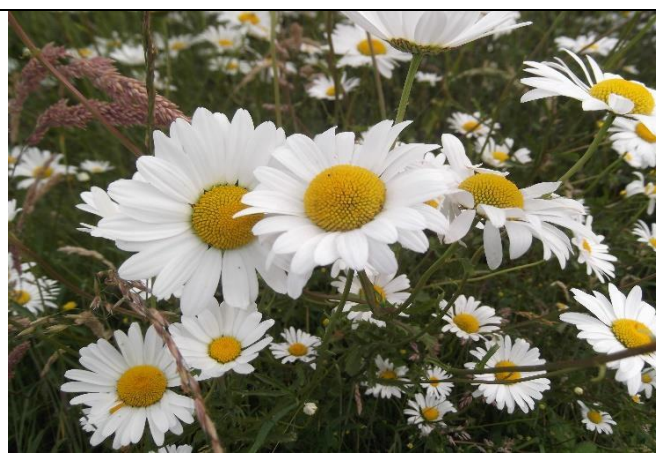


# **Abbeyfeale**

## **Community Biodiversity Action Plan**

### **2023-2027**



**A report for Abbeyfeale Community Council**

**2023**

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**Abbeyfeale**  
**Community Biodiversity Action Plan 2023-2027**

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## **1. Executive Summary**

Abbeyfeale is a market town in County Limerick located on the banks of the river Feale. It is surrounded by a varied natural landscape including uplands, woodlands, rivers and streams. The surrounding countryside is predominantly a mixture of improved agricultural grasslands and rough grasslands, bordered by hedgerows. The River Feale flows along the western edge of the town and is joined by the River Allaghaun at the northern end of the town. These rivers are recognised as being of international ecological importance being designated within a Special Area of Conservation (SAC) (Lower River Shannon cSAC 002165).

The main aim of this project was to develop a Biodiversity Action Plan for the town and surrounding areas. The preparation of this plan included a habitat survey to identify existing habitats within Abbeyfeale and its surrounding area, and a wildlife survey to identify flora & fauna associated with each habitat.

The resulting plan has the following objectives:

- To propose measures aimed at conserving and enhancing the biodiversity value of Abbeyfeale and its surroundings.
- To propose measures aimed at enhancing public appreciation of the natural heritage of the area.
- To propose measures aimed at actively involving the community in nature projects.

Abbeyfeale is fortunate in having a number of areas that support a rich variety of native flora & fauna. Areas that have a high biodiversity value within the town and its environs are the Rivers Feale and Allaghaun, The Town Park, The Limerick and Kerry Greenways and Ellis Wood. The town park contains a variety of habitats

including woodlands, grasslands, ponds and streams. The park is known to be home to four species of bats. Ellis Wood has mature Oak (*Quercus spp*) and Birch (*Betula spp*) trees as well as many woodland flora and fauna including Bluebells (*Hyacinthoides non-scripta*), Badger (*Meles meles*), and Fox (*Vulpes vulpes*). The presence of these species confirms these areas to be of high nature conservation value.

A total of 16 different habitat types were recorded in the environs of Abbeyfeale town. Of the habitats recorded; the rivers, town park and Ellis Wood are of most importance from a biodiversity perspective. The survey recorded a total of 133 species of flora and fauna as occurring within the study area. This includes 130 species of higher plants; 55 bird species; 10 mammals; and 285 insect species. Threats to the biodiversity of the area include inappropriate management of public spaces, intensive farming, non native species, drainage and other land use changes in sensitive areas.

This report outlines a number of recommendations and actions aimed at conserving and enhancing the biodiversity value of key areas within the town as well as recommendations for improving access to and interpretation of the natural heritage of the area for the general public.

## **2. Introduction**

In January 2023 two local wildlife experts; Anneke Vrieling and Tony Kenneally was commissioned by Abbeyfeale Community Council to prepare a biodiversity action plan for the town. Anneke Vrieling is an ecologist and Tony Kenneally is a wildlife biologist and both have a keen interest in local biodiversity.

Abbeyfeale is surrounded by a varied natural landscape that includes rivers, woodlands and uplands. The habitats contained in this natural landscape support a

rich variety of native flora & fauna (biodiversity) and is a valuable asset for the people that live in the region, as a recreational as well as economic resource.

It is important that the rich biodiversity found in the natural landscape is promoted, conserved and enhanced so that future generations will be able to benefit and appreciate this valuable asset. A key element in this, is highlighting to the local community the rich biodiversity that exists in their locality, unless people are aware of what exists in their area they are less likely to recognize the importance of conserving it. This plan aims to help raise awareness of the existing habitats and the rich variety of life they support as well as recommending actions to conserve and enhance biodiversity.

## **2.1 Biodiversity**

Biodiversity can be defined as the variety of all life on earth. This includes plants and animals and the habitats and ecosystems that they live in.

Biodiversity provides us with many essential ‘goods and services’ – clean air and water, food, fuel, building materials, fertile soils, nutrient recycling, pollination, pest and disease control, medicines etc. In Ireland, biodiversity contributes at least €2.8 billion to the Irish economy each year making it a valuable national asset. Biodiversity loss is a global issue that is going to affect each and every one of us. The loss of biodiversity is having a critical impact on the ability of ecosystems to provide the services upon which we depend.

In order to prevent the future loss of biodiversity at a national and international level, it is crucial that the value of biodiversity be conveyed to the wider public and actions taken at a local level.

## **2.2 Biodiversity Action Plans**

Biodiversity Action Plans provide the local community with a framework for conserving, managing and enhancing the biodiversity value of habitats within the local community.

The production and implementation of a local biodiversity action plan requires coordinated community action among groups, individuals, landowners, local authorities and other organizations. Raising awareness of local biodiversity and having a local biodiversity action plan will help ensure that community based projects and activities will not have an adverse affect on biodiversity or associated habitats. Ideally, the plan should help conserve and enhance biodiversity through raising awareness, species conservation, habitat creation and management. Successful implementation of the plan contributes to the national and EU objective of halting biodiversity loss.

## **2.3 Aims and objectives**

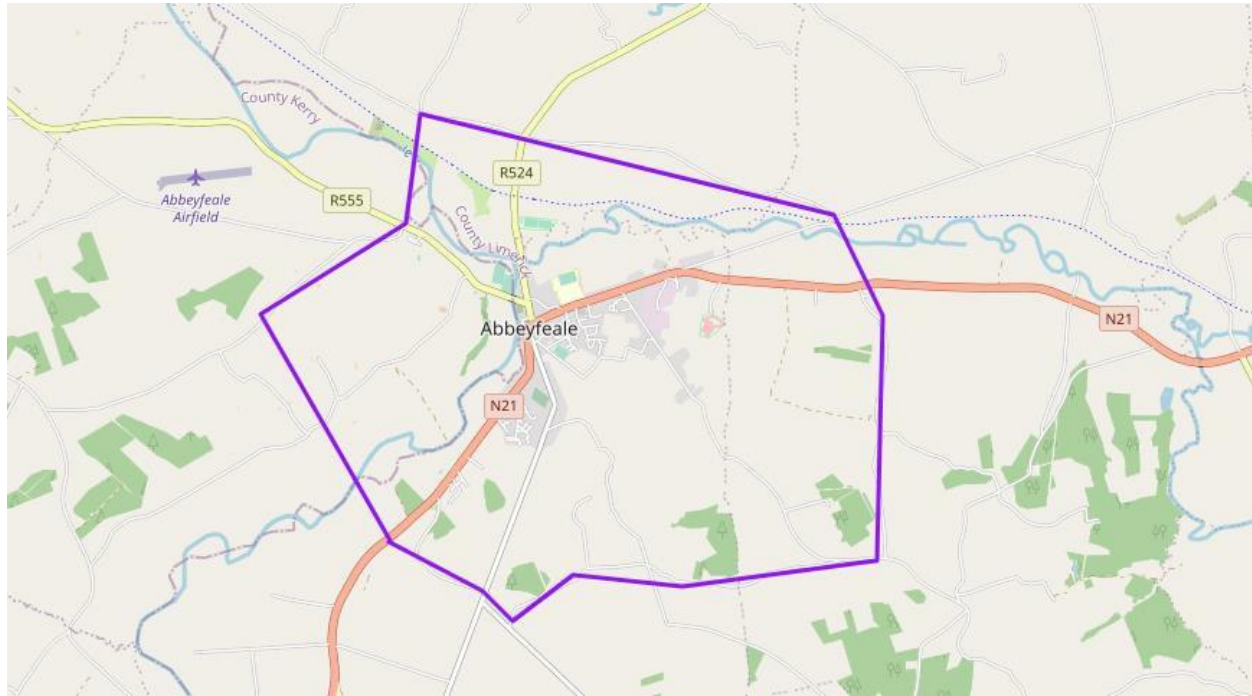
The aims and objectives of Abbeyfeale Biodiversity Action Plan are:

- To preserve and enhance the habitats within Abbeyfeale
- To raise awareness and appreciation of biodiversity amongst the people of Abbeyfeale
- To actively involve the local community in wildlife and nature projects.
- To develop a number of nature trails with wildlife information signs.

