



ACTION  
FOR BIODIVERSITY

# NATURE and WILDLIFE in ROSCOMMON









# NATURE AND WILDLIFE IN ROSCOMMON ACTION FOR BIODIVERSITY

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Consultant Ecologist

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[www.bogfire.com](http://www.bogfire.com)



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# INTRODUCTION

## ROSCOMMON

Roscommon is an inland county with a wealth of nature and wildlife, and natural amenities. The landscape is generally low-lying with gently rolling hills and vistas. The only upland areas in Roscommon are to the north of the county where the land rises above 250m in places. Most of the county is underlain by carboniferous limestone although there are a few pockets of sandstone in the north, west and east of the county. The mighty River Shannon borders the county to the east while the River Suck flows along its western and southern borders. The climate, geology, soil, topography, and land use history of Roscommon are the main factors that determine the rich variety of habitats, plants and animals that are found in the county.



*Leaf of insect-eating plant, sundew.  
Photo by John Earley*



## BIODIVERSITY

Biodiversity is life and all living things! Biodiversity can be thought of as another term for nature, wildlife. It is our natural heritage. Biodiversity includes all plants, animals, fungi and microbes. It also includes people. Biodiversity also refers to the places that plants and animals live (habitats), the interactions among living things as they live, reproduce and die (the web of life), and their relationship with the environment. The term biodiversity emphasises the importance of maintaining the variety of living things because this diversity is fundamental to our health, well-being and economy.

Biodiversity forms the building blocks of the living world. It is all around us in the countryside, from the tops of mountains to the depths of the ocean, in fields and hedgerows, lakes and rivers, woodland and wetlands. Biodiversity is also found in our cities and towns, on rooftops, in gardens, parks and green spaces; along canals, in ditches and even the smallest of puddles. Where there is life there is biodiversity.







*Roadside and townland boundary hedges in County Roscommon were found to contain a greater diversity of native shrub species than other hedges. This is due to earlier establishment in the landscape as many roads date back to before the period of land enclosure. Inset Photo by John Earley*

## WHY BIODIVERSITY IS SO IMPORTANT

Biodiversity supports life on earth. We depend on biodiversity for most of our basic needs: food, water, air, fuel, medicines and building materials. Biodiversity provides us with natural amenities, places to walk, play, relax and recuperate, as well as a healthy environment in which to live. Our quality of life depends to a large extent on biodiversity.

The value of biodiversity for people can be best explained by thinking of it as providing some essential 'goods and services'.

Of course, nature and the natural world also have their own intrinsic value. We can all play a role in protecting biodiversity now and for future generations.



## BIODIVERSITY

The Convention on Biological Diversity (CBD) defines 'Biological Diversity' as 'The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems'. Therefore biodiversity refers not only to the variety of life but also to the interactions between living things, and it can be considered at three levels, ecosystem diversity, species diversity and genetic diversity within species.

[www.cbd.int](http://www.cbd.int)



## GOODS AND SERVICES PROVIDED BY BIODIVERSITY



*Photo by Giorria Environmental Services*

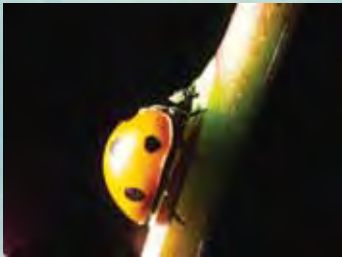
### CLEAN AIR

Trees and other plants absorb carbon dioxide and release oxygen into the atmosphere. A single tree can absorb between 650-750kg of carbon dioxide in its lifetime! In towns, trees can filter air-borne pollutants, making the air we breathe cleaner.



### CLEAN WATER

Clean water is critical for society's health, environment, agriculture, economy and well-being. Wetlands that form a fringe around watery places help protect water quality by intercepting pollutants that otherwise might wash into our lakes and rivers. They also act as 'sponges' holding water and releasing it slowly.



*Photo by John Earley*

### SOIL FERTILITY

Hundreds of organisms, from tiny microbes to beetles to earthworms are part of nature's recycling system. They breakdown dead plant and animal matter returning the nutrients to the soil. They also help release nutrients that are key for health plant growth from organic material in soils.



### FOOD

All food originates from living things, plants or animals. It is important to conserve the genetic diversity of crops and domestic animals in order to ensure they can survive future climatic and environmental change, and in order to breed for pest and disease resistance.



*Photo by John Earley*

### BUILDING MATERIALS

Timber has a multitude of uses and much of the timber used in Irish buildings is now grown in Ireland.

### FUEL

Most fuels, including wood, turf, coal, oil and gas, have their origins in organic living matter.



*Harvested turf drying. Photo by John Earley*





*Foxglove. Photo by John Earley*

## AGRICULTURE

Agricultural systems depend on healthy natural ecosystems to maintain soil fertility, pollinators, pest and disease control.

## TOURISM

Many tourists come to Ireland and Roscommon to see and enjoy the ancient and green landscapes. They appreciate the rural tranquillity and largely unspoilt countryside. Many visitors come specifically for activities that directly depend on a healthy natural environment such as angling, boating, walking and mountaineering.

## QUALITY OF LIFE

There is nothing like a day cruising along the Shannon or walking through Lough Key Forest and Activity Park to clear the mind and relax. Biodiversity plays an integral part of keeping us healthy both mentally and physically by providing beautiful and interesting places for recreation.

## MEDICINES

Many medicines we use everyday (e.g. Aspirin), were originally derived from plants. Pharmaceutical companies continue to explore wild places for potential new drugs.

## CULTURE

Nature and wildlife has inspired numerous poets, painters, composers and authors, such as the Roscommon born painter Roderic O'Connor, or the author John McGahern who lived for a time in Cootehall.

## THE COUNTY CREST



Roscommon's County Crest reflects the heritage of County Roscommon and how important biodiversity is to the county. ■ The Blue background stands for truth and loyalty. ■ The Crown stands for Rathcroghan and the association of the O'Connor's, Kings of Connacht, with the county. ■ The Gold Cross stands for the Abbeys in Roscommon, St. Coman and the Cross of Cong, which was made for High King Turlough Mor O'Connor in 1123. ■ The words 'Constans Hiberniae Cor' are latin and they mean Irish, steady, firm, unchanging, constant and unwavering. ■ The Sheep's head stands for the long tradition of sheep farming in the county. ■ The Oak Leaf with acorns stands for growth and continuous fertility. It also represents Douglas Hyde, first president of Ireland, born in Co. Roscommon. He wrote under the pen name of 'An Croabhin Aoibhinn', which means 'little oak'. ■ The Green in the triangle represents 'Ros' meaning wood, from Ros Comain – the Irish name for Roscommon, which means the wood of St. Coman.



## FOCUS ON THE HUMBLE EARTHWORM

The common garden earthworms play a hugely important role in soil ecology. They are responsible for aerating and mixing the different layers of soil, assisting the breakdown of organic matter and improving soil drainage. Earthworms are the gardener's friend and high numbers of earthworms in the soil is a good indicator of soil fertility. Most agricultural systems depend on soil fertility for productivity. Ensuring the health of soil fauna, especially key species such as earthworms, is vital for agriculture and food security. There has been some concern recently that the introduced New Zealand flatworm (a predator of earthworms) may be having a negative impact on native earthworm populations. Also the way we manage our soils is not always good for worms. Earthworms don't thrive in soils which are either compacted by heavy machinery or dosed with chemicals such as herbicides, pesticides or large quantities of artificial fertilisers.

[http://www.noticenature.ie/New\\_Zealand\\_Flatworm.html](http://www.noticenature.ie/New_Zealand_Flatworm.html)



*Earthworms  
are the  
gardener's  
friend . . .*



## FOCUS ON ECOTOURISM

Ecotourism is a rapidly growing sector in Ireland. Many tourists and visitors to Ireland want to enjoy our wealth of natural amenities and heritage. Walking and cycling holidays, boating and fishing in pristine waters, heritage tours and eco-friendly accommodation and transport are increasingly in demand. Roscommon has great potential to attract tourists who are looking for something different with its rural landscapes, wild and watery places, and quiet corners to explore.

*Ecotourism is travel,  
which is small scale, low  
impact, culturally sensitive,  
community orientated, and  
nature based.*



## FOCUS ON INVASIVE SPECIES

Invasive species are plants or animals that have been introduced to Ireland, are spreading rapidly, pushing out native species and/or altering natural ecosystems and how they function. There are several invasive species that are a serious problem or threat in Roscommon: zebra mussel, Himalayan Balsam, Japanese Knotweed, and Grey Squirrel. The impact of climate change may exacerbate the impact of invasive species.

