



Broadford Natural Heritage Plan

2019-2023

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1. Introduction

Biodiversity relates to the variety and richness of habitats and species in any given area. Greater species diversity ensures natural sustainability for all life forms and provides essential ecosystem services that are important to our economy such as pollination and flood prevention. Even at a local level biodiversity can benefit our communities greatly. The objective of this plan is to:

- Highlight the unique and beautiful natural and built assets that occur within the locality of Broadford Village, Co. Clare.
- Develop actions that will help to create awareness and maintain and enhance biodiversity within our local ecological and built heritage features over the next four years.
- Provide a platform for all age groups, all community groups and all individuals within and surrounding Broadford Village to engage with each other through an appreciation of their natural surroundings.

1.1 Natural Heritage Characteristics of Broadford Village

Broadford village in South East Clare is a community with an abundance of natural and built heritage features. It is tucked into the Glenomra Valley on the southern slopes of the Sliebh Bearnagh Mountains and Doon Lake which lies to the west of the village. Our community is home to mountain, lake, river, native woodland and hedgerow ecosystems.

Broadford's original name is Ath Leathan which translates to the "Broad Ford" or "Broad Crossing" (ask Pat o'Brien for a synopsis)



Fig.1. View of Main Street, Broadford Village

1.2 Protected Areas, Designated Sites and National Monuments

Broadford is fortunate to have a number of European and National designated sites located within a 5km radius of the village:

1. Doon Lough NHA Site Code 000337
2. Danes Hole, Poulanalecka SAC; Site Code 00030
3. Gortnaculla Bog NHA; Site Code 00401
4. Slieve Bearnagh Bog SAC Site Code 002312

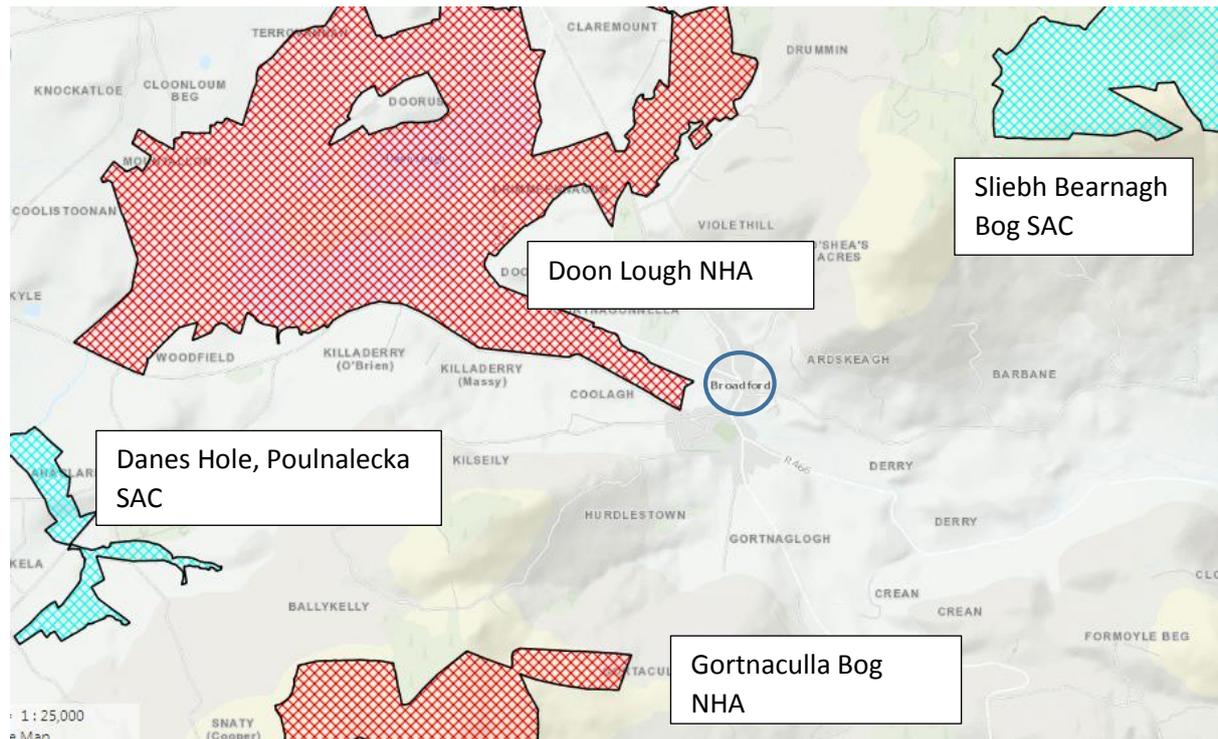


Fig.2. Map outlining designated sites within 5km of Broadford Village

There are also some important monuments and historical built heritage features scattered across the townlands of Broadford which link us to our past and provide important ecological habitats.

1. Early Christian Church and Graveyard, Kilsely
2. Pre Christian Dolmen site, Ballykelly.
3. Early Christian Church, Kil o' Kennedy, Kilbane.
4. Church of Ireland Cemetery, Hurdlestown, Broadford Village
5. Holy well of Saint Seily, Kilsely.
6. Numerous Ringforts are located across the parish townlands.

1.3 Geology

The geological characteristics of Broadford predominantly feature slates found within the Slieve Bearnagh Formation and the Broadford Formation. These formations originated as mud and silt but as earth movements brought the northwestern and southeastern margins of Iapetus ocean together, increased temperature and pressure altered the mudstones and siltstones to slates, developing a sheet like cleavage (preferential planes of splitting). This period of mountain building which took place during late Silurian, early Devonian times is known as the Caledonian orogeny. The slates were worked in the past around Broadford, for roofing purposes. (Clare Co.Co., 2014)

2.0 Existing Features of Ecological Interest: Broadford Townland

2.1 Glenomra River

One of the most prominent natural features of Broadford is the Glenomra river. This river flows in a westerly direction through the heart of the village and feeds into the Doon Lake system which forms part of the Bunratty catchment. The river holds small populations of native Irish Salmon and Trout. Three waterfalls are located within the village environs, two are located opposite Hurdlestown house on the smaller Broadford River tributary and one lies behind Broadford National School. A beautiful 19th century stone arch bridge spans the river along the village's main street where Dippers are a regular visitor feeding from the surface of the waters. (need picture of river)

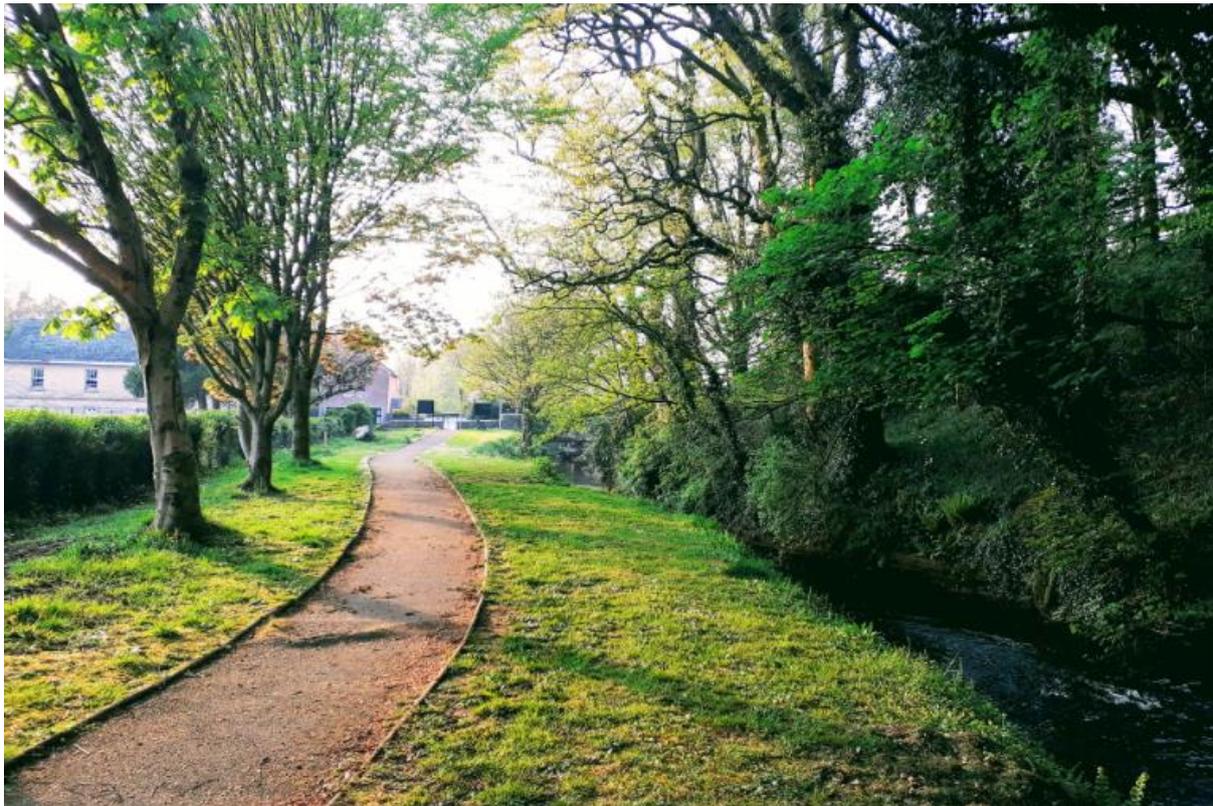


Fig.3. Village amenity walkway adjacent the Glenomra River, Beech and other native tree species overhang along the river.

2.2 Sliebh Bearnagh Mountains

Broadford village is positioned at the southern slopes of the Sliebh Bearnagh Mountains. The mountains feature mosaics of blanket bogs and wetlands and are home to myriads of butterflies, dragonflies, damselflies and other insects, while the woodlands on the lower slopes are carpeted with bluebells, ramsons and wood anemones (Clare CoCo, 2019). This area is quite popular with walkers and there are established routes which form part of the popular tourist attraction; the East Clare Way.



Fig.4. Landscape overlooking Sliebh Bearnagh's in Kilbane. (Copyright Clare Co Co. 2014).

2.3 Doon Lake

Doon Lake is an integral ecological and historical feature of Broadford Parish. The lake has protected status as Doon Lough NHA. According to the NPWS site synopsis, this large dual basin lake system has a variety of fringing habitats, which include scrub, woodland, marsh, and wet grassland. Common Reed (*Phragmites australis*) and Bulrush (*Typha latifolia*) are locally abundant. Birch and willow (*Salix* spp.) woodland and scrub occur in areas close to the lake edge. Similarly wooded islands are present on the lake. In 1986, three submerged canoe's estimated to be between 2,000 and 3,000 years old were found on the Northern part of the lake.



Fig. 5 Doon Lough system featuring wooded land spit. The Doon Lough can be seen to the North West of the lake.

Doon Lough is a popular site for angling tourism and is one of the prime fisheries in the East Clare Lakelands. Predominant species are Roach, medium sized Bream, Hybrids, Perch, some Tench and Rudd. Doon Lake is a noted Pike fishery and has produced some fine quality Pike over recent years. Many species of birds can be spotted including owl, woodpigeon, jay and other common small birds. On the water front are swan duck, duck, heron, waterhen and coot.



Fig.6. View facing North of Doon Lough.

2.4 Built Heritage

Graveyards present a profound connection to a communities past and are an extremely valuable habitat for birds, mammals and insects.

Kilseily Graveyard

This unique and beautiful graveyard is early Christian in origin and features a 17th century church which is dominated by the Bentley family mausoleum. At the eastern end of the church is a striking wall mural which presents a marvellous example of a medieval cherub stone carving which sits upon a coat of arms that displays a family crest.



Fig.7. Wall mural on the eastern corner of the church at Kilseily graveyards



Fig.8. Yew Tree (*Taxus baccata*) situated in Kilsely Graveyard. The yew tree has a close historical association with Ireland, and it is often found in church yards throughout the country.

Church of Ireland Graveyard

This graveyard is tucked neatly away off the main road to Sixmilebridge adjacent to Hurdlestown Housing development in Broadford Village. The graveyard features a beautiful stone stepped entrance which follows into a vegetated church and graveyard area. The site includes a number of immature native tree species and old yews. Bramble, ivy and ferns are abundant on the site with clusters of snowdrops present here during late winter.



Fig.9. Entrance into the Church of Ireland Graveyard. (Copyright Dr John Treacy, Clare Co.Co., 2019)

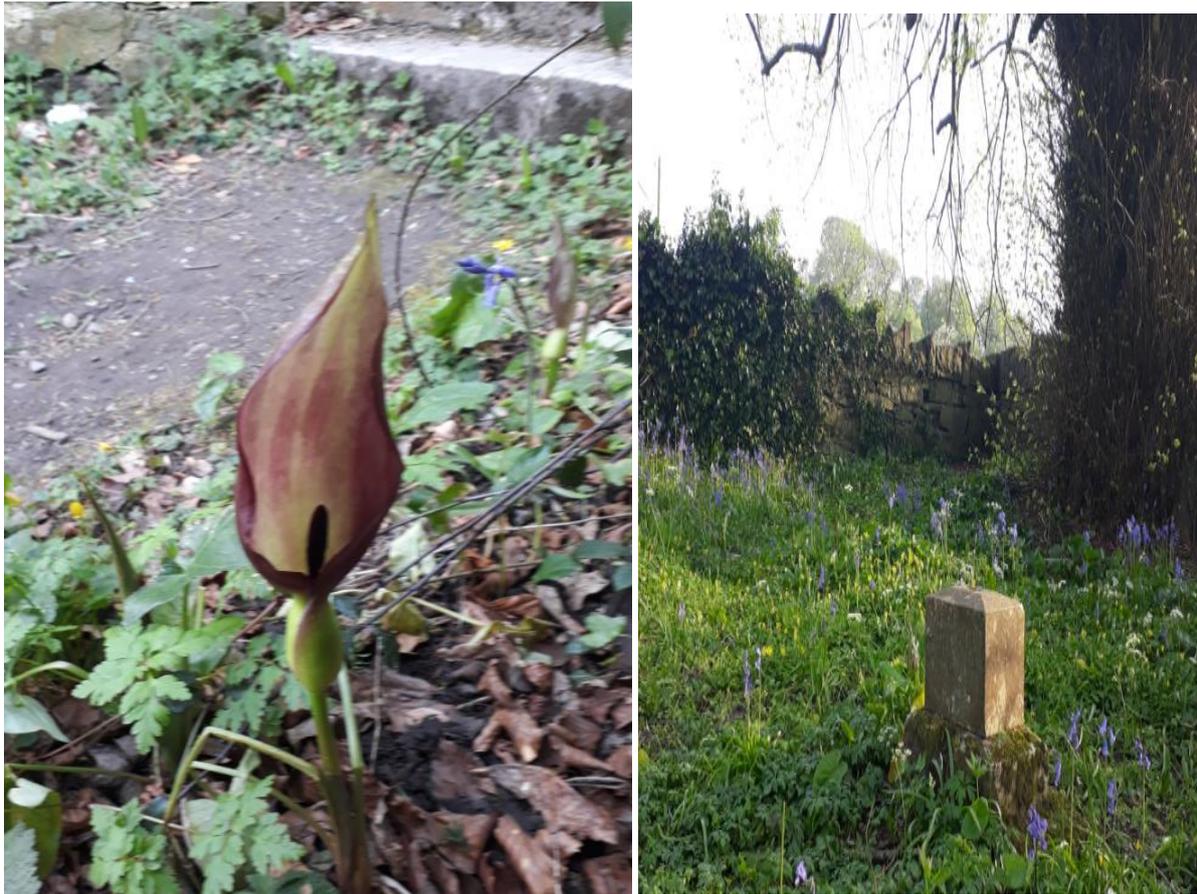


Fig.10. Lords and Ladies spotted at the entrance to the Church of Ireland Graveyard.

Slate Quarry

Kilseily townland lies to the west of Broadford village and in the 1800's there was a thriving slate industry extracting slate of superior quality. Many dwellings were established here during this time and some examples of the slate quarry cottages still stand today.

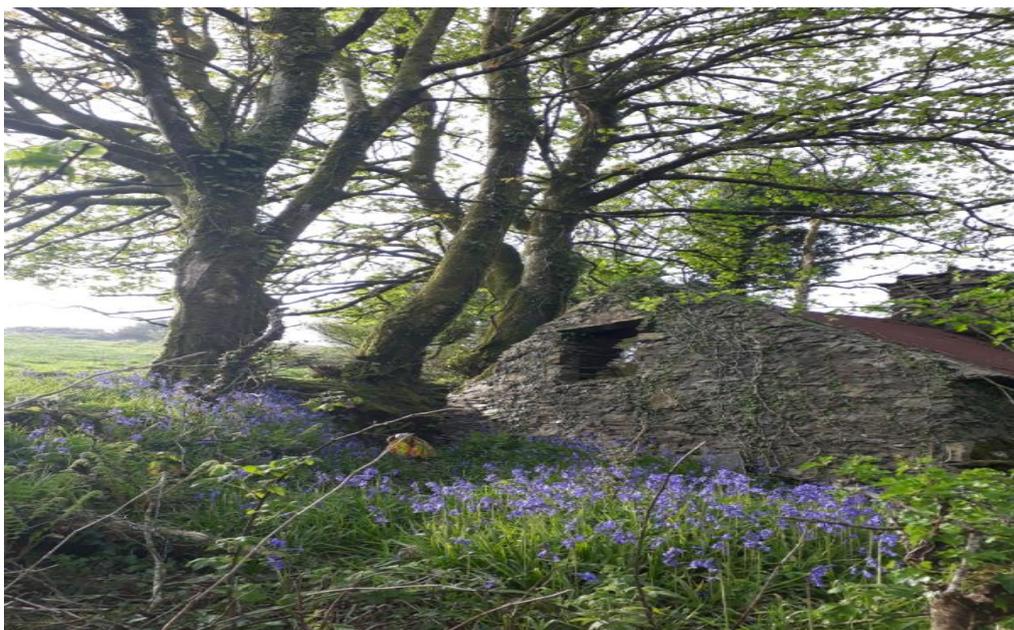


Fig.11. Slate quarry cottage. Bluebells can be an indicator of older tree stands which are over 200 years old.

2.5 Native Woodlands

Native woodlands as the name suggests are comprised of native tree species. In Ireland, native woodlands are mostly broadleaved in character with oak, ash, alder and birch being the dominant tree species (Notice Nature,N.D.). There are two oak stands located in the Broadford Area. One is in the village beside the Glenomra River adjacent to the primary school. The other is along the Kilseily road immediately to the south west of the village (Clare Co. Co,N.D.). These trees were preserved when a new residential development was constructed in the area. In the outer townlands of Broadford, native woodland and ancient native woodlands are mapped on the biodiversity data centre website. Segments of Doon Forest in the middle of Doon Lake have patches mapped as native woodland while Violet Hill Woods is mapped as ancient native woodland.

Violet Hill woods lie to the North West of the village, the woods can be accessed from the R465 Bodyke Rd. A beautiful old gate lodge which now serves the Girl Guides Association is located at the entrance to the woods that stretch north towards Annaly Lodge a handsome residence, originally a hunting lodge built post 1850 for the White Family.

A small area of woodland on brown earth soils 1 km north of Broadford. The canopy over most of the woodland is comprised of large widely-spaced sessile oak (*Quercus petraea*), but birch (*Betula pubescens*) is also locally dominant and rowan (*Sorbus aucuparia*) is frequent. Hazel (*Corylus avellana*) forms a largely continuous understorey and comprises the canopy in the absence of taller trees. Holly (*Ilex aquifolium*) is also frequent. The ground is heavily poached by cattle over most of the site, and rocky areas occur occasionally. The sparse field layer is characterised by *Oxalis acetosella*, *Blechnum spicant*, *Dryopteris dilatata* and occasional herbs, including *Circaea lutetiana*, *Ajuga reptans*, *Chrysosplenium oppositifolium* and *Geum urbanum*. On steeper, rocky slopes, *Vaccinium myrtillus* and *Luzula sylvatica* occur and holly replaces hazel in the understorey. A riparian strip of large oaks is contiguous with the site to the northeast, bordering conifer plantation (NPWS, 2008) https://www.npws.ie/sites/default/files/publications/pdf/Perrin_et_al_2008_NSNW_V3d.pdf

During the Autumn months, numerous species of fungi can be found throughout the woods around the base of deciduous tree such oak and beech.



Fig.12. Aerial view showing the extent of Violet Hill woods.

2.6 Pollinators and Hedgerows in Broadford

Birds, bats, bees, butterflies, beetles, and other small mammals that pollinate plants are responsible for bringing us one out of every three bites of food. They also sustain our ecosystems and produce our natural resources by helping plants reproduce. Hedgerows are a small scale ecosystem which are immensely important for biodiversity within local communities.

Broadford is home to many kilometres of old native hedgerow which is subject to minimal cutting and maintenance. These types of hedgerow have a higher diversity of pollinator species such as Vetch, Wild strawberry, Honeysuckle and Foxglove. They also provide an important habitat for insects and birds for example Robin, Thrush, Blackbird, Blue Tit and Wren.



Fig.13. The Carder Bumblebee, the Red Tailed Bumble Bee and the White Tailed Bumble Bee are a common sight in Broadford.



Fig.14. Picture of Solitary Bee habitat along a garden hedge, Ballykelly, Broadford.

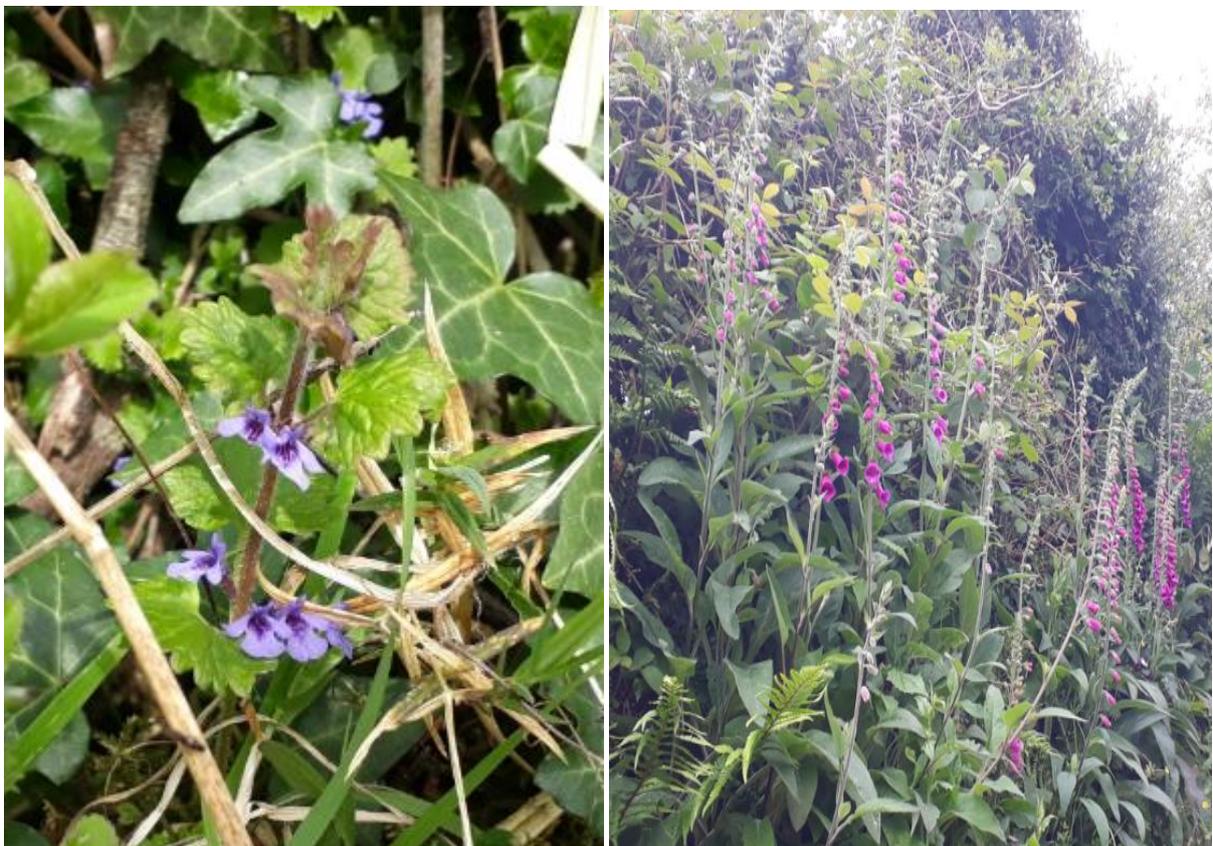




Fig.14. Wildflowers species such as Bugle, Dog Violet, Foxglove and Honey Suckle and grow along our hedges during Spring/Summer.



Fig.15. Solitary Bees feeding on Foxgloves and Vetch in Ballykelly June 2019.

2.7 Fauna of Broadford

Due to Broadford's close proximity to woodland and a large number of old historical buildings, cottages and graveyards, the area is home to significant populations of Bat species such as the pipistrelle bat. It is easy to spot bats at dusk in Broadford village feeding on insects by the river or fluttering past groups of mature trees along the roadsides.



Fig.16. Pipistrelle and Lesser Horseshoe Bat

Stoats, Pinemarten, Hare, Red Squirrel, Hedgehog, Badger and Deer have all been spotted in the woodlands that surround Broadford. Recording these species and where they have been spotted can be a fun family activity and can greatly help to provide valuable statistics for the National Biodiversity Data Centre. More information is provided in this link: <http://www.biodiversityireland.ie/record-biodiversity/>.



Fig .17. Red Squirrel, Hare and Hedgehogs are among the list of mammal species found within the Broadford Locality. (Broadford)

Broadford village also provides habitat for a number of birds of prey such as the Sparrowhawk which is a common sighting in the village's upland areas and the Hen Harrier which are associated with the Sliebh Bearnagh mountains. Barn Owls are extraordinary nocturnal birds of prey which have recently been spotted in the Kilbane area. A special seasonal visitor to our townland is the Cuckoo which can be heard in the locality every May/June.



Fig.18. Barn Owl (Copyright Birdwatch Ireland)

3.0 Community Participation

Broadford village has a vibrant and active community and has numerous groups and organisations which have successfully brought about many positive benefits to the area.

Inclusivity is at the heart of this biodiversity plan and one of the key objectives is to promote awareness and engagement through community groups and individuals within the locality.

There are a number of actions within this plan which aim to involve a wide range of community groups and all individuals within our neighbourhood.



Fig.19. Students of Broadford and Kilbane N.S. enjoying their natural surroundings.



Fig.20. Engaging students in green activities such as tree planting encourages inclusion and participation in Biodiversity objectives for the village.





Fig.21. Annual events such as “An Taisce Spring Clean” in Broadford (April 2019) are a great example of the community coming together to appreciate their natural surroundings.

4.0 General Tips and Advice

- A reduction in the mowing frequency of garden lawns and amenity areas provides a better chance of growth for pollinator food such as dandelions and red clover.
- Alternatively allow a section of your garden to grow wild over the growing season, reduce the cutting frequency of this area to every 6 weeks and remove the grass cuttings from the area.
- Consider planting pollinator friendly tree species in your garden such as crab apple, Juneberry and Rowan.
- Keep a bird feeder in your garden, these can be an important food source for our garden birds especially during the winter season.
- Consider using native hedging instead of non-native ornamental hedging or wooden fencing to create boundaries on your land.
- Use alternative weed control methods in pavement areas such as a flame weeder tool or power hose.
- In graveyards and around monuments seek professional advice from the local authority on methods to carefully maintain these unique habitats without causing damage to natural or built structures.

5.0 List of Biodiversity Projects/Actions

Project Ref.	Location	Project Description	Project Timeline	Project Owner
A	Main St.	Nature Signage/Pollinator verges along the River Walk	2020	Community Group/Tidy Towns
B	Website	Seasonal Calendar of Biodiversity in Broadford	2019/2020	Community Group
C	Village	Pollinator Planters around village environs. Identify locations for planting	2021	Community Group/Tidy Towns
D	Village	Tree Planting:	Annually	Broadford N.S
E	Violet Hill	Autumn Foraging Walk	2020	Community Group
F	Graveyards	Heritage tour: During Heritage Week	Annually	Community Group
G	School	School Pollinator Plan.	2022	Broadford N.S.
H	Village	Identify amenity walks around the village that can be highlighted with signage	2022	Community Group
I	Village	Periodic Community Clean up's	Annually	Community/Tidy Towns
J	Village	Create Inventory of Place names that relate to Nature within the townland		Community Group/All interested parties
K	School	Nature Awareness Talks by experts	Annually	Broadford N.S.
L	Broadford Environs	Recording sighting of mammals, birds and insects through the National Biodiversity Website/Broadford Community Facebook Page.	Annually	All community Participants
M	School	An Taisce Green Schools Project "Biodiversity Theme"	2021	Broadford N.S

6.0 Useful Resources

1	All Ireland Pollinator Plans for Gardens, Local Communities and Faith Communities http://pollinators.ie/
2	Record Biodiversity http://www.biodiversityireland.ie/record-biodiversity/
3	Tree Council of Ireland https://treecouncil.ie/
4	Guidance for the care, conservation, and recording of Historical Graveyard Sites. https://www.heritagecouncil.ie/content/files/guidance_care_conservation_recording_historic_graveyards_2011_7mb.pdf
5	Biodiversity ID Sheets http://www.biodiversityireland.ie/projects/invasive-species/id-guides/
6	Heritage in Schools http://www.heritageinschools.ie/teachers-resources/p2?q=
7	Irish Seed Savers http://irishseedsavers.ie/
8	BurrenBeo Trust Courses https://burrenbeo.com/
9	Tidy Towns Handbook: https://www.tidytowns.ie/wp-content/uploads/2017/04/TidyTowns-Handbook.pdf