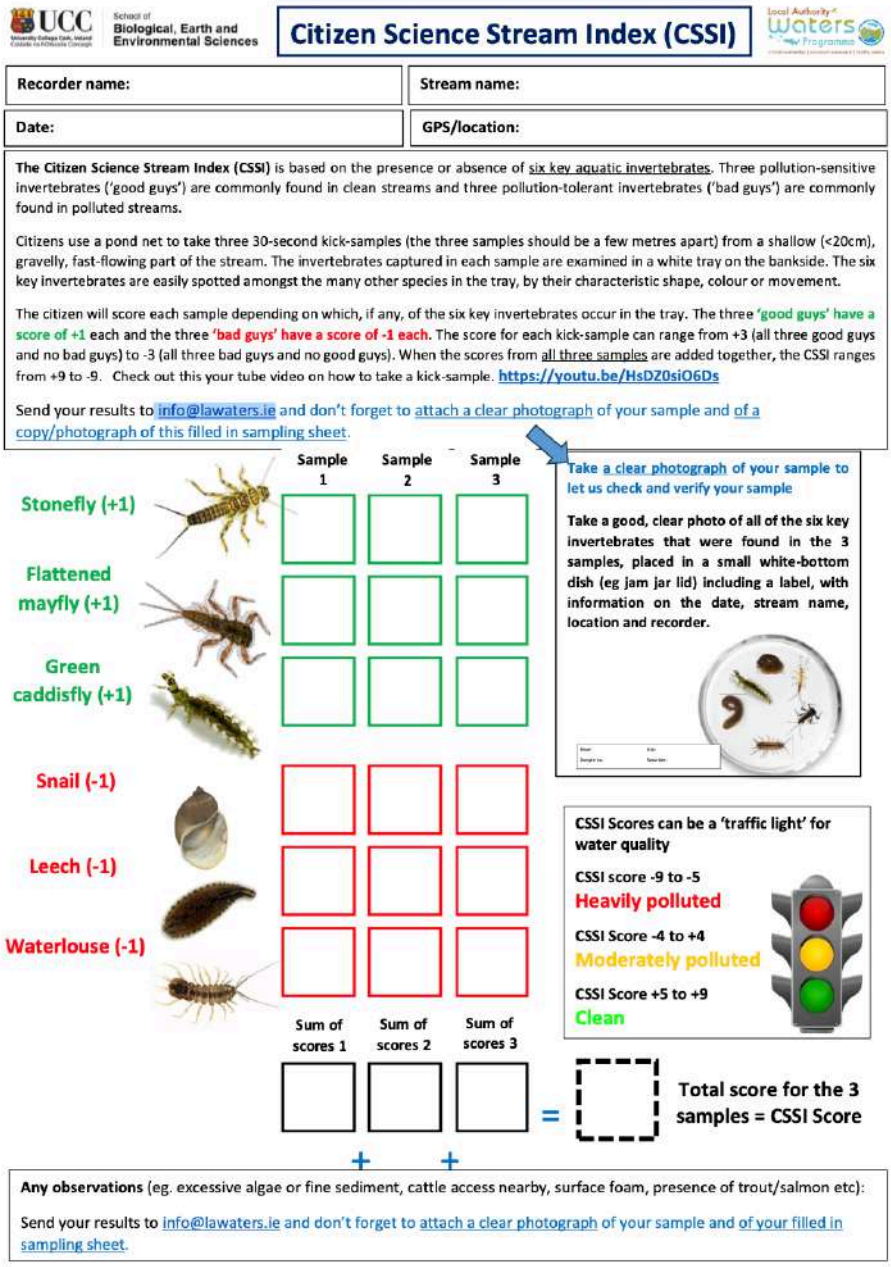
This is a biodiversity recording initiative of the National Biodiversity Data Centre in collaboration with the Department of Agriculture, Food and the Marine (see https://biodiversityireland.ie/surveys/biodiversity-on-your-farm/). The project focuses on 40 different species likely to occur on a farm. Join up for further information, training courses and tips on how to manage farm biodiversity.

Pledging your Garden for Pollinators - All- Ireland Pollinator Plan

The All-Ireland Pollinator Plan is a framework bringing together different sectors across the island of Ireland to create a landscape where pollinators can survive and thrive. Implementation is coordinated by the National Biodiversity Data Centre.

One third of our wild bee species is threatened with extinction. This is mainly because we have drastically reduced the amount of food and safe nesting sites that support them. The All-Ireland Pollinator Plan is a shared plan of action: together, we can take steps to restore pollinator populations to healthy levels. Individuals are invited to pledge their garden for pollinators. You can sign up a garden here and pledge to take action: https://pollinators.biodiversityireland.ie and you can read more about the scheme, sign up to a newsletter and read useful resources here:https://pollinators.ie.

Citizen Science in Freshwater Rivers - The Citizen Science Stream Index (CSSI)



UCC School of Biological, Earth and Environmental Sciences

Citizen Science Stream Index (CSSI)

Local Authority Waters Programme

Recorder name:	Stream name:
Date:	GPS/location:

The Citizen Science Stream Index (CSSI) is based on the presence or absence of six key aquatic invertebrates. Three pollution-sensitive invertebrates ('good guys') are commonly found in clean streams and three pollution-tolerant invertebrates ('bad guys') are commonly found in polluted streams.

Citizens use a pond net to take three 30-second kick-samples (the three samples should be a few metres apart) from a shallow (<20cm), gravelly, fast-flowing part of the stream. The invertebrates captured in each sample are examined in a white tray on the bankside. The six key invertebrates are easily spotted amongst the many other species in the tray, by their characteristic shape, colour or movement.

The citizen will score each sample depending on which, if any, of the six key invertebrates occur in the tray. The three **'good guys' have a score of +1** each and the three **'bad guys' have a score of -1 each.** The score for each kick-sample can range from +3 (all three good guys and no bad guys) to -3 (all three bad guys and no good guys). When the scores from all three samples are added together, the CSSI ranges from +9 to -9. Check out this your tube video on how to take a kick-sample. **https://youtu.be/HsDZ0siO6Ds**

Send your results to info@lawaters.ie and don't forget to attach a clear photograph of your sample and of a copy/photograph of this filled in sampling sheet.

	Sample 1	Sample 2	Sample 3
Stonefly (+1)			
Flattened mayfly (+1)			
Green caddisfly (+1)			
Snail (-1)			
Leech (-1)			
Waterlouse (-1)			
	Sum of scores 1	Sum of scores 2	Sum of scores 3

= Total score for the 3 samples = CSSI Score

+ +

Take a clear photograph of your sample to let us check and verify your sample

Take a good, clear photo of all of the six key invertebrates that were found in the 3 samples, placed in a small white-bottom dish (eg jam jar lid) including a label, with information on the date, stream name, location and recorder.

CSSI Scores can be a 'traffic light' for water quality

CSSI score -9 to -5
Heavily polluted

CSSI Score -4 to +4
Moderately polluted

CSSI Score +5 to +9
Clean

Any observations (eg. excessive algae or fine sediment, cattle access nearby, surface foam, presence of trout/salmon etc):

Send your results to info@lawaters.ie and don't forget to attach a clear photograph of your sample and of your filled in sampling sheet.

A simple method to allow citzens to monitor freshwater streams in their area has been developed by the Local Authority Water Programme (LAWPRO). The Citizen Science Stream Index (CSSI) is suitable for beginners. The recording instructions and form can be downloaded from https://lawaters.ie/app/uploads/2023/11/Citizen-Science-Stream-Index-field-recording-sheet.pdf. The results of the survey are sent to info@lawaters.ie together with a photograph of the indicator species found and a copy of the recording form. This action helps to monitor a wide range of freshwater streams and can signal when any change is occurring in water quality that can be investigated by professional scientists. There is a video on the site to help citizen scientists undertake the sampling.

8. Ballyshannon Biodiversity Maps and Actions

8.1.1 Dowlings Pub, Ballyshannon Cross, Co. Kildare - Location 53.086700, -6.816025

Dowlings Pub fronts onto the R418 road from Kilcullen to Athy. The site consists of old and modern built structures with a car park and amenity grassland and covers an area of 3,689.52 m² or 0.4ha. The location of the site is shown in Figure 10 outlined in white. North west of the site is the R418 main road, south of the site is the road to Calverstown separated by a tree line and earthen embankment and north east of the site a new house is being built which is separated from the study site by a concrete wall and tree line. The majority of the site is open to the R418 to allow for parking.

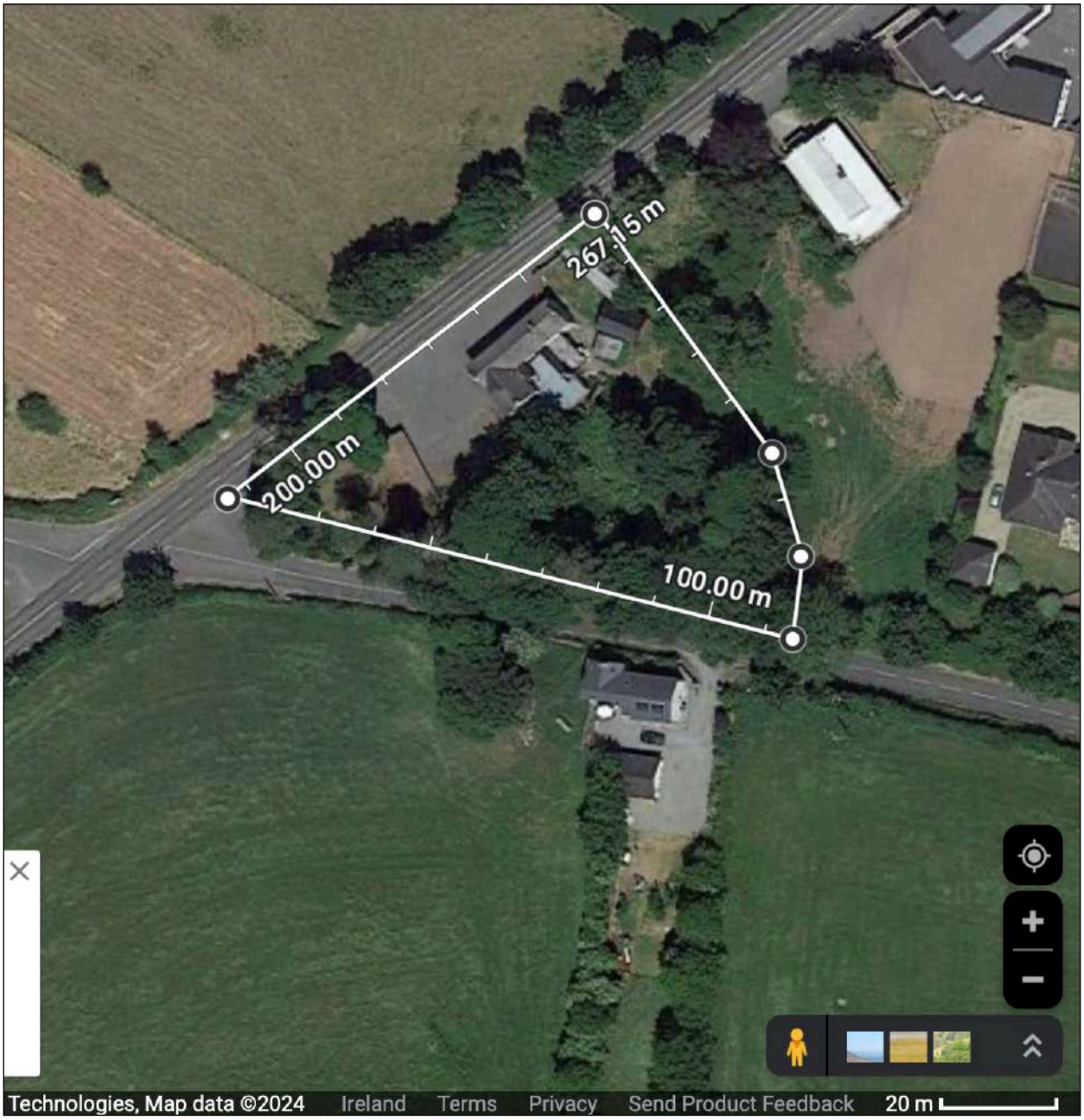


Figure 10: Location of Dowlings pub at Ballyshannon Cross, Co. Kildare. The biodiversity study site is outlined in white. Source: https://www.google.com/maps.

8.1.2 Dowlings Pub, Ballyshannon Cross, Co. Kildare - Site Management

Behind the parking area there are two areas of amenity grassland which are reguarly mowed. A small area of grass verge located along the north western boundary at Ballyshannon cross is also mowed and daffodils have been planted here. Some clearing of the earthen embankment associated with a hedgerow has taken place and grass cuttings are being dumped here. The old pub building has window boxes and planters to the front.

8.1.3 - Dowlings Pub, Ballyshannon Cross, Co. Kildare - Habitats and Species Present

Species Diversity
The species recorded at this site were as follows: 31 plants, 1 insect and 4 birds with a total of 36 species for the site (see Appendix 2). A rookery was noted in the mature trees around Dowlings pub with up to 20 nests and 12-14 rooks present at a given time.

The habitats present at Dowlings Pub are shown on Figure 11 and are described below.

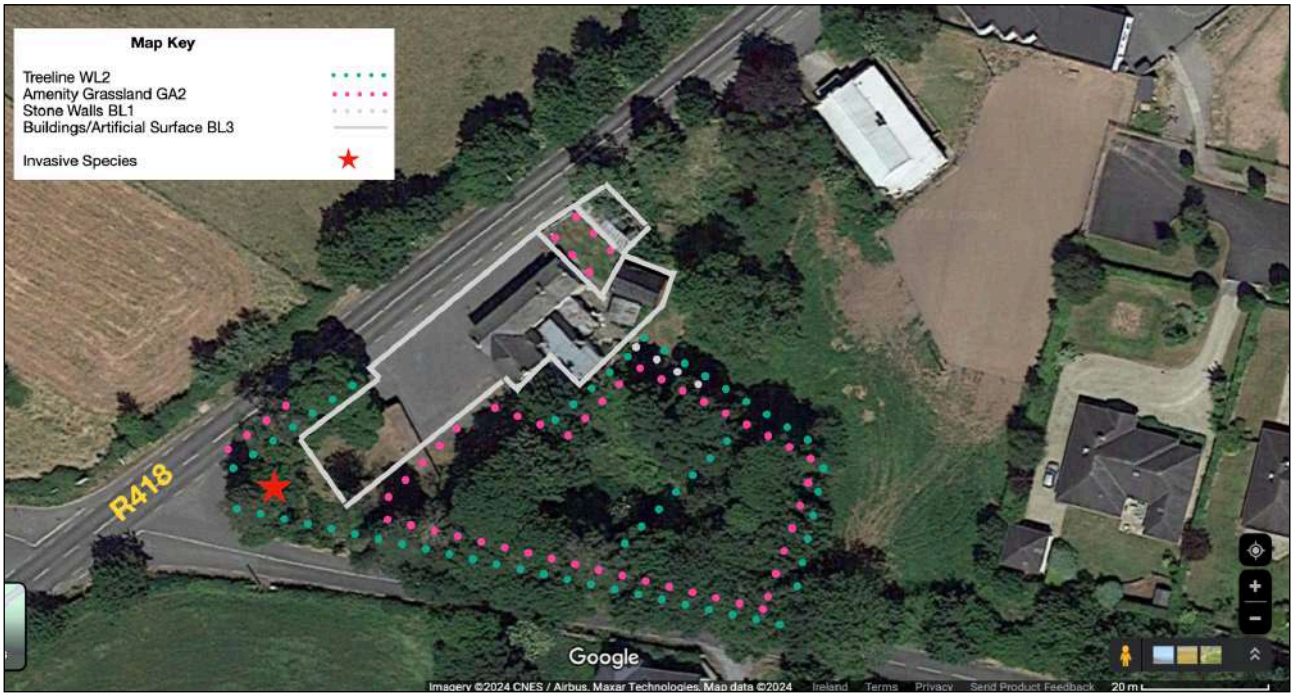


Figure 11: Habitat map for Dowlings pub at Ballyshannon Cross, Co. Kildare. Map © https://www.google.com/maps, amended C. O'Connell.

Buildings BL3
The pub and a variety of smaller old and new buildings, together with the tarmacked and gravelled parking areas are included in this habitat. These structures were relatively free of plant life (see Plate 4).

Plate 4: Dowlings pub at the side of the R418 at Ballyshannon Cross, Co. Kildare. Photo: © J. FitzGerald.

Stone Walls and Other Stonework BL1
Behind the pub building on the north eastern boundary of the site there was a short boundary of concrete wall. This structure was being colonised by ivy.

Treeline WL2
The treeline habitats occured along the western, southern and north eastern boundaries of the site. There were fine tall trees of pine, sycamore and horse chestnut together with one yew tree, an ash tree and two apple trees. Epiphytic lichen cover on the branches was profuse of *Xanthoria* and *Ramalina*. Ivy cover on the trunks and within the canopy of the trees was noted particularly the apple trees. A notable feature of the mature trees was the presence of an active rookery with 12 nests and rooks frequenting them (Plate 5). The ground layer had a good representation of woodland plants including bluebell, cleavers, lesser celendine, bush vetch, cow parsley and hogweed.

Plate 5: Mature treeline habitat towards the rear of Dowlings Pub, Ballyshannon Cross, Co. Kildare. The rookery is a feature of this biodiversity site (see image inset of a jackdaw). The trees are not yet fully in leaf, providing a view of the extent of ivy growth on them. Action 8.4.4 in Table 5 recommends managing ivy on a three year rotation beginning with the mature apple trees which were in blossum (image inset). Ivy is one of the top 5 biodiversity plants (see Table 4). Photos: © C. O'Connell.

Amenity Grassland GA2
Behind the car park and pub buildings the ground layer beneath the trees is amenity grassland. Species included dandelion, daisy, buttercup, cowslip, thistle, dock, white clover, forget me not, annual blue grass and nettle together with a variety of woodland plants including bluebell, cleavers, lesser celendine, cow parsley and hogweed. This area was being intensively mowed to create an amenity for events hosted by Dowlings Pub. A strip of amenity grassland also occured along part of the boundary of the Pub with the R418 (see Plates 6 and 7).

Plate 6 (left): An area to the rear of Dowlings pub is being mowed regularly to create amenity grassland. The plants growing here were typical of woodland floor. Action 8.1.1 in Table 5 recommends not mowing this area to allow the plants to flower and set seed. This would be valuable to pollinators. Photo: © C. O'Connell.

Plate 7 (left): A strip of amenity grassland verge along the R418. Action 8.1.2 in Table 5 recommends managing mowing in this area on a two tiered system, keeping grass short next to the road, but allowing wildflower meadow to develop next to the fence (see image inset). Photos: © C. O'Connell.

Invasive Species
Snowberry (*Symphoricarpos albus*) was noted in association with the treeline habitat in the south western corner of the site. This shrubs extends its cover using suckers to the exclusion of native hedgerow species. Ideally this needs to be removed to protect native species and biodiversity.

8.1.4 - Dowlings Pub, Ballyshannon Cross, Co. Kildare - Biodiversity Actions

Biodiversity actions for the Dowlings Pub are presented in Table 5. The pub is a hub for the community and as such there is an opportunity to show best practice in this area.

Table 5: Biodiversity enhancement actions for Dowlings Pub, Ballyshannon, Co. Kildare

Action Number	Action	Notes
8.1.1	**Grass management - woodland wild flowers**	Reduce the intensity of grass mowing particularly to the rear of the property where the apple trees occur. Many of the species being mowed here are typical of woodland habitat and will provide a biodiversity hot spot for pollinators as well as a beautiful habitat for patrons of Dowlings to enjoy. Erect a sign in this area to inform visitors of the management decision.
8.1.2	**Grass management - roadside**	A two tiered grass cutting regime could be introduced as part of the management of the grass strip between the R418 and the boundary of Dowlings pub. This involves cutting the edge closest to the road short but leaving the area closest to the fence to grow, flower and set seed. Cut the long grass only once in Spring and once again in the Autumn. Thus in the summer the verges would be showing off their flowers to their best. Remove the grass cuttings so as to reduce fertility which encourages wild flowers to grow in subsequent years.
8.1.3	**Hedge planting**	Planting hawthorn hedge is recommended in two locations at Dowlings. The first behind the wooden fence along part of the frontage with the R418 and the second at the back of the property on the boundary with the new house being built. These will screen off the busy road, provide privacy and reduce noise as well as creating habitat for wildlife. Construct a hedge from new 2 year old bare rooted whips of hawthorn plants (See https://www.teagasc.ie/news--events/daily/environment/how-to-plant-a-hedge.php). Other species to consider with a view to increasing biodiversity are crab apple, guelder rose and blackthorn. Once planted the hedge should be managed for wildlife (see https://www.farmingfornature.ie/resources/best-practice-guides/hedgerow-management/).
8.1.4	**Ivy Control**	The apple trees to the rear of the property were invested with ivy to the point where it is killing the fruit trees. This needs to be removed by cutting the ascending stems at the base of the trees. Ivy is one of the top beneficial plants to biodiversity providing shelter for hiberating insects, nesting sites and berries for birds and nectar during the winter months (see Table 4). It should be cut on a three year rotation so that at all times within a site there is a variety of ivy growing from young climbing plants to mature flowering plants.
8.1.5	**Treeline**	Fill gaps in the treeline behind the wooden extension to Dowlings where there is an unsightly wire mesh fence. Choose a native species good for birds such as guelder rose, bird cherry, crab apple, blackthorn or hawthorn.
8.1.6	**Log Pile**	Convert discarded tree logs into a log pile for biodiversity (Plate 8). A log pile is a complex home and food source for all sorts of beneficial creepy crawlies and invertebrates. They can even be used by larger animals such as frogs and hedgehogs for hibernation. Large logs give a more stable environment but every log counts. Stack them up randomly leaving some space between them. Partly bury some logs into the ground to create the cool moist conditions loved by ground dwelling invertebrates including woodlice, centipedes, ground beetles and the devil's coach horse. Log piles are not static. Continue to add to the pile as it rots down. This will ensure that you have fresh dense wood at the top and brittle, soft decomposing wood at the bottom. A log pile is a wildlife sanctuary and will enhance the wildlife value of the school grounds and it is a teaching resource.
8.1.7	**Compost heap**	Create a compost heap for organic waste generated within the pub grounds rather than dumping grass clippings under the trees (Plate 9). This needs to be managed correctly to get the best value from it. Alternatively purchase a lawn mower incorporating a mulcher so that grass clippings are not produced.
8.1.8	**Litter control**	Control litter within the grounds and other waste associated with outdoor activities within the pub grounds.
8.1.9	**Remove invasive Snowberry**	This is an invasive species of hedges and tree lines. Its removal may require liaison with the National Biodiversity Data Centre (https://invasives.ie).

Action Number	Action	Notes
8.1.10	Citizen science monitoring of biodiversity improvement	Once some of the measures have been completed it is important to undertake simple monitoring actions of how well biodiversity is doing. For example a FIT survey could be undertaken on a patch of buttercups in the newly developed meadow areas. See further details in Chapter 7 of this plan.

Plate 8: Discarded tree logs can be turned into an insect hotel/log pile for wildlife in the grounds of Dowlings Pub, see Action 8.1.6 in Table 5. Photo: © C. O'Connell.

Plate 9: Grass clippings need to be disposed of correctly by creating a compost heap rather than creating an unsightly and foul smelling heap in the treeline which is a public area. See Action 8.1.7 in Table 5 for more details. Photo: © C. O'Connell.

8.2.1 Ballyshannon Community Hall, Co. Kildare - Location 53.087144, -6.815271

Ballyshannon Community Hall fronts onto the R418 road from Kilcullen to Athy. The site consists of the Community Hall occupying the old Macra na Feirme building and a small area of amenity grassland. The Hall is extensively used by the community to hold meetings and by pre-school children. It covers an area of 676.59m² or 0.7ha. The location of the site is shown in Figure 12 outlined in white. North west of the site is the R418 main road. On the south western boundary there is a building site of a house separated by wire fencing and a hedge. South east of the site is a playing field used by the National School separated by a wire and post fence 2m tall. The school building is located on the north eastern margin and is separated from the Community Hall by a concrete wall, 1.5m tall. The hall is fenced off and gated from the R418. Immediately outside the gates there are parking spaces for a few cars. In the middle of the grassed area there is a septic tank which is fenced off.

Figure 12: Location of Ballyshannon Community Hall, Ballyshannon, Co. Kildare. The biodiversity study site is outlined in white. Source: https://www.google.com/maps. ***Inset an image of the front of the Community Hall. Photo: © J. FitzGerald.***

8.2.2 Ballyshannon Community Hall, Co. Kildare - Site Management

Grassland areas to the sides of the building are maintained by mowing. The septic tank is fenced off and painted colourfully. Children's toys are stored along the wall of the building on the concrete apron. A barberry (*Berberris* species) hedge is maintained to the front of the building along part of the fence line. Herbicides are used to reduce weed growth along the wall shared with the school and along a wire fence to the rear of the site (see Plates 11 and 12).

8.2.3 - Ballyshannon Community Hall, Co. Kildare - Habitats and Species Present

Species Diversity
The species recorded at this site were as follows: 27 plants, 3 insects and 4 birds with a total of 34 species for the site (see Appendix 2).

The habitats present at the Community Hall are shown on Figure 13 and are described below.

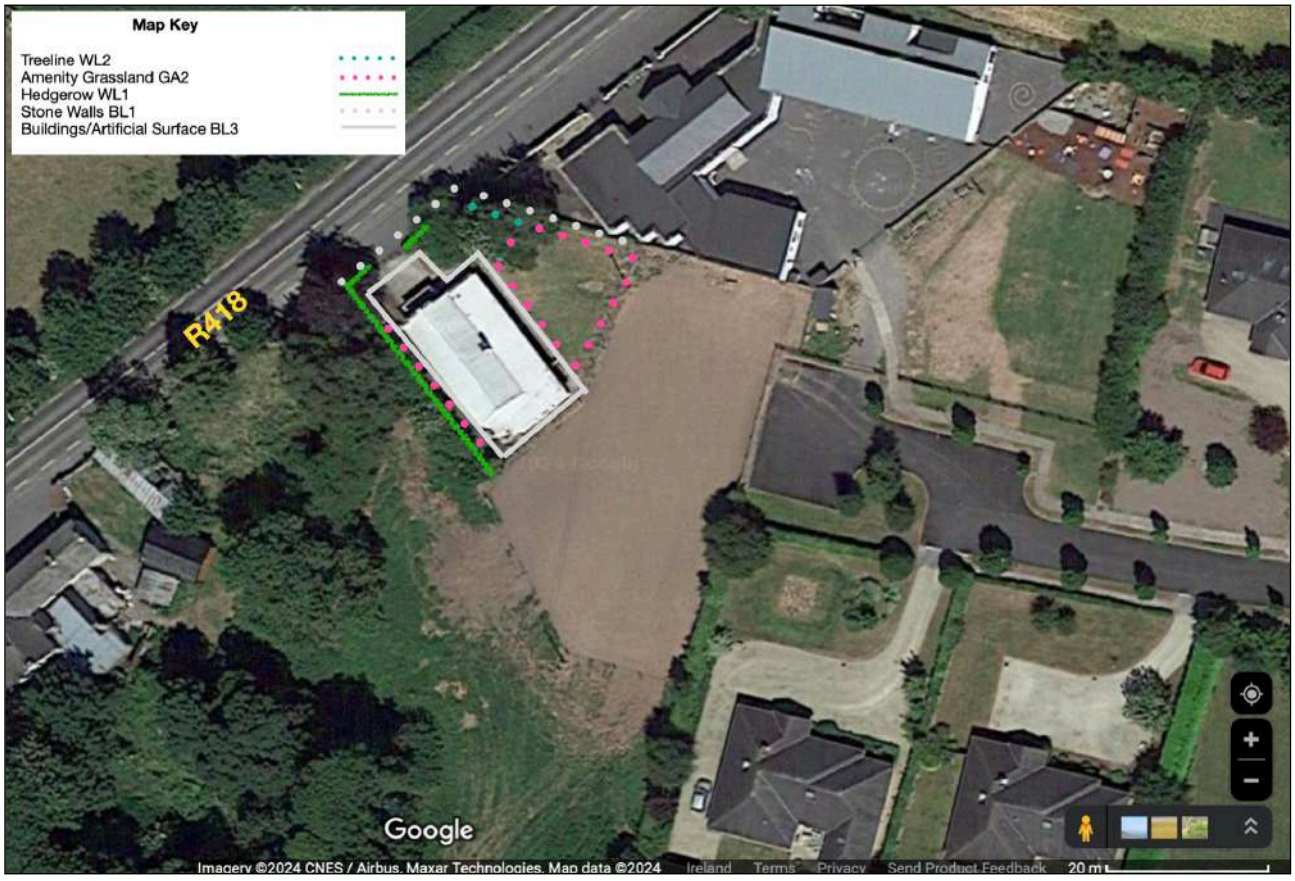


Figure 13: Habitat map for Ballyshannon Community Hall, Ballyshannon, Co. Kildare. Map © https://www.google.com/maps, amended C. O'Connell.

Buildings BL3
The hall building and its concrete apron are well maintained and as a result were free of plant life (see Plate 10).

Plate 10: The side of the Community Hall facing the National School. The building is well maintained and materials are stored on its concrete apron. A portion of the amenity grassland habitat is also seen. Action 8.2.2 in Table 6 suggests erecting bird nesting boxes on the hall building. Photo: © C. O'Connell.

Stone Walls and Other Stonework BL1
The boundary with the national school to the north east is a concrete wall. This structure had little plant life with the exception of moss and lichen (Plate 11).

Plate 11 (left): The concrete stone wall on the boundary of the community hall with the national school. Note the scorching of the grass due to the use of herbicides. Action 8.2.8 in Table 6 recommends that all chemical sprays be banned in the interests of protecting biodiversity and child safety, while Action 8.2.5 recommends screening the wall with a combination of climbing plants, grasses and an insect hotel. Photo: © C. O'Connell.

Plate 12 (right): The wire and post fence to the rear of the Community Hall. Note the scorching of the grass due to the use of herbicides. Action 8.2.8 in Table 6 recommends that all chemical sprays be banned in the interests of protecting biodiversity and child safety, while Action 8.2.5 recommends screening the wall with a combination of climbing plants, grasses and an insect hotel. Part of the colourful fence around the sewage treatment tank can be seen on the right hand side, again herbicides are being used to control weeds and this needs to stop. Action 8.2.6 in Table 6 suggests planting up a butterfly garden around part of the septic tank to encourage wildlife. Photo: © C. O'Connell.

Treeline WL2
A very short treeline of 5m is present on the grounds of the Community Centre formed by two birch trees and one poplar tree.

Amenity Grassland GA2
The principal habitat present at the Community Hall is amenity grassland. This provides a playground for the pre-school children. There is also a strip of grassland on the western boundary of the Hall adjacent to a hedge. Both areas are mowed regularly and are species poor with groundsel, white clover, speedwell, daisy, dandelion and plantain among the grasses which include annual blue grass (see Plate 13).

Plate 13: Mature treeline located on the left hand side of the image and the amenity grassland habitat is shown in the centre and front of the image. Action 8.2.5 in Table 6 makes recommendations on screening for wildlife while Action 8.2.1 recommends setting up a bird feeding and bathing station in the tall trees (inset). Photos: © C. O'Connell.

Hedgerow WL1
The western boundary of the Community Hall site consists of a hedgerow and wire fence. The species present included elderflower, hawthorn, privet, sycamore, bramble with cow parsley, ivy and cleavers in the herb layer (see Plate 14). There were some gaps in the hedge adjacent to an oil tank positioned mid way along the hedge which were wire fenced.

Plate 14 (right): Hedgerow and strip of amenity grassland on the western boundary of the Community Hall. Inset: speckled wood butterfly, a typical species of woodland glades and hedges. Actions 8.2.3 and 8.2.4 in Table 6 recommend planting hawthorn in the gaps in the hedge and allowing the grassland strip to return to woodland edge habitat. Photos: © C. O'Connell & J. FitzGerald.

8.2.4 - Ballyshannon Community Hall, Co. Kildare - Biodiversity Actions

Biodiversity actions for the Ballyshannon Community Hall are presented in Table 6. The Hall is a hub for the community and young children and as such there is an opportunity to showcase best practice in the enhancement of wildlife and biodiversity through a series of positive actions.

Table 6: Biodiversity enhancement actions for Ballyshannon Community Hall, Co. Kildare

Action Number	Action	Notes
8.2.1	**Set up a bird feeding and bathing station**	Establish a bird feeding station in the children's play area at the Community Centre in the birch and poplar trees. Keep bird feeders topped up to attract birds to the area. Provide water for the birds as well. Birds drink water and use it as a bath to keep their feathers in top condition. Use a specially made bird bath that can hang in the tree or just a bowl or an old sink on the ground. Place water for birds near the trees as all birds like to approach from a place of safety.
8.2.2	**Erect bird boxes on the Hall Building**	A variety of nest boxes for robins and tits should be erected on the Community Hall Building to encourage birds to nest. This action will work well with Actions 8.2.3 and 8.2.4.
8.2.3	**Hedge planting**	Planting a hawthorn hedge is recommended in the gaps in the existing hedge on the western boundary of the Community Hall. There may also be scope to extend the *Berberis* hedge at the front of the building either side of the entrance path to provide screening and noise reduction from the R418. This action will give biodiversity a boost on this site and provide food and habitat for wild birds and pollinators. Construct a hedge from new 2 year old bare rooted whips of hawthorn plants (See https://www.teagasc.ie/news--events/daily/environment/planting-hedges.php). Other species to consider with a view to increasing biodiversity are crab apple, guelder rose and blackthorn. Once planted the hedge should be managed for wildlife (see https://www.farmingfornature.ie/your-farm/resources/best-practice-guides/hedgerow-management/).
8.2.4	**Woodland Edge habitat creation**	Manage the grassland area and the hedge bank on the western side of the Community Centre as a woodland edge habitat. Allow the trees in the hedge to flower and set seed. A range nestboxes will encourage tits, robins and other birds to nest. Solitary bees will make use of bundles of hollow plant stems. Bats will use bat boxes made of unplaned, preservative-free wood attached to tree trunks. Make log piles from fallen tree branches or dead wood to provide habitat for small mammals, amphibians, insects and beetles. Leaf litter also provides a habitat for beetles, worms and slugs which in turn eaten by birds and hedgehogs.
8.2.5	**Wall and fence screening**	Increase the biodiversity interest of the community centre wall and fence by planting with screening plants. Choose from a combination of espalier-trained fruit trees such as apple or pear, climbers such as Clematis montana (Travellor's Joy), *Lonicera* (Honeysuckle), Ivy (Hedera), Pyracantha, Wild Rose (*Rosa canina*) and grasses such as silver grass (*Miscanthus*). Part of the wall can be given over to forming a decorative wildlife hotel made from old pallets, bricks and offcuts of branches and twigs (see Plate 15).
8.2.6	**Create a Butterfly Garden**	A new planting zone should be created around the septic tank in front of the colourful fence as a butterfly friendly zone. The top 10 nectar plants for butterflies are: 1. Buddleia, 2. Ice Plant, 3. Lavender, 4. Michaelmas Daisy 5. Oregano, 6. Aubretia, 7. Red Valerian, 8. French Marigold, 9. Hebe and 10. Candytuft. For more information see: https://butterflyconservation.ie/wp/wp-content/uploads/2017/12/BCI-Garden-leaflet.pdf and https://butterfly-conservation.org/how-you-can-help/get-involved/gardening/gardening-for-butterflies
8.2.7	**Water Butt**	A down pipe on the side of the Community Hall building may be suitable for installation of a water butt that is visible as a sustainable feature to the community. Water can be used to maintain newly planted hedge and fenceline screening and the bird bath. This is a good example of a sustainable activity.

Action Number	Action	Notes
8.2.8	**Stop using Herbicides**	The use of herbicides to control weed growth along fencelines and wall boundaries needs to stop in the interests of enhancing biodiversity and in the interests of child care. These are not large areas and can easily be weeded by hand or using a hoe. However biodiversity would dictate that all plants should be allowed to flower and set seed.
8.2.9	**Citizen science monitoring of biodiversity improvement**	Once some of the measures have been completed it is important to undertake simple monitoring actions of how well biodiversity is doing. For example a FIT survey could be undertaken on a patch of buttercups in the newly developed meadow areas. See further details in Chapter 7 of this plan.

Plate 15: A simple and effective wildlife-haven used to screen a wall. This is made from part of an old pallet, bricks and offcuts of branches and twigs. See Action 8.2.5 in Table 6 for more ideas on screening the wall and fence in the grounds of Ballyshannon Community Hall. Photo: © C. O'Connell

8.3.1 Ballyshannon National School, Co. Kildare - Location 53.087349, -6.814641

Ballyshannon National School (Plate 17) dates from 1901 and fronts onto the R418 road from Kilcullen to Athy. It is a single-storey building that was extended in 2005. Outside the pebble-dashed school wall there is parking for cars at the edge of the R418. To the front of the school inside the wall and gates, there is tarmac and a gravelled area. There are planters on the tarmac and a vegetable garden with raised beds on the gravel. On the school windows there are window boxes. Access to the back of the school is through the school building or via Carrighill Lower Estate which borders the school on the south and eastern boundaries. There are two playing pitches to the rear, a tarmarked playground and a sensory garden. The playground is separated from the playing pitches and sensory garden by a low wall and by a PVC wire fence near the septic tank. The playing pitches and garden are fenced off with a wooden rail fence and beech hedge from Carrighill Lower Estate. The sensory garden is separated from the hedge on the the north eastern corner by a wooden palisade. The school covers an area of 4,096.31m² or 0.4ha. The location of the site is shown in Figure 14 outlined in white.

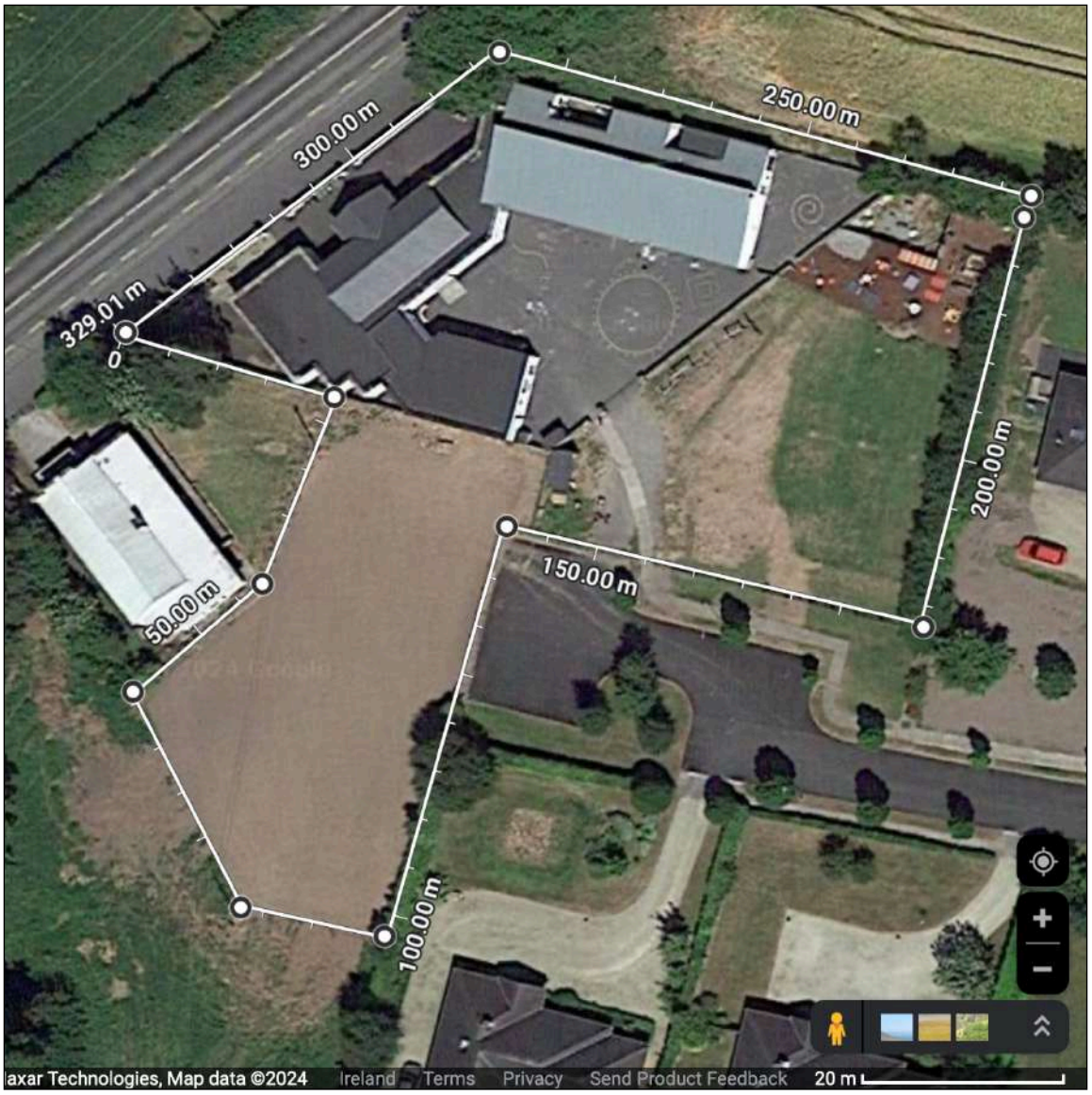


Figure 14: Location of Ballyshannon National School, Ballyshannon, Co. Kildare. The biodiversity study site is outlined in white. Source: https://www.google.com/maps.

Plate 17: Ballyshannon National School, Co. Kildare as seen from the R418. Photo: © J. FitzGerald.

8.3.2 Ballyshannon National School, Co. Kildare - Site Management

The playing pitches are maintained through regular mowing. The beech hedge is maintained through trimming. The school children help to maintain the sensory garden and the vegetable beds as part of their education programme. Forker multi purpose compost which contains peat is being used to enhance flower beds, window boxes and containers. Herbicides are used to control weeds around apple trees planted in the sensory garden area. The sensory garden in the school grounds registered with the pledging your garden for pollinators scheme https://pollinators.biodiversityireland.ie/ in 2018 under the name of Green Sod Ireland “Bee Aware” Ballyshannon National School (site number 1039).

8.3.3 - Ballyshannon National School, Co. Kildare - Habitats and Species Present

Species Diversity
The species recorded at this site were as follows: 15 plants, 0 insects and 2 birds with a total of 17 species for the site (see Appendix 2).

The habitats present at the National School in Ballyshannon are shown on Figure 15 and are described below.

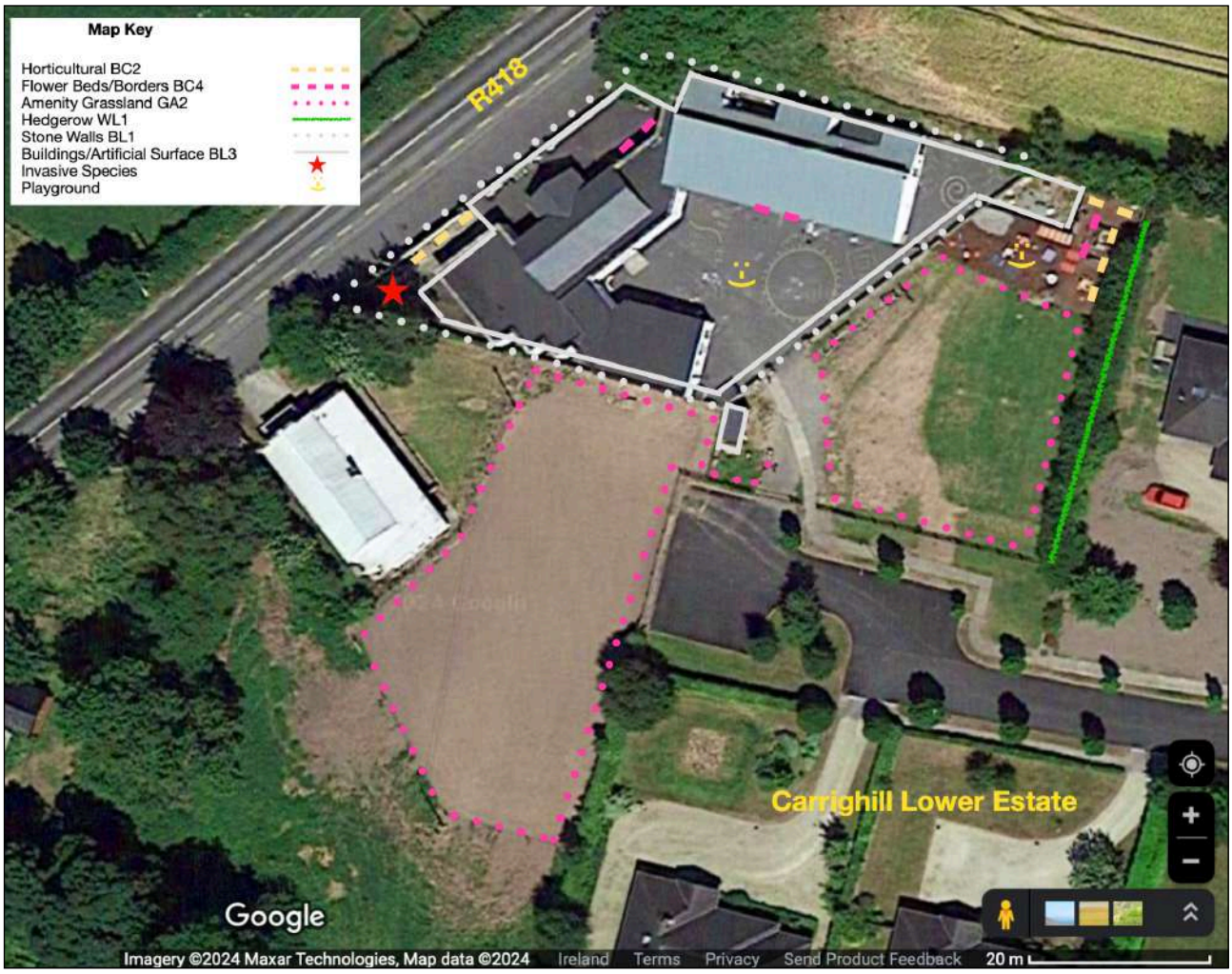


Figure 15: Habitat map for Ballyshannon National School, Ballyshannon, Co. Kildare. Map © https://www.google.com/maps, amended C. O'Connell.

Buildings BL3
The school buildings and its play ground are well maintained and as a result were free of plant life.

Plate 18 (above): Part of the front of Ballyshannon National School showing wheelbarrow planters. Action 8.3.5 in Table 7 suggests planting these barrows with blue and pink toned flowers or shrubs such as Hebe, heathers and lavender which are of more interest to pollinators while Action 8.3.7 suggests using home made compost as opposed to peat in the planting. Some of the food growing raised beds to the front of the school are shown inset. Photos: © C. O'Connell.

Plate 19 (right) a raised planter flower bed built into the school building. This has been planted with ox eye daisy, Calendula and daffodil. Action 8.3.5 in Table 7 suggests dedicating this raised bed to pollinators and birds. This will require additional planting of lavender, rosemary, broom, catmint and heathers in this raised bed to provide year round food for pollinators. Further information from https://pollinators.ie/wp-content/uploads/2022/05/AIPP-A5-Flyer-Garden-2022-PRINT.pdf. Sunflower (inset) provides nectar for pollinators and seeds for birds and would be a great impact plant to grow here. Photos: © C. O'Connell.

Stone Walls and Other Stonework BL1
The boundary walls to the R418 and between the playground and the playing fields are pebble dash or concrete and well maintained with no plant life (Plate 18).

Amenity Grassland GA2
The principal habitat present at the National School is amenity grassland where the school children play and undertake sports. Both areas are mowed regularly and are species poor with groundsel, white clover, daisy, dandelion, willowherb, black meddick, daisy and plantain among the grasses which include annual blue grass (see Plates 20 and 21).

Plate 20: One of the sports fields at Ballyshannon National School, Co. Kildare showing amenity grassland habitat. The wire fense adjoining the Community Hall can be seen on the left hand side and the concrete wall at the side of the school building can be seen towards the right hand side. Action 8.3.6 in Table 7 makes suggestions on suitable wildlife friendly screening methods for these boundaries. Photo: © C. O'Connell.

Plate 21: a portion of the wall separating the school buildings and playground from the green sports pitch and sensory garden to the back of the photo at Ballyshannon National School, Co. Kildare. The beech hedge separating the school grounds from Carrighill Lower Estate is seen on the right had side. Action 8.3.6 in Table 7 recommends screening the wall with espalier fruit trees and climbers to enhance its biodiversity (see photo inset). Photos: © C. O'Connell

Hedgerow WL1
A beech hedge has been planted along the eastern boundary of the school to screen off Carrighill Lower housing estate (see Plate 22). The hedge is 3m tall and is maintained through trimming. It is dominated by beech with an occasional bramble. The grass verge at the base of the hedge contained nettle, buttercup, thistle, red clover, herb rober and Yorkshire fog grass.

Plate 22: the beech hedge along the eastern boundary of Ballyshannon National School. Action 8.3.4 in Table 7 recommends creating an additional wild flower habitat between the cut grass and the hedge by leaving 1-3m of the grass uncut and managing it for wildflower meadow (see image inset). Photos: C. O'Connell

Horticultural Land BC2
The raised beds to the front of the school, to the side of the sports pitch and in the sensory garden are being used to produce vegetables, herbs and soft fruits including strawberry, potato, peas, onions. Two apple trees have recently been planted beside them.

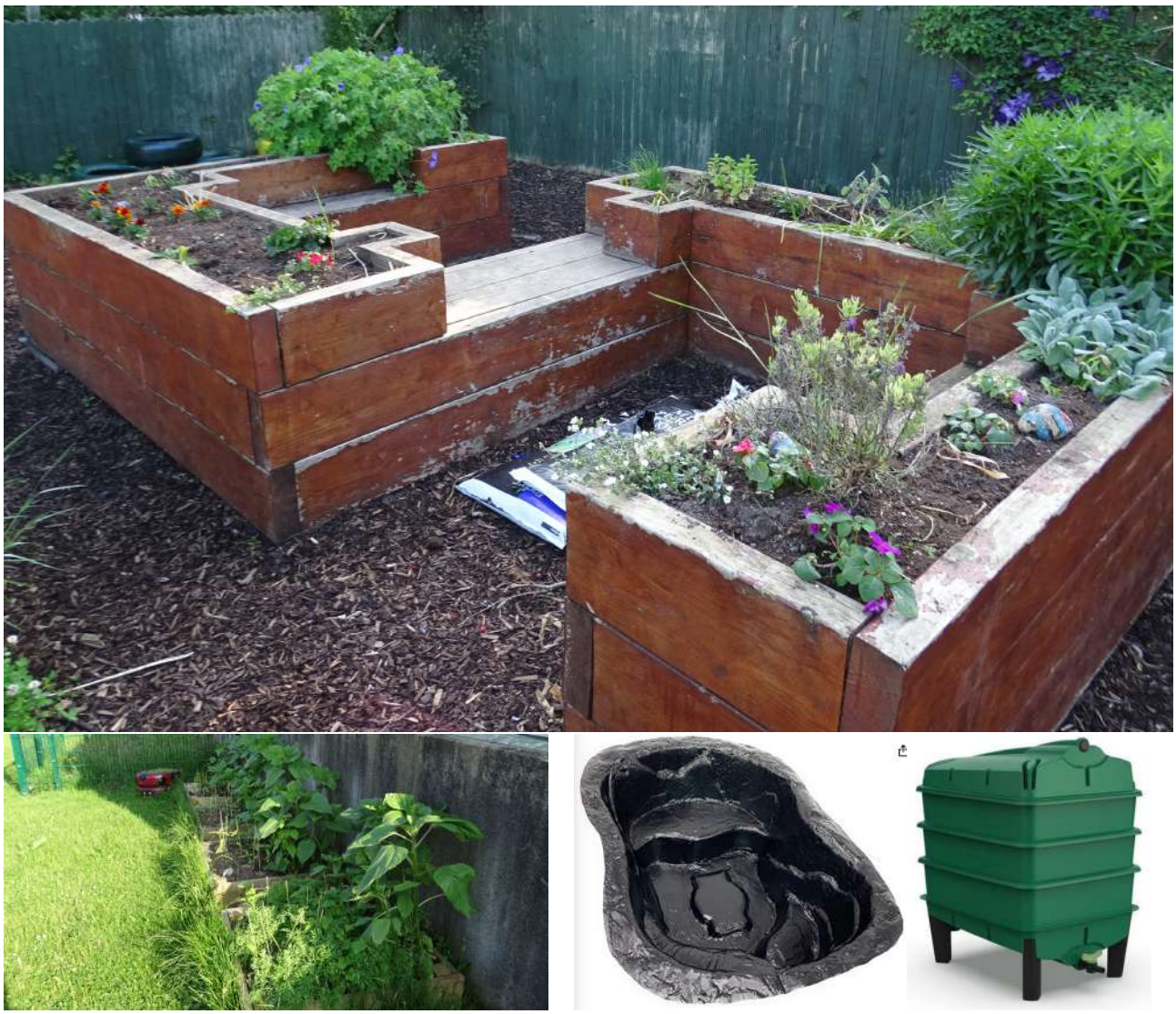


Plate 23: The sensory garden at Ballyshannon National School, Co. Kildare. Action 8.3.3 in Table 7 recommends installing a wildlife pond feature into the sensory raised bed while Action 8.3.7 suggests setting up a wormery composter to avoid the use of peat in the garden in the interests of protecting wild bogland habitats. Inset image left: raised bed growing areas at the sports pitch. Inset image centre: preformed wildlife pond liner (Source: https://www.amazon.co.uk). Inset image right: Three tray wormery composter (Source: https://www.ecostore.ie). Photos: © C. O'Connell

Flower Beds and Borders BC4
In the sensory garden there is a permanent raised wooden planter constructed in the shape of the number 5 to represent the five senses. Spring bulbs including tulip and daffodil were noted here. A raised bed has been built into the school wall and planted with ox eye daisy, *Calendula* and daffodil and more raised beds are located ajacent to the sports pitch (see Plates 19 and 23).

Invasive Species
In the front of the school building in the corner a cherry laurel was noted planted adjacent to the raised beds. Cherry laurel is regarded as an invasive species of woodland and should be removed from this location. A crab apple or another fruit tree could be grown in its place alongside the vegetable planters (see Plate 24).

Plate 24: Cherry Laurel is an invasive species and was recorded to the front of the school grounds along the boundary road with the R418. This should be removed (see Action 8.3.10 in Table 7), together with the Elwood tree beside it and the space planted with a crab apple to provide flowers for pollinators and apples for blackbirds. Photo: © C. O'Connell.

8.3.4 - Ballyshannon National School, Co. Kildare - Biodiversity Actions

Biodiversity actions for the Ballyshannon National School are presented in Table 7. The school is a very busy site and has a large number of pupils. Even so there are opportunities to enhance biodiversity and wildlife for the benefit of the pupils. A useful exercise towards enhancing the biodiversity of the school grounds would be for all those involved at management, teaching, maintenance and pupils to engage in Creating a Biodiversity Action Plan for the school grounds. See https://www.heritageinschools.ie/content/resourcespdfs/Geoff-Hunt-Biodiversity-Plan-for-Schools.pdf for further information. Ballyshannon National School has already registered their sensory garden on the

Table 7: Biodiversity enhancement actions for Ballyshannon National School, Co. Kildare

Action Number	Action	Notes
8.3.1	**Set up a bird feeding and bathing station**	Establish a bird feeding station in the sensory garden by installing a shepherd hook. Keep bird feeders topped up to attract birds to the area. Provide water for the birds as well. Birds drink water and use it as a bath to keep their feathers in top condition. Use a specially made bird bath that can hang from the shepherd hook or insert a bowl or an old sink into the raised wooden planter in the garden.
8.3.2	**Erect bird boxes on the School Building**	A variety of nest boxes for robins and tits should be erected on the School building to encourage birds to nest in addition to the bird box already there.
8.3.3	**Install a pond in the sensory garden**	The raised wooden planter in the sensory garden would benefit widlife and the senses through the installation of a wildlife friendly pond. A small preformed liner can be purchased which is safe and provides sufficient areas in its shape for wildlife. Pond liners can be purchased on line (Plate 22).
8.3.4	**Two tiered Grass mowing regime**	A two tiered grass cutting regime could be introduced as part of the management of the sports pitch along the beech hedge to the east of the school grounds. This involves leaving a 1-3m wide strip of grass uncut to allow wild flowers to grow, flower and set seed. Cut the long grass only once in Spring and once again in the Autumn. Remove the grass cuttings so as to reduce soil fertility which encourages wild flowers to grow in subsequent years. This action creates three habitats were there were only two: the hedge, the wildflower area and the short grass (Plate 21).
8.3.5	**Planting for pollinators and birds**	Planters to the front of the school building in wheelbarrows and in the raised bed within the school wall should be planted for pollinators and birds. It is important to provide nectar for pollinators all year round from spring right through to winter. Insects see blue and pink flowers the best such as lavender, rosemary, chives, catmint and heathers. Follow this guide for a list of suitable plants https://pollinators.ie/wp-content/uploads/2022/05/AIPP-A5-Flyer-Garden-2022-PRINT.pdf. Dont forget to plant for butterfly caterpillars: grasses are good for meadow brown, bird's foot trefoil for the common blue and the cabbage family for large white, green-veined white and small white. Sunflowers are a great plant to grow as their flowers provide nectar for pollinators especially bees and their seeds are eaten by birds in late summer and autumn (Plate 18 and 19).
8.3.6	**Fence screening**	Increase the biodiversity interest of the sensory garden by planting the pvc wire fence with espalier-trained fruit trees such as apple or pear, climbers such as *Clematis montana* (Travellor's Joy), *Lonicera* (Honeysuckle) and Ivy (*Hedera*). Grasses such as silver grass (*Miscanthus*) might also be added to the bamboo planted as a sensory species. Part of the wooden fence can be given over to forming a wildlife hotel made from old pallets, bricks and offcuts of branches and twigs (see Plate 15). The shared fenceline between the sports pitch and the Community Hall would also benefit from screening and help to enhance wildlife.
8.3.7	**Wormery for making compost instead of using moss peat**	Set up a three tray wormery in the sensory garden to compost waste materials produced in the garden. This is a closed system that prevents vermin and produces valuable compost for mulching raised beds as well as a fertiliser liquid that can be harvested from the lowest tray via a tap. This is a good example of sustainable activity and it has the added benefit of avoiding the use of moss peat which comes from our threatened bog habitats. The wormery can also be a valuable teaching aid (Plate 22).

Action Number	Action	Notes
8.3.8	**Water Butt**	A down pipe on the rear of the school building close to the sensory garden may be suitable for installation of a water butt that is visible as a sustainable feature to the pupils. Water can be used to maintain raised beds where fruits and vegetables are being grown and for pollinator flower beds. This is a good example of a sustainable activity.
8.3.9	**Stop using Herbicides**	The use of herbicides to control weed growth arond fruit trees and bamboo and along fencelines and wall boundaries needs to stop in the interests of enhancing biodiversity and for child safety. These are not large areas and can easily be weeded by hand or using a hoe if necessary. However biodiversity would dictate that all plants should be allowed to flower and set seed.
8.3.10	**Remove invasive Cherry Laurel**	This is an invasive species of hedges and woodlands. It should be fully removed and disposed of carefully. Its removal may require liaison with the National Biodiversity Data Centre (https://invasives.ie).
8.3.11	**Create a biodiversity plan for the school**	Creating a biodiversity plan for the school will help to engage all of those who work or use the school. See https://www.heritageinschools.ie/content/resourcespdfs/Geoff-Hunt-Biodiversity-Plan-for-Schools.pdf for more details.
8.3.12	**Renew action on the Pledging Your Garden for Pollinators Scheme**	Once some of the measures have been completed, the school should update its entry on the National Pollinators scheme at https://pollinators.biodiversityireland.ie/
8.3.13	**Citizen science monitoring of biodiversity improvement**	Once some of the measures have been completed it is important to undertake simple monitoring actions of how well biodiversity is doing. For example a FIT survey could be undertaken on a patch of buttercups in the newly developed meadow areas. See further details in Chapter 7 of this plan.

8.4.1 Ballyshannon Demesne, Co. Kildare - Location 53.090968, -6.835501

Ballyshannon Demesne is an avenue of trees and a hedge, the entrance to a farm. The biodiversity site is a linear one consisting of an avenue of lime trees planted in 1998 to the south east and an ancient hedgerow marking the boundary with cultivated lands of the neighbouring farm on the north western margin. There is a public access road adjacent to the hedge on the north western margin that gives access to the Coillte Clonmoyle Forest whcih lines south west of Ballyshannon Demesne. The gates of the farm open onto the L8007. The site covers a distance of 476m as shown in Figure 16 and indicated by the white line.

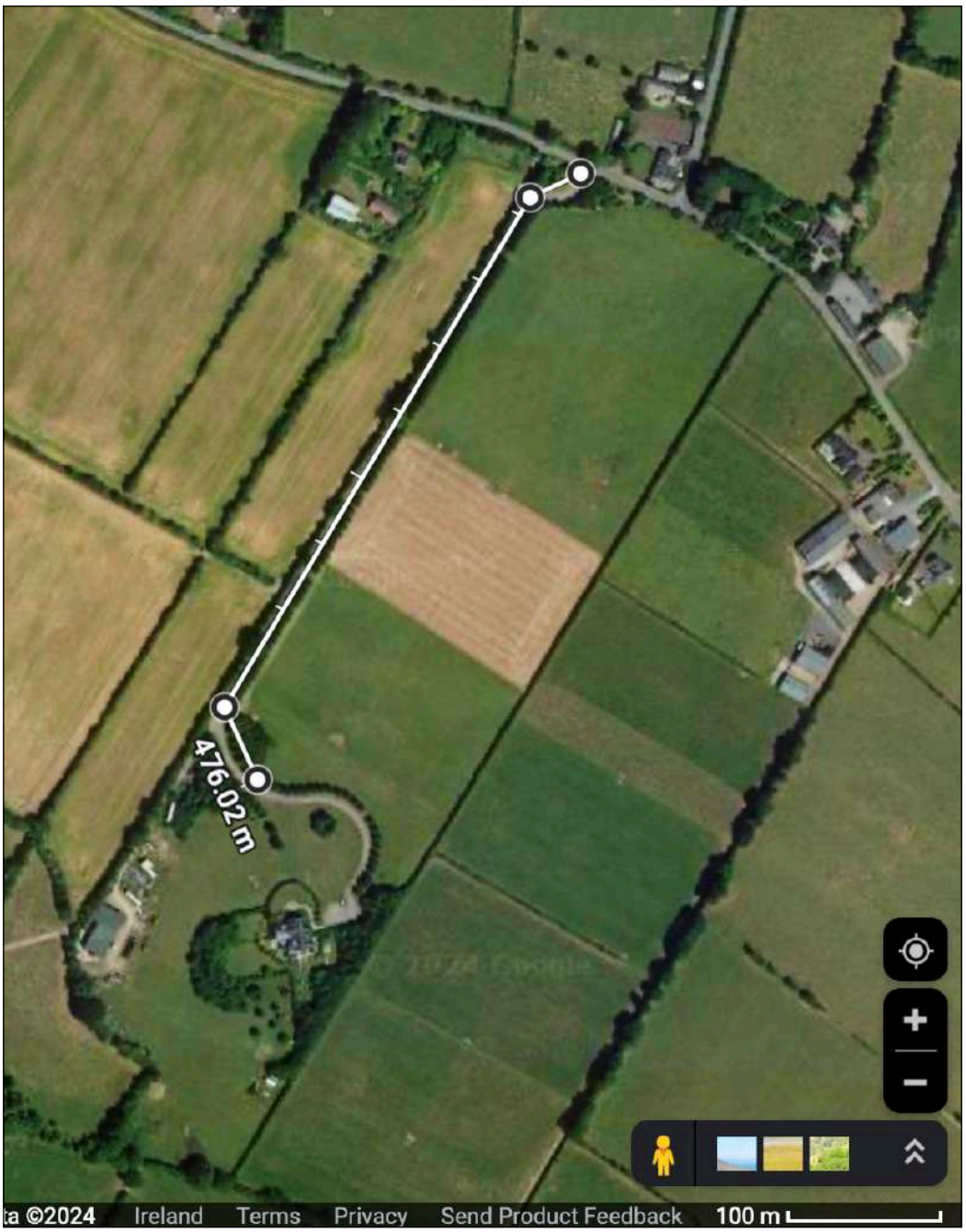


Figure 16: Location of Ballyshannon Demesne, Ballyshannon, Co. Kildare. The biodiversity study site is a linear habitat and is outlined in white. Source: https://www.google.com/maps.

8.4.2 Ballyshannon Demesne, Co. Kildare - Site Management

A fence has been erected on the south eastern margin of the avenue to prevent livestock from entering the driveway from the adjacent fields. The grass below the lime trees is regularly mowed. Dead wood material is collected and disposed of. The lime trees were planted in 1998, 6m apart along the full length of the driveway to provide pollen for bees. Other planting included four small areas of immature woodland at the entrance gate from the L8007 and at the southern end of the avenue near the house. The hedge is maintained for wildlife and a sign has been erected on the L8007 to inform the public of its management for biodiversity (see Plate 25). Ballyshannon Demesne registered with the pledging your garden for pollinators scheme https://pollinators.biodiversityireland.ie/ in 2019 under the name Ballyshannon Bees (site number 3151).

Plate 25: a sign erected on the hedge at Ballyshannon Demesne, Co. Kildare. This area of Ballyshannon is the location of a planning application for a quarry to which the local community are objecting. Photo: © C. O'Connell

8.4.3 - Ballyshannon Demesne, Co. Kildare - Habitats and Species Present

Species Diversity
The species recorded at this site were as follows: 35 plants, 1 fungus, 1 mammal, 5 insects and 11 birds with a total of 53 species for the site (see Appendix 2).

The habitats present at Ballyshannon Demesne are shown on Figure 17 and are described below.

Figure 17: Habitat map for Ballyshannon Demesne, Ballyshannon, Co. Kildare. Map © https://www.google.com/maps, amended C. O'Connell.

Treeline WL2
The avenue of lime trees planted by the farmer represent treeline habitat. The trees are 5-6m tall and are regularly spaced along the avenue. They are all of the same age - 26 years. Lichens such as *Xanthoria parietina* were growing on the bark of the trees. Beneath the trees was amenity grassland habitat described below (see Plate 26).

Amenity Grassland GA2
Amenity grassland habitat occurred beneath the tree line which is regularly mowed by the farmer and occasionally grazed by sheep. It was species poor with dandelion, nettle, dock and cock's foot grass (see Plate 26).

Plate 26: Looking south west down the avenue at Ballyshannon Demesne. The treeline of lime trees can be seen on the left hand side and the amenity grassland below them. On the right hand side is a mature hedge. Action 8.4.2 in Table 8 recommends planting a hawthorn hedge along the fenceline beside the lime trees to enhance biodiversity. Action 8.4.4 recommends introducing a two tiered grass cutting regime beneath the lime trees to encourage the development of woodland wild flowers and to enhance the structural diversity of the treeline. Photo: © C. O'Connell.

Hedgerow WL1

A quality hawthorn hedge rich in biodiversity occurs on this site (see Plates 26 and 27) with mature trees of oak, ash and wytch elm rising above the level of the hedge which was approximately 3-5m tall. Other species occuring in the hedge in addition to hawthorn were crab apple, privet, elderberry and blackthorn. A rich herb flora was present on the margin of the hedge and growing on a bank within the hedge. Species recorded included: primrose, violet, herb robert, ivy, speedwell, hogweed, cow parsley, yarrow, hart's tongue fern, cleavers, wild rose and blackberry. The trees were festooned with crustose lichens including *Xanthoria, Ramalina* and *Lecanora* species. Many species of bird were seen and heard along this hedge including blackbird, chaffinch, chiffchaff, blackcap, long-tailed tit, robin, greenfinch, swallow, bullfinch, woodpigeon and rook. Rabbits were resident in the ditch. Insect life included cranefly, speckled wood butterfly, small white butterfly and white-tailed bumblebee. The flowers of hogweed were rich in insect life particularly species of drone, dung fly and a longhorn beetle (Plate 27).

Plate 27: Looking south west down the access road to the Coillte forest of Clonmoyle. The mature hedge that forms the boundary with Ballyshannon Demesne is shown on the left hand side. The paddocks on the right hand side are used for growing arable crops. The images inset show a tiger hoverfly nectaring on the flower of hogweed and a long horn beetle on a hogweed leaf. Action 8.4.1 in Table 8 recommends continuing with the existing management of this hedge which is providing resources in abundance for wildlife while Action 8.4.8 recommends conducting a survey of epiphytic lichens in this hedge to establish an air quality baseline. Photos: © C. O'Connell and J. FitzGerald.

Immature Woodland WS2

This habitat occurred on either side of the entrance to Ballyshannon Demesne just off the L8007 and at the end of the avenue (Plates 28 and 29). The trees have all been planted by the owner as part of the landscaping of the property. At the gate the dominant trees were beech, hornbeam and an occasional cherry blossum and apple tree. Beneath the trees the herb layer was dominated by grasses with bramble, nettle, cow parsley, cleavers, ivy and tooth mosses in the ground layer among leaf litter. At the southern end of the avenue two areas have been planted with immature woodland. A greater variety of species are found here including hornbeam, holly, birch, hawthorn, cherry blossom, maple and cherry laurel.

Plate 28: recently planted (circa 1998) immature beech woodland habitat at the entrance to Ballyshannon Demesne in Co. Kildare. Action 8.4.4 in Table 8 recommends stopping mowing in this area and allowing a woodland flora to develop beneath the trees to enhance its wildlife value (see image inset). Photos: C. O'Connell.

Plate 29: Immature woodland (planted circa 1998) at the southern end of the avenue at Ballyshannon Demesne where a greater variety of species have been planted. The ground layer has abundant leaf litter with ivy. Actions 8.4.5 and 8.4.6 in Table 8 recommend leaving fallen branches and woody material on the woodland floor and planting native Irish bluebells (Hyacinthoides non scripta) to encourage a greater diversity of wildlife (see image inset). Photos: C. O'Connell

Invasive Species
Cherry laurel is regarded as an invasive species of woodland. It is evergreen and grows rapidly spreading beneath deciduous trees to form a dense understorey. It has the effect of casting so much shade that the natural growth of woodland flora and tree saplings is prevented. In the interest of developing the immature woodlands at Ballyshannon Demesne into biodiverse rich habitats, cherry laurel that was planted in the past should be removed (Plate 30).

Plate 30: Cherry laurel (Prunus laurocerasus) in flower in the immature woodland habitat at the southern end of the avenue at Ballyshannon Demesne. This invasive species should be completely removed from the habitat in the interests of managing the woodland in the long term for biodiversity (see Action 8.4.7 in Table 8). Photo: © C. O'Connell.

8.4.4 - Ballyshannon Demesne, Co. Kildare - Biodiversity Actions

Biodiversity actions for the Ballyshannon Demesne are presented in Table 8. The natural hedgerow is a species rich biodiversity hot spot and its existing management should be maintained. A change in management will enhance the wildlife value of the immature woodlands at this site.

Table 8: Biodiversity enhancement actions for Ballyshannon Demesne, Co. Kildare

Action Number	Action	Notes
8.4.1	**Mature Hedge continue with existing management**	The mature hedge at Ballyshannon Demesne is species rich and is being managed in such a way to maximize its biodiversity value. Continue to allow trees and shrubs to flower and produce flowers, seed and fruit for wildlife. Further information on hedge management at https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Hedgerows-2018-WEB.pdf
8.4.2	**New Hedge planting**	Planting a hawthorn hedge is recommended along the fence line between the lime treeline and the adjacent field. Construct a hedge from new 2 year old bare rooted whips of hawthorn plants (See https://www.teagasc.ie/news--events/daily/environment/planting-hedges.php). Other species to consider with a view to increasing biodiversity are crab apple, guelder rose and blackthorn. Once planted the hedge should be managed for wildlife (see https://www.farmingfornature.ie/your-farm/resources/best-practice-guides/hedgerow-management/).
8.4.3	**Two tiered Grass mowing regime beneath lime trees**	A two tiered grass cutting regime could be introduced as part of the management of the lime treeline. This involves leaving a 1-3m wide strip of grass uncut to allow wild flowers to grow, flower and set seed. Cut the long grass only once in Spring and once again in the Autumn. Remove the grass cuttings so as to reduce soil fertility which encourages wild flowers to grow in subsequent years. This action creates three habitats were there were only two: the treeline, the wildflower area and the short grass.
8.4.4	**Cease mowing the woodland floor under the immature woodlands to develop shrub, herb and moss layers in the maturing woods**	Grass cutting should be phased out in the immature woodlands on either side of the entrance gates to Ballyshannon Demesne to help increase the structural diversity of the immature woodlands. Once grass cutting stops, shrub, herb and moss layers can develop in the woodland which offers a greater diversity of habitat for wildlife.
8.4.5	**Leave logs, and other dead wood in place to decompose, including standing dead wood where possible**	Use dead wood collected up to create a log pile is a complex home and food source for all sorts of beneficial creepy crawlies and invertebrates. They can even be used by larger animals such as frogs and hedgehogs for hibernation. Large logs give a more stable environment but every log counts. Stack them up randomly leaving some space between them. Partly bury some logs into the ground to create the cool moist conditions loved by ground dwelling invertebrates including woodlice, centipedes, ground beetles and the devil's coach horse. Log piles are not static. Continue to add to the pile as it rots down. This will ensure that you have fresh dense wood at the top and brittle, soft decomposing wood at the bottom. A log pile is a wildlife sanctuary and will enhance the wildlife value of the immature woodland habitat in Ballyshannon Demesne. As an on-going policy leave dead wood where it falls in the woodlands.

Action Number	Action	Notes
8.4.6	**Enhance woodland floor biodiversity by planting native Irish spring bulbs and allowing them to spread naturally**	The immature woodlands at Ballyshannon Demesne could be enhanced for biodiversity with a spring display of native wild flowers that grow from bulbs and with a summer display of plants that grow from seeds. Species ideal for naturalizing include: bluebell (*Hyacinthoides non-scripta*), wood anemone (*Anenome nemorosa*), ramson (*Allium ursinum*), lords and ladies (*Arum maculatum*) and lesser celendine (*Ficaria verna* ssp *verna*). Biennials and perennials to consider planting from seed (or plugs) are wood sorrel (*Oxalis acetosella*), primrose (*Primula veris*), foxglove (*Digitalis purpurea*) and dog violet (*Viola riviniana*). Target areas for bulb planting are the four immature woodland areas at the entrance gates and at the southern end of the avenue near the house. There is also a mound of earth in the woodland area near the house that could be planted.
8.4.7	**Remove invasive Cherry Laurel**	Cherry laurel (*Prunus laurocerasus*) an alien (non-native) invasive plant of hedges and woodlands. It should be fully removed and disposed of carefully. Its removal may require liaison with the National Biodiversity Data Centre (https://invasives.ie).
8.4.8	**Lichen Survey of hedgerow**	The cover of epiphytic lichens on the branches of the trees in the mature hedge at Ballyshannon Demesne merits special attention. A lichen survey by an expert is recommended. Epiphytic lichens are pollution sensitive and suc a a survey would provide good baseline information should air quality change as a result of a change in landuse in the area. Ballyshannon Action Group might contact Paul Whelan, a lichen expert at paul@lichens.ie or paulwhelan@biology.ie.
8.4.9	**Renew action on the Pledging Your Garden for Pollinators Scheme**	Once some of the measures have been completed, this biodiversity site should update its entry on the National Pollinators scheme at https://pollinators.biodiversityireland.ie/
8.4.10	**Citizen science monitoring of biodiversity improvement**	Once some of the measures have been completed it is important to undertake simple monitoring actions of how well biodiversity is doing. For example a FIT survey could be undertaken on a patch of buttercups in the newly developed meadow areas. See further details in Chapter 7 of this plan.

8.5.1 R418 Ballyshannon, Co. Kildare - Location 53.086619, -6.817186

The portion of the R418 running from Ballyshannon Cross to the “School ahead” sign covering a distance of 216m was surveyed. The R418 is a very busy road running from Athy to Kilcullen. There is no traffic calming in Ballyshannon and vehicles travel at speed through the area. The site is shown in Figure 18 and indicated by the white line. Four properties front onto the R418 on its south eastern side. These are the National School, the Community Hall, a private dwelling (under construction) and Dowlings Pub. On the north western side of the R418, there is a bus stop adjacent to Ballyshannon Cross and a natural hedge with mature trees.

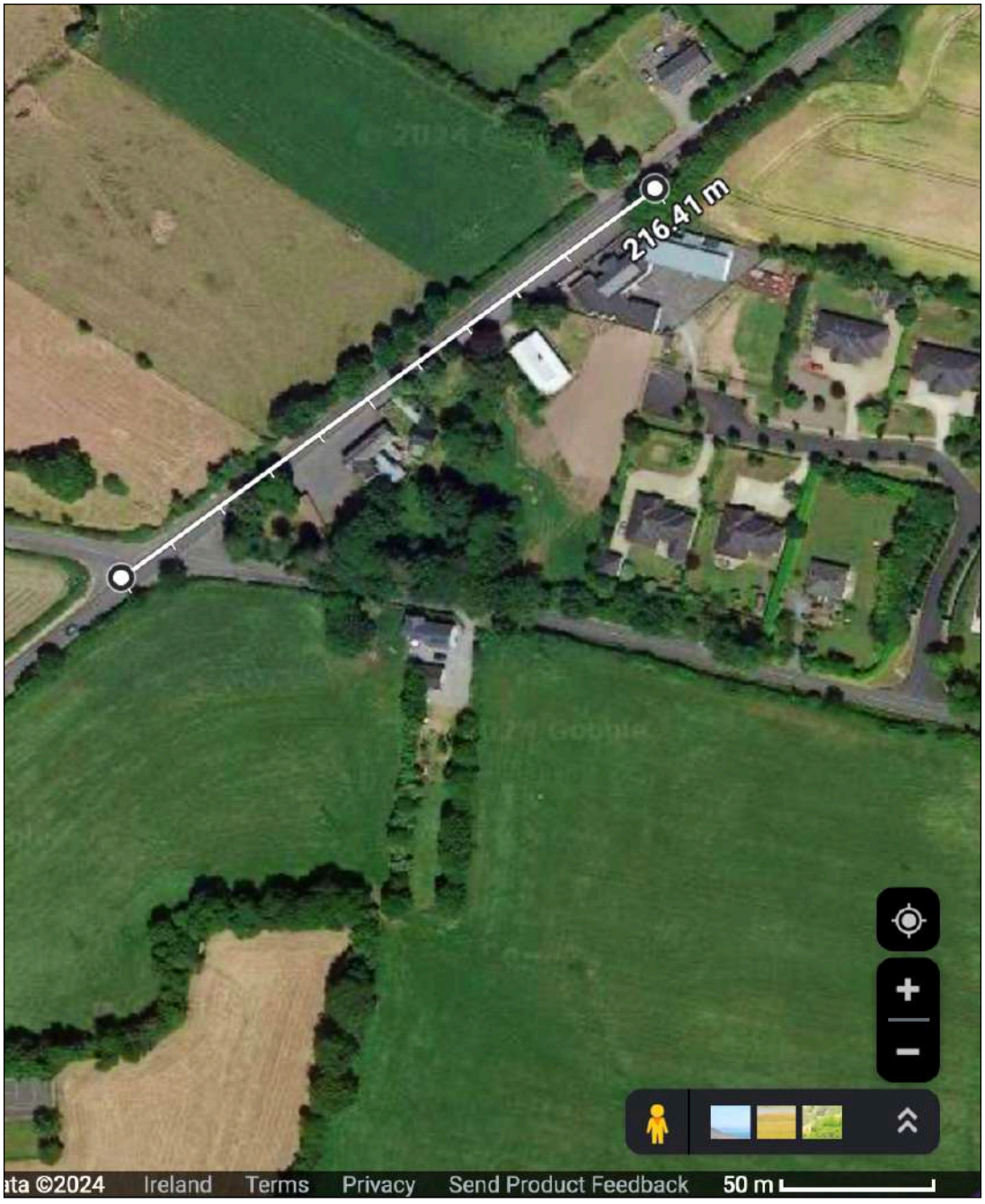


Figure 18: Location of the portion of the R418 biodiversity site in Ballyshannon, Co. Kildare. The biodiversity study site is a linear habitat and is outlined in white. Source: https://www.google.com/maps.

8.5.2 R418 Ballyshannon, Co. Kildare - Site Management

Property owners maintain the front of their facilities on the R418. The bus stop area is kept clean and tidy. Part of the hedge along the road has been topped or cut short while the remainder has flowering mature trees in addition to the hedge. The natural roadside verge is being cut at Dowlings pub on the south eastern side of the R418. The roadside verge on the north western side of the road is cut less regularly.

Plate 31: Looking south west along the R418 towards Ballyshannon Cross. The bus stop can be seen on the right hand side together with the mature trees in the hedge and the roadside verge. Bush vetch occurred in the hedge flora (image inset). On the left hand side is the car park of Dowlings pub. Photos: © C. O'Connell

Plate 32: Looking north east along the R418 in Ballyshannon. The private dwelling contruction site, the Community Hall and the cars parked outside the school are seen on the right hand side. The road side verge, the hedge and treeline are seen on the left hand side. The hard surface path can be seen on the right hand side. The photo inset shows elderberry in flower in the hedge in June. Photos: © C. O'Connell

8.5.3 - R418 Ballyshannon, Co. Kildare - Habitats and Species Present

Species Diversity
The species recorded at this site were as follows: 19 plants and 1 bird with a total of 20 species for the site (see Appendix 2).

The habitats present along the R418 in Ballyshannon are shown on Figure 19 and are described below.

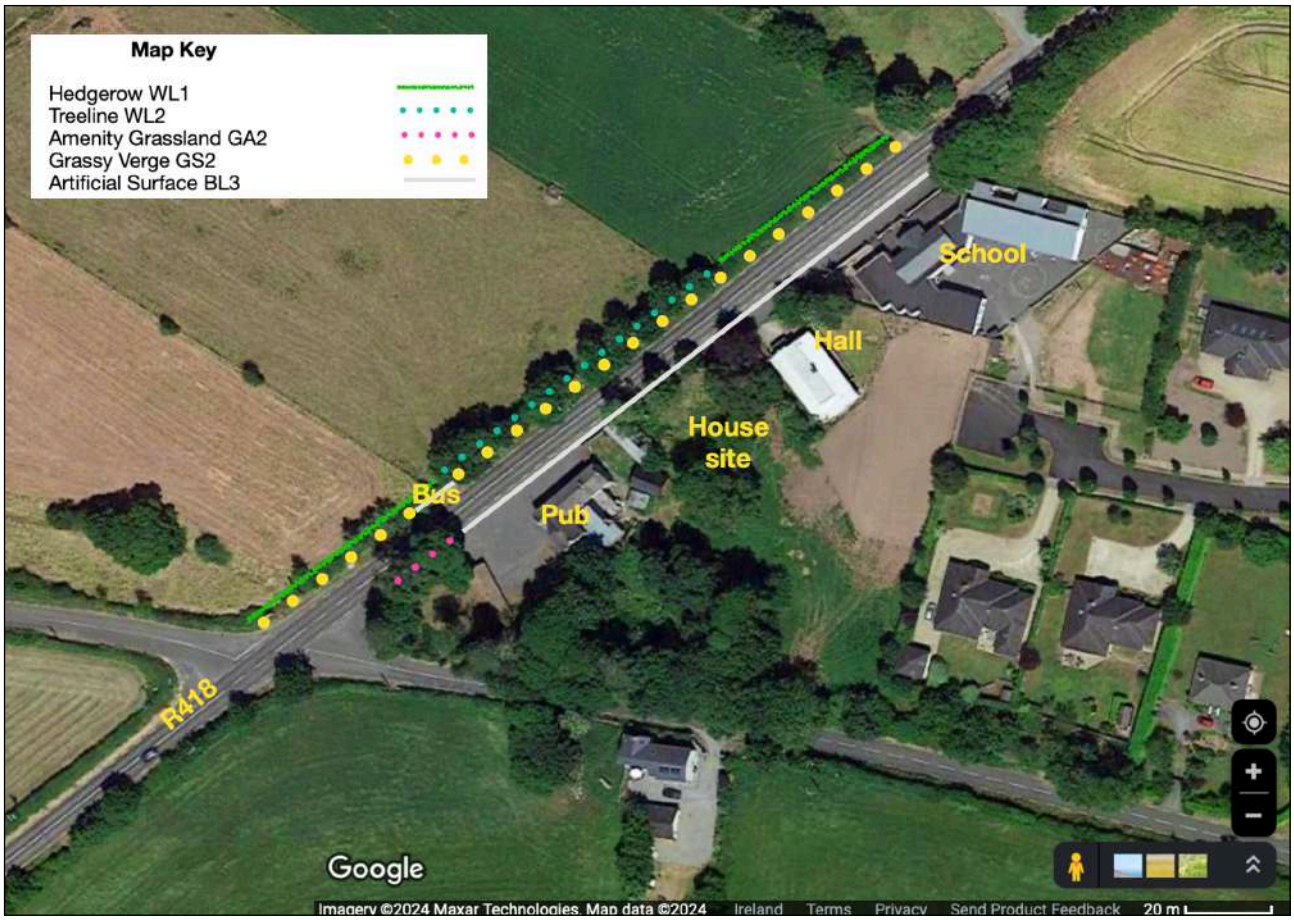


Figure 19: Habitat map for the R418 Ballyshannon, Co. Kildare. Map © https://www.google.com/maps, amended C. O'Connell.

Hedgerow WL1
A hedge occurs along the R418 on its north western boundary dominated by hawthorn with sycamore and rose. Part of the hedge has been cut to a height of 2m while in the remainder the trees have been allowed to mature to form a treeline (Plate 32).

Treeline WL2
Treeline habitat occurs in association with the hedge along the north western boundary of the R418. Mature trees of sycamore, elder, hawthorn, ash, apple and poplar formed the treeline and were from 10-15m tall (see Plate 31).

Grass Verge GS2
The grassy verge adjacent to the R418 is being left to grow and is dominated by a mixture of hedge and grassland species including silverweed, thistle, cock's foot grass, plantain, cleavers, cow parsley, dock, hogweed, nipplewort, vetch, ivy and bramble (see Plates 31 and 32).

Artificial Surface BL3
A path is present along the R418 from Dowlings pub as far as the front of the school (see Plate 33).

Plate 33: The managed hedge habitat and roadside grassy verge along the R418 across from the school. In Table 9 Action 8.5.1 gives advice on the ideal hedge for maximum biodiversity. This includes the timing and frequency of cutting, the height and shape of the hedge. Photo: © C. O'Connell

Amenity Grassland GA2
A strip of amenity grassland occurs along part of the boundary of Dowlings Pub with the R418 (see Plate 34).

Plate 34: A strip of amenity grassland along the R418 with Ballyshannon Cross in the background. Action 8.5.3 in Table 9 recommends managing mowing in this area on a two tiered system, keeping grass short next to the road, but allowing wildflower meadow to develop next to the fence (see image inset). Photos: © C. O'Connell.

8.5.4 R418 Ballyshannon, Co. Kildare - Biodiversity Actions

Biodiversity actions for the R418 Ballyshannon are presented in Table 9. Management work can only be carried out when it is safe to do so or with the cooperation of landowners.

Table 9: Biodiversity enhancement actions for R418 Ballyshannon, Co. Kildare

Action Number	Action	Notes
8.5.1	**Trimmed Hedge management**	The management of the trimmed or topped hedge along the R418 needs to be reviewed. Issues to consider are the height, shape, timing and the frequency of trimming. Ideally a 3-5 year rotation on trimming should be in place, the hedge height should be 1.5m, the hedge should not be cut during the bird breeding season from 1st March to the 31st August, and the shape of the hedge should be like an "A", wide at the base and narrower towards the top. Ideally one hawthorn tree should be allowed to grow into a mature tree in the trimmed topped hedge. This delivers the maximum for biodiversity. Further information on hedge management at https://www.farmingfornature.ie/your-farm/by-habitat/field-boundaries/ and https://www.farmingfornature.ie/your-farm/resources/best-practice-guides/hedgerow-management/. See also how to manage a hedge for pollinators https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Hedgerows-2018-WEB.pdf.
8.5.2	**Treeline Management - side trimming only on a 3-5 year rotation**	Managing a treeline or untopped hedge is different to managing a topped hedge even though they occur side by side on the R418. The treeline has never been topped, trees are flowering and producing seeds and fruit which are very beneficial for pollinators and birds. Management action on the treeline given that it occurs along the road is side trimming only so as to retain line of sight on the road. There should be no cutting during the bird breeding season from 1st March to the 31st August. See information from Teagasc on this issue: https://www.teagasc.ie/news--events/daily/environment/planting-hedges.php. See also how to manage a hedge for pollinators https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Hedgerows-2018-WEB.pdf.
8.5.3	**Amenity Grassland management at Dowlings pub - Don't Mow, Let It Grow**	A two tiered grass cutting regime could be introduced as part of the management of the grass strip between the R418 and the boundary of Dowlings pub. This involves cutting the edge closest to the road short but leaving the area closest to the fence to grow, flower and set seed. Cut the long grass only once in Spring and once again in the Autumn. Thus in the summer the verges would be showing off their flowers to their best. Remove the grass cuttings so as to reduce fertility which encourages wild flowers to grow in subsequent years. See https://pollinators.ie/life-on-the-edge/.
8.5.4	**Roadside verge management - Don't Mow, Let It Grow**	The existing management of the roadside verges to allow woodland and grassland plants to flower and set seed should be continued. This will provide good habitat and nectar for pollinators. See https://pollinators.ie/life-on-the-edge/
8.5.5	**Citizen science monitoring of biodiversity improvement**	Once some of the measures have been completed it is important to undertake simple monitoring actions of how well biodiversity is doing. For example a FIT survey could be undertaken on a patch of buttercups in the newly developed meadow areas. See further details in Chapter 7 of this plan.

8.6.1 L8006/7 Ballyshannon, Co. Kildare - Location 53.095942, -6.847783

The L8006/7 is a minor road that runs north west-south east from Ballyshannon Cross on the R418 to the east to Frews Cross Roads and the Garrán an Bhaile Nua road (L4002) to the west as shown in Figures 20 and 21. The site covers a distance of 3.68km as shown in Figure 20 and indicated by the white line. Essentially the L8006/7 runs through farmland that is given over to grazing of livestock and crop production. The road is populated by a mixture of farms and country houses. The biodiversity site is a linear one consisting of the hedges, walls and verges on either side of this road running through the townlands of Newtown, Crockaun, Crawnglass, Racefield, Ballyshannon Demesne and Ballyshannon (Figure 21). The Eaglehill stream passes under the road at junction of Crawnglass and Newtown townlands. (Note: The Eaglehill stream is another biodiversity site and is dealt with in Section 8.7.1).

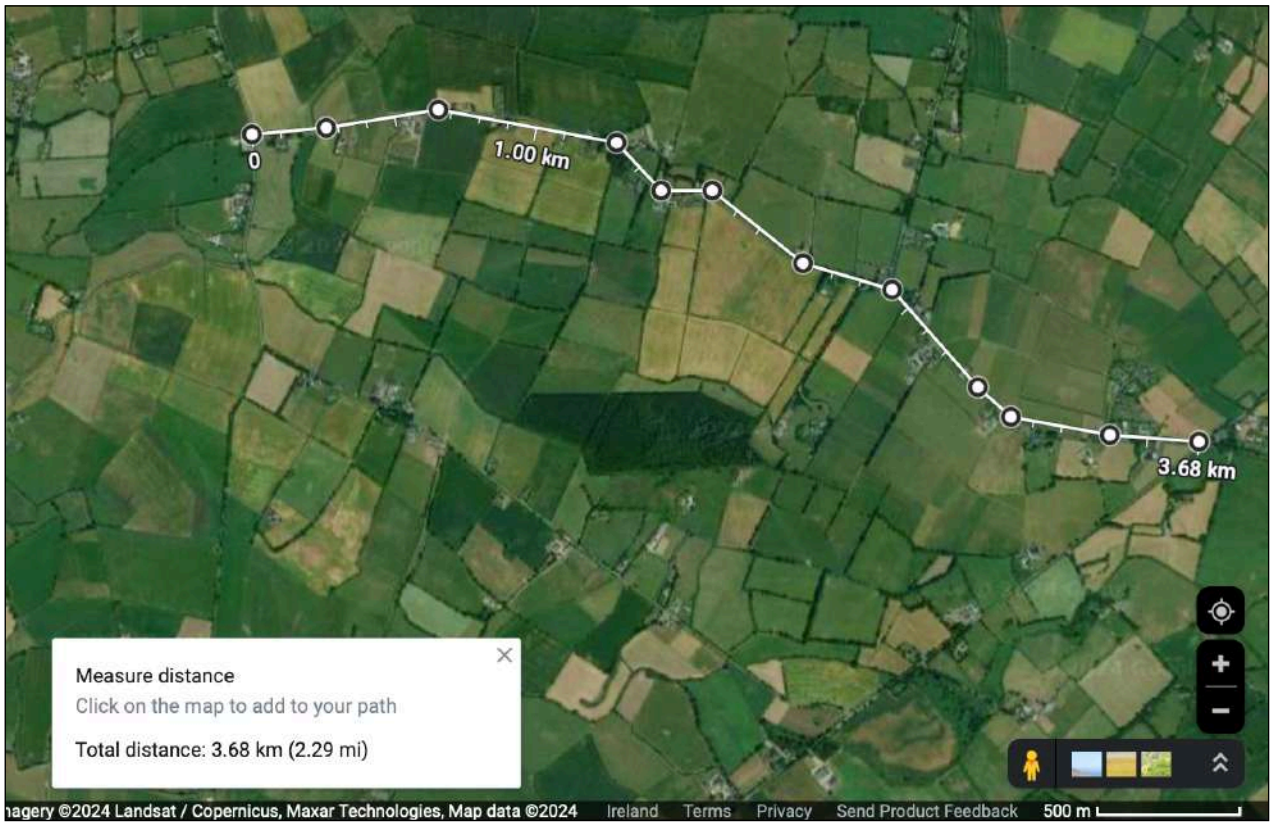


Figure 20: Location of L8006/7 Ballyshannon, Co. Kildare. The biodiversity study site is a linear habitat, 4.69km long and is outlined in white. Source: https://www.google.com/maps.

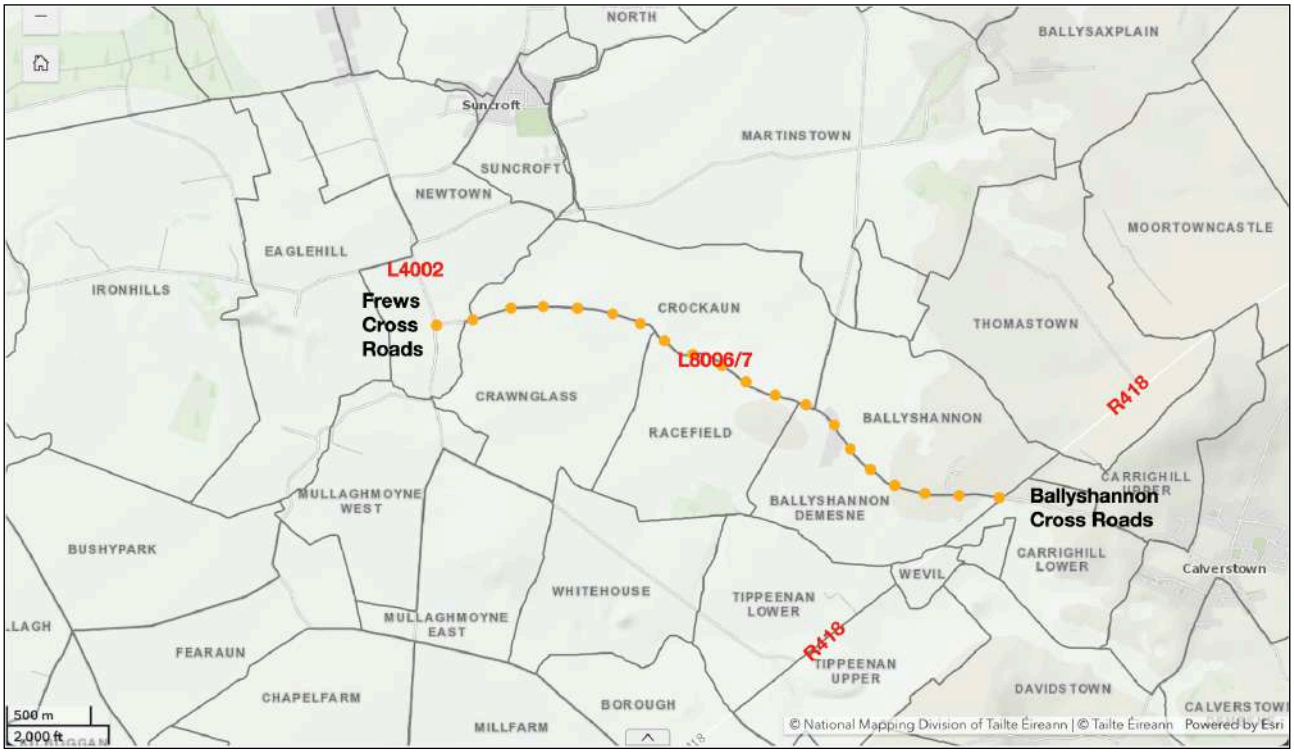


Figure 21: Map showing the location of the L8006/7 from Ballyshannon Cross Roads on the R418 to Frews Cross Roads on the L4002. Photo: © Ordnance Survey of Ireland.

8.6.2 L8006/7 Ballyshannon, Co. Kildare - Site Management

The different farmers and private home owners whose property opens onto the L8006/7 manage their frontage in a variety of ways. Country houses have gate piers and locked gates with gravel entrances in place of the grass verge and managed hedges of native hawthorn or exotic species such as beech, cherry laurel and Leylandi. Other properties are fenced or walled or have railings and buildings along the road with a treeline or a topped/trimmed hedge. Some grass verges are being mowed regularly, others are being left to flower, while others have been removed and replaced with gravel.

8.6.3 - L8006/7 Ballyshannon, Co. Kildare - Habitats and Species Present

Species Diversity
The species recorded at this site were as follows: 65 plants, 12 animals and 16 birds with a total of 93 species for the site (see Appendix 2).

By examining the air photographs for the L8006/7 and undertaking a drive through, a number of habitat sites along the road were chosen for study as shown in Figure 22. The sites are coded A to E. The habitats present on the road were stone wall, buildings, hedgerow, woodland, amenity grassland and grassy verge. These habitats are described below and the sites where they occured are referred to.

Figure 22: Biodiversity study sites on the L8006/7 Ballyshannon, Co. Kildare, with codes A-E. Additional locations are shown on the map where there were old large mature trees called Champion trees. Map © https://www.google.com/maps, amended C. O'Connell.

Stone Walls BL1
Good examples of stone wall habitat occured at sites A and B2 shown on Figure 22 in the townlands of Crockaun and Ballyshannon. The walls were up to 1.5m tall made of stone with some rendering. As these were old there was a good cover of moss, ferns and flowering plants. Species observed included wall rue, rusty back, maidenhair spleenwort, polypody, hart's tongue fern, ivy-leaved toadflax, herb robert, ivy, rose and cleavers (see Plates 35 and). Elsewhere on the L8006/7 there were endered walls surrounding relatively new build homes and farms which had little wildlife value.

Plate 35: A wall habitat that has become overgrown with ivy, ferns, herb robert and wild rose on the L8006/7 at study site B2 (shown on Figure 22). The image inset shows details of the cover of maidenhair spleenwort and rusty back on the top of the wall. Action 8.6.10 in Table 10 recommends continuing to allow the natural colonisation of the walls with plants to create habitat and food sources for pollinators. Photos: © C. O'Connell.

Plate 36: A modern wall habitat outside a home on the L8006/7 showing the lack of wildlife colonisation. Action 8.6.9 in Table 10 provides suggestions on screening plants that will enhance biodiversity. Photo: © C. O'Connell.

Buildings and Artificial Surfaces BL3
Where the grass verge has been removed and replaced with a gravelled path, a hostile habitat for wildlife has been created. Good examples of stone buildings habitat occured at site B1 shown on Figure 22. An older stone barn structure fronting onto the L8006/7 in Crawnglass townland was completely colonised by ivy providing a wonderful year habitat for birds particularly house sparrow (see Plate 37). At site B2 on Figure 22, an old coach house in Ballyshannon Townland is beginning to be colonised with ivy and ivy-leaved toadflax as shown in Plate 38.

Plate 37 (above): An old barn on the L8006/7 at site B1 Crawnglass (see Figure 22) has been wonderfully colonised with ivy which is providing a perfect habitat for breeding house sparrow, (inset) a threatened bird with an amber conservation status in Ireland. Photos: © C. O'Connell.

Plate 38 (left): an old coach house on the L8006/7 at site B2 Ballyshannon (see Figure 22) showing the beginnings of plant colonisation. Action 8.6.2 recommends erecting house sparrow condominiums on this buildings or any other suitable building. Action 8.6.13 suggests considering swift nest boxes in suitable locations. Photo: © C. O'Connell.

Amenity Grassland GA2

This habitat includes all of the grass verges that are being maintained and mowed by residents along the L8006/7. Most of these are associated with hedgerow habitat (Plate 39). They are species poor having a very short sward height. At site D shown on Figure 22, there was a relatively large amenity grassland area to the front of two homes along the L8006/7. The larger area measured 30m x 5m. Species recorded included: yarrow, black meddick, plantain, buttercup, primrose, red clover, white clover, creeping thistle, oxeye daisy, dock, bluebell daisy (see Plate 40).

Plate 39 left: On the left hand side of this image the grass verge is regularly mowed with little wildlife interest. In contrast only a strip of the verge is being mowed on the right hand side which is allowing a rich growth of cow parsley which provides for pollinators. Action 8.6.11 in Table 10 recommends managing roadside verges for wildlife. Photo: © C. O'Connell.

Plate 40 below: Amenity Grassland habitat at site D Crockaun shown on Figure 22. Regular mowing of the grassland prevents the species within from flowering and setting seed. The wildlife benefits that this would provide are eliminated as a result. Where the grass was not mowed oxeye daisy was flourishing (see inset). Action 8.6.3 in Table 10 recommends creating a wild flower meadow here with owner co-operation. Photos: © C. O'Connell.

Grassy Verge GS2
Grassy verge habitat occurred in association with hedges on the L8006/7 where there was no mowing management. In spring, this allowed a healthy flowering of dandelion, one of the top plants for pollinators. In mid summer there was a rich display of cow parsley and hog weed. At points A and E on Figure 22 grass verge habitat was well developed and formed a strip 1-2m wide along the road. The species included: cow parsley, colt's foot, white clover, buttercup, nettle, dandeloion, dock, sow thistle and vetch (see Plates 41 and 42).

Plate 41: Grass verge associated with a hawthorn hedge at site A in Crockaun townland along the L8006/7 as shown in Figure 22. Action 8.6.2 in Table 10 recommends continuing with the existing management of such wildlife-friendly verges. Photo: © C. O'Connell.

Plate 42: Grass verge and hawthorn hedge as it appears in spring along the L8006/7 in Ballyshannon townland with a flush of dandelion growth. The leaves of cow parsley can be seen adjacent to the hedge. Action 8.6.2 in Table 10 recommends continuing with the existing management of such wildlife-friendly verges. Photo: © C. O'Connell.

Hedgerow WL1
Natural hedges are a common habitat along the L8006/7 mainly of hawthorn. There are both topped hedges and flowering hedges with tall trees along this road. Topped hedges are being trimmed to a heights of between 1.2 and 2m. Non native hedges have been planted around some of the homes on this road consisting of Leylandi, beech and the invasive Cherry Laurel. At sample point A in Crockaun townland shown in Figure 22 along the L8006/7, a topped hedge of hawthorn occurred which had standard trees of ash. The topped hedge measured 1.5m and consisted of hawthorn, hazel, ash and elder with ivy. The ash tree standards were rich in epiphytic lichens and were up to 10m tall (see Plate 43).

Plate 43: A topped hedge of hawthorn with standard trees of ash along the L8006/7 at Crockaun townland (Point A on Figure 22). Action 8.6.1 in Table 10 recommends to continue with the wildlife friendly management regime of these hedges. Photo: © C. O'Connell.

Quality mature hawthorn hedges which were being side trimmed allowing the tops of the trees to flower occurred along the L8006/7 at point E shown on Figure 22 in the townlands of Crockaun and Racefield for a distance of 603m. Here the hedges reached heights of 5m with side trimming to a height of 3-4m. The hedge was up to 3m deep. Species recorded included ash, sycamore, beech, hazel, yew, wytch elm, guelder rose, privet and hawthorn with climbing dog rose, honeysuckle and ivy. Blackberry and raspberry were present with an abundance of herbs and ferns such as hart's tongue, cow parsley, nettle, dock, cleavers, hog weed, buckler fern, bind weed, wood avens, cock's foot and buttercup (see Plate 44).

Plate 44: Side trimmed hedges of hawthorn and ash along the L8006/7 in Crockaun and Racefield townlands are present for a distance of 603m (Point E on Figure 22). The verges alongside the hedges were dominated by cow parsley in flower and cleavers. Honeysuckle was noted in these hedges (see inset). Action 8.6.1 in Table 10 recommends to continue with the wildlife friendly management regime of these hedges. Photos: © C. O'Connell.

Native wild hawthorn hedges have been removed and replaced with exotic, non native species such as *Leylandii*, beech and cherry laurel along the L8006/7. Unlike the wild hawthorn hedges which contain up to 10 different species of tree, these hedges are dominated by one species only and have little value for wildlife as their managment means they do not produce flowers or fruit for pollinators or birds. Examples are shown in Plate 45. In considering wildlife and biodiversity, it is always better to retain or plant species rich native hedges.

Plate 45: Three examples of how native wild hedges of hawthorn have been removed and replaced with beech (left), Leylandii (top right) and cherry laurel (bottom right) associated with the construction of new country homes along the L8006/7. These exotic hedges are well maintained as is the grass verge associated with them. They have little value for biodiversity and cherry laurel is regarded as an invasive species of woodland. Action 8.6.4 in Table 10 recommends retaining existing hawthorn hedges when new properties are being built or planting hawthorn hedges were possible instead of non native hedges. Action 8.6.11 recommends phasing out cutting of grass verges to provide habitat and food for pollinators and wildlife. Photos: © C. O'Connell.

Mixed Broadleaf Woodland WD1
Mixed broadleaf woodland covering an area of 0.4191ha on the L8006/7 at the junction of the Racefield and Crawnglass townlands (see point C on Figure 22). The canopy trees were predominantly deciduous with sycamore, ash and Norway spruce. Hawthorn, guelder rose, privet and elderflower formed a dense boundary along the road. Within the woodland rose and ivy branches were hanging from the trees. There was a luxurious growth of ivy on the bowls of the trees. On the woodland floor bramble, cleavers, hart's tongue fern, broad buckler fern, buttercup, cow parsley and hogweed were noted. The tall trees formed a canopy up to 20m high (see Plate 46). The ash trees were infected with ash dieback. This woodland is connected to the farming landscape to the south by a hawthorn hedge which acts as a wildlife corridor. Grass and beech cuttings were being dumped along the margin of the woodland (see Plate 47).

Plate 46: mixed broadleaf woodland habitat along the L8006/7 at point C (see Figure 22) in the townlands of Racefield and Crawnglass. The tree canopy was formed by sycamore, ash and Norway spruce. Boughs of dog rose were supported on the branches of the trees (see image inset) and there was luxuriant growth of ivy on the bowls of the trees. Action 8.6.5 in Table 10 provides guidedance on the management of ivy in natural woodlands. Photos: © C. O'Connell.

Plate 47: Grass and beech hedge cuttings dumped along the margin of the woodland on the L8006/7 at point C (see Figure 22) in the townlands of Racefield and Crawnglass. Dumping grass creates a bad smell, is ugly and increases the nutrients in the ground and encouraging the growth of nettles. Action 8.6.6 in Table 10 recommends organising a composting training course for residents along the L8006/7 to teach them how to dispose of organic waste in such a way as to generate compost for use in their garden. Photo: © C. O'Connell.

Champion and Heritage Trees
A number of very old trees of beech and sycamore were noted in properties in the townlands of Newtown and Ballyshannon Demesne along the L8006/7 (see Plates 48 and 49). A champion tree is defined as the tallest or oldest or most massive example of its species or kind in a given region while a heritage tree has a particular story of biological, cultural, ecological or historical interest.

Plate 48: A possible champion or heritage beech tree on an ancient motte-castle site near St James Church on the L8006/7. Action 8.6.12 recommends including this tree and others on the Tree Register of Ireland with the consent of private landowners (see https://www.treecouncil.ie/tree-register-of-ireland). Photo: © C. O'Connell.

Plate 49: A possible champion or heritage beech tree in the townland of Newtown on the L8006/7. Action 8.6.12 recommends including this tree and others on the Tree Register of Ireland with the consent of private landowners (see https://www.treecouncil.ie/tree-register-of-ireland). Photo: © C. O'Connell.

Invasive Species

Snowberry (*Symphoricarpos albus*) was noted in the hedge along the L8006/7 in the townland of Crockaun at a map location of 53.092295N, -6.837755W (see Plate 50). This is an invasive species in the wild replacing native hawthorn hedges. It spreads by producing suckers. It is an agressive plant and needs to be removed.

Plate 50: Snowberry (Symphoricarpos albus) in the hedge along the L8006/7 in the townland of Crockaun at a map location of 53.092295N, -6.837755W. This invasive species of hedges needs to be removed (see Action 8.6.7 in Table 10). Photo: © C. O'Connell.

Cherry laurel was noted at the old coach house along the L8006/7 in the townland of Ballyshannon at a map location of 53.090575N, -6.831813W (see Plate 49). This plant is regarded as an invasive species of woodland. It is evergreen and grows rapidly spreading beneath deciduous trees to form a dense understorey. It has the effect of casting so much shade that the natural growth of woodland flora and tree saplings is prevented. This shrub was an isolated plant that may have self seeded alongside the barn. In the interest of protecting the native wild hedge and woodland habitats along the L8006/7 this bush of cherry laurel should be removed (Plate 51).

Plate 51: A cherry laurel (Prunus laurocerasus) bush along the wall of the old coachhouse located along the L8006/7 in the townland of Ballyshannon at a map location of 53.090575N, -6.831813W. This invasive species should be completely removed (see Action 8.6.7 in Table 10). Photo: © C. O'Connell.

8.6.4 L8006/7 Ballyshannon, Co. Kildare - Biodiversity Actions

Biodiversity actions for the L8006/7 Ballyshannon are presented in Table 10.

Table 10: Biodiversity enhancement actions for the L8006/7 Ballyshannon, Co. Kildare

Action Number	Action	Notes
8.6.1	**Mature Hedge continue with existing management**	The mature hedges along the L8006/7 are species rich. Management by topping and side trimming should be continued. Continue to allow trees and shrubs to produce flowers, seed and fruit for wildlife and encourage trees to grow into maturity at intervals to create a hedge with standards. Further information on hedge management at https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Hedgerows-2018-WEB.pdf and https://www.farmingfornature.ie/your-farm/resources/best-practice-guides/hedgerow-management/.
8.6.2	**Erect nest boxes for Sparrows to provide a safe place for them to breed**	Sparrows are amber listed bird species due to loss of their habitat and food source in the wild. They are using the old barns along the L8006/7 for feeding and nesting. Sparrows are birds that breed in colonies. Encourage them to breed in this area by erecting nesting condominiums. Sparrows are grain feeders. If space allows take the opportunity to plant up a bed with suitable grains and seeds as food sources such as ragweed, wheat, oats sunflower and buckwheat. Sparrows like dense hedges and good cover from ivy. Manage the hedges and the ivy on the walls of the old buildings to provide this habitat for them. House sparrow multi nest boxes can be purchased from www.vivara.ie.
8.6.3	**Create a wildflower meadow on the large roadside verge**	An opportunity exists to create a wildflower meadow habitat along the L8006/7 at site D Crockaun with owner co-operation. This can begin by reducing mowing to just once a month. This gives wild flowers and insect friendly grasses a chance to grow naturally and feed pollinators such as bees and butterflies (see https://pollinators.ie/wp-content/uploads/2024/02/Reduced-Mowing-Infographic-WEB.pdf). If a long term meadow is to be produced this involves cutting just once a year and there is more information about this at www.pollinators.ie.
8.6.4	**Retain all natural wild hawthorn hedges along the L8006/7**	As far as possible when new properties are being built, developers should opt for the most beneficial hedge boundary for biodiversity and wildlife so as to reduce the impact of their property build on biodiversity. Hawthorn or whitethorn is a common hedgerow species, but can also be grown as a standalone tree - a very wildlife-friendly option, producing lots of flowers for pollinators and red haws in autumn for birds to enjoy. Hawthorn supports circa 149 insect species.
8.6.5	**Ivy Control**	In the mature woodland on the border of the townlands of Racefield and Crawnglass the trees were invested with ivy (Plate 46). Ivy needs to be removed by cutting the ascending stems at the base of the trees. Ivy is one of the top beneficial plants to biodiversity providing shelter for hiberating insects, nesting sites and berries for birds and nectar during the winter months (see Table 4). It should be cut on a three year rotation so that at all times within the woodland there is a variety of ivy growing from young climbing plants to mature flowering plants.
8.6.6	**Composting training and correct disposal of organic waste from grass cutting and hedge trimming**	Organise a composting course for residents along the L8006/7 to help them dispose of grass cuttings and hedge trimmings sustainably. Composting using cones, wormeries and heaps turns organic waste into a rich soil improver. The compost can be used throughout a garden. This action will help to prevent residents dumping grass and hedge clippings under hedges and trees (Plate 47). Alternatively a lawn mower incorporating a mulcher can be used so that grass clippings are not produced. Ballyshannon Action Group should take the lead on this project. Training can be provided or funded by Kildare County Council.
8.6.7	**Remove invasive Cherry Laurel and snowberry**	Cherry laurel (*Prunus laurocerasus*) and snowberry (*Symphoricarpos albus*) are alien (non-native) invasive plants of hedges and woodlands. They should be fully removed and disposed of carefully. Their removal may require liaison with the National Biodiversity Data Centre (https://invasives.ie). See Plates 48 and 49 for details of their locations.

Action Number	Action	Notes
8.6.8	**Lichen Survey of hedgerow**	There is a good cover of epiphytic lichens on the mature trees growing in mature hedges, woodland and as standards in topped hedges along the L8006/7. Lichens are air pollution sensitive and such a a survey would provide good baseline information should air quality change as a result of a change in landuse in the area or traffic on the road. Ballyshannon Action Group might contact Paul Whelan, a lichen expert at paul@lichens.ie or paulwhelan@biology.ie.
8.6.9	**Screen walls of homes fronting onto the L8006/7**	Increase the biodiversity interest of existing stone and rendered walls of homes along the L8806/7 by planting *Clematis montana* (Travellor's Joy), *Lonicera* (Honeysuckle), Ivy (*Hedera*) and Wild Rose (*Rosa canina*) with owner co-operation.
8.6.10	**Maintain all walls that have natural plant colonisation**	Older stone walls along the L8006/7 are being naturally colonised with wild plants. This process should be encouraged and maintained as it provides biodiversity habitat.
8.6.11	**Management of grass verges for pollinators**	Grass cutting along the road verges should be phased out to allow wild plants to grow, flower and set seed and to develop linear wildflower meadows. Wildflower meadows have disappeared by 97%. Roadside verges and how they are managed are vital for pollinators. Plate 39 shows the contrast between two roadside verges on the L8006/7 resulting from how they are managed. Further information from: https://pollinators.ie/wp-content/uploads/2024/02/Reduced-Mowing-Infographic-WEB.pdf
8.6.12	**Register champion and/or heritage trees**	Possible champion or heritage trees occur on the L8006/7 in the townlands of Newtown and Ballyshannon Demesne. Investigate whether these trees should be included on the Tree Register of Ireland with the consent of private landowners (see https://www.treecouncil.ie/tree-register-of-ireland).
8.6.13	**Provide nesting opportunities for swifts in appropriate locations**	See https://swift-conservation.org/Installing%20Swift%20Nest%20Boxes%202013%20(small).pdf for details.
8.6.14	**Citizen science monitoring of biodiversity improvement**	Once some of the measures have been completed it is important to undertake simple monitoring actions of how well biodiversity is doing. For example a FIT survey could be undertaken on a patch of buttercups in the newly developed meadow areas. See further details in Chapter 7 of this plan.

8.7.1 Eaglehill Stream, Co. Kildare - Location 53.094428, -6.863878

The Eaglehill Stream (also known as the Finnery) examined in this study covers a distance of 8km. It is a perennial stream with water present in it year round. It is narrow, reaching a maximum width of 2m and a maximum water depth of 30cm. In general the sides of the stream were steep and at a height of 1-2m above the stream bed. The bed of the stream had a mixture of gravel, cobbles and silt with tufa formation. Water in the stream was flowing as riffle and glide. Throughout its history Eaglehill Stream has been much modified by changing land use practices.

Eaglehill Stream consists of two forks which confluence at Asgulusian Bridge on the L4002. The southern fork rises to the east of Clonmoyle Forest in Ballyshannon Demesne as a spring and travels west through farmland to Asgulusian Bridge. The northern fork emerges from Martinstown woods and travels west through farmland to Asgulusian Bridge as shown in Figure 22. Eaglehill Stream is part of the headwaters of the River Barrow. The Barrow and Nore Rivers are a recognised Special Area of Conservation (River Barrow and River Nore SAC 002162) which is discussed in Chapter 5 of this plan. The Eaglehill Stream may therefore be regarded as being in the zone of influence of the Special Area of Conservation. Changes to the stream may have an impact further downstream in the Barrow and Nore Rivers.

Five areas on Eaglehill Stream were chosen for study (see Figure 22): A: source of Eaglehill Stream in Ballyshannon Demesne, B: Eaglehill Stream in Clonmoyle Forest, C: Eaglehill Stream at Newtown/Crockaun/Crawnglass, D: Eaglehill Stream in Martinstown Woods and E: Eaglehill Stream at Asgulusian Bridge. A priority at each site was to determine the extent of the riparian zone and to describe its habitats. The riparian zone is the interface zone between the watercourse and the land. Healthy riparian zones reduce erosion, regulate flows, provide wildlife habitat and are aesthetically desirable.

Using the Local Authority Waters Programme (LAWPRO) citizen science stream index described in Chapter 5 which focuses on six key aquatic invertebrates the water quality in Eaglehill Stream was found to be moderate. In 2020 the stream was surveyed for Fish for the purposes determining fish stocks under the Water Framework Directive. It was found to be of good quality for fish (see http://wfdfish.ie/wp-content/uploads/2021/08/WFD_Summary_-Report_2020.pdf).

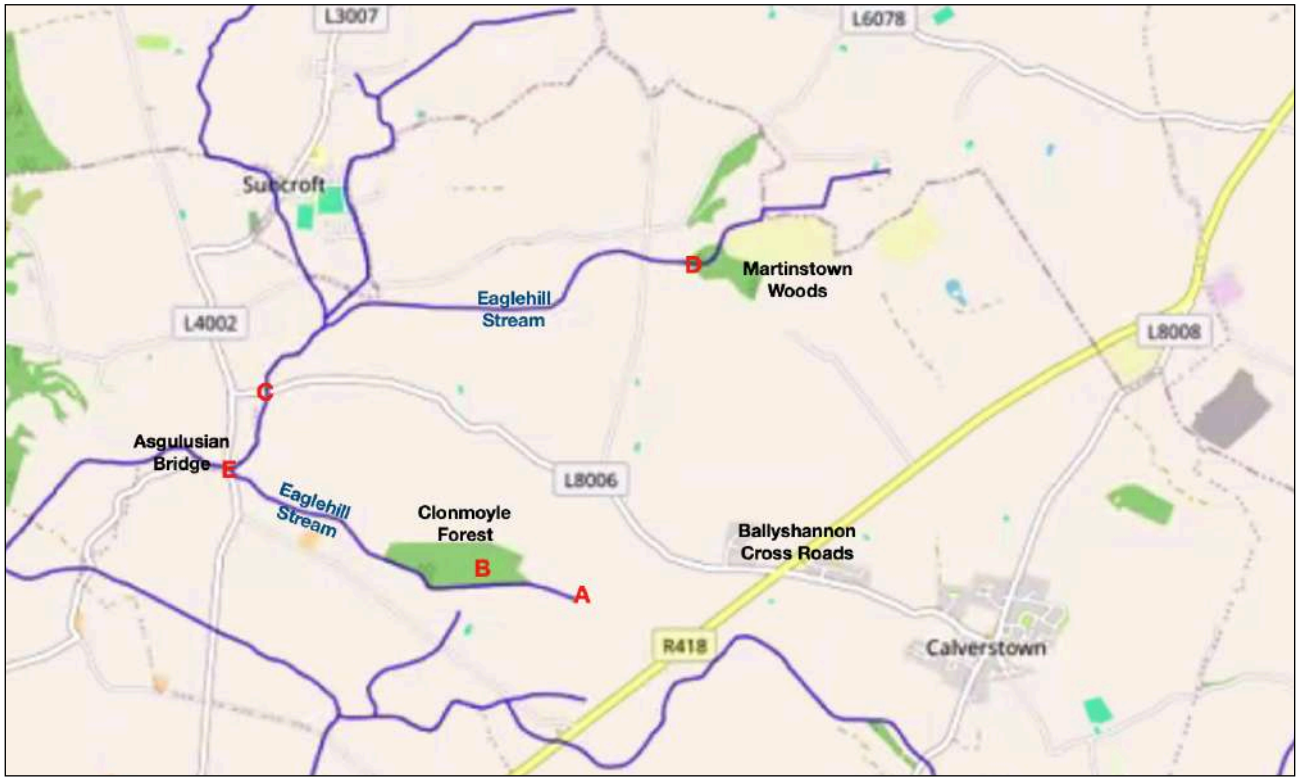


Figure 22: Location of Eaglehill Stream, Ballyshannon, Co. Kildare. The position of the biodiversity study sites along the stream are shown by the letters A-E. Source: https://gis.epa.ie/EPAMaps/

8.7.2 Eaglehill Stream, Co. Kildare - Site Management

The Eaglehill Stream flows through a variety of habitats in the Ballyshannon Area. These include woodland, conifer plantation grazing farmland and tillage fields. In some areas animals are permitted into the stream to drink water such as at site C Newtown/Crockaun/Crawnglass, site A the Ballyshannon source of the stream (see Plates 52 and 53) and site B Clonmoyle Forest. In other sites such as D Martinstown Woods the stream was fenced off from grazing livestock. In the tillage and grazing fields at sites C Newtown/Crockaun/Crawnglass and E Asgulusian Bridge farmers had left a riparian zone of 3-5m width on either side of the stream which consisted of unimproved wildflower grassland and hedge (see Plates 54 and 55). In Clonmoyle Forest conifer trees have been planted on the bank of the stream and many ditches within the forest open into the stream channel depositing silt on the stream bed, which had a thickness of 20-30cm in part. Management of this water course has modified it to such an extent that it appears as a ditch particularly in Martinstown Woods (site D) and Clonmoyle Forest (site B) as shown in Plates 56 and 57, but elsewhere it appears as a natural stream particularly at Asgulusian Bridge and in the townlands of Newtown/Crockaun/Crawnglass. Where the stream passes under roads and at access points to forests and farmland it is piped.

Plate 52: The Eaglehill Stream at site C Newtown/Crockaun/ Crawnglass showing how livestock have access to both sides of the stream for drinking water. Actions 8.7.3 iand 8.7.4 in Table 11 recommend re-establishing the riparian buffer zone along the river, fencing off this zone to prevent livestock polluting the stream and installing an automated water drinking pump (Plate 65). Photo: © C. O'Connell

Plate 53: The spring source of the Eaglehill stream at site A in Ballyshannon Demesne. Evidence of cattle poaching is seen in the foreground. Actions 8.7.3 iand 8.7.4 in Table 11 recommend re-establishing the riparian buffer zone along the river, fencing off this zone to prevent livestock polluting the stream and installing an automated water drinking pump (Plate 65). Photo: © C. O'Connell

Plate 54: The Eaglehill Stream at site C Newtown/ Crockaun/ Crawnglass showing how the farmers have established a riparian zone of grassland and hedgerow on either side of the stream. Action 8.7.1 and 8.7.2 in Table 11 recommend continuing with the existing management of these habitats. Photo: © C. O'Connell

Plate 55: The Eaglehill stream at site E Asgulusian Bridge on the L4002 showing the riparian zones of grassland and hedgerow along the stream. Action 8.7.1 and 8.7.2 in Table 11 recommend continuing with the existing management of these habitats. Photo: © C. O'Connell

Plate 56: The Eaglehill Stream in Clonmoyle Forest appears as a ditch. Trees have been planted on the banks. Action 8.7.5 in Table 11 recommends the sensitive thinning of trees in the forest so as to avoid excessive disturbance of the soil and the tufa features within the stream. Photo: © C. O'Connell

Plate 57: The Eaglehill stream at site D Martinstown Woods. The stream bed was covered in a 25cm thick layer of silt. Action 8.7.3 in Table 11 recommends establishing riparian zones along the full length of the Eaglehill stream. This buffer zone filters out sediment, nutrient and pesticides from entering the waterway. Photo: © C. O'Connell

8.7.3 - Eaglehill Stream, Co. Kildare - Habitats and Species Present

Species Diversity
The species recorded in the Eaglehill Stream and its riparian zone were as follows: 39 plants, 15 insects and 5 birds with a total of 59 species for the site (see Appendix 2).

The habitats present in the riparian zone of the Eaglehill are described below.

Lowland River FW2/ Drainage Ditch FW4
The water course of the Eaglehill Stream is being assigned to these two habitat categories in all of the areas studied. Where the water flow was slow such as in the source of the stream (site A on Figure 23) and within Clonmoyle woods (site B on Figure 23), fool's watercress and duck weed were recorded. Tufa formation is a feature of Eaglehill Stream and was noted in Clonmoyle Forest covering plant debris including leaves, twigs and cones. Where the stream was wider and the banks less steep, additional species were noted including brooklime, water cress, bittersweet, flag iris and horsetail.

Plate 58: Eaglehill Stream in Clonmoyle Forest (site B) showing an abundance of Tufa in the stream bed. Action 8.7.6 recommends inviting an expert in tufa ecology and formation to survey the stream to determine its importance. Photo: © C O'Connell.

Plate 59: The confluence of the north (from Martinstown) and south (from Clonmoyle) branches of the Eaglehill Stream at Asgulusion Bridge (site E). Silt can be seen in the stream on the left hand side. Action 8.7.3 in Table 11 recommends establishing riparian zones along the full length of the Eaglehill stream. This buffer zone filters out sediment, nutrient and pesticides from entering the waterway. Photo: © J. FitzGerald.

Dry Meadow/Grass Verge GS2
Within the tillage fields, a 3m exclusion zone at the stream edge or riparian zone was left unmanaged. This included grassland habitat (Plate 60) with a dominance of herbs such as cow parsley, nettle, Yorkshire fog grass, flag iris, dandelion, dock, willowherb, cat's ear, buttercup, horsetail, thistle, speedwell, vetch, daisy and water figwort. Such an abundance of flowering plants attracts pollinators.

Plate 60: Meadow habitat in the riparian zone on the banks of the Eaglehill Stream at Asgulusian Bridge. Tufa in the bed of the stream can be seen. The flowering plants provided nectar for pollinators such as the large white butterfly (inset). Spittle bugs or frog hoppers were abundant on creeping thistle (inset). Action 8.7.2 in Table 11 recommends maintaining the riparian zone to protect the watercourse and considering how this zone is connected to other wildlife areas on the farm. Photos: © C. O'Connell.

Hedgerow WL1
Hawthorn hedges were frequent in the riparian zone along the Eaglehill Stream. Species recorded included sycamore, bramble, vetch and dog rose. At site E Asgulusian Bridge (on Figure 23), a line of mature poplar trees were included in part of the hedge along the stream. The hedges in the riparian zones were up to 3m wide and stood 2-3 above the stream bed. In some locations the hedges were toppped (Plate 61), in others the hedge was side trimmed allowing the upper part to flower and fruit (Plate 62).

Plate 61: Hawthorn hedge along the L4002 at Asgulusian Bridge (site E in Figure 23). The hedge is managed by topping. Action 8.7.1 in Table 11 recommends continuing to manage the hedges in this manner. Photo: © C. O'Connell

Plate 62: Side trimmed hedge of hawthorn with mature trees near Asgulusian Bridge. The southern branch of the Eaglehill Stream from Clonmoyle Forest flows behind the hedge. Action 8.7.1 in Table 11 recommends continuing to manage the hedges in this manner. Photo: © C. O'Connell.

Conifer Plantation WD4

The Clonmoyle Forest is conifer plantation habitat (site B on Figure 23). The dominant trees present included spruce and pine. It was determined that these were planted after 1995 from an examination of air photographs available at npws.ie. The plantation was heavily shaded and the ground layer was covered with debris. Where there was some light, bramble, herb robert, buckler fern, ivy and elderberry were present. Part of the woods estsablished prior to 1995 contained broadleaves including birch, beech and hawthorn together with honeysuckle, violet, ivy, hart's tongue fern and colt's foot (see Plate 63).

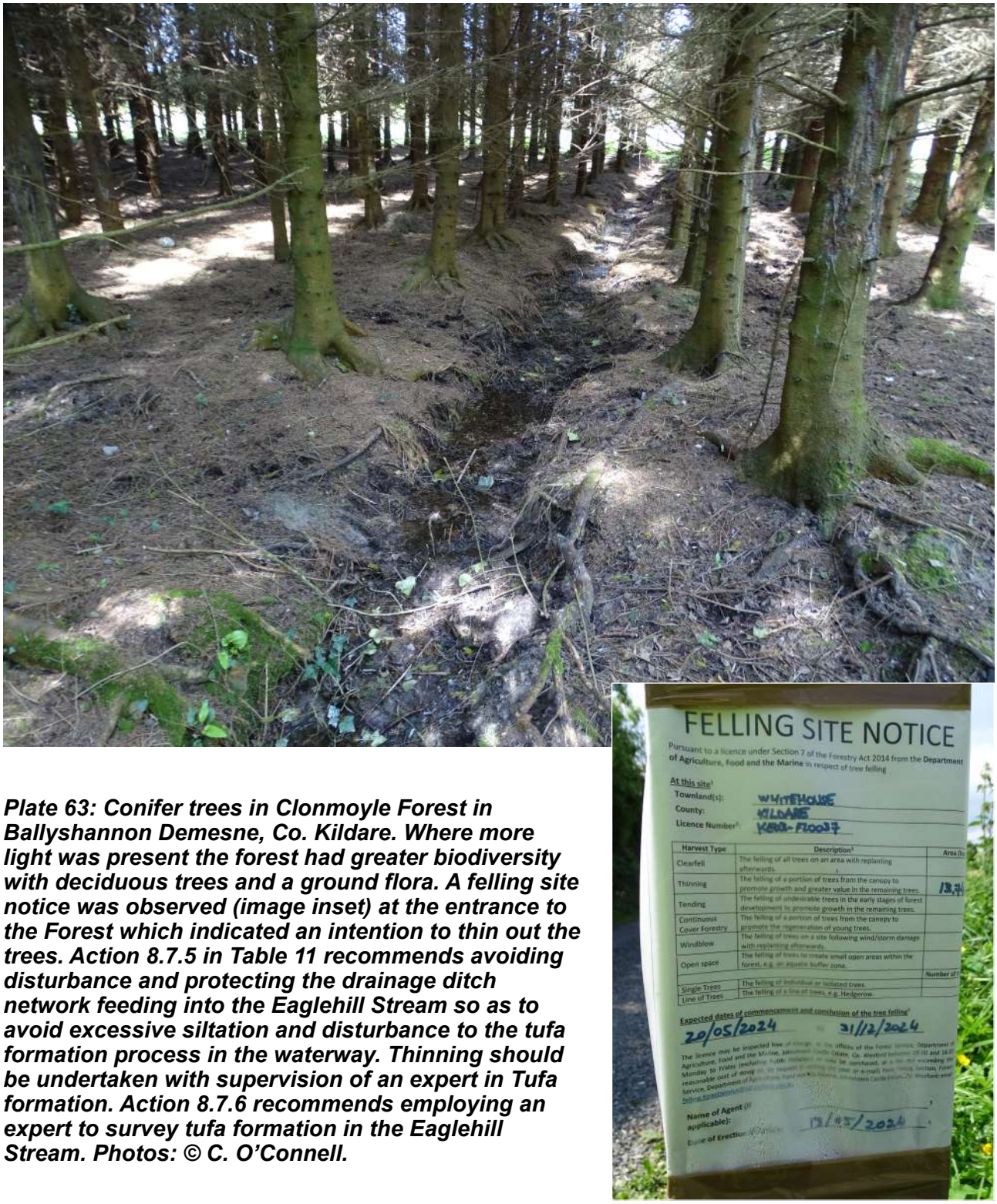


Plate 63: Conifer trees in Clonmoyle Forest in Ballyshannon Demesne, Co. Kildare. Where more light was present the forest had greater biodiversity with deciduous trees and a ground flora. A felling site notice was observed (image inset) at the entrance to the Forest which indicated an intention to thin out the trees. Action 8.7.5 in Table 11 recommends avoiding disturbance and protecting the drainage ditch network feeding into the Eaglehill Stream so as to avoid excessive siltation and disturbance to the tufa formation process in the waterway. Thinning should be undertaken with supervision of an expert in Tufa formation. Action 8.7.6 recommends employing an expert to survey tufa formation in the Eaglehill Stream. Photos: © C. O'Connell.

Mixed Broadleaf Woodland WD1
Mixed broadleaf woodland was present in Martinstown woods (site D on Figure 23). The woods have been surveyed previously as described in Chapter 5 of this report. Mature trees of oak, ash, willow, elder, sycamore, birch and beech were recorded here (see Plate 64).

Plate 64: The edge of Martinstown Woods in Co. Kildare. Mature trees were a feature of this woodland, part of which may date to the 19th century. Photo: © C. O'Connell.

8.7.4 Eaglehill Stream, Co. Kildare - Biodiversity Actions

Biodiversity actions for the Eaglehill Stream are presented in Table 11. A riparian zone of 3-5m width on either side of the Stream needs to be permanently established and, if necessary, fenced off from livestock to help control water quality in the stream which will have positive benefits for the Barrow and Nore Rivers further downstream.

Table 10: Biodiversity enhancement actions for the L8006/7 Ballyshannon, Co. Kildare

Action Number	Action	Notes
8.7.1	**Hedgerows: continue with existing management**	Continue to manage the hedges along the Eaglehill Stream by side trimming and topping as appropriate with landowner co-operation. This will provide the maximum benefit for wildlife. Further information on hedge management at https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Hedgerows-2018-WEB.pdf and https://www.farmingfornature.ie/your-farm/resources/best-practice-guides/hedgerow-management/.
8.7.2	**Wildflower riparian zone in tilled fields**	Continue to maintain the wildflower riparian zone between the cultivated fields and the Eaglehill Stream at a width of 3-5m with landowner co-operation. A riparian zone is like a buffer zone helping to filter runoff containing pesticides, nutrient or sediment before it reaches the water course. See https://www.teagasc.ie/media/website/publications/2021/Riparian-Buffer-Zones.pdf for information about establishing and maintaining riparian buffer zones in farms. Consider how the riparian zone is connected with other wildlife areas on the farm through wildlife corridors.
8.7.3	**Riparian zone in grazed fields**	Riparian zones must be established in fields being grazed by cattle and sheep. These need to be fenced off to prevent livestock entering the Eaglehill Stream. This is particularly important at the source of the Eaglehill Stream, within Clonmoyle Forest and in the Newtown/Crockaun/Crawnglass townlands. See https://www.teagasc.ie/media/website/publications/2021/Riparian-Buffer-Zones.pdf for information about establishing and maintaining riparian buffer zones in farms. Consider how the riparian zone is connected with other wildlife areas on the farm through wildlife corridors.
8.7.4	**Install automated cattle drinking water system to prevent pollution of Eaglehill Stream**	Cattle are currently drinking water directly from Eaglehill Stream at the stream source, within Clonmoyle Forest and in the Newtown/Crockaun/Crawnglass townlands. This activity needs to stop and an automated drinking system installed. Aquamat pasture pumps are attached to a pipe which is placed in the stream. The cattle pump the water from the stream by pushing on the pump with their heads and a small trough fills with water for them to drink. One pasture pump services up to 16 cattle. These are available from https://www.odonovaneng.ie/product/aquamat-pasture-pump/. See Plate 65.
8.7.5	**Tree thinning in Clonmoyle Forest**	A tree thinning notice has been erected at Clonmoyle Forest through which the Eaglehill Stream Flows. The stream bed of the main water course and the forestry drains that enter it had Tufa formation. The thinning of the forest needs to be done sensitively and preferably in consultation with the National Parks and Wildlife Service and under supervision by an ecologist. This may require an assesment by an expert on Tufa features and how best to protect them (see Action 8.7.6).
8.7.6	**Tufa Survey of Eaglehill Stream**	Tufa deposits were noted in the bed of the Eaglestream and were particularly well developed in Clonmoyle Forest. Ballyshannon Action Group should consider inviting the expert Dr Joanne Denyer to the area to survey the streams and advise on their protection. She is a consultant and can be contacted at joanne@denyerecology.com.
8.7.7	**Litter clean up**	Litter was noted in the source of the Eaglehill Stream. A cleanup should be organised as part of fencing and restoration of the riparian zone of this area.

Action Number	Action	Notes
8.7.8	**Composting to dispose of organic waste from grass cutting**	Encourage residents adjacent to the Eaglehill Stream not to dump grass clippings and organic waste in the stream (Plate 66). Composting using cones, wormeries and heaps turns organic waste into a rich soil improver and eliminates the need to dump illegally. Alternatively a lawn mower incorporating a mulcher can be used so that grass clippings are not produced. Further information on home composting from: https://www.cleanireland.ie/home-composting/#:~:text=Home%20composting%20can%20be%20done,keep%20off%20unnecessary%20rain%20water.
8.7.9	**Annual Citizen Science Stream Index**	Encourage a volunteer from Ballyshannon Action Group to undertake a water quality survey of the Eaglehill Stream each year at Angulusian Bridge and submit the CSSI result to info@lawaters.ie. Ruth Gaj McKeever is the Kildare Local Authority Waters Programme Officer and can be contacted at rgmckeever@lawaters.ie for assistance.
8.7.10	**Citizen science monitoring of biodiversity improvement**	Once some of the measures have been completed it is important to undertake simple monitoring actions of how well biodiversity is doing. For example a FIT survey could be undertaken on a patch of buttercups in the newly developed meadow areas. See further details in Chapter 7 of this plan.

Plate 65: Action 8.7.4 in Table 11 recommends fencing off the stream and installing an Aquamat pasture pump water drinking unit for livestock to help protect the Eaglehill Stream from pollution. These are available from https://www.odonovaneng.ie/product/aquamat-pasture-pump/. Photo: © https://www.odonovaneng.ie/2017/05/02/aquamat-pasture-pump-2/

Plate 66: Grass dumping at Asgulusian Bridge over Eaglehill Stream on the L4002. Action 8.7.8 in Table 11 provides information on home composting. Dumping of organic waste in the wider countryside is not compatible with community actions on biodiversity. Photo: © C. O'Connell.

Chapter 9. Funding Biodiversity Enhancement

The following groups provide funding for different aspects of biodiversity enhancement. Further information for each scheme can be found on the relevant organisation's web site.

- The Local Authority Pollinator Award aims to encourage community groups to implement pollinator-friendly actions in their towns and villages as part of the TidyTowns competition (see https://www.tidytowns.ie/competition/2023-special-award-entry-forms/#:~:text=The%20Local%20Authority%20Pollinator%20Award,part%20of%20the%20TidyTowns%20competition)

- Follow the Kildare Heritage Office on their facebook site to receive notifications about the funding and training opportunities (see https://www.facebook.com/Countykildareheritageoffice/).

- Community Foundation of Ireland provide grants to implement actions in Community Biodiversity Action Plans (see https://www.communityfoundation.ie/)

- Community Heritage Grant Support Scheme of Kildare County Council - see https://kildarecoco.ie/AllServices/Heritage/HeritageProjectsandgrants/CommunityHeritageGrantScheme/

- Peatlands Community Engagement Fund Scheme. Annual programme focusing on peatlands administered by the Department of Heritage, Culture and the Gaeltacht.

- Department of Agriculture, Food and the Marine have a number of funding streams available to local communities including Common Agricultural Policy (CAP) Post 2020: Pillar 2 Infrastructure, Environment and Development Support. (The main schemes include ACRES, GLAS, EIP-AGRI and TAMS).

- Eco-Congregation Award (see https://www.ecocongregationireland.com). The award is given to churches and their faith communities that have undertaken an environmental check-up and have taken initiatives in each of the following areas: Spiritual, Practical, Community and Global

- Kildare Leader Partnership (see https://www.countykildarelp.ie/)

- Ireland Funds Community Development Grants (see https://www.irelandfunds.org/our-impact/focus-areas/community-development/)

- Department of Rural and Community Development (see https://www.gov.ie/en/organisation/department-of-rural-and-community-development/)

- Reconstitution Ash Dieback Scheme 2023-2027 (see https://www.gov.ie/en/campaigns/15355-reconstitution-ash-dieback-scheme-2023-2027/)

- Heritage Council Grants Schemes (see https://www.heritagecouncil.ie/funding)

- Waterways and Communities Grant Scheme (see https://www.waterwaysireland.org/heritage-grant)

Appendix 1: Biodiversity Recording Survey Sheet

Ballyshannon, Co. Kildare Biodiversity Survey Record Sheet 2024

Recorders **Date** **Area ha**

Site Name **#** **Location GPS** **Altitude m**

Description

Habitats Present and Location

Existing Management

Biodiversity Actions

1.

2.

3.

4.

5.

6.

7.

Invasive Species: Winter Heliotrope Cherry Laurel Japanese Knotweed Giant Hogweed Rhododendron Snowberry

Details: ……

Species Diversity: **Plants: ……..** **Animals: ……** **Birds: ……..……**

Habitats Present (Fossitt Codes):

Designated Site: **Archaeology:** **NBDC Grids:**

Appendix 2: Species recorded in the Biodiversity Study Areas of Ballyshannon, Co. Kildare

The following data set of species recorded in this plan has been submitted to the National Biodiversity Data Centre (see https://biodiversityireland.ie/)

National Biodiversity Data Centre
Documenting Ireland's Wildlife

Dataset Description

Data Item	Description
Title of the dataset	Ballyshannon, Co. Kildare Community Biodiversity Action Plan 2025-2029
Dataset Provider	Dr Catherine O'Connell
Description	Plant, animal and bird records collected from Ballyshannon, Co. Kildare from 24th April and the 5th June 2024
Method of data capture	General field observations in different habitats at specific biodiversity sites
Purpose of data capture	To create a Biodiversity Action plan for Ballyshannon village - funded by the Community Foundation 2023. Copy of the Plan lodged with NBDC
Geographic coverage	Ballyshannon village and hinterland, Co. Kildare
Status of dataset	Dataset is completed during the survey and is internally published and distributed to Ballyshannon Action Group, the Community Foundation and the NBDC
Data quality	All plant, animal and bird records were verified by Dr Catherine O'Connell
Data Centre use only	
Date dataset received	The date of receipt by Data Centre.

Recorder Name	Species Name	Coordinates Latitude	Coordinates Longitude	Location Name	Date	Abundance	Habitat (Fossitt where possible)	Comment	Deterimer Name
Catherine O'Connell	Aegithalus caudatus	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	2	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Acanthosoma haemorrhoidale	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024	1	WD4		Catherine O'Connell
Catherine O'Connell	Anthocharis cardamines	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024	2	GS2	Male and female	Catherine O'Connell
Catherine O'Connell	Buteo buteo	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	2	WL1	Soaring	Catherine O'Connell
Catherine O'Connell	Chloris chloris	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Chloris chloris	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Carduelis carduelis	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Cyanistes caeruleus	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Cyanistes caeruleus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Corvus cornix	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1/WD2		Catherine O'Connell
Catherine O'Connell	Corvus frugilegus	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	1	WL1/WD1		Catherine O'Connell
Catherine O'Connell	Corvus frugilegus	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024	12	WL2	Rookery	Catherine O'Connell
Catherine O'Connell	Corvus frugilegus	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	3	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Corvus frugilegus	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024	1	GA2		Catherine O'Connell
Catherine O'Connell	Corvus frugilegus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	2	WL1		Catherine O'Connell
Catherine O'Connell	Corvus monedula	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Corvus monedula	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024	3	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Corvus monedula	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Columba palumbus	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024	1	WL2		Catherine O'Connell
Catherine O'Connell	Columba palumbus	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Columba palumbus	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024	3	WL1		Catherine O'Connell
Catherine O'Connell	Columba palumbus	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Egretta garzetta	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Erithacus rubecula	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024	1	WL2		Catherine O'Connell
Catherine O'Connell	Erithacus rubecula	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Fringilla coelebs	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Fringilla coelebs	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	2	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Fringilla coelebs	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Fringilla coelebs	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Hirundo rustica	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	5	GS2		Catherine O'Connell
Catherine O'Connell	Motacilla alba yarrellii	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	2	BC1		Catherine O'Connell
Catherine O'Connell	Oryctolagus cuniculus	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1	in hedgerow ditch	Catherine O'Connell
Catherine O'Connell	Pararge aegeria	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Pararge aegeria	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024	2	WL1		Catherine O'Connell
Catherine O'Connell	Parus major	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Philaenus spurmarius	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	Numerous	WL1/GS2		Catherine O'Connell
Catherine O'Connell	Philaenus spurmarius	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024	1	WD4		Catherine O'Connell
Catherine O'Connell	Phylloscopus collybita	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Prunella modularis	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Succinea putris	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	numerous	FW4	on Iris pseudocorus	Catherine O'Connell
Catherine O'Connell	Sylvia atricapilla	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL2		Catherine O'Connell
Catherine O'Connell	Troglodytes troglodytes	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Troglodytes troglodytes	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Turdus merula	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Turdus merula	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Turdus philomelos	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024	1	WL2		Catherine O'Connell
Catherine O'Connell	Turdus viscivorus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	2	GS2		Catherine O'Connell
Catherine O'Connell	Apis melifera	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Bombus lucorum	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Bombus lucorum	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell

Catherine O'Connell	Bombus lucorum	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	1	GS2		Catherine O'Connell
Catherine O'Connell	Bombus lucorum	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024	2	GS2		Catherine O'Connell
Catherine O'Connell	Bombus pascuorum	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024	1	GS2		Catherine O'Connell
Catherine O'Connell	Eristalis pertinax	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Gerris lacustris	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	1	FW2		Catherine O'Connell
Catherine O'Connell	Musca domestica	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024	3	WL1/WL2		Catherine O'Connell
Catherine O'Connell	Musca domestica	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Pararge aegeria	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024	1	WL1		Catherine O'Connell
Catherine O'Connell	Pieris brassicae	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	1	GS2		Catherine O'Connell
Catherine O'Connell	Pieris napi	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024	1	GS2		Catherine O'Connell
Catherine O'Connell	Pieris rapae	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024	Numerous	WL1		Catherine O'Connell
Catherine O'Connell	Pieris rapae	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	1	GA2		Catherine O'Connell
Catherine O'Connell	Passer domesticus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	Numerous	BL3/WL1		Catherine O'Connell
Catherine O'Connell	Philaenus spumarius	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024	Numerous	WL1/GS2		Catherine O'Connell
Catherine O'Connell	Acer pseudoplatanus	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Acer pseudoplatanus	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Acer pseudoplatanus	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/WL2		Catherine O'Connell
Catherine O'Connell	Acer pseudoplatanus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Acer pseudoplatanus	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD1		Catherine O'Connell
Catherine O'Connell	Achillea millefolium	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Achillea millefolium	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Aesculus hippocastanum	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Alliaria petiolata	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Alliaria petiolata	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Alnus glutinosa	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Anthriscus sylvestris	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Anthriscus sylvestris	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Anthriscus sylvestris	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Anthriscus sylvestris	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2/WL1		Catherine O'Connell
Catherine O'Connell	Anthriscus sylvestris	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Anthriscus sylvestris	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Anthriscus sylvestris	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD1		Catherine O'Connell
Catherine O'Connell	Apium nodiflorum	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		FW4		Catherine O'Connell
Catherine O'Connell	Apium nodiflorum	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		FW2		Catherine O'Connell
Catherine O'Connell	Apium nodiflorum	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		FW4		Catherine O'Connell
Catherine O'Connell	Asplenium ceterach	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL1		Catherine O'Connell
Catherine O'Connell	Asplenium scolopendrium	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Asplenium scolopendrium	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Asplenium scolopendrium	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2/BL1		Catherine O'Connell
Catherine O'Connell	Asplenium trichomanes	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL1		Catherine O'Connell
Catherine O'Connell	Bellis perennis	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Bellis perennis	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Bellis perennis	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Bellis perennis	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Bellis perennis	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Betula pubescens	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Betula pubescens	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Betula pubescens	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Betula pubescens	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Berberis vulgaris	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024	planted	WL2		Catherine O'Connell
Catherine O'Connell	Calliergonella cuspidata	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Calliergonella cuspidata	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell

Catherine O'Connell	Calystegia sepium	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Calystegia sepium	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Cardamine flexousa	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Cardamine flexuosa	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Carpinus betulus	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WS2		Catherine O'Connell
Catherine O'Connell	Cerastium fontanum	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Chamaecyparis lawsoniana Ell	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		BC4		Catherine O'Connell
Catherine O'Connell	Cirsium arvense	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Cirsium arvense	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Cirsium arvense	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Cirsium vulgare	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2		Catherine O'Connell
Catherine O'Connell	Cirsium vulgare	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Cirsium vulgare	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Cotoneaster horizontalis	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Cotoneaster horizontalis	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		BL1		Catherine O'Connell
Catherine O'Connell	Cotoneaster horizontalis	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL1		Catherine O'Connell
Catherine O'Connell	Corylus avellana	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/WL2		Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD1		Catherine O'Connell
Catherine O'Connell	Crataegus monogyna	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Cupressus × leylandii	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Cupressus x leylandii	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Cymbalaria muralis	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL1		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2		Catherine O'Connell
Catherine O'Connell	Dactylus glomerata	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Dryopteris dilatata	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Dryopteris dilatata	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Epilobium hirsutum	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Epilobium hirsutum	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Epilobium hirsutum	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Epilobium parviflorum	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Equisetum arvense	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		FW2		Catherine O'Connell
Catherine O'Connell	Fagus sylvatica	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Fagus sylvatica	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Fagus sylvatica	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WS2		Catherine O'Connell
Catherine O'Connell	Fagus sylvatica	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Fagus sylvatica	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Ficaria verna ssp verna	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Fistulina hepatica	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Fraxinus excelsior	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Fraxinus excelsior	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Fraxinus excelsior	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/WL2		Catherine O'Connell
Catherine O'Connell	Fraxinus excelsior	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Galium aparine	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Galium aparine	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		WL1		Catherine O'Connell

Catherine O'Connell	Galium aparine	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Galium aparine	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Galium aparine	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/GS2		Catherine O'Connell
Catherine O'Connell	Galium aparine	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Geranium robertianum	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Geum urbanum	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/WL2		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Hedera helix	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Heracleum spondylium	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Holcus lanatus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Holcus lanatus	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Hyacinthoides hispanica	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2	planted	Catherine O'Connell
Catherine O'Connell	Hypericum pulchrum	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Hypochaeris radicata	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Ilex aquifolium	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WS2		Catherine O'Connell
Catherine O'Connell	Iris pseudacorus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		FW4		Catherine O'Connell
Catherine O'Connell	Juncus effusus	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		FW4		Catherine O'Connell
Catherine O'Connell	Lapsana communis	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Lemna minor	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		FW4		Catherine O'Connell
Catherine O'Connell	Leucanthemum vulgare	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Leucanthemum vulgare	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		BC4		Catherine O'Connell
Catherine O'Connell	Ligustrum vulgare	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Ligustrum vulgare	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Ligustrum vulgare	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Lolium perenne	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Lonicera periclymenum	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Lonicera periclymenum	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Lythrum salicaria	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		FW4		Catherine O'Connell
Catherine O'Connell	Malus sylvestris	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Malus sylvestris	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		BC2		Catherine O'Connell
Catherine O'Connell	Malus sylvestris	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Malus sylvestris	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/WL2		Catherine O'Connell
Catherine O'Connell	Marchantia polymorpha	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL3		Catherine O'Connell
Catherine O'Connell	Medicago lupulina	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Myosotis arvensis	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Nasturtium officinale	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		FW2		Catherine O'Connell
Catherine O'Connell	Phalaris arundinacea	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		FW4		Catherine O'Connell
Catherine O'Connell	Picea abies	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WD2		Catherine O'Connell
Catherine O'Connell	Plantago lanceolata	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Plantago lanceolata	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell

Catherine O'Connell	Plantago lanceolata	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2/GS2		Catherine O'Connell
Catherine O'Connell	Plantago major	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2		Catherine O'Connell
Catherine O'Connell	Plantago major	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Poa annua	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Polypodium vulgare	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL1		Catherine O'Connell
Catherine O'Connell	Populus tremula	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Populus tremula	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Populus tremula	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD1		Catherine O'Connell
Catherine O'Connell	Potentilla anserina	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2		Catherine O'Connell
Catherine O'Connell	Potentilla reptans	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Primula veris	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Primula veris	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Primula vulgaris	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Prunella vulgaris	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Prunus laurocerasus	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		BC4	Invasive	Catherine O'Connell
Catherine O'Connell	Prunus laurocerasus	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WS2	Invasive	Catherine O'Connell
Catherine O'Connell	Prunus laurocerasus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL1/WL1	Invasive	Catherine O'Connell
Catherine O'Connell	Prunus spinosa	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Quercus robur	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2/GA2		Catherine O'Connell
Catherine O'Connell	Ranunculus repens	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Rosa canina	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Rosa canina	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Rosa canina	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD1		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/WL2		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD1		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Rubus fruticosus agg	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Rubus idaeus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Rumex obstusifolius	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Rumex obstusifolius	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Rumex obstusifolius	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2		Catherine O'Connell
Catherine O'Connell	Rumex obstusifolius	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Rumex obstusifolius	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/WL2		Catherine O'Connell
Catherine O'Connell	Sambucus nigra	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell
Catherine O'Connell	Scrophularia auriculata	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Senecio vulgaris	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Senecio vulgaris	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Senecio vulgaris	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL1		Catherine O'Connell
Catherine O'Connell	Silene dioica	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell

Catherine O'Connell	Solanum dulcamara	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2/FW2		Catherine O'Connell
Catherine O'Connell	Sonchus oleraceus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		BL1		Catherine O'Connell
Catherine O'Connell	Sorbus aucuparia	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Symphoricarpos albus	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2	Invasive	Catherine O'Connell
Catherine O'Connell	Symphoricarpos albus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1	Invasive	Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2/GA2		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2/GS2		Catherine O'Connell
Catherine O'Connell	Taraxacum officinale	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Taxus baccata	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Taxus baccata	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Tilia cordata	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Trifolium pratense	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Trifolium pratense	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		GA2		Catherine O'Connell
Catherine O'Connell	Trifolium repens	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Trifolium repens	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Trifolium repens	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Trifolium repens	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		GA2/GS2		Catherine O'Connell
Catherine O'Connell	Tussilago farfara	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Ulmus glabra	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Ulmus glabra	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2/GA2		Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2/GA2		Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Urtica dioica	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Veronica chamaedrys	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		GA2		Catherine O'Connell
Catherine O'Connell	Veronica chamaedrys	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Veronica chamaedrys	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		GS2		Catherine O'Connell
Catherine O'Connell	Veronica beccabunga	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		FW2		Catherine O'Connell
Catherine O'Connell	Viburnum opulus	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		GS2		Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.087349	-6.814641	Ballyshannon National School, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1		Catherine O'Connell
Catherine O'Connell	Vicia sepium	53.092194	-6.866707	Asgulusian Bridge, Eaglehill Stream, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD1		Catherine O'Connell
Catherine O'Connell	Viola riviniana	53.086490	-6.843708	Clonmoyle Forest, Eaglehill Stream, Ballyshannon, Co. Kildare	24/04/2024		WD4		Catherine O'Connell
Catherine O'Connell	Viola riviniana	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.086700	-6.816025	Dowlings Pub, Ballyshannon Cross, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.087144	-6.815271	Ballyshannon Community Hall, Ballyshannon, Co. Kildare	24/04/2024		WL2		Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.090968	-6.835501	Ballyshannon Demesne, Ballyshannon, Co. Kildare	24/04/2024		WL1		Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.086619	-6.817186	R418, Ballyshannon, Co. Kildare	24/04/2024		WL1/WL2		Catherine O'Connell
Catherine O'Connell	Xanthoria parietina	53.095942	-6.847783	L8006/7 Ballyshannon Cross to Frews Cross, Ballyshannon, Co. Kildare	05/06/2024		WL1/WD2		Catherine O'Connell

Appendix 3: Social Media and Publicity

KFM Interview
The development of the Ballyshannon Community Biodiversity Action Plan (CBAP) was featured on the Kildare Today show hosted by Eoin Beatty on the 26th April 2024

Community Engagement Talk
Dr Catherine O'Connell, the Ecologist developing the CBAP for Ballyshannon gave a 40 minute talk to the local community on the 24th April 2024 in the Community Hall. This was attended by 14 people. Ballyshannon Action Group publicised the talk on their facebook site as did the Kilcullen Diary.

Publicity
An article about the CBAP written by Daragh Nolan was published in the online version of the Leinster Leader 23 April 2024 (see https://www.kildarenow.com/news/home/1483161/ballyshannon-biodiversity-talk-date-announced-ahead-of-community-biodiversity-action-plan.html?utm_source=dlvr.it&utm_medium=facebook)

Social Media
The Ballyshannon Action Group regularly updated their facebook site throughout the project with posts. See https://www.facebook.com/ballyshannonactiongroup/

Kilcullen Diary

Day by day in a village grown bigger

KILCULLEN 700

Founded 2005, edited by Brian Byrne

Monday, April 22, 2024

Biodiversity Action Plan for Ballyshannon

A reminder that a Community **Biodiversity Action Plan for Ballyshannon** will be discussed on Wednesday 24 April in Ballyshannon Hall, *writes* ***Brian Byrne***.

The talk, beginning at 1pm, will be given by ecologist **Dr Catherine O'Connell**, who will detail some of her findings from the area. All welcome.

This follows the awarding of a grant of €5,500 from **Community Foundation Ireland** towards the cost of developing such a plan.

WEATHER

Today will be **largely dry but cloudier** than recently. Highest temperatures of **10 to 12 degrees,** with moderate northerly breezes. **Tonight will be mainly dry** and mostly cloudy.

DID YOU KNOW?

The most **efficient predators of the insect world** are Dragonflies. They hunt and consume **mosquitoes, midges, flies, bees, butterflies,** and other small insects that they can easily catch while flying. They can hover in one place, fly extremely fast, **and even fly backwards.** They can reach speeds of **up to 50km/h,** which also makes them one of the fastest insects in the world.

MORE DYK?

Ballyshannon Action Group is at **Ballyshannon, Kilcullen**.
5d · Kilcullen ·

We are deligthed to announce that we have received a grant of €5,500 from the Community Foundation Ireland for a Community Biodiversity Action Plan (CBAP), for Ballyshannon. Our ecologist Dr Catherine O'Connell will be speaking to us on Wednesday 24th April at 1pm in Ballyshannon Comm Hall to discuss some of her findings from the area and all are welcome to join! See you there.

@communityfoundationireland #cbap #biodiversity #protectbiodiversity #kildareniodiversity

Ballyshannon biodiversity talk date announced ahead of Community Biodiversity Action Plan

Ecologist Dr Catherine O'Connell will give a talk on her initial findings, which will inform Ballyshannon's new Community Biodiversity Action Plan on Wednesday, April 24 in Ballyshannon Community Hall

By Daragh Nolan
23 Apr 2024 2:10 PM

Ecologist Dr Catherine O'Connell will give a talk on her initial findings, which will inform Ballyshannon's new Community Biodiversity Action Plan on Wednesday, April 24 in Ballyshannon Community Hall.

The talk, beginning at 1pm, will detail some of Dr. O'Connell's findings from the area and all are welcome to attend.

This event follows on from the awarding of a grant of €5,500 from Community Foundation Ireland to the Ballyshannon Action Group towards the cost of developing such a Biodiversity Action Plan for the area.

Ballyshannon Action Group were among a number of Kildare community groups to have been awarded grants by Community Foundation Ireland this year for this purpose.