[www.invasivespeciesireland.com](http://www.invasivespeciesireland.com)

[www.invasives.biodiversityireland.ie/](http://www.invasives.biodiversityireland.ie/)



*Invasive weed, Japanese knotweed. Photo by Janice Fuller*



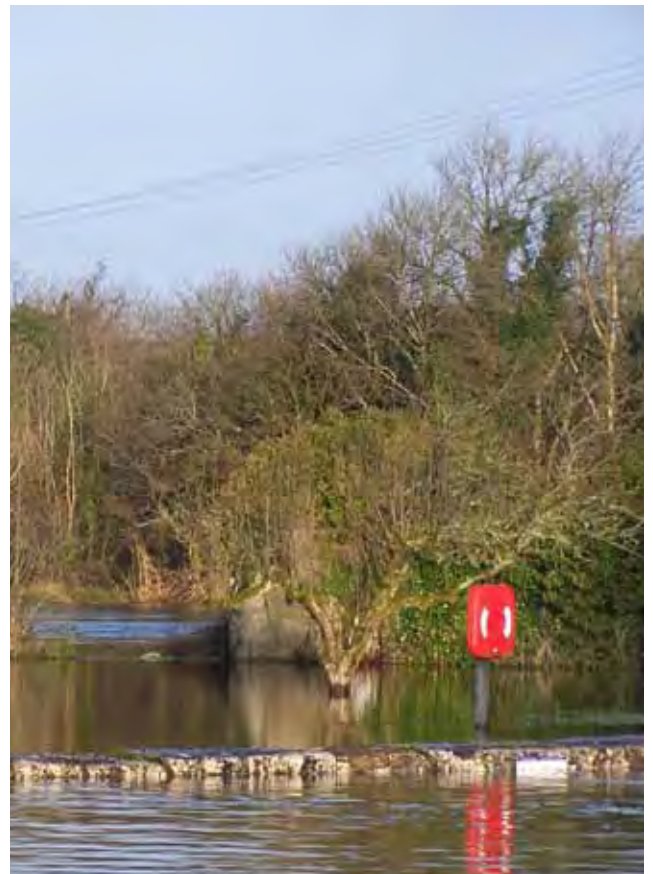
*Japanese knotweed stems in winter*

## PROBLEMS FOR BIODIVERSITY

Biodiversity has declined globally in recent centuries due to human activity and exploitation of resources. The price we pay for not taking care of our natural environment is becoming increasingly high- global warming, soil erosion, water pollution, flooding, declining fish stocks, species extinctions, spread of pests and diseases etc.

Biodiversity in Ireland is under threat from activities such as development, drainage, pollution, dumping, invasive species and climate change. The price we pay for not protecting our biodiversity, particularly wetlands, has become increasingly obvious in recent years in Ireland as we have had to deal with flooding and pollution of drinking water supplies. Wetlands can act like filters, intercepting nutrients and pollutants before they enter waterbodies, and they can act like sponges, holding water and releasing it slowly. Drainage and destruction of wetlands contributed to a decline in water quality in some parts of Ireland, and a decline in the water-holding capacity of the land, leading to flooding under high rainfall conditions.

*Biodiversity is our natural capital  
and must be protected so that we  
can continue to reap its many social,  
economic and environmental benefits.*



*Flooding on the River Shannon, November 2009*



## PLANNING FOR BIODIVERSITY

In 1996 Ireland ratified the Convention on Biological Diversity, an international convention the main aim of which is to conserve biodiversity resources globally ([www.cbd.int](http://www.cbd.int)). This convention requires governments to take steps to halt the loss of biodiversity and to maintain biodiversity resources for future generations.

One of the main obligations under the convention is to develop a national biodiversity plan for the conservation and sustainable use of biological diversity. The first National

Biodiversity Plan for Ireland was published in 2002 and the second plan in 2011 ([www.ahg.gov.ie/en/Publications/HeritagePublications/NatureConservationPublications](http://www.ahg.gov.ie/en/Publications/HeritagePublications/NatureConservationPublications)). These five-year plans set out a framework for conserving biodiversity in Ireland. An action in both plans requires local authorities to prepare a Local Biodiversity Action Plan (LBAP) in consultation with relevant stakeholders. Many local authorities across the country, including Roscommon, now have LBAPs, which are already making a difference for biodiversity locally and regionally.



*Ballybay Central National School, participants in Roscommon County Council's Tidy Schools Competition.*

## LOCAL BIODIVERSITY ACTION PLAN (LBAP)

A LBAP is a framework for co-ordinating action locally to protect, manage and enhance nature and wildlife. The process of producing a plan provides an opportunity to identify the special places for nature and wildlife in an area, and particular species of interest, and to identify projects and actions that have a benefit for nature, wildlife and the natural environment, and local communities.





*Lisacul Golden Mile, participants in Roscommon County Council's Golden Mile Competition. Photo by Claire and Helen Carty.*

*The Environment Department of Roscommon County Council works closely with communities and schools to raise awareness of the importance of protecting the environment.*

## BIODIVERSITY AND THE ROLE OF ROSCOMMON COUNTY COUNCIL

Local Authorities have an important role in relation to biodiversity and natural heritage as policy makers, land owners and service providers. Roscommon County Council has a comprehensive set of policies, objectives and actions in the Roscommon County Development Plan 2008–2014, Local Area Plans and the County Roscommon Heritage Plan 2012–2016 that aim to protect, manage appropriately and enhance biodiversity. The County Roscommon Biodiversity Action Plan is an integral part of the County Roscommon Heritage Plan 2012–2016 ([www.roscommoncoco.ie](http://www.roscommoncoco.ie)). The County Roscommon Heritage Officer and County Roscommon Heritage Forum are working together to implement the Heritage Plan and the Biodiversity Actions within the plan.

The Environment Department of Roscommon County Council works closely with communities and schools to raise awareness of the importance of protecting the environment. They promote several schemes and competitions that have a biodiversity component, such as the Golden Mile Competition, National Tree Week and Tidy Schools Competition.

The Local Authority also implements national and European Union nature conservation legislation through the planning process ([www.npws.ie/legislationandconventions](http://www.npws.ie/legislationandconventions)).

## VIRTUAL ROSCOMMON

Virtual Roscommon provides a free geo-information portal, which enables the user to access, view, and query, interactive maps of the County showing where services of interest are located. Aimed at members of the general public living in County Roscommon, or visitors planning on coming to County Roscommon, Virtual Roscommon provides access to a wealth

of information that can be viewed and queried interactively on a map. <http://maps.roscommoncoco.ie/locationpublisher2/Layout1.aspx>

If you know of somewhere to enjoy biodiversity in Co. Roscommon, why not add it to this website and spread the news!



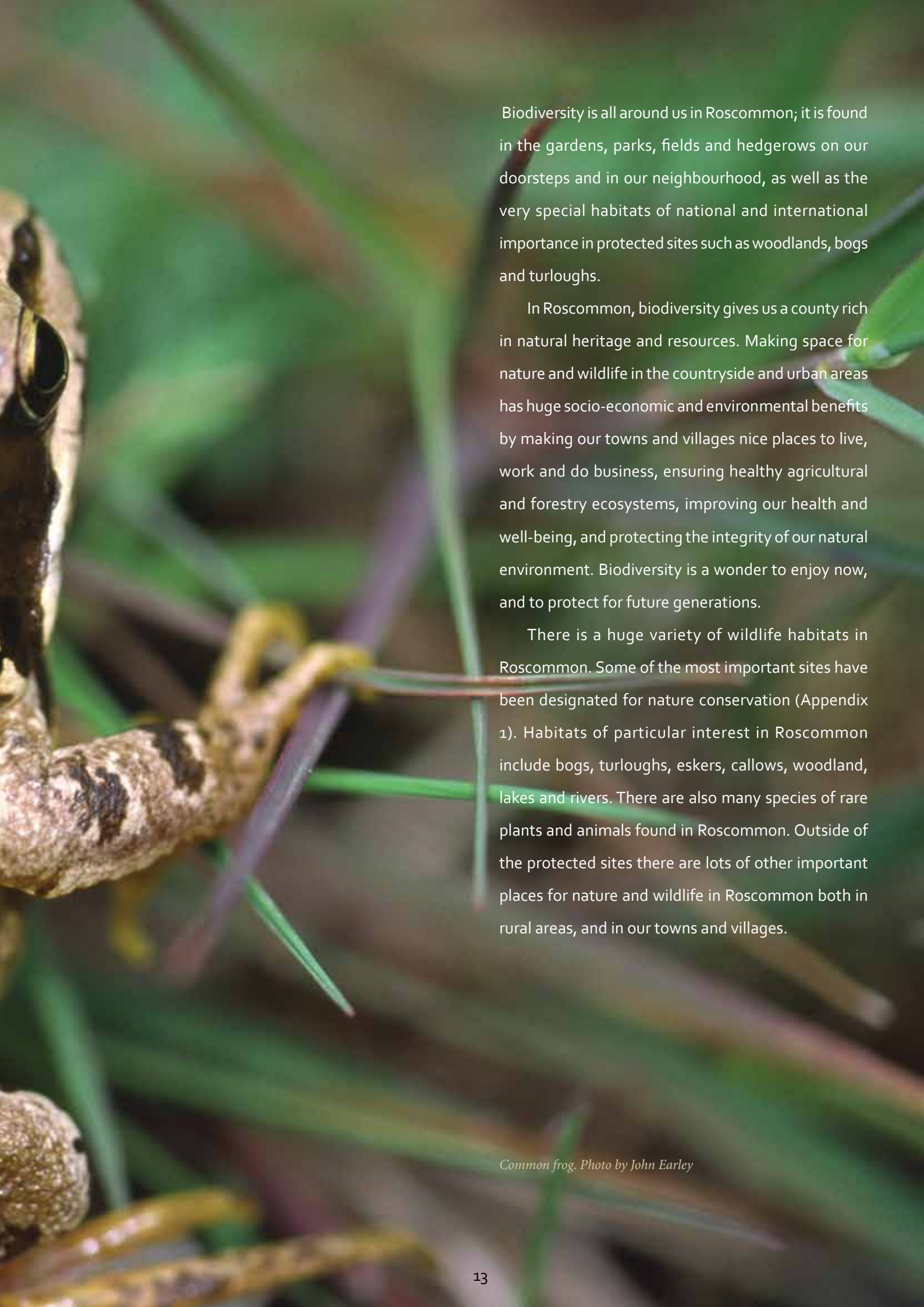
*Elected Members of Roscommon County Council, staff and pupils from Cloverhill National School pictured at the launch of Roscommon County Council's Biodiversity and Wildflowers posters. Photo by Hurson Photography.*



NATURE IN ROSCOMMON







Biodiversity is all around us in Roscommon; it is found in the gardens, parks, fields and hedgerows on our doorsteps and in our neighbourhood, as well as the very special habitats of national and international importance in protected sites such as woodlands, bogs and turloughs.

In Roscommon, biodiversity gives us a county rich in natural heritage and resources. Making space for nature and wildlife in the countryside and urban areas has huge socio-economic and environmental benefits by making our towns and villages nice places to live, work and do business, ensuring healthy agricultural and forestry ecosystems, improving our health and well-being, and protecting the integrity of our natural environment. Biodiversity is a wonder to enjoy now, and to protect for future generations.

There is a huge variety of wildlife habitats in Roscommon. Some of the most important sites have been designated for nature conservation (Appendix 1). Habitats of particular interest in Roscommon include bogs, turloughs, eskers, callows, woodland, lakes and rivers. There are also many species of rare plants and animals found in Roscommon. Outside of the protected sites there are lots of other important places for nature and wildlife in Roscommon both in rural areas, and in our towns and villages.

*Common frog. Photo by John Earley*



## FARMLAND

As a largely rural and agricultural county, much of Roscommon's biodiversity is found on farms, particularly on marginal land. Farmland is hugely important for wildlife as hedgerows, rough grassland, arable fields, trees, scrub, ponds and streams are havens for wildlife such as hares, stoats, badgers, hedgehogs and frogs; numerous birds and insects. REPS schemes and other Agri-Environment initiatives have increased awareness of the importance of protecting natural habitats in order to protect the environment (particularly water quality) and our natural heritage. Farmers have a knowledge and understanding of landscapes and farmland habitats that should be harnessed when developing future plans for protecting and managing our biodiversity resources.



*Kestrel. Photo by John Earley*



*Photo by Giorria Environmental Services*



*Hedge plantings. Photo by Padraig Corcoran.*





*Pied wagtail. Photo by John Earley*



*Hedgehog. Photo by John Earley*



*Native hedgerow. Photo by Janice Fuller*







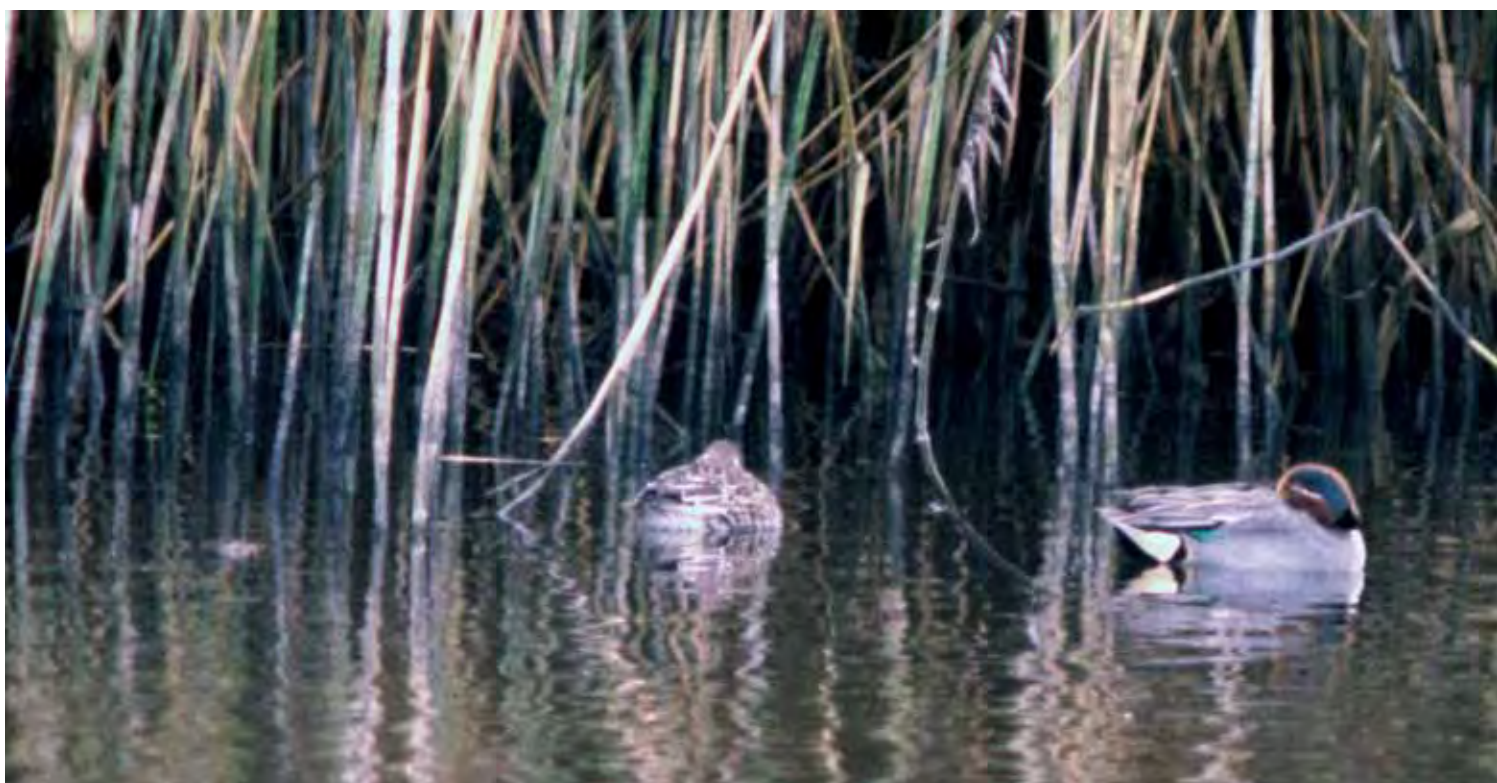
*Ragged robin*

## RIVERS, LAKES AND WET PLACES

Roscommon has many wet and watery places that are great for nature and wildlife. Rivers, streams and lakes are hugely important for biodiversity, recreation, water supplies and water quality. Many types of fish, birds, invertebrates and plants can be found in and around Roscommon's rivers and lakes.

The River Shannon is the longest river in Ireland and, along with Lough Ree, forms the eastern boundary to the county. The River Shannon contains many habitats of value for wildlife along its length, most notably the Shannon callows. Callows are a type of wet grassland or meadow that occurs in the floodplains of large rivers. They are composed of tall grasses and herbs such as reed canary grass, meadowsweet, ragged robin, and various sedges and rushes. These wet grassy places provide wonderful nesting and foraging habitats for birds. One of the rarest birds in Ireland, the corncrake, nests in callows. Partnerships among farmers, conservationists and BirdWatch Ireland are helping to maintain corncrake populations by managing these grasslands in a way that allows the corncrake to reproduce successfully. For more information about the Bird Watch Ireland Corncrake project see: [www.birdwatchireland.ie/Ourwork/Researchmonitoring/Corncrakes/tabid/192/Default.aspx/](http://www.birdwatchireland.ie/Ourwork/Researchmonitoring/Corncrakes/tabid/192/Default.aspx/).

The River Suck flows between the borders of east Galway and west Roscommon. Much of the river is designated as Special Protection Area due to important populations of wintering waterfowl that use the river and associated habitats, including the callows. The River Suck system is one of Ireland's renowned pike and coarse fishing areas.





Lough Ree is the third largest lake in Ireland. As one of the most important sites for wintering and breeding birds in the midlands, Lough Ree is designated as a Special Protection Area. Nationally important populations of several birds have been recorded on the lake including Wigeon, Teal, Golden eye and Tufted duck. Other important species, Greenland white-fronted geese, Whooper swan and Common tern are also found in and around the lake.

There are a large number of other lakes in Roscommon, especially in the northern and north-eastern corner of the county. These include Lough Key, part of Lough Allen, Lough O'Flynn, Lough Meelagh, Lough Boderg, Lough Bofin and more.

Rivers and lakes often have other habitats associated with them that tend to be a transition between the open water of the river or lake, and dry land. These wet places include reed swamp, which often fringes lakes, wet woodland composed of alder and/or willow, which can be found along rivers or around lakes, and wet grassland, which can be found anywhere with poor drainage, and often near to waterbodies. The mosaic of natural habitats around or near rivers and lakes adds to the biodiversity or value for wildlife of the area.

The many streams, rivers and lakes in Roscommon undoubtedly support a rich and varied wildlife, and are highly valued for recreation and as water supplies. There are many places where you can enjoy these watery places by boating along the River Shannon or in Lough Ree; going fishing or simply walking along the River Suck Way.



*Wigeon. Photo by John Earley*

*Teal. Photo by John Earley*



## FOCUS ON POLLAN



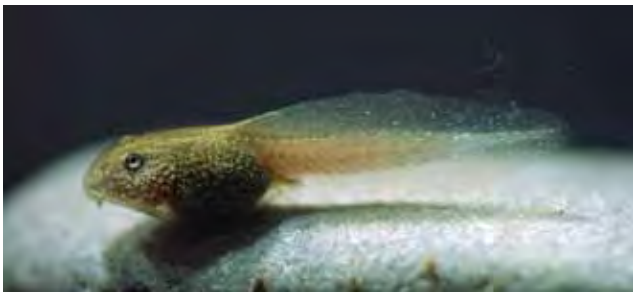
*Photo [www.fisheriesireland.ie](http://www.fisheriesireland.ie)*

Pollan (*Coregonus autumnalis*) is a freshwater fish that is a member of the salmon family. Ireland is the only European country that this species is found in. Pollan is thought to be a landlocked glacial relict from the last ice age, which ended about 10,000 years ago. It is found in a few lakes in Ireland including Lough Ree, Lough Allen, Lough Derg, Lower Lough Erne and Lough Neagh.









*Tadpole. Photo by John Earley*



*Water germander. Photo by John Earley*



*Whooper swan. Photo by John Earley*



*Brown trout. Photo by John Earley*

*Left: Meadowsweet. Photo by John Earley*

## VALUE OF WETLANDS



*Lough Key. Photo by Giorria Environmental Services*

There are many different types of wetlands found in Ireland. Rivers, lakes, ponds, turloughs, reservoirs, floodplains, bogs, fens, marsh, swamp, wet woodlands and peatlands are all types of wetlands found in Roscommon. Wetlands are hugely important for biodiversity, recreation, water supply, landscapes and flooding control. Many birds, fish, invertebrates, small mammals and plants live in and around wet places. Many wetlands are productive habitats and therefore support a vast array of wildlife. Wetlands are great places for recreation; boating, fishing, swimming and walking along. Wetlands either act as water sources, or are important in helping maintain our water quality by acting as 'filters' and prevent excessive nutrients or pollutants entering watercourses. Wetlands are often beautiful places and therefore greatly enhance our landscapes. And finally, wetlands act as 'sponges' holding water, releasing it slowly, and therefore are important in flood control.



*Flooding at Lough Bofin, November 2009*





*Turlough. Photo by John Earley*

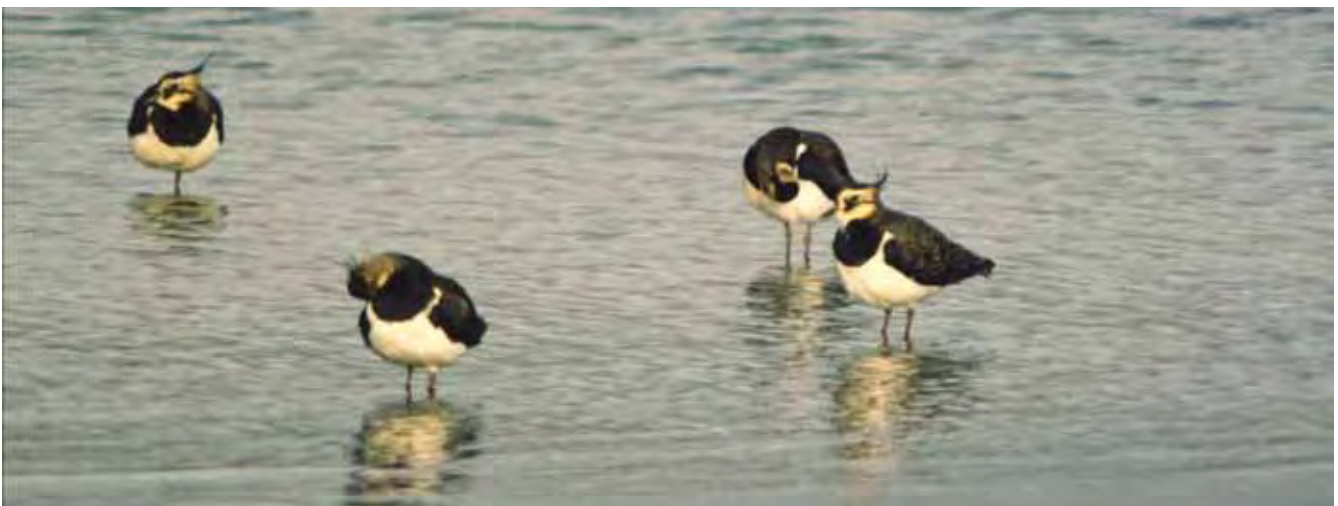
## TURLOUGHHS

Turloughs are more or less unique to Ireland. They are often associated with limestone areas and occur mostly in the western counties including Roscommon. Turloughs are temporary water bodies that are filled and emptied through a swallow hole that is connected with the underground water table. Generally turloughs are filled during the winter and wetter months of the year.

Turloughs are considered as a priority habitat for nature conservation in the European Union because of their rarity world-wide and their importance for wildlife. Roscommon has some wonderful examples of turloughs and many have been designated for nature conservation due to their exceptionally high quality and value for birds and wildlife e.g. turloughs at Ballinturly, Coolcam Turlough, Four Roads, Lisduff and Castleplunket.



*Turlough violet. Photo by John Earley*



*Lapwing. Photo by John Earley*



Turloughs are hugely important for over-wintering birds. They tend to have rich source of winter food for waterbirds because they are usually grasslands in the summer and so unlike other lakes have a green layer for munching under water; and they tend to be relatively shallow. Turloughs often have some interesting invertebrates swimming about (e.g. beetles and fresh-water shrimp) because there are no fish to eat them!

Over-wintering birds found in Roscommon's turloughs include: Greenland white fronted geese, Bewick and

Whooper swan, Pintail, Golden plover, Lapwing, Curlew and Redshank. Mallard and Snipe will also breed in these areas. Plants including Lesser water-parsnip, Water-milfoil, Marsh cudweed, Water sedge, and Northern yellow-cress form part of turlough vegetation.

Turloughs are important for biodiversity, maintaining water quality and for agriculture. Loughnaneane Park in Roscommon town provides an excellent view over the adjacent turlough. Visit in winter and in summer to see how the birdlife and vegetation changes with the seasons.



*Meadow buttercup. Photo by John Earley*



*Whooper swan. Photo by John Earley*



*Ballinturly turlough in summer. Photo by John Earley*



*Ballinturly turlough in winter. Photo by John Earley*





*Pitcher plant: an insect-eating plant that is not native to Ireland but found on a few raised bogs. Photo by John Earley*

## PEATLANDS

### Bogs

Two types of bogs can be found in Roscommon, raised bogs and blanket bogs. Bogs are a type of peatland that usually have a mix of sedges, rushes, bog mosses and heathers growing on them. Peat builds up under waterlogged and acidic conditions to form bogs. Peat is just an accumulation of partially rotted plant remains! The waterlogging (which leads to a lack of oxygen) and acidity results in very low decomposition rates so that when plants die they are partially preserved in the peat.

Blanket bogs are found in areas where the high rainfall and acidic bedrock are perfect for peat formation. This type of peatland started to spread about 6000 years ago after the first farmers arrived and started to clear woodland to make way for agriculture. Woodland clearance opened up the soils to leaching of nutrients and iron from the soil, which led to waterlogging. Woodlands were often burnt to help clear the land and the charcoal layer produced clogged the soil also leading to waterlogging of the soils. The acidic bedrock produces the required acidity for peat formation. On blanket bogs peat can build up to about 2-6m depth. Roscommon is a relatively low-lying county with few upland areas but blanket bog is found on Kilronan and Corry mountains (designated as Natural Heritage Areas).



*Bell heather. Photo by John Earley*



*Marsh fritillary butterfly visiting a knapweed flower. Photo by John Earley*





*Bog asphodel. Photo by John Earley*

The second, and more common, type of bog found in Roscommon is raised bog. Raised bogs form in lake basins over thousands of years. Plants that grew in and around the lakes fell to the bottom of the lake when they died. This dead plant material accumulated over time infilling the lake and forming what is known as a 'fen' peatland. Once the bog moss, Sphagnum, invaded the peatland it acidified the environment, slowing down decomposition rates further, and bog peat started to accumulate more rapidly. Raised bogs can have a considerable depth of peat (up to 12m!) as many of them started to form soon after the end of the last ice age, 10,000 years ago. This type of bog is now very rare in the rest of Europe but there are several raised bogs in Roscommon.



*Dragonfly. Photo by John Earley*

## FOCUS ON COILLTE RAISED BOG RESTORATION LIFE PROJECT

Drumalough Bog, Cloonshanville Bog, Frenchpark, and Lough Ree Bog, Kiltewan are owned by Coillte and are actively being restored as part of the Coillte Raised Bog Restoration LIFE project, which is funded by the European Union. This Coillte project aims to restore several raised bogs in their ownership to their natural state mainly by removing planted and non-native trees, and blocking drains in order to re-wet the bog surface and promote active peat growth.

[www.raisedbogrestoration.ie](http://www.raisedbogrestoration.ie)





*Meadow pipit. Photo by John Earley*

*. . . bogs are fabulous  
places to explore . . .*



*Ling heather. Photo by John Earley*



*Bog cotton. Photo by John Earley*



*Cranberry flower. Photo by John Earley*



Raised and blanket bogs are fabulous places to explore due to the abundance of weird and wonderful wildlife- insect-eating plants, birds of prey, and rare and beautiful butterflies. Peat is wet, acidic and very nutrient poor and so the plants that grow on bogs have to be able to survive harsh conditions. Examples of common bog plants include: heathers (ling, cross-leaved heath), sedges, insect-eating plants (sundew and butterwort), bog asphodel and bog cottons. Several rare and threatened birds overwinter or nest on bogs in Roscommon. e.g. Golden plover, Red grouse, and Merlin. The heather provides excellent cover for birds. Other commonly seen birds on bogs include Meadow pipit and Skylark. One of Europe's rarest butterflies is found on peatlands in Roscommon, the Marsh fritillary butterfly.

Bogs are an important part of our natural and cultural heritage and are hugely important for wildlife, recreation, environmental protection and education.

## CLOONFAD WALKS

To experience bogs and beautiful countryside up close, head for a walk on one of the many routes in the Cloonfad Walks in west Roscommon. The Derrylahan Resource Centre is the best place to start and you can decide the type and length of route you wish to follow.

E-mail: [cclogher@eircom.net](mailto:cclogher@eircom.net) Tel. (087) 2396985



*Damselfly. Photo by John Earley*

### Fens

Fens are another type of peatland that forms in calcareous (lime-rich), wet environments often in or around lake basins or former lakes. Peat accumulates over time but never to the depths found in raised bogs. Fen peat is more nutrient-rich than bog peat because the peatland is still in contact with ground water. As a result, many fens have been drained for agricultural land. Fens are often made up of a mosaic of different habitats ranging from open-water, reed-beds,

small-sedge vegetation, to semi-terrestrial birch and alder woodland. The variety of habitats contributes to the rich diversity of plants and animals. Fens are often hugely important for birds, especially over-wintering waterfowl, because of the mix of habitats present that provides a range of food and shelter. They also tend to have a rich invertebrate fauna, including dragonflies, damselflies, water beetles, snails and slugs.





*Species-rich esker grassland. Photo by Caitriona Carlin*

## ESKERS

Eskers are glacial features composed of narrow ridges of sand and gravel that wind their way through landscapes. Melt water streams running in a tunnel beneath melting glacial ice deposited the sand and gravel as ice sheets started to wax and wane at the end of the last Ice Age. There are several eskers in south Roscommon.

Eskers are important because of their cultural, geological and natural heritage value. The dry, well-draining soil of eskers provides a habitat for many rare plants and for species-rich dry calcareous grassland. This grassland is also considered as a priority habitat for nature conservation within the European Union. Eskers often have native woodland growing on them and are often associated with other habitats such as raised bogs and fens.

The esker system at Castlesampson, a Coillte property, is a particularly fine example. The importance of the site lies in its almost intact structure, something that is very rare for Irish eskers, and the species-rich dry calcareous grassland present.

Eskers contain a wide variety of plant species including blue fleabane, mountain everlasting, carline thistle, hedge bedstraw, early-purple orchid and fragrant orchid. Eskers are also important areas for butterflies including the Small blue and Dingy skipper, and birds such as the sand martin.



*Early purple orchid*





*Buttercup Meadow. Photo by John Earley*



*Ox-eye daisy. Photo by John Earley*



*Pyramidal orchid. Photo by John Earley*

## GRASSLAND

Some types of grassland are particularly good for wildlife and can have a wealth of species present (i.e. not just one or two types of grasses!). These grasslands tend to be those that are either on wet soils or in floodplains (wet grasslands and callows), or are dry grasslands in areas that are in areas that are too difficult to plough and therefore have never been re-seeded, and/or where there hasn't been much use of fertilisers e.g. steep esker slopes, uplands.

The grassland in Killeglan along the road from Ballinasloe to Roscommon is a fine example of dry species-rich grassland on limey soils and has been designated as a Special Area of Conservation due to its high nature conservation value. These areas of species-rich grassland are relatively rare now due to the widespread and intensive use of fertilisers and agricultural improvement. Killeglan grassland has an abundance of beautiful orchids that love the short grass and limey soils, including early-purple orchid, green-winged orchid, blue fleabane and fairy flax.

Other types of grasslands of high biodiversity value include wet grassland and callows (a type of wet grassland or meadow that occurs in floodplains), and meadows (areas of grassland that are infrequently cut that now mainly occur along roadside verges). These grasslands are dominated by tall grasses and wildflowers, can be rich in invertebrates and important foraging and nesting habitats for birds.



*Species Rich Grassland. Photo by Giorria Environmental Services*





## TREES, WOODLANDS AND HEDGEROWS

Ireland was once covered from coast to coast in woodland. Woodland cover started to decline once the first farmers arrived around 6000 years ago. Native woodlands are relatively scarce in Roscommon today but there are a few prime examples. St. John's Wood on the shore of Lough Ree is considered as one of the largest and most natural woodlands in the midlands. This species-rich oak-ash and hazel woodland contains a couple of plants of particular note: toothwort and bird's nest orchid. Another special woodland of high nature conservation value is Tawnytaskin Wood at Lough Key.



*Wood anemone. Photo by John Earley*





*Woodland with carpet of bluebells.*



*Oak leaf*



*Lesser celandine. Photo by John Earley*



Several woodlands in the county are associated with demesnes and estates. Examples include; Rockingham near Boyle (now within Lough Key Forest and Activity Park), Castletennison or Kilronan Castle, near Keadue, Strokestown Park and Mote Park, near Roscommon town. Lough Key Forest and Activity Park is important as both a wildlife and recreational area.

Coillte have identified several old woodland sites within their estate in Roscommon including the properties Mote Park, Loughglinn and Drumalaghagh. These are woodlands that have had more-or-less continuous broadleaf cover since the 1830s. Old woodlands are particularly valuable for nature conservation because they tend to have a more species-rich flora due to their longevity and stability. Coillte have also identified and mapped 'biodiversity areas' within their properties, which are managed solely for nature conservation purposes.

Woodlands tend to have particularly high biodiversity because they are relatively undisturbed environments and a varied structure with the canopy, shrub layer and ground layer. Many small mammals are found in and around woods; badgers, squirrel, pine martens and bats. Woodlands contain a huge variety of plants from the tall trees to the shrubs in the understory, to the climbers and the herbs on the woodland floor.

Woodlands are important for biodiversity, recreation, carbon storage and environmental quality.

There are many wonderful woods to visit in Roscommon: Lough Key Forest and Activity Park near Boyle, Knockranny Wood near Keadue, Mote Park near Roscommon Town, and St. John's Wood near Lecarrow.



*Wild garlic. Photo by Janice Fuller*



*Path running through St. John's Wood. Photo by John Earley*

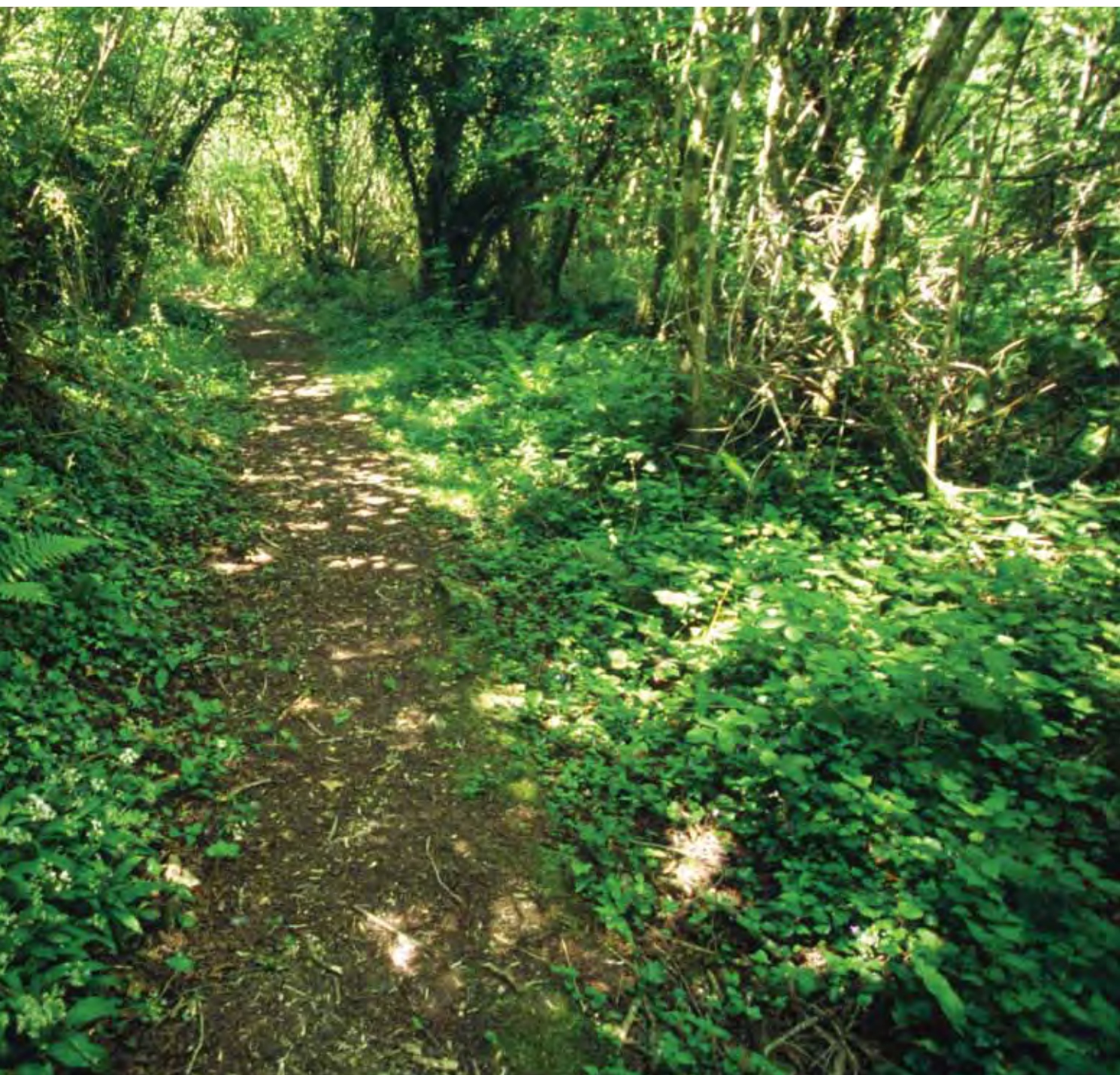
## FOCUS ON ROSCOMMON'S CHAMPION AND HERITAGE TREES

The Tree Council of Ireland has been recording Ireland's Champion and Heritage Trees for a number of years. Roscommon has some prime examples. Did you know?

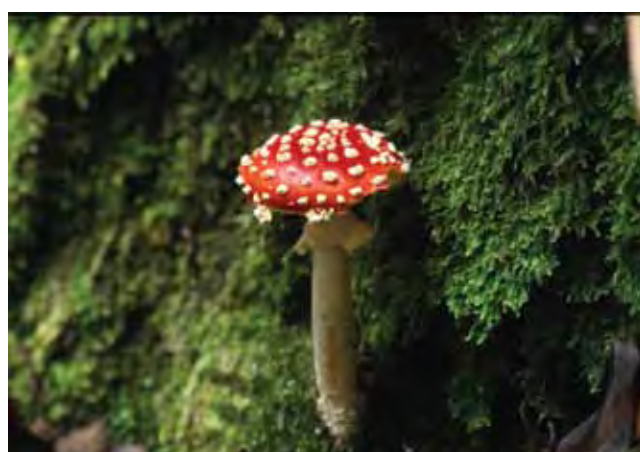
- Ireland's biggest Horse chestnut tree can be found in Lough Key Forest Park (22m high, 6m girth)
- Ireland's tallest Silver fir grows near Kilronan Castle (41m high, 4m girth)
- Ireland's widest Common lime is located at Strokestown House (25m high, 9m girth)

[www.treecouncil.ie](http://www.treecouncil.ie)





*Toothwort. Photo by John Earley*



*Fly agaric mushroom. Photo by John Earley*





*Dandelion. Photo by John Earley*

## NATURE IN OUR TOWNS AND VILLAGES

Biodiversity is not confined to rural areas. Nature and wildlife can abound in towns and villages where there are suitable habitats such as mature trees, hedges, old stone walls and buildings, graveyards, bridges, canals, rivers, ponds, gardens, parks, school gardens, amenity areas and waste ground. Anywhere that isn't too disturbed or managed, and where there is some source of food, can provide a home or shelter for wildlife. Certain species such

as foxes have become increasingly visible in urban areas as they forage for food in dustbins and hunt in town parks. Many others are present but are a bit shyer in going about their daily activities. Making room for nature in our towns and villages adds colour and life and interest to urban areas, provides natural amenities, and improves environmental quality.



*Species Rich stone wall*





*The fox can sometimes be seen in urban areas. Photo by John Earley*



*Swallows nest close to overhead shelter*



*A number of bat species occur in Co. Roscommon*



*Hawthorn bush laden with berries*





## SPECIAL PLANTS AND ANIMALS IN ROSCOMMON

There are a huge variety of plants and animals in Roscommon. There are some, however, particularly important for nature conservation either because they are rare or declining in abundance locally and/or regionally.

### Plants of note

A huge diversity of plants have been recorded in Roscommon over the years reflecting the wide range of habitats present. One of the rarest orchids in Ireland and Europe is the beautiful Irish Lady's-tresses orchid. This small orchid, which has creamy-white flowers in a twisted spiral, is found in Roscommon in damp meadows on lakeshores. In Ireland, this species afforded strict protection under the Flora Protection Order. The populations of Irish Lady's Tresses orchid in Roscommon are of importance nationally and internationally.

Another rare and beautiful orchid found in Roscommon, is the Narrow-leaved helleborine orchid. It is found in damp woods at a couple of sites on the shores of Lough Ree. This orchid is also listed on the Flora (Protection) Order and therefore strictly protected.

Marsh Pea is an uncommon flower that grows in the tall callow grasslands of the River Shannon and the River Suck. It is an elegant climbing perennial with blue-purple flowers.

Irish Whitebeam is an uncommon tree, which is endemic to Ireland. Widely planted it is relatively rare in the wild. There are, however, several records of whitebeam in Roscommon. Alder buckthorn is another uncommon small tree or shrub that grows around the edges of lakes, turloughs and raised bogs. It is found at a number of locations in Roscommon, including St. John's wood.



*Irish lady's-tresses orchid. Photo by John Earley*

### Animals of note

The Marsh fritillary butterfly is one of the rarest invertebrates in Europe. This beautiful butterfly is found in and around wet grasslands and bogs. A number of colonies have been documented north and west of Castlerea, at Mountallen Bog and Cloonchambers bog. Two rare Pyralid Moths have been recorded at Eskerbeg quarry. One of these moths, *Pyrausta sanguinalis*, is also known as the Scarce Crimson and Gold because of its beautiful colouring. It is a small moth, which flies by day and night. The larvae feed on wild thyme

The Black-tailed Skimmer is a scarce, medium sized, stocky dragonfly in Ireland. The mature male has a sky blue abdomen, while females and immature individuals are yellow. There are a number of records for Roscommon particularly along the Shannon. Roscommon has a total of seventeen rare water beetles including *Dryopus similis*, which is only found in turloughs.

Ireland has three resident species of owl, of which the barn owl is probably the most distinctive. With its large round head and heart-shaped face, it is often seen as a white 'ghost' travelling silently through the night sky. There are a number of known breeding pairs in Roscommon. It uses farmland and the species-rich grassland of the callows for foraging for small mammals. Hollow trees, old barns, ruins or outbuildings are all used as nesting sites.

As Roscommon has a wide variety of waterways and lakes it supports many species of wintering wildfowl. Greenland white-fronted geese are Arctic-nesting geese, which spend their winters in Ireland. They graze in small flocks on wet grasslands, bogs and marshes. In Roscommon, they can be seen at many of the county's turloughs and on lakes such as Lough Ree and Lough Gara, and along the River Suck.

Red grouse are ground-nesting birds that nest in heathery bogs and heathland. Red grouse populations declined dramatically in Ireland but are starting to recover. In Roscommon, grouse are found on raised bogs.

Corncrake populations have also been declining for many years primarily due to changes in agriculture practices. Today, Ireland and Scotland are strongholds for corncrakes in western Europe and through much hard work from farmers and conservation groups numbers are beginning to show some slow signs of recovery. One of the core populations for corncrakes in Ireland is the Shannon Callows.



*Alder buckthorn, leaves and berries. Photo by John Earley*

Pine marten appear to be on the increase in Roscommon although they are still considered rare nationally. The pine marten is somewhat cat-like, but has longer legs and a long fluffy tail. The fur is rich dark brown and they have a creamy-white throat patch. They are a woodland species.

A number of bat species occur in the county including Common Pipistrelle, Soprano Pipistrelle, Brown long-eared bat, Leisler's bat and the Daubenton's bat. The Pipistrelle species are the smallest of our Irish bats. They are also the most common and widespread. The Brown long-eared bat as its names suggests has large ears. They forage mainly in woodland. The Daubenton's bat is often called the 'water bat' as it can be often seen foraging along rivers and canals. The Leisler's bat is our largest bat. Ireland's population is considered to be of international importance.

## FOCUS ON RED SQUIRREL

Populations of Red Squirrel in Ireland have declined markedly in recent years and it is widely thought that this is due to the spread of the introduced Grey Squirrel. Red squirrels are not uncommon in Roscommon but there is some cause for concern as Grey Squirrels are continuing to spread westwards. Until recently the Grey Squirrel had not spread west of the Shannon but it has been recorded in Mote Park, Roscommon, and at a couple of other locations. Protecting the Red Squirrels woodland habitats is key to their survival, as well as controlling the spread of Grey Squirrels.



*Marsh pea. Photo by John Earley*



*Alder buckthorn. Photo by John Earley*



*Greenland white-fronted geese. Photo by John Earley*



*Marsh fritillary. Photo by John Earley*



# GOING WILD IN ROSCOMMON: ROSCOMMON'S MONTHLY BIODIVERSITY CHALLENGE



## JANUARY

Visit the Bird Watching Board Walk in Loughnaneane Park, Roscommon Town, during the winter when the turlough is full of water and watch the wealth of bird-life.



## FEBRUARY

Plant some native trees and shrubs in your garden, school, community and/or place of work.



## MAY

Go for Dawn Chorus walk around Mote Park, just outside Roscommon, and marvel at the range of sights and sounds of bird life. Photo by John Earley



## JUNE

Visit the Coillte Raised Bog Restoration Project at Cloonshanville Bog, near Frenchpark, and discover the wonder of bogs and learn more about this exciting project to restore some of Roscommon's bogs. Photo by John Earley



## SEPTEMBER

Enjoy a boat cruise on one of the many inland waterways in Roscommon.



## OCTOBER

Explore Lough Key Forest and Activity Park, or Mount Plunkett Nature Reserve in Lecarrow, and try to catch a glimpse of one of our elusive native mammals, Red Squirrel or Pine Marten.



Biodiversity is everywhere and all around us; on our doorsteps in our gardens and hedges. There are many places in the county that are good for wildlife and are wonderful places to explore and enjoy. Take our monthly Biodiversity Challenge and go wild in Roscommon!



### MARCH

Explore the ancient oak-ash and hazel woodland at St. John's Wood, Lecarrow; search for Spring-time signs of life- catkins (clusters of tiny flowers on hazel, willow or alder), buds and new leaves. Photo by John Earley



### APRIL

Walk in the beautiful Bluebell Woods at Derrynaskineen near Knockvicar, and take only photographs and memories of the carpet of flowers. Photo by Connie Scanlon



### JULY

Walk along the banks of the Boyle River and keep your eyes peeled for the shy Kingfisher and Grey wagtails; try to spot the shimmering wings of dragonflies and damselflies. Photo by John Earley



### AUGUST

Take a hike along the Suck Valley Way, a long-distance way-marked trail and enjoy some of Roscommon's natural habitats- bogs, farmland and callows.



### NOVEMBER

Visit Lough Ree in the winter months and try to spot some of our winter visitors including Greenland white fronted geese, Whooper swans and Wigeon. Photo by John Earley



### DECEMBER

Walk off the Christmas dinner with friends and family in your local park, woodland or along a quiet stretch of road where you can get some fresh air and contact with nature. Photo by John Earley



## HOW TO GET INVOLVED

We all have a role in protecting our local nature, wildlife and biodiversity and we can all make a difference. Everybody can get involved, community groups, schools, businesses and individuals. Simple things such as helping to clean up litter, recycling your waste, reducing the use of herbicides and pesticides, protecting watercourses and wildflowers all help our local nature and biodiversity.



### HERE ARE A FEW THINGS YOU CAN DO

- Join an environmental or wildlife group and learn more about the wildlife in your area e.g. Roscommon BirdWatch group (<http://rosbirdwatch.blogspot.com/>)
- Get involved with your local Tidy Towns group and help protect and enhance natural heritage in your area.
- If working on a built or cultural heritage project, make sure any associated natural heritage is protected e.g. in graveyards.
- Plant a tree and plant native; trees provide wonderful habitat for wildlife.
- Create a wildlife-friendly zone in your garden e.g. consider installing a water feature, put up bird feeders and nesting boxes, plant flowers that will attract butterflies and birds, avoid using any chemicals, and don't tidy too much! Piles of leaves are wonderful for invertebrates and hedgehogs.
- Get out and enjoy the natural amenities in your local area.
- Support local Green Schools projects and other local environmental initiatives.





*We all have a role in protecting our local nature, wildlife  
and biodiversity and we can all make a difference.*



*Yellow flag. Photo by John Earley*



## PROTECTION FOR BIODIVERSITY

In Ireland, and other countries, the activities of people have lead to a significant loss of natural habitats and species, and damage to the natural environment. Legislation is required to protect our biodiversity resources for future generations.

The legal framework for protecting natural heritage and biodiversity in Ireland is complex but there are a few key pieces of national and European legislation that underpin biodiversity and nature conservation legislation in Ireland (for more detailed information see [www.npws.ie](http://www.npws.ie)). A brief summary of the objectives of this legislation follows. This summary is not meant as a legal interpretation but as an overview of the legal framework protecting biodiversity.

Nature conservation legislation in Ireland includes the Wildlife Act, 1976 and The Wildlife (Amendment) Act, 2000, the European Union Birds and Habitats Directives, the European Union (Natural Habitats) Regulations and the European Communities (Birds and Natural Habitats) Regulations 2011. Other important pieces of national legislation include the Forestry Act, 1946, and the Planning and Development Acts 2000- 2010. There are also other European Union directives that have implications for biodiversity including the Water Frame Work Directive and the Environmental Impact Assessment Directive.

The main objective of the Wildlife Acts, enacted under Irish legislation, is to protect all our native animals including mammals, birds (and their nests and eggs), and fish, and certain plants listed on the Flora Protection Order. Hedgecutting, scrub removal and burning of upland vegetation or heather is prohibited during the bird nesting season (1st March to 31st August). The Wildlife (Amendment) Act, 2000 provides a statutory basis for Natural Heritage Areas, the basic national designation for sites of nature conservation interest in Ireland.

European Union Birds Directive and Habitats Directive were transposed into Irish law under the European Union (Natural Habitats) Regulations and the European Communities (Birds and Natural Habitats) Regulations 2011. The main objective of Birds Directive is to protect birds of conservation concern on a European-wide basis, and their habitats. The main objective of the Habitats Directive is to protect species and habitats of conservation concern in Europe.



*Special Area of Conservation – Raised Bog. Photo by John Earley*



*Natural Heritage Area – Suck River Callows*





## SITES PROTECTED FOR NATURE CONSERVATION

There are a variety of designations for nature conservation in Ireland. The main site designations are described below:

Natural Heritage Areas (NHA) – this is the basic designation for sites of nature conservation interest in Ireland. Sites are designated based on the presence of species and habitats of conservation value. Eleven NHAs have been designated in Roscommon and there are several more proposed NHAs, which will be designated on a phased basis over the next few years.

Special Areas of Conservation (SAC) – these are the prime areas for nature conservation in Ireland and the European Union. Sites are designated based on the presence species and habitats that are considered of conservation importance in a European context. There are twenty-seven SACs in Roscommon.

Special Protection Areas (SPAs) – these sites are designated for birds of conservation concern (including resident and migratory birds) in the EU, and their habitats. There are six SPAs in Roscommon.

## PROTECTED SPECIES

All birds occurring in Ireland are protected under the Wildlife Acts and the EU Birds Directive. All native mammals are protected under the Wildlife Acts although there are exceptions for game species at certain times of the year. Some native mammals (e.g. Otter, Lesser horseshoe bat), fish (e.g. Salmon) and invertebrates (e.g. White-clawed crayfish) are protected under the EU Habitats Directive and the Wildlife Acts. Certain rare plants are protected under the Flora (Protection) Order. A full list of protected species is available on [www.npws.ie](http://www.npws.ie).

## APPROPRIATE ASSESSMENT

Applications for developments in or near to Special Areas of Conservation and Special Protection Areas have to be screened through an Appropriate Assessment process to determine if there will be any potential impacts of the development on the conservation objectives of the sites ([www.npws.ie/planning/appropriateassessment](http://www.npws.ie/planning/appropriateassessment)). Any plans, projects or policies that may have an impact on SACs or SPAs must be screened.

## TREE FELLING

Under the Forestry Act, 1946, a Felling Licence is required to fell any tree greater than 10 years of age. There are several exemptions but it is advisable to check with your local Teagasc Forestry Advisor or Forestry Inspector prior to any tree felling.



*Special Protection Area – Lough Ree*



# ACTION FOR BIODIVERSITY IN COUNTY ROSCOMMON

County Roscommon Heritage Plan 2012-2016 incorporates the County Roscommon Biodiversity Action Plan. Biodiversity actions from the Heritage Plan are set out here. These actions have been devised as a result of public consultation carried out in 2007 as part of a process to develop a County Roscommon Biodiversity Action Plan. They have also had regard to public consultation carried out in 2009 & 2011 as part of the process to develop the County Roscommon Heritage Plan 2012-2016.

## OBJECTIVE 1: To collect and disseminate heritage information

## NOTICE

To facilitate the development of a comprehensive heritage database for the county, to make this information available to all.

ACTIONS	
1. 12	Encourage school children to get involved in wildlife surveys, such as through the NPWS outreach education programme, the Green Schools Programme and the Heritage in Schools Scheme.
1. 13	Compile a web based database of accessible local wildlife sites in Roscommon, and promote via the Roscommon County Council 'Virtual Roscommon' website.
1. 14	Update every 5 years the 'Audit of Biological Datasets' carried out in 2007.
1. 15	Summarise survey data from recent biodiversity surveys in the county and make available through Roscommon County Council website.
1. 16	Promote and encourage participation wildlife projects and surveys, which gather information on habitats and species throughout the county. Examples include: Red squirrel sighting records to <a href="mailto:irishsquirrels@gmail.com">irishsquirrels@gmail.com</a> or <a href="http://www.biology.ie">www.biology.ie</a> ; Bird Atlas of Ireland Survey; Daubenton's Bat Survey, Orchard Ireland Survey <a href="http://www.habitas.org.uk/orchidireland/">http://www.habitas.org.uk/orchidireland/</a> and <a href="http://www.invasivespeciesireland.com">www.invasivespeciesireland.com</a>

## OBJECTIVE 2: To promote best practice in heritage conservation and management

## CARE

To promote and advise on best practice standards for heritage conservation and management within the county.

ACTIONS	
2. 17	Seek support for the employment of a Biodiversity Officer to co-ordinate implementation of the Biodiversity Action Plan and advise Roscommon County Council on biodiversity related matters.
2. 18	Continue biodiversity training for all Council staff; including planners, engineers and key personnel; Elected Members & Boyle Town Council.
2. 19	Organise biodiversity training / information events for community groups, REPS/AEOS participants, landowners and development agencies. Suggested topics include wildlife corridors.
2. 20	Support wildlife garden projects in Co. Roscommon.
2. 21	Promote regeneration of food sources for wildlife such as the 'LINNET' winterfeed scheme through biodiversity events on Roscommon farms.
2. 22	Promote woodland schemes; such as the 'Neighbourhood Scheme' and the 'Native Woodland Scheme' through open days and other events.
2. 23	Compile and make available a list of sites that show best management practise for range of conservation issues, e.g. coppice management, hedgerow management, callow management.
2. 24	Ensure all mechanical hedgerow cutting carried out by operators who have achieved the Teagasc proficiency standard MT 1302 – Mechanical Hedge Trimming.
2. 25	Promote a biodiversity friendly policy in the management of graveyards, open spaces, verges, drains, rivers and streams; for example with Roscommon County Council and Rural Social Scheme staff.
2. 26	Promote the implementation of recommendations from relevant biodiversity research publications, such as 'County Roscommon Hedgerow Survey Report', 2005 and 'Hedgerow Translocation – Documenting the successful translocation of a mature hedgerow', 2007 etc.
2. 27	Hold demonstration days on farms to show good farming practice; such as in Riparian corridors and hedgerow management.
2. 28	Work with Bord na Mona in relation to Bord na Mona cut over bogs in Co. Roscommon





*Left to right: Dog rose; Fern. Both photos by Giorria Environmental Services; Caterpillar; Spindle with berries. Photo by Janice Fuller*

### OBJECTIVE 3: To raise awareness of our heritage

ENJOY

To increase knowledge, awareness, understanding and enjoyment of Roscommon's heritage.

ACTIONS	
3. 13	Hold a minimum of four biodiversity events for the public every year. Advertise through a calendar of wildlife events.
3. 14	Run outreach education programme for schools with aim of reaching 40 schools each year.
3. 15	Produce leaflets highlighting Roscommon's biodiversity and ensure good distribution through web and other means.
3. 16	Promote the work of the National Biodiversity Data Centre <a href="http://www.biodiversityireland.ie">www.biodiversityireland.ie</a>
3. 17	Raise awareness of the threats to biodiversity, e.g. through an information leaflet
3. 18	Raise awareness of the threats to biodiversity posed by invasive species and raise awareness of best practice in management of invasive species.



*Brimstone butterfly on knapweed. Photo by John Earley*



# ROSCOMMON COUNTY COUNCIL BIODIVERSITY PUBLICATIONS

Publications can be downloaded from the 'heritage' section of [www.roscommoncoco.ie](http://www.roscommoncoco.ie) and are available FREE in hard copy from the Roscommon County Council Customer Service Desk. Publications include:

- