Fermanagh District Council

Ulster Wildlife Trust

FERMANAGH LOCAL biodiversity ACTION PLAN

Contents

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Front Cover Images: Two's Company © Fermanagh Lakeland Tourism, Red squirrel © National Trust, Marsh fritillary butterfly © Robert Thompson, Guided Walk at Marble Arch Nature Reserve © Fermanagh District Council, Blue eyed grass © UWT

Foreword

It gives me great pleasure to present the Fermanagh Local Biodiversity Action Plan (LBAP), which is an innovative partnership between Fermanagh District Council and the Ulster Wildlife Trust.

The Fermanagh LBAP project commenced in 2005 and is supported by the Northern Ireland Environment Agency and the Landfill Communities Fund. The action plan is a celebration of the biodiversity that exists within Fermanagh, and is a demonstration of our commitment to help protect and enhance it, now and for the future.

Fermanagh is renowned for its remarkable natural heritage set in a visually contrasting landscape. From the vast expanses of the uplands, to the long stretches of water of our lakelands, we should truly appreciate how fortunate we are to live in such a varied and beautiful landscape.

Biodiversity and people are inextricably linked; we all play an integral part in the delicately balanced web of life. It is important that whilst we celebrate the array of habitats and species present in Fermanagh, we recognise that we hold the key to preventing further loss and decline of this unique resource.

The Fermanagh LBAP Steering Group, comprising local representatives from statutory and non-statutory organisations, has been instrumental in driving the Fermanagh LBAP project forward. Additionally, the wider LBAP partnership, comprising members of the local community has played an important role in helping to deliver the project, and I wish to extend my sincerest gratitude to them.

It is vital that we play our part in maintaining and enhancing our wonderful biodiversity resource. I believe that this document sets the foundation to achieve this and I appeal to everyone who lives in Fermanagh to get involved.

I am delighted to commend this document to you, and I look forward to working with you to ensure a Fermanagh rich in biodiversity.

Councillor Thomas O'Reilly
Chairman Fermanagh District Council

Species rich grassland on the shores of Lough Melvin © Patrick McGurn

Fermanagh Local Biodiversity Action Plan

What is biodiversity?

Biodiversity is the shortened version of the term "biological diversity" and is defined as the total variety of all living things. It incorporates all plants, mammals, birds, reptiles, amphibians, fish, invertebrates, fungi and micro-organisms and the habitats in which they thrive. The biodiversity that surrounds us today is the result of millions of years of evolution, shaped by natural processes and increasingly by human activity. Biodiversity is found all around us, in gardens, parks, fields, woodlands, uplands, lakes and rivers, and in our seas.

Why is it important?

Biodiversity provides countless benefits for our society as a whole and even though we may not realise it, biodiversity is an integral part of our everyday lives. It is vital to our survival and well-being; it is responsible for the clean air we breathe and the food that we eat; it plays an important role in ensuring the successful functioning of our economy; and it enhances our quality of life and well-being.

The many benefits of biodiversity highlight why we need to ensure that we halt the loss and work together to protect, and where achievable, restore and enhance our local biodiversity.

The global-local framework

The global decline in biodiversity resulted in 178 countries, including the UK and Republic of Ireland, signing up to the Convention on Biodiversity at the Rio de Janeiro Earth Summit in 1992. The agreement stated that a significant reduction in the current rate of biodiversity loss must be achieved at the global, national and local level by 2010.

In response to the Convention, the UK Biodiversity Steering Group published the UK Biodiversity Action Plan in 1994 which outlined the UK's biological resources and established a framework for conserving it. It recommended that each individual country should produce a regional Biodiversity Strategy and consequently in 2002, the Northern Ireland Biodiversity Strategy was published. Central to this strategy is delivering biodiversity action at the local level and to this end Local Biodiversity Action Plans have been developed throughout Northern Ireland.

Fermanagh Local Biodiversity Action Plan Project

The Fermanagh Local Biodiversity Action Plan (LBAP) project, commenced in 2005 and is an innovative partnership between Fermanagh District Council and the Ulster Wildlife Trust, funded by the Northern Ireland Environment Agency and Fermanagh District Council's Landfill Communities Fund.

The aims of the Fermanagh LBAP project are:

- To conserve and enhance the biodiversity of Fermanagh for both current and future generations;
- To educate and raise awareness of the importance and variety of biodiversity found within Fermanagh; and
- To encourage local ownership/guardianship of Fermanagh's biodiversity.

By delivering the project, Fermanagh District Council is also addressing one of the core areas in its Corporate Strategy 2005-2009, for which the strategic objective is to 'work in partnership with others to improve the economic, social and environmental well-being of Fermanagh and its people'.

The Fermanagh LBAP project strives to ensure that the biodiversity of Fermanagh is maintained and enhanced through the preparation and implementation of individual action plans, for a range of habitats and species, reflecting both national and local priorities. It is based largely on the targets set out in the Northern Ireland Biodiversity Strategy, translating regional strategy into local action.

A steering group, consisting of representatives from various organisations involved in conservation and land management in the County was formed to guide and support the LBAP process and to develop and implement the Fermanagh LBAP and associated Habitat and Species Action Plans (HAPs and SAPs). A wider biodiversity partnership was also established to further implement the LBAP and to enable members of the public and other local organisations to get involved.

Everyone who lives in Fermanagh has an important part to play and with your support we can help to protect our unique wildlife.

The Fermanagh District

Fermanagh District Council is the most westerly government district in Northern Ireland. It is a unique local authority in that it covers one entire County. County Fermanagh covers almost 1,875 square kilometres which equates to about 12.5% of the province's land mass, making the Council the largest local government district in geographical terms. The County has a growing population of approximately 60,000, of which 70% live in rural areas. Enniskillen town is the main centre of population with approximately 14,250 inhabitants.

Fermanagh is a County immersed in beautiful unspoilt lakeland landscapes and breathtaking mountain scenery. Often referred to as the Lakeland County, 176 square kilometres of the County is submerged in water which equates to 20% of the overall area. The County is bisected by the River Erne, Upper Lough Erne and Lower Lough Erne. These open expanses of water are fringed with wetland vegetation and framed by spectacular mountain ranges; Slieve Beagh to the east, Cuilcagh and Marlbank to the southwest, and Belmore Mountain and the Lough Navar uplands to the west.

Much of the underlying geology of the County dates from the Carboniferous period which resulted in deposits of limestone, sandstone and shale. The landscape is also dominated by evidence of the last ice age, visible in the lowlands in the form of lakes, boulder clay deposits (moraines) and numerous drumlin hills, many of which appear as islands in Lower and Upper Lough Erne. In the uplands, the movement of glaciers resulted in the exposure of underlying rocks and the deposition of glacial erratics or large boulders.

The main economic activities occurring in the County are agriculture, forestry, tourism and recreation which have a significant impact in shaping Fermanagh's landscape, giving its settlements their distinctive character, as well as providing much needed local employment and revenue. Agriculture is the economic activity which utilises the most land within the County, as 80% of the land is engaged in beef or sheep farming. Most of the areas farmed are, however, classified as being 'Less Favoured Areas' where the landscape is primarily unsuitable for intensive agriculture such as in the upland and wetland areas. Almost one third of the total area of forest owned by the DARD Forest Service in Northern Ireland is located in the County.

Map of Fermanagh District © Fermanagh District Council

Location of Fermanagh District in N.I.

Plantations are widely distributed but are primarily concentrated in the uplands to the south-east and west. The renowned aesthetic quality of the Fermanagh landscape also makes it an attractive location for tourism, with over 201,200 visitor trips and over £36 million in tourism expenditure per annum.

Fermanagh's varied landscape combines to provide an important and unique biodiversity resource which supports approximately 50% of the Northern Ireland Priority Habitats and approximately 23% of Northern Ireland Priority Species. These are deemed to be the most threatened habitats and species in Northern Ireland and are consequently, of the highest conservation concern. The significance of Fermanagh's biodiversity is reflected in the amount and extent of protected areas, which are of local, national, European and global importance. At present, the protected or designated areas within Fermanagh consists of 61 Areas of Special Scientific Interest (ASSI), 12 Special Areas of Conservation (SAC), three Special Protection Areas (SPA), five Ramsar sites and one European Geopark. The overall result is a natural environment that has international renown for its wildlife interest.

Queen Elizabeth Road © Fermanagh Lakeland Tourism

Stalactites at Marble Arch Caves © Fermanagh Lakeland Tourism

Threats facing biodiversity in Fermanagh

The main threats to Fermanagh's biodiversity are activities that degrade the overall quality of a habitat or result in habitat loss. Damage to many of our habitats is often irreversible and restoration to their former pristine state is not always possible. Some of the damage results from natural processes; however, human activity can also have a negative impact.

As we continue to further appreciate the delicate interactions that exist between biodiversity and people, we can use this knowledge to help prevent further loss and decline of our habitats and species.

The main factors contributing to the decline of biodiversity within Fermanagh are:

Infrastructure development

Significant population growth and higher disposable income has led to an increasing demand for housing and transport in Fermanagh. Many of the negative environmental impacts associated with housing developments and other infrastructure can be greatly reduced by good planning. However, the construction of inappropriately located single-dwellings in the countryside can have a detrimental impact on the visual landscape and can degrade, destroy or fragment the habitat upon which the building is located.

Agricultural activities

Over the last 40-50 years, considerable changes in farming practices have occurred throughout Northern Ireland and Fermanagh is no exception. The wet, heavy soils of the lowlands and peaty acidic soils of the uplands make productive, intensive farming difficult and it has become common place to instigate drainage schemes and re-seed with more vigorous grasses. Also, on most farms, silage has now replaced the traditional hay crop with grass cut earlier and more frequently, reducing species richness. The stocking density of animals can also pose a threat to certain habitat types resulting in either over or under-grazing. However, the introduction of agri-environment schemes has encouraged farmers to manage the natural habitats on their land sympathetically and revert to more traditional methods where possible. There is, however, the potential for future land abandonment to threaten conservation sites reliant on grazing animals, as farming becomes less economically viable.

Non-native invasive species

The majority of species that occur in Fermanagh have been present for thousands of years and have become accustomed to our mild, wet climate. However, some non-native species have been introduced either accidentally or deliberately from a variety of sources. Some pose little or no threat to our native biodiversity. However, others can compete directly with our native species or cause the alteration of habitats. For example, the introduction of the American grey squirrel has led to a decline in our native red squirrel population by spreading the deadly parapox virus and competing for food. Rhododendron and Japanese knotweed were also introduced as ornamental garden shrubs but have spread rapidly to other habitats reducing species diversity as a result.

One non-native invasive species, presenting a serious threat to Fermanagh's biodiversity is the zebra mussel. First discovered in the waters of Lough Derg in 1997, it has spread through many navigation channels, settling on a range of surfaces such as rocks, pipes, anchors and boat hulls.

Zebra mussels © NIEA

Zebra mussels are filter feeders and increase the clarity of water, making it difficult for native fish species to seek refuge from predators. They also attach themselves to the shell of our native *Anodonta* mussels which results in the death of our native mussel.

Algal bloom © Patrick McGurn

Nutrient enrichment

Industrial, domestic and agricultural pollution affects water quality which in turn determines the number and diversity of species present in our wetland habitats. In Fermanagh, nutrient enrichment poses a particular threat as wetland habitats are abundant. For example, the inappropriate use of agricultural fertilisers can result in nutrients running off the land into nearby water bodies. Here, they can change the natural chemical balance of the water, promoting plant growth and giving rise to algal blooms which restrict light and oxygen.

As a result, the once frequent common scoter, a breeding bird found in Lower Lough Erne, suffered serious decline since the 1990s with increasing nutrient enrichment affecting invertebrate populations, its main food source.

Our local priority habitats and species

The first stage of the Fermanagh LBAP was to produce a detailed audit which identified the important habitat and species that occur in Fermanagh, including Northern Ireland Priority Habitats, Northern Ireland Priority Species and Northern Ireland Species of Conservation Concern.

The information from the audit enabled each habitat and species to be evaluated on the merits of national and regional priority, conservation status, extent, rarity, importance to local people and project potential. As a result, the habitats and species below were selected for priority action in Fermanagh and specific HAPs and SAPs will be developed accordingly. This list is not exhaustive and will be updated throughout the period of the LBAP process.

Habitats selected for priority action in Fermanagh:

Wetlands
- Reedbeds, Fens, Eutrophic lakes, Mesotrophic lakes and Rivers and streams

Calcareous habitats
- Limestone pavement, Calcareous grassland, Marl lakes and Turloughs

Bogs and heath
- Blanket bog, Upland heathland and Montane heath

Grassland
- Lowland meadow, Purple moor-grass and rush pasture, Floodplain grazing marsh and Roadside verges

Woodland
- Wet woodland and Species-rich hedgerows

Gardens and urban green space

Species selected for priority action in Fermanagh:
- Otter
- Red squirrel
- Bats
- Waders (snipe, lapwing, curlew and redshank)
- Hen harrier
- Freshwater pearl mussel
- White-clawed crayfish
- Pollan
- Native salmonids (brown trout and Atlantic salmon)
- Arctic charr
- Small blue butterfly
- Dingy skipper butterfly
- Marsh fritillary butterfly
- Blue-eyed grass
- Tunbridge filmy-fern

The local priority habitats and species, where they are found in the county, together with a brief outline of the objectives and examples of action required to conserve them are summarised in the subsequent sections. The finite agreed actions will be outlined in the HAPs and SAPs, which will be available to download from **www.ulsterwildlifetrust.org/biodiversity**.

Purple moor-grass and rush pasture © Patrick McGurn

Marsh fritillary butterfly © Robert Thompson

Lower Lough Erne © Fermanagh Lakeland Tourism

Wetlands

Wetlands are a particularly widespread and important feature within Fermanagh's landscape. This habitat type includes natural lakes, pools, rivers and streams as well as man-made ponds. It also includes the fringe vegetation surrounding these water bodies.

The nutrient content of these open waters can vary considerably and they are classified accordingly: oligotrophic lakes contain a low level of nutrients; mesotrophic lakes contain moderate levels of nutrients; and eutrophic lakes contain high levels of nutrients.

Objectives	Local Actions
• Educate and raise awareness of the importance of wetland habitats for biodiversity. • Maintain and improve the condition of wetland habitats.	• Raise awareness amongst landowners of the Nitrates and Water Framework Directives. • Promote wetland prescriptions under agri-environment schemes. • Hold public walks and talks demonstrating the biodiversity value of wetlands.

Reedbeds

This habitat type is distinguished by the presence of common reed and is usually located on the edge of lakes and ponds. Reedbeds are typically species poor, however, some rare species can be found here such as the otter, reed bunting and the reed-beetle *Donacia aquatica*. Reedbeds often exist as a patchwork alongside other wetland habitats such as fens and wet woodland which increases the species diversity. Given the abundance of wetlands in Fermanagh, reedbeds are a widespread feature and are clearly visible from the majority of the walks/cycle paths or lay-by's on the lough or river shore margins throughout the County.

Reedbeds © UWT

Fens

Fens are similar to bogs in that they are peat-forming systems. However, they differ from bogs in that they are fed by moving surface waters or ground waters, and typically occur in places such as river valleys, floodplains and lake margins. In Northern Ireland, they are generally located in Co. Down and the south-east of Co. Fermanagh. The National Trust's Crom Estate located on the shores of Upper Lough Erne is an ideal location to view the fen habitat.

Carabus clatratus © Roy Anderson

As fens often occur as part of a patchwork with other wetland habitats, this increases their overall biodiversity value. A plentiful range of plant species thrive in fens, the most common of these include black bog-rush, common sedge, carnation sedge and fen thistle. Fens also support rare plant species such as fen bedstraw and Irish lady's-tresses orchid. Fermanagh fens are particularly important for invertebrate species; for example, the regionally rare Irish damselfly is a noteworthy inhabitant of Fermanagh fens having been recorded at 11 sites in the County. In addition, the only sites in Northern Ireland where the rare ground beetles *Carabus clatratus* and *Lebia cruxminor* are found, are in Fermanagh.

Eutrophic lakes

The naturally higher concentration of nutrients in eutrophic lakes yields a diverse range of plants and animals. Both Upper and Lower Lough Erne are good examples of this habitat and together with the fringing wetland habitats of the associated islands they make a significant contribution to Fermanagh's biodiversity. These sites are particularly important for wildfowl including species such as tufted duck, great crested grebe and mute swan. In winter, populations of whooper swan and goldeneye arrive to avoid the harsher climes of latitudes further north. Breeding waders and a unique Sandwich tern colony also thrive on particular islands within Lower Lough Erne, with 40 of the Erne's 200 islands managed by the RSPB for their benefit. The pollan, Northern Ireland's only native species of whitefish, is found in Lower Lough Erne which is one of only four locations on the island of Ireland. Otters are also abundant in Upper and Lower Lough Erne, and are included as a selection feature for the Upper Lough Erne SAC.

Great crested grebe © Ian Rose

Mesotrophic lakes

Mesotrophic lakes are characterised by a narrow range of nutrients lying between nutrient- poor oligotrophic lakes and nutrient-rich eutrophic lakes. Upper and Lower Lough Macnean in the south-west of the County and Lough Melvin in the north-west are good examples of this habitat. Lough Melvin is particularly noteworthy as there are three races of brown trout present, namely sonaghan, gillaroo and ferox. In addition to this, Arctic charr is found in these waters, representing Northern Ireland's only location for this species. Greenland white-fronted geese can also be found on the shores of Lower Lough Macnean during the winter months. The globeflower, a rare species with a specialised distribution, has likewise only been recorded in Northern Ireland at Lough Melvin and Lough Macnean. Mesotrophic lakes are also important for dragonflies and damselflies. Indeed, the rare Irish damselfly has been recorded at several mesotrophic lakes in the County. Cottage Lawn in Belcoo, on the shores of Lower Lough Macnean, is an ideal place to view the lake and fringing wetland vegetation, with the contrasting uplands of Cuilcagh in the background.

Globeflower © Alan Hill

Rivers and streams

Rivers and streams form an integral part of the Fermanagh landscape. From the narrow, steep-sided channels of the uplands to the wide meandering floodplains of the lowlands, rivers provide a varied and dynamic habitat. They are important for many Northern Ireland Priority Species including the otter, freshwater pearl mussel, Atlantic salmon, brown trout and white-clawed crayfish. This habitat type can be viewed at numerous locations throughout the County and the Cladagh Glen Nature Reserve, located to the north of the Marble Arch Caves European Geopark visitor centre, is one such location. Walking through the nature reserve, the Cladagh River can be viewed as it flows downstream, on its way to join the Arney River before entering the calm of Upper Lough Erne.

Roogagh waterfall © Fermanagh Lakeland Tourism

Calcareous grassland © Philip Precey

Calcareous habitats

The underlying carboniferous limestone of the Fermanagh landscape gives rise to several interesting and notable habitat types, which in many cases are confined only to Fermanagh in Northern Ireland.

The rarity of these calcareous habitats, along with their significant contribution to biodiversity means they are afforded protection through statutory designation and where possible, managed sympathetically through agri-environment schemes.

Objectives	Local Actions
• Maintain the proportion of calcareous habitats in Fermanagh. • Raise awareness of the importance of calcareous habitats to Fermanagh's biodiversity.	• Promote agri-environment schemes. • Hold walks and talks to illustrate the importance of calcareous habitats to Fermanagh's biodiversity.

Limestone pavement

Limestone pavement is a relict feature of a process that occurred thousands of years ago during the last glaciation. During this time large areas of bare limestone were exposed by the scouring action of the ice sheets as they moved along the landscape. As the glaciation came to an end huge amounts of debris were left on top of the limestone, on top of which large forested areas developed. Naturally acidic conditions developed in the soil and beneath, which caused the limestone below to dissolve and formed the characteristic features of limestone pavement, which are known as clints (blocks of limestone), and grykes (deep vertical fissures between the clints). Subsequent erosion has meant that this limestone pavement is now exposed at the surface. In Northern Ireland, limestone pavement only occurs in Fermanagh, making it a crucially important part of the landscape and biodiversity of the County.

Limestone pavement © Emma McLaughlin

Wild thyme, blue-moor grass and sheep's fescue are the most commonly recorded plant species that occur on the clints of limestone pavement. The grykes provide a special micro-climate and shelter from grazing animals, with the most frequent species including herb-robert and wood sorrel. Notable priority species associated with limestone pavement include juniper, Irish hare, dingy skipper butterfly and the rare hoverfly *Cheilosia ahenea*. Limestone pavement often occurs as a mosaic with calcareous grassland, which significantly improves the biodiversity value of the habitat.

Much of Fermanagh's resource of limestone pavement is afforded protection through statutory designation such as the West Fermanagh Scarplands SAC and ASSI and Killykeegan and Crossmurrin Nature Reserve. The latter has a public footpath, where the limestone pavement and associated habitats can be enjoyed and appreciated.

Calcareous grassland

This habitat type develops on thin soils that have formed over limestone bedrock. Calcareous grassland is of particular importance for Fermanagh's biodiversity because much of Northern Ireland's resource is located in the County. Many areas of calcareous grassland are protected through statutory designation or where possible, are managed sympathetically through agri-environment schemes.

Harebell © Bruce Shortland

Several sizeable parcels of calcareous grassland at Monawilkin are designated as a SAC and ASSI and it is widely accepted that this represents the best example of this habitat type in Northern Ireland. Like many other areas of calcareous grassland within Fermanagh, this habitat type frequently occurs as part of a mosaic with other habitat types and this further enhances its biodiversity value.

Commonly found plant species present in calcareous grassland include blue moor-grass, wild thyme, harebell and bird's-foot trefoil. A notable plant associated with this habitat type in Fermanagh, which is not recorded elsewhere in Northern Ireland, is the Irish eyebright. Other rare species found here include the dense-flowered orchid, the moss *Tortella densa*, the narrow-bordered bee hawk-moth and the small blue butterfly, although the latter has not been recorded since 2001. Cuilcagh Mountain Park has extensive areas of calcareous grassland present, in addition to other habitat types, and is publicly accessible.

White clawed crayfish © Andy Kirkland

Marl lakes

Marl lakes are important because of their location and formation as they develop over areas of limestone rock, yielding high concentrations of calcium. Levels of nutrients in marl lakes are low and a specialised range of plants known as stoneworts are specially adapted to this environment. Two types of stonewort, the pointed stonewort and lesser-bearded stonewort, both of which are extremely rare, occur in the marl lakes of Fermanagh. In fact, pointed stonewort only occurs at two sites in Northern Ireland, both of which are located in Fermanagh.

White water lily © Mike Hartwell

Marl lakes make a significant contribution towards Fermanagh's biodiversity. Aside from two sites in Co. Armagh, the majority of marl lakes in Northern Ireland occur in Fermanagh. On the B143 between Rosslea and Clones, marl lakes can be seen amongst patches of willow scrub.

Turloughs

Turloughs are an unusual type of habitat; their water levels fluctuate throughout the year and they are even known to dry up completely for a short period of time, particularly in the summer. The extreme fluctuations of water levels are primarily due to the underlying limestone geology and the movement of water below ground level. Turloughs make a special contribution to Fermanagh's biodiversity, as collectively they are only found at four sites in the UK and three of these occur in Fermanagh. Turloughs exhibit distinctive types of plant groupings, with white water-lily, bog bean, and pond water-crowfoot being the most common species. The nationally rare fen violet has also been recorded in turloughs. Woodland and scrub typically grows around the margins. Turloughs are a common feature in Co. Galway and Co. Clare. The Fermanagh turloughs, situated to the north of Enniskillen, represent the northern most distribution on the island of Ireland.

Cottongrass © UWT

Bogs and heath

Bogs represent one of the most characteristic features of Ireland's biodiversity. Indeed the topography and the climate of Fermanagh assists bog formation over a large extent of the County. Bogs were historically viewed as vast desolate places that were only utilised for afforestation, rough sheep grazing and/or peat cutting. However, they are of paramount importance for biodiversity and are valuable carbon sinks. Bogs can be classified as either lowland raised bog or blanket bog, depending on altitude, and examples of both are present in Fermanagh.

Heathland occurs on mineral soils and shallow peats of depths below 50 cm, often as a mosaic with blanket bog and occasionally raised bog. Two types of heathland habitats occur in Fermanagh: upland heathland occurs at altitudes between 300m and 600m; and montane heath occurs in altitudes over 600m.

Objectives	Local Actions
• Maintain the proportion of bogs and heathland present in the county. • Raise awareness of the importance of bogs and heathland for Fermanagh's biodiversity.	• Promote maintenance of bogs and heathland through agri-environment schemes. • Conduct guided walks in bog and heathland areas. • Conduct public management events. • Celebrate International Bog day.

Lowland raised bog

Lowland raised bogs occur in low-lying areas, usually in river valleys, old lake basins or between drumlins and are largely fed by rainfall. They are referred to as raised bogs because during their formation the bog surface develops into a dome-like structure. Acidic, waterlogged, oxygen-deficient conditions prevail on raised bogs and consequently, only a specialised range of plants and animals can survive here.

Typical plant species include *Sphagnum* mosses, which are the principle peat forming species, cross-leaved heath, cotton-grasses and sundews. Lowland raised bogs have suffered a serious decline in the past 200 years, with many cut to obtain peat for use as fuel and compost, or colonised by scrub which through time developed into woodland.

In Fermanagh, Moninea Bog ASSI and Tattynamona Bog ASSI are good examples of intact bogs. In Moninea Bog ASSI all three species of sundew are present and in Tattynamona Bog ASSI the rare moss, *Sphagnum pulchrum* has been recorded.

Common sundew © NIEA

Blanket bog

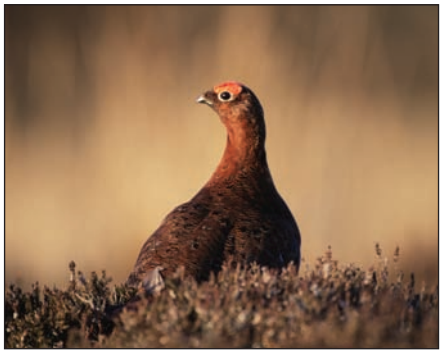
The formation of blanket bog is due mainly to cool temperatures and large amounts of rainfall, and is generally distributed at altitudes over 300m. Peat is formed in the same manner as lowland raised bogs, although peat deposits on blanket bogs are usually not as deep. Typical plant species present are similar to those on lowland raised bogs, namely heather, cross-leaved heath, *Sphagnum* mosses, cotton-grasses and sundews.

Bilberry and woolly-hair moss, however, are particularly suited to blanket bogs and are not found in lowland raised bogs. Other notable species include the golden plover, hen harrier, red grouse, curlew, skylark, wintering Greenland white-fronted geese and the Irish hare. Two rare species of moth are also associated with blanket bog in Fermanagh, namely the argent and sable moth, and the wood tiger moth. Fermanagh is particularly important in a regional context for blanket bog as many of the largest remaining areas of intact blanket bog in Northern Ireland are found here. These are located in the upland areas of Cuilcagh Mountain, the Pettigo Plateau and Slieve Beagh.

Wood tiger moth © NIEA

Upland heathland

Upland heathland occurs on mineral soils and in areas with a covering of peat less than 50cm in depth. Upland heathland can be quite easily confused with blanket bog, as they both contain many of the same species and can occur in the same areas. A good indicator of upland heath is the absence of hare's-tail cotton-grass, which requires the deeper peat of blanket bog to thrive. There are two different plant communities associated with upland heath; wet heath and dry heath. Wet heath, the most common type, contains species such as cross-leaved heath, purple moor-grass and mosses such as *Sphagnum*. Dry heath, which is much rarer, contains bell heather, bilberry and crowberry.



Red grouse © NIEA

Upland heath frequently occurs as a mosaic with other habitat types, bogs in particular, and this significantly increases its biodiversity value. In Fermanagh, upland heathland supports notable populations of hen harrier and red grouse as well as a diverse range of lower plants such as mosses and liverworts. For instance, the only known location in Northern Ireland for the rare slender thread-moss is an area of heathland within Fermanagh. The rare argent and sable moth and sword grass moth have also been recorded in areas of heathland within the County. Upland heathland is distributed on the higher slopes of the County at Slieve Beagh, Cuilcagh Mountain and Correl Glen National Nature Reserve within the Lough Navar uplands.

Montane heath

This type of heathland is very rare as it is found only in the uppermost reaches of Northern Ireland's mountains, in areas over 600m in altitude. There are only three known locations of montane heath in Northern Ireland; the Mourne Mountains in Co. Down, Sawel Mountain in Co. Tyrone and Co. Londonderry and Cuilcagh Mountain in Co. Fermanagh. Conditions on these mountain tops are hostile, with high rainfall, strong winds and shallow soils. Consequently, only a limited range of plant species can survive.

Cuilcagh Mountain Park © Fermanagh District Council

Typical plant species include shrubs such as heather, cowberry, and the rare juniper. Wind-pruned willow scrub has also been recorded on the montane heath of Cuilcagh Mountain. Rare species include alpine clubmoss and stag's horn clubmoss. Other species present are similar to those found in upland heathland and blanket bog, and include meadow pipit and wheatear. Montane heath is very sensitive to trampling and over grazing; however with sensitive management, this fragile habitat and its species can be maintained.

Juniper © NIEA

Hay meadow and parkland at Crom Estate © The National Trust

Grassland

In Fermanagh, there are several different types of grassland habitats which provide the ideal conditions for a variety of flora and fauna to thrive. The most species-rich include lowland meadow, purple moor-grass and rush pasture and floodplain grazing marsh. These particular habitats support a wide range of species, many of which are rare or only found in Fermanagh.

Objectives	Local Actions
• Maintain the proportion of species-rich grassland present in the County. • Raise awareness of the importance of species-rich grassland for Fermanagh's biodiversity.	• Promote maintenance of species-rich grassland through agri-environment schemes. • Conduct guided walks to illustrate the biodiversity value of species-rich grassland. • Conduct seed-gathering and planting events.

Lowland meadow

Lowland meadow is unimproved neutral grassland found on well-drained mineral soils and is characteristically herb-rich. As such, this type of grassland is not farmed intensively and is associated with a low-input nutrient regime. Consequently, a diverse range of wildflowers have the opportunity to flourish, forming a blaze of colour in summer. Unfortunately, lowland meadows have largely disappeared from Northern Ireland due to changes in agricultural practices, with remnant fields in Fermanagh containing the main proportion of the Northern Ireland resource. Additional examples of this habitat may also be found on roadside verges, recreational sites and old churchyards.

Blue-eyed grass © UWT

Typical plant species associated with this habitat type include meadow vetchling, yellow rattle and bulbous buttercup. The most notable plant is the blue-eyed grass which has been recorded in several Fermanagh lowland meadows. This small flower, a member of the Iris family, is a Northern Ireland Priority Species whose distribution in Northern Ireland is confined only to Fermanagh. Other important species associated with lowland meadows include the skylark and Irish hare. Lowland meadows are a common feature of the landscape near Belcoo and Garrison. Indeed, the blue-eyed grass is often found here and on nearby roadside verges.

Irish hare © John Doherty

Purple moor-grass and rush pasture © Patrick McGurn

Purple moor-grass and rush pasture

This habitat occurs on acidic soils that are poorly drained in areas of high rainfall. The dominant vegetation includes tussocks of purple moor-grass, however, rush species such as sharp-flowered rush, as well as a diverse range of sedges are also present. In Fermanagh, this habitat type is widely distributed, typically in farmland as wet hollows, field corners and as unenclosed larger areas. Often purple moor-grass and rush pasture occurs as a patchwork with other habitat types such as fens, floodplain grazing marsh and lowland raised bog which increases its value for biodiversity.

The areas of purple moor-grass and rush pasture that occur in the west of Fermanagh, in the townlands of Lergan, Drumlisaleen and Moneedogue, are of particular importance having been designated as ASSIs. Indeed, Moneendogue contains 74 plant species, including devil's-bit scabious, ragged robin, meadow thistle, lesser butterfly orchid, and the rare Irish lady's-tresses orchid. Other important species associated with this habitat type in Fermanagh include the marsh fritillary, one of our most endangered butterflies and birds such as the curlew, lapwing, redshank and snipe.

Marsh fritillary © Robert Thompson

Floodplain grazing marsh

This habitat occurs on flat, low-lying land that is periodically flooded. Drainage ditches are an integral part of grazing marsh and are biodiversity hotspots, often supporting rare plants, such as Irish lady's-tresses orchid which has been recorded on grazing marsh in Fermanagh. Rushes and sedges are commonplace.

Within this habitat type there are many factors that dictate species diversity, such as how the water levels are managed, how the area is managed and the levels of nutrients present in the water. Along the River Finn lies a section of floodplain which is designated as an ASSI for its diverse range of wetland vegetation and notable populations of breeding waders. In addition, Upper Lough Erne has significant areas of floodplain grazing marsh, with numerous access points and lay-bys, enabling the habitat to be viewed and appreciated.

Lapwig © Laurie Campbell

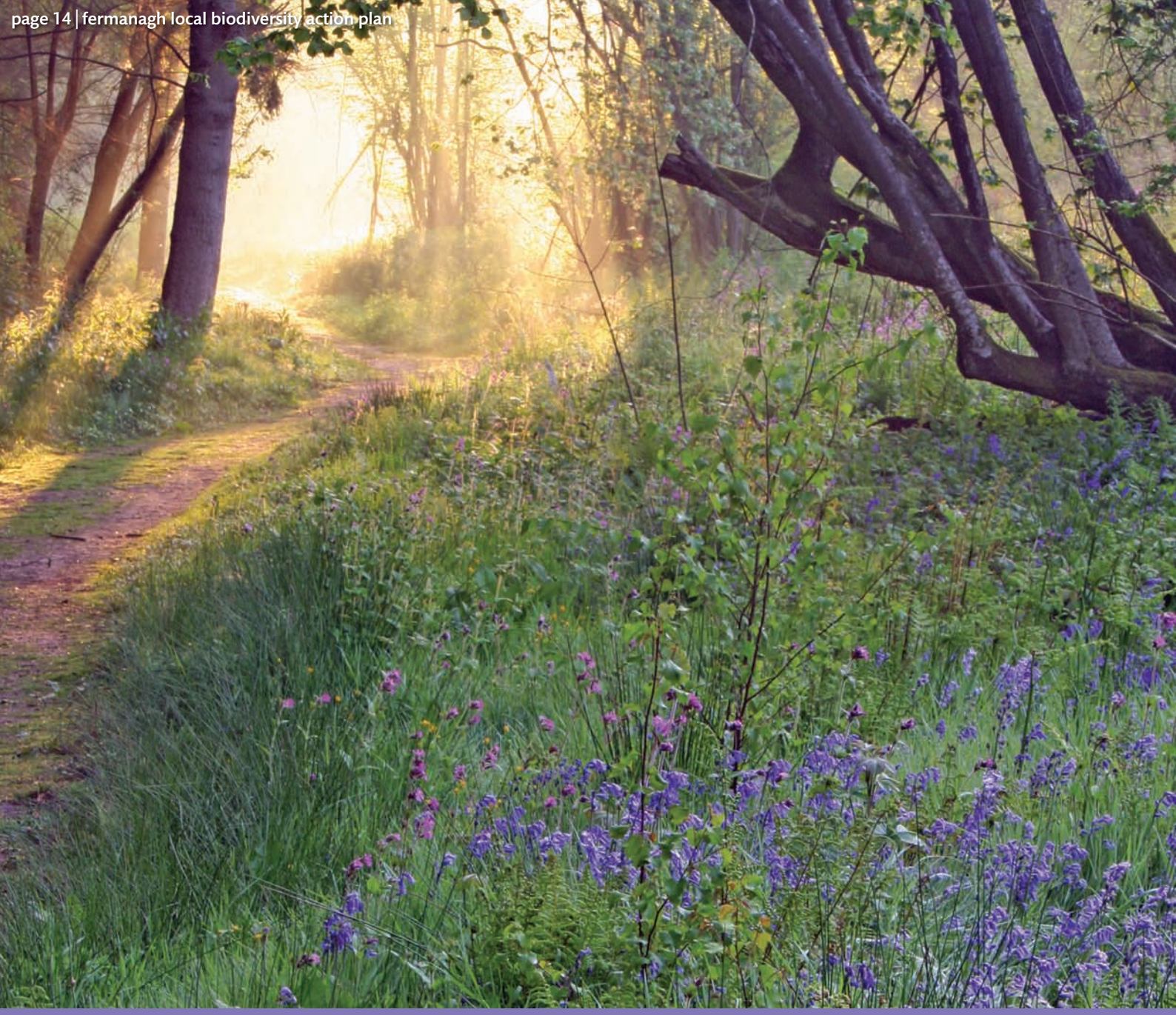
Roadside verges

Roadside verges are neither a priority habitat in Northern Ireland, nor a habitat that most people would associate with being a biodiversity haven. However, they do provide an excellent habitat within which wildlife can flourish and similar to species-rich hedgerows, act as an important wildlife corridor.

Plant species to look out for include the primrose, ox-eye daisy and common spotted orchid. Wild strawberry and bramble are also present, which are a valuable food source for birds. Rural roadside verges in Fermanagh are of particular interest as the rare blue-eyed grass and dingy skipper butterfly, both Northern Ireland Priority Species, have been recorded here.

Species-rich roadside verges have been noted throughout Fermanagh; the best examples occur on the A47 travelling between Kesh and Belleek and on the A46 between Silverhill and Lough Erne Golf Resort.

Species-rich roadside verge outside Garrison © UWT



Woodland

If most of our land was left totally unmanaged, woodland would eventually develop as a result. However, Northern Ireland is one of the least wooded areas in Europe with only 1% under native tree cover. The highest proportion of native woodland cover in Fermanagh is located in the old estates and islands, allowing an important diversity of flora and fauna to flourish. The type of woodland that develops is dependent on a number of factors such as geology, soil type, drainage and topography.

Woodland at Irvinestown © CVNI

Objectives	Local Actions
• Maintain the extent of native woodland in Fermanagh. • Raise awareness of the importance of native woodlands for biodiversity. • Increase the extent of species-rich hedgerows in Fermanagh.	• Promote the maintenance of native woodlands and species-rich hedgerows through agri-environment schemes. • Encourage further planting at appropriate sites. • Hold a hedge-planting and/or hedge-laying event. • Hold a seed gathering event. • Promote native woodlands through walks and talks. • Plant young trees to improve age-structure in parkland.

Oakwoods

Oakwoods are characterised by the presence of sessile oak, pedunculate oak and downy birch in the main canopy, with smaller trees such as holly, hazel and rowan present in the understorey. Much of the oakwood in Northern Ireland was cleared hundreds of years ago to be reclaimed for agriculture. Fortunately today, the majority of oakwood in Fermanagh is protected by statutory designations. In Fermanagh, there are several areas of oakwood that support particularly rare plant species including the serrated wintergreen and Tunbridge filmy-fern.

Other plant species more commonly found in oakwood include bramble, bluebell and wood anemone. The purple hairstreak butterfly and song thrush are also characteristic; in fact Fermanagh is the stronghold for the purple hairstreak in Northern Ireland. Oakwoods are widespread throughout Fermanagh; good examples are found within the National Trust's Crom Estate, on the shores of Upper Lough Erne.

Purple hairstreak butterfly © Robert Thompson

Mixed ashwoods

As the name suggests, this habitat is distinguished by the dominance of ash in the woodland canopy, although other species such as oak and downy birch are also frequently present. Sometimes oakwood and mixed ashwood habitats occur together and often it can be quite difficult to distinguish one from the other. Mixed ashwood is renowned for the diverse range of plants present at ground level, including bluebell, primrose and wood anemone.

Mixed ashwood also usually occurs on base-rich soils which form over limestone rock and therefore tends to be concentrated in the west of Fermanagh. Hanging Rock and Rossaa National Nature Reserve, Marble Arch Nature Reserve and Cladagh Glen are examples of well-developed mixed ashwoods containing several notable mammals, including the red squirrel and pine marten.

Wet woodlands

This habitat type occurs in areas where the ground is poorly drained or where the soils are seasonally waterlogged. Given the abundance of wetland habitats in Fermanagh, wet woodlands are commonplace. Wet woodland is typically dominated by alder, downy birch or willow, but also sometimes includes ash or oak in drier areas. Alder-carr woodland is of particular importance in Fermanagh as it is rare throughout the island of Ireland.

Species usually present at ground level include mosses, ferns and sedges as these are essentially species that can tolerate the wet and humid conditions. Wet woodland in the County is also important for the rare alder buckthorn which supports the dark umber and brown scallop moths, both of which occur in Fermanagh and nowhere else in Northern Ireland, and a diverse range of fungi including alder bracket, willow shield and birch milkcap.

Wet woodlands occur on the fringes of wetlands and within some of the islands of Upper and Lower Lough Erne and are important areas for otters, as they frequently use the habitat to forage and rest. Wet woodlands are also important for bats such as pipistrelles and birds such as redpoll, willow warbler and the garden warbler for which the Erne basin is the centre of the Irish breeding population. Good examples of wet woodland are present in Castle Caldwell Forest Nature Reserve, Castle Archdale Country Park on the shores of Lower Lough Erne and Correl Glen National Nature Reserve.

Wet woodland on the shores of Lough Erne © Fermanagh Lakeland Tourism

Ancient and/or species-rich hedgerows

Hedgerows are an integral and characteristic feature of the Fermanagh countryside marking boundaries between neighbouring fields and acting as a stockproof barrier. During the plantation, hedgerows were planted to define boundaries between townlands; today, where these remain they are of particular importance, as they were typically planted between 1750 and 1850, classifying them as ancient. Species-rich hedgerows may be taken as those which have at least five or more native woody species in a 30m length. Examples of native hedgerow trees include hawthorn, blackthorn, gorse, holly, willow, hazel and birch. Often species-rich hedgerows are planted alongside a ditch, which further increases the species diversity. Many species use hedgerows to move between sites, making hedgerows a valuable wildlife corridor and providing connectivity between many different habitats. Hedgerows are important habitats for many birds such as linnet, bullfinch and song thrush, and mammals such as stoat, Irish hare and hedgehog. Species-rich hedgerows are widespread throughout Fermanagh, but some of the best examples are present near the National Trust's Crom estate.

Hedgerow plants in fruit © Emma McLaughlin

Parkland

Parkland typically consists of large open-grown or high forest trees which are surrounded by grazed grassland, heathland and/or woodland flora. Oak and beech are common constituents of this woodland with many of the trees classified as ancient or veteran. Parkland forms as a result of historic land management practices and is typically associated with old estates in Fermanagh. Northern Ireland Priority Species that thrive in parkland include the red squirrel and spotted flycatcher as well as a number of bat species. In the autumn, a diverse range of fungi sprout up and are dotted throughout this habitat. There are numerous stunning examples of parkland within the estates of Fermanagh, which are thought to be some of the highest quality in Northern Ireland. These areas include Castle Archdale Country Park, and the National Trust's Castle Coole, Florence Court and Crom Estates. Cottage Lawn, a small area of parkland on the shores of Lower Lough Macnean, is also a particularly interesting place to visit.

Bombus pratorum on chives © Richard Burkmarr

Gardens and urban green space

Gardens and urban green space also make an important contribution to Fermanagh's biodiversity. The wide range of habitats found in urban areas makes them extremely rich in terms of the variety of wildlife found there and although not a priority in the Northern Ireland context, they provide important refuges and feeding grounds for many species. They also provide an important place for people to discover, enjoy and learn about nature.

Objectives	Local Actions
• Increase the biodiversity value of public parks. • Raise awareness of the importance of roadside verges for Fermanagh's biodiversity. • Raise awareness of the biodiversity value of gardens.	• Carry out enhancement works on council-owned grounds to improve the biodiversity value. • Hold events to explain the biodiversity value of gardens, showcase examples and best practice. • Encourage people to gather records of species in their garden. • Establish links with Road Service to manage species-rich roadside verges sympathetically. • Hold a training event for road cutting/ maintenance contractors to raise awareness of biodiversity value of roadside verges.

Gardens

Every garden, no matter how big or small, has the potential to become a valuable wildlife haven. In the summer, a garden provides an abundant source of nectar for bees and butterflies, which in turn attract small mammals and birds. Typical bird species found in gardens include robins, blue tits, blackbirds and chaffinches; and mammals such as hedgehogs and bats. Even in the winter, when everything is dormant and the weather is harsher, gardens provide valuable hibernation spots for wildlife.

Simple actions like putting up bird feeders and nest boxes will help provide much–needed food and shelter for birds. Planting native trees such as holly and rowan, and leaving a patch "wild" or planting wildflowers can make a significant contribution to biodiversity. Growing nectar producing plants, such as buddleia will attract a range of garden butterflies such as the peacock and small tortoiseshell. Incorporating sustainable garden practices, such as installing water butts, choosing peat-free compost or making your own, will minimise the impact on natural resources and help enhance the environment.

Hedgehog © Richard Burkmarr

School grounds

School grounds have the potential to be a biodiversity hotspot and provide a valuable educational resource. With appropriate management, wildlife can flourish and simultaneously children can begin to fully appreciate nature in their 'outdoor classroom'.

Potential enhancement projects that could be carried out include planting a species-rich hedge, creating a wildflower garden, creating a small pond, planting native tree species, erecting bird boxes or installing bird feeders. Getting children involved in such projects will enrich their learning and help them fully appreciate the world around them.

Public parks

Public parks and open spaces provide an opportunity for biodiversity to flourish in an area that otherwise would not support wildlife. Typically the species present are similar to those found in most gardens. However, if appropriate plant species and management techniques are used, a diverse array of species can thrive. If mature trees are present, they provide a wonderful habitat for insects and a roosting site for birds and bats, as well as providing a habitat for a range of lichens and fungi.

Forthill, Enniskillen © UWT

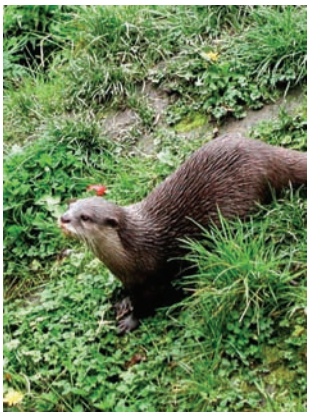
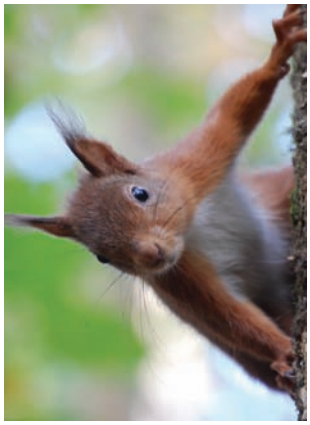
Examples of public parks to visit in Fermanagh include Forthill in Enniskillen, and Glencunny Woods, on the A4 between Enniskillen and Letterbreen. Improvement works at Glencunny Woods has resulted in improved public access and an otter holt has also been created on the banks of the Sillees River.

Businesses

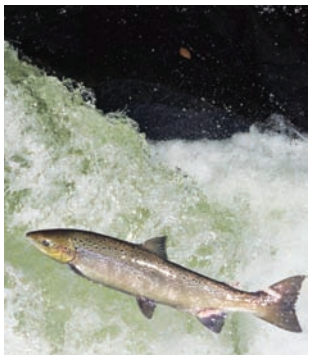
Many industrial sites and businesses have areas within their premises that are of benefit to wildlife. Neglected corners provide a refuge for a range of plants and animals. Old derelict buildings could provide shelter for bats and nesting places for birds. Areas around new buildings could also be landscaped using native flowers, shrubs and trees, enhancing the sites' value for wildlife and employees.

Peacock butterfly on buddliea © UWT

Local Action for Species

Species	Description	Objectives	Local Actions
Otter  Otter © UWT	Semi-aquatic, the otter lives on land and in water, feeding mostly on fish, insects and sometimes small mammals and birds. Widespread throughout rivers and lakes in Fermanagh, with internationally important numbers on Upper Lough Erne and its tributaries. Otters use wet woodlands to rest during the day and sleep in holes in the riverbank called 'holts.'	• Maintain present population numbers and/or distribution. • Maintain and improve condition of existing suitable habitat. • Raise awareness of importance of maintaining good water quality.	• Establish links with river and lake users to promote sustainable use of resource. • Encourage records of otter sightings. • Media work highlighting threats to and importance of otters. • Investigate creation of artificial otter holts. • Provide otter gates and passes in areas where otter deaths occur on roads. • Investigate habitat enhancement projects.
Red squirrel  Red squirrel © National Trust	Red squirrels are found mainly in mixed coniferous woods throughout Fermanagh. Their diet comprises mainly of nuts, seeds and berries. They are suffering serious declines due to competition from non-native grey squirrels for food, combined with the spread of the parapox virus.	• Maintain current distributions in suitable habitats. • Educate and raise awareness of red squirrel as a native indigenous species.	• Encourage recording of red squirrels. • Investigate viability of establishing a Fermanagh community-led red squirrel forum. • Lead and assist with public events highlighting the threats facing red squirrels, appropriate management, and their contribution to biodiversity. • Work with Forest Service in relation to the management of coniferous plantations for reds, control of greys and feeding stations for reds.
Bats  Common pippistrelle © Mark Smyth	Bats are one of the smallest mammals in Northern Ireland. They have suffered serious declines in recent years through habitat loss. Commonly found in old buildings, bridges, caves and holes in trees. All eight bat species recorded in Northern Ireland are present in Fermanagh, and can be found at The National Trust's Crom Estate.	• Maintain and improve condition of existing habitats. • Educate and raise awareness of decline in bat numbers and problems facing them.	• Hold a 'bat night' for the general public to generate interest in bat conservation. • Media work highlighting the threats to and importance of bats. • Provide advice to the public on bats in buildings. • Carry out further survey work to identify breeding/roosting sites.

Species	Description	Objectives	Local Actions
Waders (curlew, lapwing, snipe and redshank)  Curlew © Laurie Campbell	Breeding waders live and breed in wetland habitats and bogs where there is a good supply of invertebrates. Fermanagh is the stronghold for breeding waders in Northern Ireland with particular concentrations on the islands in Lower Lough Erne. Four of the islands are owned by Fermanagh District Council and managed by the RSPB.	• Maintain present population numbers and/or distribution. • Maintain and improve condition of existing suitable habitat. • Educate and raise awareness of wader populations present in Fermanagh.	• Liaise with landowners where waders are known to occur and encourage their participation in relevant agri-environment schemes. • Media work highlighting threats to and importance of waders. • Dissemination of information on best practice management. • Liaise and work with the RSPB to improve suitable habitat.
Hen harrier  Hen harrier © Laurie Campbell	This bird of prey is restricted to the uplands of Fermanagh, particularly clear felled areas in existing plantations and new forest plantations. Occasionally it can be seen in the lowlands during winter. The male is predominately grey with black wing-tips, whereas the female is mottled brown. It feeds on small birds and mammals.	• Maintain present population numbers and/or distribution. • Maintain and improve condition of existing suitable habitat. • Use as a 'flagship' species to promote biodiversity of uplands. • Education and raise awareness of hen harriers in Fermanagh.	• Liaise with landowners where hen harriers are known to occur and encourage their participation in moorland prescriptions under agri-environment schemes. • Engage with relevant stakeholders (e.g. Forest Service) to instigate practical habitat management projects. • Media work highlighting threats to and importance of hen harriers.
Freshwater pearl mussel  Freshwater pearl mussel © NIEA	Grows to 140 mm in length and burrows into sandy substrates in fast-flowing rivers and streams. Spends its larval stage attached to the gills of salmon and is known to live for up to 120 years. The Cladagh (Swanlinbar) River is the Fermanagh stronghold for the species and their presence is one of the main selection criteria in the river's ASSI and SAC designation. Smaller populations of freshwater pearl mussel occur elsewhere throughout the Erne catchment.	• Maintain present population numbers and/or distribution. • Maintain and improve condition of existing suitable habitat. • Raise awareness of importance of maintaining good water quality. • Ensure legislative protection.	• Establish links with water course users, where populations are known to occur, to promote sensible usage. • Conduct a project to improve water quality and habitats where known populations occur. • Investigate the viability of a captive breeding programme. • Media work highlighting threats to and importance of the freshwater pearl mussel. • Conduct a survey to ascertain exact species distribution.
White-clawed crayfish  White clawed crayfish © Andy Kirkland	This species is widely distributed throughout Fermanagh's lakes and rivers. It prefers clear, well-oxygenated and calcium rich water, without too much fine sediment. Indeed, much of Northern Ireland's population is located here.	• Maintain present population numbers and/or distribution. • Maintain and improve condition of existing suitable habitat. • Raise awareness of importance of maintaining good water quality.	• Establish links with river and lake users to promote sensible use of resource. • Media work highlighting threats to and importance of the white-clawed crayfish. • Recording scheme to establish exact distribution. • Promote recording for non-native crayfish and net contamination.

Species	Description	Objectives	Local Actions
Pollan  Pollan © Robert Rosell	The pollan is the only member of the white-fish family found in Ireland. The European population is confined to four lakes in Ireland – Lower Lough Erne, Lough Neagh, Lough Allen, Lough Derg and Lough Ree.	• Maintain current population in Lower Lough Erne. • Increase awareness of rarity of the species and how its presence is linked to good water quality. • Consider viability of population enhancement, similar to present salmonid enhancement work.	• Establish links with river and lake users to promote sensible use of resource. • Media work highlighting threats to and rarity of pollan. • Work with relevant stakeholders to instigate practical habitat enhancement projects.
Native salmonids  Atlantic salmon © Laurie Campbell	Native salmonoids within this action plan refer to brown trout and Atlantic salmon. These species are widely distributed throughout the many rivers and lakes in Fermanagh. Although they are not Northern Ireland Priority Species they are Northern Ireland Species of Conservation Concern, and are a vitally important component of the life cycle of the freshwater pearl mussel. In addition, within Lough Melvin three indigenous sub-species of brown trout occur, namely sonaghan, gillaroo and ferox trout.	• Maintain current distributions in suitable habitats. • Educate and raise awareness of the importance of maintaining genetic integrity of salmonids and the factors causing their decline. • Survey and habitat improvements to nursery streams.	• Establish links with river and lake users to promote sensible use of resource. • Media work highlighting the threats to and the importance of Fermanagh's native salmonids. • Work with relevant stakeholders to instigate practical habitat enhancement projects.
Arctic charr  Arctic charr	The Arctic charr is a glacial relict species from the last Ice Age and is closely related to salmon and brown trout. In Northern Ireland, the species is confined to two known locations, Lough Melvin and Lough Formal, both of which are in Fermanagh.	• Maintain current distribution of Arctic charr. • Investigate captive breeding viability to establish a reservoir population. • Increase awareness of the rarity of the Arctic charr and its importance for Fermanagh's biodiversity.	• Establish links with users of the lakes where the species is presently found. • Engage with relevant stakeholders to instigate practical enhancement projects. • Media work highlighting the threats to and rarity of Arctic charr for Fermanagh's biodiversity.
Small blue butterfly  Small blue butterfly © NIEA	Smallest butterfly in Northern Ireland, with a wingspan of 18-27 mm. Believed to be confined to a single site in west Fermanagh. Prefers calcareous grassland where the kidney vetch, its food plant grows. No sightings since 2001; presumed extinct.	• Investigate the population status of the small blue. • Raise awareness of existence of the small blue and its rarity.	• Survey to investigate the distribution of the small blue. • Hold species identification training to increase number of species recorders. • Media work highlighting threats to and importance of the small blue.

Species	Description	Objectives	Local Actions
Dingy skipper butterfly  Dingy skipper butterfly © NIEA	The dingy skipper owes its name to its dull brown and grey markings. Confined only to unimproved grassland and roadside verges in Fermanagh where its food plant, bird's-foot trefoil is common.	• Maintain current populations of dingy skipper. • Identify the extent of distribution of dingy skipper in Fermanagh.	• Media work highlighting threats to and importance of the dingy skipper. • Conduct surveys on species-rich roadside verges and other areas of unimproved grassland where the food plant, bird's-foot trefoil is present. • Work in partnership with Roads Service to deliver training to contractors on sensitive roadside verge management.
Marsh fritillary butterfly  Marsh fritillary butterfly © Robert Thompson	Found at a few sites in Northern Ireland, but scarce and has undergone severe declines throughout Europe. Restricted to limestone grassland, purple moor grass and rush pastures, and upland heathland in Fermanagh. However this figure will be subject to change, as new colonies are constantly being discovered. Devil's-bit scabious is the main food plant.	• Maintain present populations of marsh fritillary. • Educate and raise awareness of marsh fritillary and its importance to Fermanagh's biodiversity.	• Hold identification training to increase the number of local recorders. • Media work to highlight threats to and importance of the marsh fritillary. • Promote further survey work to identify all potential sites and encourage further protection. • Promote species-rich wet grassland prescriptions under agri-environment schemes.
Blue-eyed grass  Blue-eyed grass © UWT	The blue-eyed grass is a member of the iris family, whose name is derived from its leaves, which are grass-like in appearance. Its flower has unmistakable blue petals, with a yellow centre. It thrives in lowland meadows and those areas with similar type vegetation. Within Northern Ireland, this species is confined only to Fermanagh.	• Maintain distribution of blue-eyed grass within Fermanagh. • Use as a flagship species to promote lowland meadows. • Educate and raise awareness of the importance of this species for Fermanagh's biodiversity.	• Encourage recording of blue-eyed grass. • Liaise with Road Service to advise sympathetic management of roadside verges where species are known to occur. • Promote sensitive management of lowland meadows where appropriate, through agri-environment schemes.
Tunbridge filmy fern  Tunbridge filmy fern © Graham Day	This rare fern is a small plant, similar to its commoner relative, Wilson's filmy-fern. Both superficially resemble tufts of moss, and grow in deep shade in humid conditions. Within Northern Ireland, most records are confined to Fermanagh.	• Maintain levels of canopy cover/ shade where species is known to occur. • Encourage further recording to identify more sites.	• Establish distribution of Tunbridge filmy-fern. • Liase with Forest Service to identify sites under their management.

How you can do your bit for Fermanagh's biodiversity

To find out more about the Fermanagh LBAP project or how you can get involved, please contact:

Fermanagh Biodiversity Officer
Fermanagh District Council
Townhall
Enniskillen
Co. Fermanagh BT74 7BA

Tel: 028 6632 5050
Email: fermanagh.biodiversity@ulsterwildlifetrust.org
Web: www.fermanagh.gov.uk; www.ulsterwildlifetrust.org/biodiversity
(click on local biodiversity officers)

Girl interacting with nature © Tommy McLaughlin

In order for the Fermanagh LBAP project to be successful, it is important to have the support and involvement of local people and local organisations. There are a number of ways in which you, as an individual or organisation can get involved and play a vital part in enhancing and maintaining Fermanagh's biodiversity.

Collecting records

The Fermanagh Biodiversity Audit revealed that there are some gaps in habitat and species records. Collecting records of species sightings enables us to build a better picture and focus our conservation efforts in the County. There are many species in Fermanagh, not only rare and threatened but common species as well, that are very much under-recorded. Reporting any sightings or records to the Fermanagh Biodiversity Officer will help to guide the Fermanagh LBAP project and provide a broad picture of the status of a particular species. This important information can help guide specific action to help protect the most threatened habitats and species.

Birdwatching © UWT

Identifying and developing projects

Local people are in an ideal position to identify sites in their area which could benefit from biodiversity enhancement. Support is available to enable communities to develop sites that will enhance their local biodiversity and also enable them to learn new skills along the way. By contacting the Fermanagh Biodiversity Officer, the first steps can be taken towards embracing biodiversity in your local community.

Tree planting © Woodland Trust

Identifying and reporting issues affecting Fermanagh's habitats

Anything that may have a negative impact on the biodiversity of Fermanagh should be reported to the appropriate authority. Incidents such as dumping and water pollution should not be ignored, as these have an impact on local biodiversity. Local people are ideally placed to report such activities and this can go a long way towards preventing further decline of our habitats and species.

Habitat management and species identification training

To assist with the Fermanagh LBAP project, habitat management and species identification training will be offered to interested individuals. Upon completion, these individuals will be able to confidently undertake management projects on priority habitats and record species that may otherwise be a bit more difficult to identify. If you are interested in conducting such training for the benefit of your local area, please contact the Fermanagh Biodiversity Officer.

Limestone pavement survey © Fermanagh District Council

Walking in Fermanagh

Walking allows people to appreciate and enjoy the rich biodiversity resource on their doorstep. There have been many studies into the positive effects of biodiversity on health and enjoying a walk in Fermanagh's countryside is no exception. '25 walks in Fermanagh', published by Fermanagh District Council identifies 25 walking routes within the County. Each walk differs in ability, duration, and embraces a range of different habitats and landscapes. This guide is available from the Tourist Information Centre, Enniskillen. Additional information on walking routes within the County can be found at www.walkni.com.

Practical Work

There will be a number of projects organised throughout Fermanagh where local people can get their 'hands dirty' to help wildlife. These projects will include, for example: tree planting, planting wildflowers, hedge-laying, creating ponds and making bird boxes. In addition, Conservation Volunteers Northern Ireland, RSPB and The National Trust have ongoing conservation projects taking place throughout the County that people can get involved in.

Insect hotel © UWT

Wildlife Gardening

Everyone can do something to create a special place for wildlife in their garden. Simple things such as putting up bird boxes and feeders, planting native trees such as holly or rowan, creating insect habitats from logs, or growing nectar-rich flowers will help provide food and shelter for a variety of species. Similarly, making a conscious decision to choose peat-free compost or producing your own by purchasing a composting bin from the council goes hand-in-hand with efforts to attract garden birds, insects and mammals.

Even if you don't have a garden, window boxes and hanging baskets can have a positive effect on wildlife and contribute to the biodiversity of the local area, as well as providing a colourful addition to your windowsill.

Glossary

ASSI Area of Special Scientific Interest. These are designated under the Environment (NI) Order 2002 as areas of land that have been identified as being of the highest degree of conservation value.

HAP Habitat Action Plan

SAP Species Action Plan

LBAP Local Biodiversity Action Plan

Local Priority Habitat A habitat type that is locally important to Fermanagh. It may or may not be a Northern Ireland Priority Habitat.

Local Priority Species A species that is deemed to be important in Fermanagh. It may or may not be a Northern Ireland Priority Species.

Northern Ireland Priority Habitat Habitats at risk in Northern Ireland because of either rarity or a high rate of decline, or habitats for which Northern Ireland has a large part of either the UK (10%) or Irish (50%) total, or habitats of particular importance for priority species.

Northern Ireland Priority Species Species that have undergone a drastic decline in numbers (2% decline per year over last 25 years), or declining (1% per year) with Northern Ireland being a stronghold for the species. These species require conservation action if they are to be saved from extinction in Northern Ireland.

Northern Ireland Species of Conservation Concern Species that have undergone a decline in numbers (1% per year over last 25 years), or Northern Ireland is a stronghold for the species. These species require monitoring because they may need conservation action in the future.

SAC Special Areas of Conservation. These are protected sites designated under the EU Habitats Directive which are the most seriously threatened habitats and species in Europe.

SPA Special Protection Area. These are protected sites classified in accordance with Article 4 of the EC Directive on the conservation of wild birds, also known as the Birds Directive. They are classified for rare and vulnerable birds, and for regularly occurring migratory species.

Ramsar Site Ramsar sites are wetlands of international importance designated under the Ramsar Convention.

UWT Ulster Wildlife Trust

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Walkers © Fermanagh Lakeland Tourism

Fermanagh District Council

Ulster Wildlife Trust

Northern Ireland Environment Agency
www.ni-environment.gov.uk

An Agency within the Department of the Environment
www.doeni.gov.uk

Landfill Communities Fund

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