A habitat and wildlife survey was undertaken over a year long period from January 2023 to identify existing habitats and biodiversity within Abbeyfeale and its environs. Based on the results of these surveys a number of recommendations are made to conserve and enhance the biodiversity of the area, as well as measures to raise awareness amongst the local community.

## 2.4 Abbeyfeale - Study area

Abbeyfeale is situated in the south-western corner of County Limerick, between the River Feale to the west and the River Allaghaun to the north. The area covered by the biodiversity action plan can be seen in **Fig 1**.



*Fig.1* Abbeyfeale study area

As can be seen from the map of the study area in Fig 1. the area the plan covers extends beyond the urban limits of Abbeyfeale town. This is necessary as it is important to include habitats in the hinterland of the town as the biodiversity of the town is intrinsically linked to the biodiversity in the surrounding landscape.

## 3.0 Biodiversity of Abbeyfeale

The biodiversity of Abbeyfeale and its environs was recorded and evaluated by direct observation and targeted surveying of specific species and habitats throughout a 10 month period from January to November 2023. Surveying for flora and fauna



focused on four main areas as well as the urban habitats of Abbeyfeale. The four main areas with the highest biodiversity value included:

- The Rivers Feale and its tributaries Allaghaun and Oolagh
- Abbeyfeale Town Park
- Ellis Wood
- The Limerick Greenway

A full list of the species recorded is included in the appendix of this report.

### **3.1 Sites designated for nature conservation**

The importance of the habitats around Abbeyfeale for wildlife and biodiversity is recognised by the presence of two protected sites deemed to be of international importance for the protection of certain species and habitats deemed to be threatened across western Europe. These sites are known as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). These sites are collectively known as Natura 2000 sites. Natura 2000 is the centerpiece of European Union (EU) nature and biodiversity policy. It is an EU-wide network of nature protection areas for the protection of habitats and species. The Rivers Feale and Allaghaun are part of the Lower River Shannon Special Area of Conservation (SAC site code 002165), while Abbeyfeale is also within 5 km of the Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle Special Protection Area (SPA site code 004161) designated for Hen Harrier.

The following is a summary of each site:

#### ***a) Lower River Shannon SAC***

This very large site stretches along the Shannon valley from Killaloe in Co. Clare to Loop Head/ Kerry Head, a distance of some 120 km. The site thus encompasses the Shannon, Feale, Mulkear and Fergus estuaries, the freshwater lower reaches of the

River Shannon (between Killaloe and Limerick), the freshwater stretches of much of the Feale and Mulkear catchments and the marine area between Loop Head and Kerry Head. The site is a Special Area of Conservation (SAC).

**b) *Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle Special Protection Area***

The Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is a very large site centred on the borders between the counties of Cork, Kerry and Limerick. The site is skirted by the towns of Newcastle West, Ballydesmond, Castleisland, Tralee and Abbeyfeale. Many rivers rise within the site, notably the Blackwater, Owentaraglin, Owenkeal, Glenlara, Feale, Clydagh, Allaghaun, Allow, Oolagh, Galey and Smerlagh. The site consists of a variety of upland habitats, though almost half is afforested. The coniferous forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present. Substantial areas of clear-fell are also present at any one time.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Hen Harrier (NPWS, 2007).

**3.2. Habitats of Abbeyfeale**

Abbeyfeale is surrounded by a varied natural landscape including woodlands, semi-natural grasslands, rivers and uplands. Within the urban areas of Abbeyfeale there is a variety of `man-made` habitats including parkland, playing fields, buildings and gardens. A total of 16 different habitat types (classified according to Fossitt (2000) '*A Guide to Habitats in Ireland*') were recorded within the area and are presented in **Table 4.1**

**Table 4.1** The main habitat types recorded in Abbeyfeale and its environs 2023

Habitat Category	Habitat type	Habitat code
<i>Freshwater habitats</i>	Eroding/upland rivers	FW1
	Drainage ditches	FW4
	Artificial lakes and ponds	FL8
<i>Grassland and marsh</i>	Improved agricultural grassland	GA1
	Amenity grassland	GA2
	Dry meadows and grassy verges	GS2
	Wet grassland	GS4
	Marsh	GM1
<i>Woodland and scrub</i>	Wet willow-alder-ash woodland	WN6
	Mixed broadleaved woodland	WD1
	Conifer Plantation	WD4
	Hedgerows	WL1
	Oak-Birch-Holly woodland	WN1
	Scattered trees and parkland	WD5
	Scrub	WS1
<i>Cultivated and built land</i>	Buildings and artificial surfaces	BL3

A brief description and photographs of some of the flora and fauna in the main habitat areas is described in the following paragraphs.

### 3.2.1 Abbeyfeale Town Park



*Fig 2. Abbeyfeale town Park*

The Town Park in Abbeyfeale was established in 1999. It was designed by Sandro Cafolla (wildflowers.ie) and is rich in biodiversity. Most of Ireland's native tree species have been planted here, some that are common (Alder, ash, oak, willow, rowan, hazel, hawthorn, blackthorn) and some that are not so common locally (bird cherry, wild cherry, aspen, spindle, alder buckthorn, guelder rose). This rich diversity in native trees and shrubs translates itself in a rich diversity in all other life forms, from herbivorous insects to predators like the sparrowhawk.

The park has various habitats within its borders, including hedgerows, ponds with wetland, mixed woodland and flower rich areas. A large central meadow used to be part of it but in recent years has been managed like a short lawn, which reduces its value for wildlife.

The river Feale flows alongside the park, again enhancing its biodiversity value.

**Abbeyfeale Park- A Nature Guide** is a fantastic guide to the wildlife and biodiversity of the park highlighting the flora and fauna that can be found in the park throughout the year. This book was written by Anneke Vrieling who is actively involved in local conservation issues as well as recording the biodiversity of the area. Some of the main habitats within the park are briefly summarised in the following paragraphs:

### Woodland

The park has two main types of woodland; Mixed broadleaved woodland which consists of mostly native species that have been planted in the past 10-15 years. Trees found in this type of woodland include Oak, Ash, Alder, Birch and Holly. This type of woodland can be found at the western end of the park and supports a variety

of woodland flora and fauna. Bluebells are abundant in spring in the more mature areas of woodland while Wood Sorrell and Wood Anemone can also be found.

Bird species recorded in the woodland include species such as Robin, Blackbird, Song Thrush, Chaffinch and Tits. In winter the Alder trees provide seeds for Siskins and Redpolls.



*Fig. 3 Ash tree in Autumn beside one of the parks walking trails.*

The area of conifer plantation supports less species as they are densely planted together, however plans are in place to thin out some of the trees which will open up the woodland and allow ground flora to develop. Hedgerows are also a feature of the park and throughout the park there are stands of mature trees. There are a number of bird and bat boxes on trees throughout the park and these provide roost and nest sites for bats and birds.



**Fig. 4** Woodland carpeted in Bluebells- Abbeyfeale town Park

### **Grasslands**

There is an area of semi-natural grassland at the north-eastern end of the park which is known as “The Meadow”. This area of grassland supports a wide variety of wildflowers including Meadowsweet, Vetches, Hawkbits and Purple-loosestrife. Consequently it also supports lots of invertebrates including bees and butterflies. Butterflies recorded included Small Tortoiseshell (*Aglais urticae*), Small Copper (*Lycaena phlaeas*), Peacock (*Aglais io*), and Red Admiral. This type of grassland can be considered as semi-natural as it is not fertilized or mown regularly. The fact that it is not mown regularly allows flowers to set seed and regenerate.



**Fig. 5** Grasslands of “The Meadow”- Abbeyfeale Park

The grasslands also provide habitat for small mammals such as Bank Vole and Pygmy Shrew which are common in the park. The long grass is ideal nesting habitat for Bank Voles and it also provides an abundance of seeds and insects for both the Bank Vole and Pygmy Shrew.

This abundance of small mammals also attracts predators. During the day Kestrels are occasionally seen hovering over the grasslands looking for voles and mice, while at night Barn Owls have been seen hunting in the park.



*Fig. 6 Small Tortoiseshell butterfly on Thistle*

The grasslands of the park contain different species of flora and fauna at different times of the year and the fact that they are managed for wildlife helps conserve their biodiversity value.

### **Ponds and streams**

There is an artificial pond at the western end of the park which has an island in the middle of the pond with a crannog on it. This is primarily used as a duck pond with a resident population of domesticated ducks and geese. The pond is also home to wild birds such as Moorhen which nest in the reed beds at the fringes of the pond. Grey Heron is often seen hunting for fish in the pond with Kingfisher also occasionally seen. In summer migrant warblers such as Sedge Warbler and Grasshopper Warbler can be heard singing in the reed beds along the fringes of the pond.





**Fig.7** Pond with Moorhen.

There are also other smaller pond areas along the pathways that approach the pond and these provide ideal habitat for Common Frog and Smooth Newt. Good numbers of frog spawn can be found in these ponds during spring.

The verges of the ponds contain reed beds which provide nesting habitat for Moorhen, Reed Bunting and Sedge Warbler. Dragonflies and Damselflies such as Brown Hawker and Common Blue Damselfly are a common sight along the ponds during the summer months.

The ponds are fed by small streams which flow from the higher ground of the park into the ponds. This network of ponds and small streams increases the biodiversity value of the park as it provides habitat for aquatic and semi-aquatic species.

### **3.2.2 River Feale**

The River Feale that gives Abbeyfeale part of its name starts in Rockchapel, Co. Cork. The River Feale flows along the western edge of the town and is an important habitat for a variety of flora & fauna that live both in the river and along its margins. The river provides a natural wildlife corridor allowing species to move between different habitats as well as allowing populations to disperse.

Several tributaries flow into it, and in Abbeyfeale the Glorach, the Oolagh and Allaghaun join the main river. The Feale is part of Lower River Shannon SAC with Otter, Salmon, Kingfisher, lampreys and Freshwater pearl mussel amongst its Qualifying Interests. Lamprey numbers are generally low due to the spate character of the river. There are historical records of Freshwater pearl mussel but it is unclear if the species is still present; if so, the population is small, vulnerable and lacking a younger generation.

Habitats of interest within the SAC include 'Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation', 'Molinia meadows on calcareous, peaty or clayey-silt-laden soils' (*Molinion caeruleae*) and 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*' (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). Water plants are never abundant given the fast flow of the water but water starworts (*Callitriche sp*) and water crowfoots

(*Ranunculus sp*) are found in the Allaghaun, Oolagh and its headwaters in the wider Abbeyfeale area.

Dipper, Grey Wagtail and Sand Martin are widespread in the catchment, especially in the tributaries. Kingfisher is not common but is present along the Allaghaun and main Feale river. Otter spraints have been found along the Oolagh and main Feale river. Salmon numbers have declined enormously, as they have elsewhere in Ireland, but the species is still present. Trout are still fairly common.

The Allaghaun and Oolagh are relatively natural tributaries, still able to meander naturally and with good water quality. Invertebrate surveys carried out in several locations always result in stonefly, mayfly and cased caddisfly species that generally indicate good water quality. Other invertebrates found are the shore beetle *Elaphrus cupreus*, Water measurer and water crickets *Velia sp* (in still waters)



**Fig. 8** River Feale in summer.

Many flower rich banks have developed along the rivers, with Valerian particularly widespread along the Oolagh. Hemlock Waterdropwort, Watermint, Marsh Woundwort and Marsh Cinquefoil are just some of the other riparian wild flowers found in the catchment. Some stretches of riverbank have developed semi-natural woodland with willows and alder as dominant tree species.

Several non-native invasive plant species have invaded the catchment and are threatening native species. Himalayan Balsam is present all along the Oolagh, Allaghaun, Glorach and Feale river from the confluence of the Glorach onwards. Japanese Knotweed is present all along the Allaghaun with scattered populations along the Oolagh too. Himalayan Knotweed has mainly invaded the Owveg tributary and other areas. Crocosmia (Montbretia) is present along many roadsides in the Abbeyfeale area but has also invaded riverbanks, especially along the Oolagh tributary. Some stretches of riverbank are dominated by bramble and nettles, indicating eutrophication.



**Fig. 9** Earth bank on the River Feale.

On some sections of the river there are earth banks which support breeding colonies of Sand Martin during the summer months. There is an earth bank on a section of the river opposite Abbeyfeale Park which has a large colony of breeding Sand Martins. There are also other sections of the River Feale and Allaghaun around Abbeyfeale which support breeding Sand Martins making them one of the largest colonies in County Limerick.

Sand Martins are a member of the Swallow family, coming to Ireland for the summer months. They burrow into the earth banks and nest in a chamber at the end of the burrow. They are one of the first summer migrants to arrive in Ireland, usually arriving by mid March.

### **3.2.3 Ellis Wood**



**Fig. 10** *Ellis Wood.*

Ellis Wood is located on the slopes of Abbeyfeale Hill at the southern end of the town. It is a small woodland on private land that is not readily accessible and seldom visited by the public. It lies almost directly opposite Abbeyfeale Town Park, and can be best viewed from Moloneys petrol station on the Killarney road.

Ellis Wood is included in the study area because it is one of the best examples of a mature woodland that can be found in the Abbeyfeale area. There are fine specimens of mature Oak trees as well as Birch. This woodland can be classified as habitat type **Oak-birch-holly woodland WN1**.

This woodland is approximately 5 hectares in size but its ecological value cannot be overemphasized. It is a refuge for a variety of native flora and fauna some of which is scarce elsewhere around Abbeyfeale. Typical woodland flowers include Bluebells, Wood Anemone, Wood Sorrel, Opposite –leaved Golden Saxifrage and Woodrush. In spring the woodland is carpeted in Bluebells, comparable to the Oak woods of Killarney. The wood is also home to mammals such as Fox, Badger and Wood Mouse. A lot of dead wood is present here also which is important to a wide range of beetles, fungi etc.



**Fig.11** Bluebells on floor of Ellis Wood

A serious threat to the woodland is the spread of Cherry Laurel which has infested large sections of the woodland. This evergreen shrub forms dense thickets which shade out the ground floor preventing regeneration of flora and native tree species.

### ***3.2.4 The Limerick Greenway***



**Fig.12** *The Limerick Greenway, Abbeyfeale.*

The Limerick Greenway has been developed as a walking trail along a disused railway line. The starting point in Abbeyfeale is at the back of the railway bar on the Athea road, from here the walker or cyclist has the choice to go towards the Kerry border or if adventurous all the way to Rathkeale.

A section of the trail is included in the study area because of the diversity of flora and fauna that can be found along the trail. The trail is bordered in most places by grassy margins and hedgerows. Hedgerows can be described as linear woodlands and support a rich diversity of native flora and fauna. The grassy verges along the trail can be classified as habitat type **Dry meadows and grassy verges GS2**. These grassy margins support a surprising diversity of wildflowers, some of which are no longer found in the surrounding fields of improved agricultural grasslands. Orchids can be found on sections of the trail. The lack of fertilizer and low mowing regime enable flowers like orchids to grow along the trail. Other flowers recorded include Sneezewort, Goldenrod, Foxglove, Hogweed, Yarrow, Primrose, Ox-eye Daisy and Meadowsweet.



**Fig. 13** Bee-orchid on Greenway verges.



This variety of wildflowers also attracts a variety of pollinating insects which in turn provide food for a variety of bird species. Butterflies recorded included Peacock, Red Admiral, Speckled Wood and Small Tortoiseshell.

There are a few locations along the greenway where standing pools of water occur at the roadside verges, these provide breeding habitat for Common Frog and Smooth Newt. Birds of prey such as kestrel, Sparrowhawk and Barn Owl have been recorded hunting along the greenway which is an indication that the hedgerows and grassy margins contain an abundance of small mammals and birds.

The margins of the greenway provide a wildlife corridor allowing species to move between habitats. The greenway margins are also a refuge for a number of species of flora that are scarce in the surrounding countryside.

Invasive species present along the Greenways are Japanese Knotweed, Crocosmia, Himalayan Balsam, Cherry Laurel, Rhododendron ponticum

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



**Fig.14** Building on Main street

Buildings can provide shelter and nest sites for a variety of insects, mammals and birds. Birds that commonly use buildings as nest sites include Swift, Swallow, House

Martin, Starling, House Sparrow and Jackdaw. All of these species can be found nesting in buildings in Abbeyfeale. House Martin nests can be found under the eaves of houses around the town, particularly in some of the housing estates.



**Fig.15** House Martin nest under the eaves of a house.

Swallows nest inside sheds and other buildings that they can access while Starlings and House Sparrows will nest under roof tiles and holes in the fascia and soffit of buildings. Jackdaws use disused chimney pots to build a nest.

Swifts use a number of buildings in the town as nest sites, such as the building pictured above in Fig.12. They nest in the roof space and so need cracks and crevices to be available on the building between the wall and the roof. They are a highly aerial bird spending most of their time on the wing. They can be seen and heard during the summer months whirling over the streets of the town.

### 3.2.6 Housing estates and suburban gardens



**Fig.16** Cryle view housing estate

There are numerous housing estates in Abbeyfeale and the majority of them contain a variety of habitats including areas of parkland with scattered trees, dry grassy verges, patches of woodland and suburban gardens. This mixture of buildings, gardens, parkland and woodland provides habitat for a variety of species making the housing estates of Abbeyfeale a surprisingly important area for biodiversity.

Suburban gardens contain a variety of trees, shrubs and flowers, most of these are non natives and exotics but plants such as *Cotoneaster sp.* and *Berberis sp.* provide nectar for pollinating insects, and berries in autumn for birds and small mammals.

Evergreen shrubs and hedges in gardens provide shelter and nest sites for Robin (*Erithacus rubecula*) Wren (*Troglodytes troglodytes*), Blackbird (*Turdus merula*) and Song Thrush (*Turdus philomelos*).

The open grassy areas with scattered trees and patches of scrub and woodland also provide feeding areas and nest sites for a number of bird species. Overall the housing estates of Abbeyfeale are an important habitat type for a variety of wildlife and they also have the potential to have their biodiversity value increased. The addition of bird boxes and changes in the mowing regime of the grassy areas, to allow certain areas of grass grow long could increase the biodiversity value of the estates. More information and recommendations on this will be included in the Recommendations section of this report.

### ***3.2.7 Other Habitats***

Other habitats that occur within the study area include **Improved agricultural grassland (GA1)** which comprises a large proportion of the surrounding landscape. These grasslands are species poor having been reseeded and heavily fertilized. They are predominantly used for dairy farming and silage making.

#### ***Dry meadows and grassy verges GS2***

This type of habitat occurs along the grassy verges of the approach roads, and in areas of amenity grassland that had been left unmanaged such as in some of the open green areas of housing estates.

#### ***Amenity grasslands GA2***

This type of habitat can be found in the playing fields of the town such as the GAA, soccer and rugby pitches. These grasslands are species poor as they have been reseeded and are mown regularly. The open green areas of the housing estates can also be classified as amenity grassland. Playing fields are used by thrushes such as Blackbird and Song Thrush and in winter the gaa and rugby pitches sometimes have

large flocks of Redwing and Fieldfare feeding on them. In summer Swallows and Martins hawk for insects over the open spaces. Apart from these few species of birds, amenity grasslands have very little value for wildlife, especially the playing pitches.

### **3.3 Animals and plants of Abbeyfeale**

This section highlights some interesting plant and animal species that were recorded during the survey period in the Abbeyfeale area.

#### **3.3.1 Plants**

The most interesting plants in Abbeyfeale can be found in its wetlands and woodlands. Native bluebells thrive in the town park, in Ellis Wood and along wooded stretches of the riverbank. Other woodland flora include Wood Avens, Bugle, Enchanter Nightshade, Pignut, Foxglove, Goldenrod, Primrose, Wood Anemone, Wood Sage and Wood Sorrel.



**Fig. 17** *Bombus sylvestris* bumblebee on Meadow Thistle.

Meadow Thistle is present in the town park but is uncommon locally. It is an important flower for pollinators especially bumblebees.

In wetland habitat wild flowers like Purple Loosestrife, Meadowsweet, Figwort, Marsh Bird's foot Trefoil, Valerian, Water mint, Square-stalked St John's Wort and Brooklime can be found. Marsh Cinquefoil is only present in a few locations. Marsh Cinquefoil is important for bumblebees as it offers abundant and concentrated nectar<sup>1</sup>. Many of these wetland flowers can also be found along roadsides along with Knapweed and Oxeye Daisy.



**Fig. 18** *anaspis rufilabris* pollen beetles on Irish Spurge

Abbeyfeale is close to the northern edge of the distribution area of Irish Spurge. Irish Spurge is only found in the Southwest of Ireland.

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<sup>1</sup> *Pollen and nectar quality drive the major and minor floral choices of bumble bees*, Somme et al 2014

Along certain parts of the River Oolagh some boggy wetlands feature Marsh Violets, Devil's bit scabious, Lousewort, star sedge. Water purslane was found on two locations along the Oolagh. Common spotted Orchids can be plentiful (greenway, town park, graveyard) The bee orchid was found along the greenway near the Railway Bar.

Aspen trees are found in the town park and along the Limerick Greenway. An old Wild Pear tree is present along the Limerick Greenway. Although not native, it is a rare tree with high biodiversity value. One old Spindle tree is present along the Greenway, with another one planted in the town park.

### 3.3.2 Invertebrates

#### ***Insects with aquatic larvae - Stoneflies, Mayflies and Caddisflies***

Caddisflies in the area include *Philopotamus montanus*, *Hydrophyche siltalai*, *Rhyacophila dorsalis*, and *Glossomomatidae sp.* Mayflies include *Rhitrogena semicolorata*, *Ecdyonurus insignis*, *Baeits rhodani*.



**Fig. 19** Mayfly larva *Ecdyonurus sp*

Stoneflies include *Chloroperla tripunctata*, *Siphonoperla torrentium*, *Leuctra fusca*, *Protonemura meyeri*. The presence of these species indicate good water quality. In the town park *Niphargus sp* was also found, a 'groundwater shrimp'.

### ***Odonata- Dragon- and damselflies***

Banded Demoiselle can be found in the town park, whilst the Beautiful Demoiselle is found along the Oolagh and Allaghaun. Eight other dragon-/damselfly species are found in the area.



**Fig. 20** Four-spotted chase Dragonfly- Limerick Greenway.



### ***Hemiptera - True Bugs***

Eight different shieldbug species are found in the area with the predatory Blue Shieldbug (Kilmorna) the most notable of those. Various other true bugs have been found including *Dicyphus pallicornis* (on foxglove, Ellis wood), *Pantilius tunicatus* (on grey alder, biodiversity park), *Pithanus maerkelii* (Cedarville estate), *Kleidocerys resedae* (town park, birch) and *Metatropis rufescens* (town park, greenways).

### ***Neuroptera – Lacewings***

The Giant Lacewing is present along the Feale along with other, brown (*Micromus variegatus* and *M. paganus*) and green lacewing species.

### ***Lepidoptera - Butterflies and moths***

Fourteen species of butterfly are found, including Small Copper. The rare Marsh Fritillary has not been found in Abbeyfeale but has been recorded near Athea and, more recently, near Lixnaw.



**Fig. 21** Herald moth.

### ***Hymenoptera - Bees, wasps and sawflies.***

Nine different bumblebee species have been found in Abbeyfeale although one, *Bombus muscorum*, was not found in 2022 nor in 2023. Its population may have disappeared as has happened many other inland populations of this uncommon bumblebee. Two cuckoo bumblebee species, *B. bohemicus* and *B. sylvestris*, are still found along with plentiful *Bombus jonellus*, a bumblebee that is locally more common than *B. lapidarius*, unlike the rest of the country. Some bumblebees fall prey to the Conopid fly *Sicus ferruginous* (town park, Kilmorna)

Several solitary bees made their home in Abbeyfeale amongst which various mining bees (*Andrena bicolor*, *clarkella*, *minutula*, *cinerarea*), their cleptoparasites *Nomada* sp (*leucophthalma*, *marshamella*, *flavoguttata*), *Lasioglossum* sp, *Halictus rubicundus* and leafcutter bees (*Megachile* sp). Various potter wasps, ichneumon wasps, Chrysid wasps and sawflies are also present.

### ***Diptera – flies***

Several hoverflies are widespread and common in the area, with *Sericomyja superbiens* (Limerick Greenway), *Sericomyja lappona* (bog near Oolagh) *Baccha elongata*, *Melangyna lasiophthalma*, *Leucozona lucorum*, *L. glauca* and *Dasysyrphus tricinctus* amongst the more notable ones. Other flies have not been researched but occasional finds include *Chrysopilus cristatus*, *Herina frondescentiae*, *Tachydromia* sp, *Empis tessellata*, *Geomyza tripunctata*, *Calliphora vicina*

## **Beetles**

Four different tortoise beetle species (Cassidae) have been found in the area, amongst which the rare *Cassida hemisphaerica*. This rare leaf beetle is associated with Red Campion and Ragged Robin. Many other leaf beetles are present. Abbeyfeale is home to ten different ladybird species including Eyed and Larch Ladybird. Various weevils are found including dock weevil *Hypera rumicis* and Figwort weevil *Cionus hortulanus*. The Ant beetle *Thanasimus formicarius* was found in Kilmorna.

### **3.3.3 Amphibians and Reptiles**

There are only 3 species of Amphibians in Ireland; Smooth Newt, Common Frog and Natterjack Toad. Both the Smooth Newt and Common Frog were recorded during surveys with the Town Park being the best place to see frog spawn and adult Smooth Newts. The Natterjack Toad is rare and only found in parts of Kerry, so was not expected to be recorded. One species of Lizard in Ireland which has been recorded in Cedarville Estate.

### **3.3.4 Birds**

A total of 55 species of bird were recorded in the Abbeyfeale area. Most of these were common resident species but some notable species were also recorded. Red List species are those that are of high conservation concern as determined by Birds of Conservation Concern Ireland 2020-2026 assessment. Birds recorded in the Abbeyfeale area that are on the Red List include: Swift, Barn Owl, Kestrel, Meadow Pipit and Grey Wagtail. A number of conservation measures are outlined in the

recommendation section of this report to help conserve these Red List species in Abbeyfeale.

Birds of Prey recorded include Sparrowhawk, Kestrel, Buzzard and Hen Harrier. The nearby Stacks to Mullagharierk Mountains and West Limerick Hills Special Protection Area (SPA) is designated for Hen Harrier, this is a rare ground nesting bird of prey that breeds in upland areas. It is occasionally seen hunting over areas of bog/rough grassland around Abbeyfeale. It does not breed within the Abbeyfeale area but it is a notable species for the study area.

Barn Owl and Kestrel were also recorded within the study area, these species would need to be surveyed specifically, in order to get a more accurate idea of their numbers within the Abbeyfeale area.

Summer migrants include Swallow, Swift, House Martin, Sand Martin, Warblers and Cuckoo which can be heard calling in boggy areas. Winter sees an influx of thrushes such as Redwing and Fieldfare.

### 3.3.5 Mammals

Common Name	Scientific Name	Legislation
Daubentons Bat	<i>Myotis daubentonii</i>	Habitats Directive Annex IV
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	Habitats Directive Annex IV
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	Habitats Directive Annex IV
Leislers Bat	<i>Nyctalus leisleri</i>	Habitats Directive Annex IV
Otter	<i>Lutra lutra</i>	Habitats Directive Annex IV
Pine Marten	<i>Martes martes</i>	Wildlife Acts
Badger	<i>Meles meles</i>	Wildlife Acts
Hedgehog	<i>Erinaceus europaeus</i>	Wildlife Acts
Irish Stoat	<i>Mustela erminea</i> subsp. <i>hibernica</i>	Wildlife Acts
Irish Hare	<i>Lepus timidus</i>	Wildlife Acts

**Table 2.** Protected mammal species in Abbeyfeale area

Four species of Bat were recorded in the Abbeyfeale area; Common and Soprano Pipistrelle, Leislers`Bat and Daubentons Bat. The Town Park is a good place to see all four species. Daubentons bat can be seen hunting insects over the river Feale and over the large pond in the park.

Other protected species recorded were Pine Marten, Badger, Irish Hare, Irish Stoat and Hedgehog. Active Badger setts were recorded from a few different locations within the Abbeyfeale area. Pine Marten have been seen in conifer plantations within the study area and are a welcome sight as there numbers had declined in previous years.

Rabbit, Bank Vole, Woodmouse, Mink and Pygmy Shrew but these do not have the same level of legislative protection as those species in Table 2.

### **3.4 Threats to Biodiversity of Abbeyfeale**

During the study period a number of issues that could negatively impact on the biodiversity of Abbeyfeale were identified. Measures need to be put in place, to deal with these issues and conserve and enhance the biodiversity value of Abbeyfeale.

The following issues were identified:

- **Non –native species** A number of non-native invasive species were recorded in the study area. These included Japanese Knotweed ( *Fallopia japonica*), Montbretia (*crocasmia*), Himalayan Balsam (Imatiens glandulifera), Cherry Laurel (*Prunus laurocerasus*) and American Mink (*Mustela vison*).

Japanese Knotweed was recorded in a few locations within the town including private houses and on waste ground. Montbretia was recorded along the

hedgerows on some of the approach roads. American Mink are known to occur within the area particularly along the river. Cherry Laurel is a huge problem in Ellis Wood and is also in Abbeyfeale Park. Management plans should be put in place to eradicate or control these species as they pose a threat to native biodiversity.

- **Herbicide use** Inappropriate use of herbicides such as Round-up poses a threat to biodiversity. It can adversely affect flowers, insects and amphibians as well as aquatic invertebrates if it enters the aquatic environment. It was noticeable in certain areas that Round-up had been used on paths and public areas as well as private areas. Where possible the use of herbicides should be limited and in public places should be stopped altogether.
- **Intensive mowing/cutting of grassy areas** In some areas there is a tendency to regularly mow open grassy areas such as in housing estates and areas of the park. Also some of the grassy earth banks and roadside verges are also regularly mown. While it may look neat and tidy regular mowing means that wildflowers don't get a chance to go to seed and these areas consequently support lower numbers and diversity of invertebrates. A less intensive mowing regime could be put in place.

Recommendations and management plans to deal with these issues are included in section 4 of this report.

#### **4. Recommendations**

Following the identification of habitats and associated flora and fauna, a number of recommendations are made for Abbeyfeale Community Council. These recommendations will provide Abbeyfeale Community Council with a strategic plan to achieve their aims and objectives for wildlife and natural amenities in Abbeyfeale.

These objectives are:

- To preserve and enhance the habitats within Abbeyfeale
- To raise awareness and appreciation of biodiversity amongst the people of Abbeyfeale
- To actively involve the local community in wildlife and nature projects.
- To develop a number of nature trails with wildlife information signs.

## **4.1 Recommendations to conserve and enhance Biodiversity of Abbeyfeale**

### ***4.1.1 Control of non native species***

Invasive non-native plant and animal species pose the second greatest threat to biodiversity worldwide after habitat loss. Native species can be negatively impacted and habitats transformed, resulting in a decrease in biodiversity.

In Abbeyfeale there are a number of non-native species that have the potential to threaten habitats and native species. These non- native species are Japanese Knotweed, Himalayan Balsam, Cherry Laurel and American Mink. The following recommendations are made to control, manage and eradicate where possible.

#### **Japanese Knotweed**

Japanese Knotweed poses a serious threat to native flora and fauna. It grows vigorously and out-competes native plants. Japanese knotweed forms tall thickets that exclude all other vegetation, shading the area below. Native plants can rarely compete with this invasive species and local plant biodiversity is reduced. Japanese knotweed can also seriously damage buildings, hard surfaces and infrastructure in some cases. Once established underneath or around the built environment, it can be particularly hard to control, in some cases growing through concrete and tarmac and other areas of hard-standing. When Japanese knotweed colonises riverbanks, it can damage flood defense structures and reduce the capacity of channels to carry flood water.

In Abbeyfeale a lot of work has already been done by Feale Biodiversity; a local conservation organization towards removing invasive species from the Feale River catchment area.

The following provides a summary of the key impacts of the species:

- Excludes native species;
- Dies back in winter leaving river banks vulnerable to erosion;
- Subsequent potential sedimentation impact on fish spawning areas;
- In cases it can damage building foundations;
- Collects litter in urban areas; and
- Can damage hard surfaces by growing through them.



**Fig.20** Japanese Knotweed in March



**Fig. 21** Japanese Knotweed in June

For active removal of invasive species priority should be given to those threatening the most natural habitats, the riverbanks and Ellis Wood. Species that spread along the waterways should be tackled from their source downwards as is done by local project Feale Biodiversity.



Feale Biodiversity has done a lot of work mapping the locations of Japanese Knotweed within the Abbeyfeale area. It is recommended that funding be sourced to enable identified areas of Japanese Knotweed to be professionally treated and eradicated.

### **Himalayan Balsam**

Himalayan Balsam was also recorded in the Abbeyfeale area, again a lot of work has been done by Feale Biodiversity to remove this plant from infested areas. This is much easier to control than Japanese Knotweed as the plant can simply be pulled from the ground, more volunteers would greatly help in removing Balsam from affected areas.

### **Cherry Laurel**

Cherry Laurel is another non native species that is commonly used as a hedging plant in gardens. It poses no problems in gardens as it is kept in check but if it gets into woodland it will grow wild and can become very invasive.

Cherry Laurel was recorded in Abbeyfeale Park and in other small patches of woodland throughout the town. It is not a big problem yet in Abbeyfeale Park so it is recommended that it should be removed from the park while it is still relatively unproblematic.

Ellis Wood has a huge problem with Cherry Laurel and is heavily infested. This wood is on private land but if possible it is highly recommended that a long term project should be put in place to save this Oak woodland as it is of high ecological value in the local area. This project will require a lot of planning and funding as well as consultation with the landowners. It is a project that could be put in motion over the coming years as there is no short term solution to saving this woodland.

#### ***4.1.2 Barn Owl nest box scheme***

Due to declines in its population and range the Barn Owl is a Red list species on the Birds of Conservation Concern Ireland (BOCCI) meaning that it is of high conservation concern. Intensification of farming and lack of suitable nest sites such as old stone farm buildings, and the increased use of rodenticides has contributed to its decline. It has long been linked to farming practices in Ireland and is known as the farmers friend as its diet is mainly rodents.

Barn Owls were sighted on a few occasions within the Abbeyfeale area and there is plenty of suitable habitat for foraging Barn Owls. Lack of suitable available nest sites is most likely the main factor determining the number of Barn Owls in the area. Birdwatch Ireland has over 100 occupied Barn Owl nest boxes throughout the country and Barn Owls take well to them once they are suitably located.

It is recommended that a Barn Owl project should be undertaken in the Abbeyfeale area. This would involve:

- Surveying existing roost and nest sites to determine numbers of Barn Owls in the area.
- Surveying the area for potential nest box site locations.
- Making and installing a number of Barn Owl nest boxes.
- Monitoring over the coming years.

This project could involve local groups such as Abbeyfeale Mens Shed, who could make the nest boxes, landowners/farmers who would be interested in having a nest box on their farm.

The local community could also be encouraged to report any Barn Owl sightings to the project coordinator.

### **4.1.3 Swift nest box scheme**

Swifts are a summer visitor to Ireland and are also Red listed due to the fact that their population has declined by 40% since 2008. They are similar to swallows but are bigger with much longer wings. They can be heard calling in flight over the town during the summer months

They nest in small cavities in buildings and in the eaves of buildings; however modern buildings provide little in the way of cavities for suitable nest sites. Swifts currently nest on certain buildings in Abbeyfeale but there are other buildings that could become suitable nest sites with the addition of Swift nest boxes. The local secondary school and Kostal factory are two such locations.

### **4.1.4 Creation of wildlife corridors**

An ecological network linking the town park, Ellis Wood, the greenways and other semi-natural areas will greatly benefit all wildlife in and around Abbeyfeale. Target species should be chosen before developing the corridors e.g. Marsh Fritillary butterfly which needs many Devil's Bit Scabious in its sites amongst other requirements.

### **4.1.5 Town Park Biodiversity Management Plan**

The town park in Abbeyfeale is a jewel that should be cherished as it is a biodiversity hotspot with a range of different habitats and associated species. In order to ensure the preservation and enhancement of the habitats and species of the park it is recommended that a Biodiversity management plan be developed for the Town Park and that the area known as the meadow be re-installed.

#### **4.1.6 Mowing regime for green areas**

##### **More 'mini' meadows**

Many public green areas within housing estates are currently managed like a lawn. If these would be cut less often, a more diverse vegetation will develop which will benefit pollinators and other wildlife. Sections could be allowed grow with the perimeters cut to show that it is managed.

#### **4.2 Recommendations to raise awareness of Biodiversity within Abbeyfeale**

A number of recommendations are made to help raise awareness of biodiversity amongst the local community. Unless people are aware of the habitats and wildlife that exists in their own area then they are less likely to appreciate it and conserve it. The following are recommended to help raise awareness of biodiversity within Abbeyfeale.

##### ***4.2.1 Wildlife information signs***

It is highly recommended that a number of wildlife information signs should be put up around the town. Abbeyfeale Park in particular would be an ideal place for a number of wildlife signs highlighting flora and fauna that can be found in the park.

Another are that should be considered is the River Feale and Allaghaun River. A sign could be put near the bridges over the rivers highlighting some typical species of the rivers such as Salmon, Otter and Kingfisher.

#### ***4.2.2 Biodiversity Park***

A Biodiversity Park has been developed on a section of disused ground at the end of New Street. The park is 0.22 Hectatres in size and has a pond, wildflower area and some trees. There is also a fabricated shed on site that can be used as an outdoor classroom. The park is ideally located for the local National schools as it is within walking distance. The local national schools should be the first step in raising awareness of biodiversity. If kids develop an interest and understanding of the natural world around them, then they are more likely to grow up with a better appreciation and understanding of the importance of nature and biodiversity.

It is recommended that the Biodiversity Park should be further developed as an outdoor classroom facility for local national schools. This will require the purchase of equipment such as microscopes, binoculars and wildlife surveying equipment and id charts. Lesson plans could also be developed for school visits that would enable teachers to take the children on educational visits to the park, learning about local plants and animals. The development of the Biodiversity Park as an outdoor classroom would greatly increase awareness of biodiversity for years to come.

#### ***4.2.2 Raising awareness in the local community***

- Raising awareness in the local community about the wildlife in Abbeyfeale is also very important for wildlife and habitat conservation. If people are not aware of what wildlife and habitats exist in Abbeyfeale, then they are less likely to appreciate them. The following recommendations are made to achieve this:

- Work together with residence committees (Clash/Collins Park/Cedarville/Ellis Wood/..) to enhance biodiversity value of the various estates through wild flower friendly cutting regime of public greens and installation of bird boxes, bat boxes, bee hotels, hedgehog homes etc.
- Work together with men shed to make various wildlife boxes
- Establish a curriculum for and with the local schools for use of Biodiversity Park and Town park
- Work together with Limerick City and County Council on wildlife friendly roadside management and targeting invasive plant species along roadsides and greenways
- Organise guided nature walks throughout the year in the different habitats, such as the woodlands of the park or the River Feale.
- Develop a facebook page specifically for wildlife, where people can report wildlife sightings and post photos. Keep a record of all wildlife sightings and submit to the National Biodiversity Data Centre.
- Organise environmental summer camps for kids during the summer holidays. These could be held in Abbeyfeale Town Park.

## **5.0 References**

Fossitt, J., 2000. A Guide to Habitats in Ireland. 2007 ed. Dublin: The Heritage Council.

## Appendix 1

List of Flora and Fauna recorded in Abbeyfeale and its environs during the study  
period Jan 2023 -November 2023

### Dragon- and damselflies – Odonata (10)

Banded demoiselle	<i>Calopteryx splendens</i>
Beautiful demoiselle	<i>Calopteryx</i>
Large red damselfly	<i>Pyrrhosoma nymphula</i>
Common bluetip	<i>Ischnura elegans</i>
Azure damselfly	<i>Coenagrion puella</i>
Common blue damselfly	<i>Enallagma cyathigerum</i>
Hairy dragonfly	<i>Brachytron pratense</i>
Four-spotted chaser	<i>Libellula quadrimaculata</i>
Common darter	<i>Sympetrum striolatum</i>
Emperor dragonfly	

### Grasshoppers – Orthoptera (3)

Common green grasshopper	<i>Omocestus viridulus</i>
Field grasshopper	<i>Chortippus brunneus</i>
Slender groundhopper	

### True bugs - Hemiptera (58)

Hawthorn shieldbug	<i>Acanthosoma haemorrhoidale</i>
Birch shieldbug	<i>Elasmostethus interstinctus</i>
Parent bug	<i>Elasmucha grisea</i>
Juniper shieldbug	<i>Cyphostethus tristriatus</i>
Hairy shieldbug	<i>Dolycoris baccarum</i>
Forest shieldbug	<i>Pentatoma rufipes</i>
Green shieldbug	<i>Palomena prasine</i>
Gorse shieldbug	<i>Piezodorus lituratus</i>
Bronze shieldbug	<i>Troilus luridus</i>
Spiked shieldbug	<i>Picromerus bidens</i>
Blue shieldbug	<i>Zicrona caerulea</i>
Common damsel bug	<i>Nabis rugosis</i>
Marsh damsel bug	<i>Nabis limbatus</i>
Heath damsel bug	<i>Nabis ericetorum</i>
	<i>Dicyphus errans</i>
	<i>Dicyphus epilobii</i>
	<i>Dicyphus pallicornis</i>
	<i>Campyloneura virgula</i>



	Pantilius tunicatus
	Phytocoris sp
	Stenotus binotatus
	Liocoris tripustulatus
	Closterotomus norvegicus
	Grypocoris stysi
	Neolygus contaminates
	Orthops campestris
	Pithanus maerkelli
	Stenodoma laevigata
	Stenodoma holsata
	Notostira erratica
	Leptopterna dolabrata
	Leptopterna ferra
	Heterotoma planicornis
	Orthotylus cf. flavinervis
	Orthotylus ericetorum
	Plagiognathus arbustorum
	Psallus haematodes
Birch catkin bug	Kleidocerys resedae
	Kleidocerys ericae
	Chilacus typhae
	Metatropis rufescens
Spear thistle Lacebug	Tingis cardui
Water cricket	Velia caprai
Water scorpion	Nepa cinerea
Backswimmer	Notonecta sp
Lesser water boatman	Corixa sp
Water measurer	Hydrometra stagnorum
Common froghopper	Philaenus spumarius
	Evacanthus interruptus
	Kybos butleri
	Eupteryx aurata
	Javesella discolor
	Tachycixius pilosus
	Psylla alni
	Psyllopsis cf. fraxini
	Tuberolachnus salignus
Common Sycamore aphid	Drepanosiphum platanoides
	Uroleucon jaceiicola

### Lacewings – Neuroptera (3)

Giant lacewing	<i>Osmylus fulvicephalus</i>
	<i>Micromus variegatus</i>
	<i>Micromus pagana</i>

## Butterflies – Lepidoptera (14)

Real's wood white	<i>Leptidae reali</i>
Small white	<i>Pieris rapae</i>
Large white	<i>Pieris brassicae</i>
Green-veined white	<i>Pieris napi</i>
Orange-tip	<i>Anthocharis cardamines</i>
Small Copper	<i>Lycaena phlaeas</i>
Common Blue	<i>Polyommatus icarus</i>
Red Admiral	<i>Vanessa Atalanta</i>
Peacock	<i>Inachis io</i>
Painted lady	<i>Cynthia cardui</i>
Small Tortoiseshell	<i>Aglais urticae</i>
Meadow brown	<i>Maniola jurtina</i>
Speckled wood	<i>Pararge aegeria</i>
ringlet	<i>Aphantopus hyperanthus</i>

## Moths – Lepidoptera (83)

Currant clearwing	<i>Synanthedon tipuliformis</i>
drinker	<i>Euthrix potatoria</i>
Fox moth	<i>Macrothylacia rubi</i>
emperor	<i>Saturnia pavonia</i>
Peach blossom	<i>Thyatira batis</i>
Buff arches	<i>Habrosyne pyritoides</i>
March moth	<i>Alsophila aescularia</i>
Common Emerald	<i>Hemithea aestivaria</i>
Vestal	<i>Rhodometra sacraria</i>
Flame carpet	<i>Xanthroroe designata</i>
Red twin spot carpet	<i>Xanthorhoe spadicearia</i>
Silverground carpet	<i>Xanthorhoe montanata</i>
Shaded broad bar	<i>Scotopteryx chenopodiata</i>
Common carpet	<i>Epirrhoe alternata</i>
Yellow shell	<i>Camptogramma bilineata</i>
streamer	<i>Anticlea derivata</i>
Small phoenix	<i>Ecliptopera silaceata</i>
Common marbled carpet	<i>Chloroclysta truncata</i>
Green carpet	<i>Colostygia pectinataria</i>
July highflyer	<i>Hydriomena furcata</i>
Ruddy highflyer	<i>Hydromena ruberata</i>
V-pug	<i>Chloroclystis v-ata</i>
magpie	<i>Abraxis grossulariata</i>
Clouded border	<i>Lomaspilis marginata</i>
Latticed heath	<i>Chiasmia clathrata</i>
Brimstone moth	<i>Opisthograptis luteolata</i>
Early thorn	<i>Selenia dentaria</i>
Pale brindled beauty	<i>Apocheima hispidaria</i>

Scalloped hazel  
Peppered moth  
Poplar hawkmoth  
Hummingbird hawkmoth  
Elephant hawkmoth  
Lesser swallow prominent  
Buff-tip  
Buff footman  
Garden tiger  
White ermine  
Buff ermine  
Ruby tiger  
Cinnabar  
Flame shoulder  
Large Yellow underwing  
Setaceous Hebrew character  
Cabbage moth  
Dot moth  
Broom moth  
Bright-line-brown-eye  
Black rustic  
Hebrew character  
Square spot rustic  
Small wainscot  
Pale pinion  
Green-brindled crescent  
Merveille du Jour  
Red-line quaker  
Centre-barred sallow  
Alder moth  
Grey Dagger  
Old lady  
Angle shades  
Small Angle shades  
Double-lobed  
Common rustic  
Small wainscot  
Rosy rustic  
Frosted orange  
Burnished brass  
Gold spot  
Silver y  
Beautiful golden Y  
Herald  
Small magpie  
Common plume  
Beautiful plume

*Odontopera bidentata*  
*Biston betularia*  
*Laothoe populi*  
*Macroglossum stellatarum*  
*Deilephila elpenor*  
*Pheosia gnoma*  
*Phaeria becuphala*  
*Eilema depressa*  
*Arctia caja*  
*Spilosoma lubricipeda*  
*Spilosoma luteum*  
*Phragmatobia fuliginosa*  
*Tyria jacobaeae*  
*Ochropleura plecta*  
*Noctua pronoba*  
*Xestia c-nigrum*  
*Mamestra brassicae*  
*Melanchra persicaria*  
*Melanchra pisi*  
*Lacanobia oleracea*  
*Aporophyla nigra*  
*Orthosia gothica*  
*Xestia xanthographa*  
*Chortodes pygmina*  
*Lithophane hepatica*  
*Allophyes oxyacanthae*  
*Dichonia aprilina*  
*Agrochola lota*  
*Atethmia centrago*  
*Acrionicta alni*  
*Acrionicta psi*  
*Mormo maura*  
*Phlogophora meticulosa*  
*Euplexia lucipara*  
*Apamea phiogramma*  
*Mesapamea secalis*  
*Chortodes pygmina*  
*Hydraecia micacea*  
*Gortyna flavago*  
*Diachrysia chrysitis*  
*Plusia festucae*  
*Autographa gamma*  
*Autographa pulchrina*  
*Scoliopteryx libatrix*  
*Anania hortulata*  
*Emmelina monodactyla*  
*Amblyptilia acanthadactyla*  
*Ancylis badiana*

*Bactra lancealana*  
*Incurvaria masculella*  
*Adela reaumurella*  
*Depressaria daucella*  
*Epiblema sticticana*  
*Epinotia ramella*

#### **Caddisflies Trichoptera (4)**

*Polycentropididae sp*  
*Glossosomatidae sp*

*Philopotamus montanus*  
*Hydropsyche siltalai*  
*Rhyacophila dorsalis*  
?  
?  
*Limnephilus marmoratus*

#### **Bees – Hymenoptera (21)**

Garden bumblebee  
Heath bumblebee  
Buff tailed bumblebee  
White tailed bumblebee  
Early Bumblebee  
Common carder bee  
Large carder bee  
Red-tailed bumblebee  
Gypsy cuckoo bee  
Forest cuckoo bee  
Early mining bee  
Ashy mining bee

*Bombus hortorum*  
*Bombus jonellus*  
*Bombus lucorum*  
*Bombus terrestris*  
*Bombus pratorum*  
*Bombus pascuorum*  
*Bombus muscorum*  
*Bombus lapidarius*  
*Bombus bohemicus*  
*Bombus sylvestris*  
*Andrena haemorrhoa*  
*Andrena cineraria*  
*Andrena bicolor*  
*Andrena clarkella*  
*Andrena minutula*  
*Nomada leucophthalma*  
*Nomada marshamella*  
*Nomada flavoguttata*  
*Lasioglossum sp*  
*Halictus rubicundus*  
*Megachile sp*

Leafcutter bee

#### **Wasps Hymenoptera 6**

*Ancistrocerus oviventris*  
*Symmorphus bifasciatus*  
*Ectemnius continuus*  
*Diphyus sp ( probably D. palliatorius)*  
*Chrysis sp.*

Oak artichoke

*Andricus foecundatrix*

**Sawflies Hymenoptera (5 – underrecorded!)**

*Heterarthrus vagans*  
*Tenthredo celtica*  
*Tenthredo mesomelas*  
*Tenthredo colon*  
*Diprion pini*

**Flies Diptera (28)**

*Syrphus ribesii*  
*Epistrophe eligans*  
*Leucozona glauca*  
*Leucozona lucorum*  
*Melangyna lasiophthalma*  
*Platycheirus albimanus*  
*Platycheirus granditarsa*  
*Platycheirus rosarum*  
*Volucella bombylans*  
*Xylota segnis*  
*Helophilus pendulus*  
*Sericomyia silentis*  
*Sericomyia lappona*  
*Sericomyia superbiens*  
*Neoascia podagrica*  
*Baccha elongata*  
*Eristalis pertinax*  
*Eristalis tenax*  
*Eristalis intricarius*  
*Eristalis arbustorum*  
*Eristalis nemorum*  
*Dasysyrphus tricinctus*  
*Chrysopilus cristatus*  
*Herina frondescentiae*  
*Tachydromia sp*  
*Empis tessellata*  
*Geomyza tripunctata*  
*Calliphora vicina*

**Beetles – coleoptera (50)**

Sausage ground beetle

*Carabus granulatus*  
*Oreodytes sanmarkii*

Whirligig beetle

*Gyrinus sp*

Sexton beetle	<i>Elaphrus cupreus</i>
	<i>Nicrophorus vespillo</i>
	<i>Nicrophorus humator</i>
Devil's coach horse	<i>Ocyopus olens</i>
	<i>Staphylineus dimidiaticoris</i>
	<i>Philonthus sp</i>
	<i>Rhagonycha fulva</i>
	<i>Cantharis rustica</i>
	<i>Cantharis cryptarum / pallida</i>
	<i>Malthodes sp</i>
	<i>Lagria hirta</i>
	<i>Athous sp</i>
	<i>Ctenicera cuprea</i>
	<i>Anaspis frontalis</i>
Green dock leaf beetle	<i>Gastrophysa viridula</i>
	<i>Chrysolina banksi</i>
	<i>Plateumaris sericea</i>
	<i>Hydrotrassa marginella</i>
	<i>Lochmaea suturalis</i>
	<i>Lochmaea crataegi</i>
	<i>Phratora vitellinae</i>
	<i>Aphthona nonstriata</i>
	<i>Altica lythri</i>
	<i>Cassida hemisphaerica</i>
	<i>Cassida viridis</i>
	<i>Cassida flaveola</i>
	<i>Cassida rubiginosa</i>
	<i>Thamiocolus viduatus</i>
	<i>Cytilus sericeus</i>
	<i>Nanophyes marmoratus</i>
	<i>Tachyetes salicis</i>
	<i>Cionus hortulanus</i>
	<i>Orobites cyaneus</i>
	<i>Hypera rumicis</i>
Pine weevil	<i>Hylobius abietis</i>
Vine weevil	<i>Otiorhynchus sulcatus</i>
	<i>Phosphuga atrata</i>
Ant beetle	<i>Thanasimus formicarius</i>
2 spot ladybird	<i>Adalia bipunctata</i>
7spot ladybird	<i>Coccinella 7-punctata</i>
10 spot ladybird	<i>Adalia 10-punctata</i>
14 spot ladybird	<i>Propylea 14-punctata</i>
18 spot ladybird	<i>Myrrha 18-guttata</i>
22 spot ladybird	<i>Psyllobora 22-punctat</i>
Eyed ladybird	<i>Anatis ocellata</i>
Cream spot ladybird	<i>Calvia 14-guttata</i>
Orange ladybird	<i>Halyzia 16-guttata</i>
Larch Ladybird	<i>Aphidecta oblitterata</i>

### Plant lists per habitat

Present in most/all habitats are dandelion, Meadow and Creeping Buttercup, bittercress, greater willowherb, nettle, plantains, blackberry, red and white clover, herb-robert, cut-leaved cranesbill, selfheal, daisy, ragwort, yarrow, oxeye daisy

### Wet grasslands

- ☒ *Cardamine pratensis* (cuckooflower)
- ☒ *Filipendula ulmaria* (meadowsweet),
- ☒ *Iris pseudacorus* (Yellow Flag),
- ☒ *Lotus pedunculatus* (Marsh Bird's foot Trefoil)
- ☒ *Potentilla anserina* (silverweed),
- ☒ *Leontodon autumnalis* Autumn Hawkbit,
- ☒ *Silene flos-cuculi* (Ragged Robin),
- ☒ *Succisa pratensis* (Devil's Bit Scabious),
- ☒ *Galium palustre* (Marsh bedstraw)
- ☒ *Lythrum salicaria* (Purple Loosestrife)
- ☒ *Cirsium dissectum* (Meadow Thistle)
- ☒ *Centaurea nigra* (Knapweed)
- ☒ *Valeriana officinalis* (Valerian)
- ☒ *Comarum palustris* (Marsh Cinquefoil)
- ☒ *Myosotis discolor* (changing forget me not)
- ☒ *Rumex acetosella* (Common sorrel)
- ☒ *Holcus lanatus*
- ☒ *Juncus effusus*

### Marshes

- ☒ *Angelica sylvestris* (Angelica),
- ☒ *Apium nodiflorum* (Fool's watercress),
- ☒ *Filipendula ulmaria* (Meadowsweet),
- ☒ *Galium palustre* (Marsh bedstraw)
- ☒ *Hypericum tetrapterum* (Square-stalked st john's wort),
- ☒ *Lythrum salicaria* (Purple Loosestrife),
- ☒ *Mentha aquatica* (watermint),
- ☒ *Oenanthe crocata* (Hemlock waterdropwort)
- ☒ *Stachys palustris* (marsh woundwort)
- ☒ *Myosotis laxa* (tufted forget-me-not),
- ☒ *Ranunculus flammula* (lesser spearwort),
- ☒ *Veronica beccabunga* (brooklime),
- ☒ *Stellaria alsine* (Bog Stitchwort)
- ☒ *Achillea ptarmica* (sneezewort)
- ☒ *Pulicaria dysenterica* (Common fleabane).

### Ponds

- ☒ *Typha latifolia* (bulrush)
- ☒ *Salix* sp (willows)
- ☒ Pond edge features plants from marshes and wet grasslands

### Blanket bogs / heaths

Absent from Abbeyfeale itself but present in many of the surrounding (SPA) hills, near Athea, Knocknagashel, Tournafulla etc. Typical flora includes

- ☒ *Calluna vulgaris* (ling heather)
- ☒ *Erica tetralix* (bell heather)
- ☒ *Vaccinium myrtillus* (bilberry)
- ☒ *Eriophorum* sp, (cottongrass)
- ☒ *Spaghnum* sp (peat moss)
- ☒ *Narthecium ossifragum* (bog asphodel)
- ☒ *Potentilla erecta* (tormentil)
- ☒ *Succisa pratensis* (devil's bit scabious)
- ☒ *Galium saxatile* (heath bedstraw)
- ☒ *Pedicularis palustris* (lousewort)
- ☒ *Carex echinata* (star sedge)
- ☒ *Viola palustris* (Marsh Violet)

### Woodland / hedgerow

#### Native Trees, shrubs

: Oak, Alder, Hazel, Birch, Willow, Hawthorn, Blackthorn, Rowan, Ash, Aspen, Wild cherry, Bird cherry, Crab apple, Spindle, Guelder Rose, Raspberry, Blackberry, Dog Rose, Holly, Honeysuckle, elder, ivy.

Non-native tree species present in Abbeyfeale include:

Field maple, Beech, Horse Chestnut, Sweet

Chestnut, Walnut, ornamental cherries, Sycamore and the invasive Cherry Laurel (Ellis wood, Town Park) and *Rhododendron ponticum* (Kilmeany, Kerry Greenway)

#### Herbs

- ☒ *Ajuga reptans* (bugle),
- ☒ *Circocaea lutetiana* (Enchanter's nightshade),
- ☒ *Conopodium majus* (pignut),
- ☒ *Geranium robertianum* (Robertherb),
- ☒ *Geum urbanum* (Wood Avens),
- ☒ *Hyacinthus non-scripta* (native bluebell),
- ☒ *Anemone nemorosa* (wood anemone)
- ☒ *Ficaria verna* (lesser celandine)
- ☒ *Viola riviniana* (dog violet)
- ☒ *Lysimachia nemorum* (Yellow pimpernel),
- ☒ *Primula vulgaris* (primrose),
- ☒ *Veronica montana* (wood speedwell)
- ☒ *Potentilla sterilis* (barren strawberry)
- ☒ *Teucrium scrodonia* (Wood sage),
  
- ☒ *Digitalis purpurea* (Foxglove),
- ☒ *Blechnum spicant* (Hard-fern)
- ☒ *Polypodium vulgare* (Polypody fern)
- ☒ *Dryopteris filix-mas* (Male fern)
- ☒ *Oxalis acetosella* (woodsorrel),



- ☒ *Stachys sylvatica* (Hedge woundwort),
- ☒ *Solidago virgaurea*(Goldenrod)
- ☒ *Euphorbia hyberna* (Irish Spurge)
- ☒ *Chamerion angustifolium* (Rosebay willowherb)

**Mammals**

Fox	<i>Vulpes vulpes</i>
Badger	<i>Meles meles</i>
Pine Marten	<i>Martes martes</i>
Stoat	<i>Mustela erminea hibernica</i>
Wood Mouse	<i>Apodemus sylvaticus</i>
Bank Vole	<i>Myodes glareolus</i>
Mink	<i>Mustela vison</i>
Hedgehog	<i>Erinaceus europaeus</i>
Leislars Bat	<i>Nyctalus leisleri</i>
Daubenton Bat	<i>Myotis daubentonii</i>
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>
Brown Rat	<i>Rattus norvegicus</i>

**Amphibians**

Smooth Newt	<i>Lissotriton vulgaris</i>
Common Frog	<i>Rana temporaria</i>

~~~~~ Abbeyfeale Community Biodiversity Action Plan ~~~~~

Prepared By:

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On behalf of:

Abbeyfeale Community Council

15<sup>th</sup> Nov 2023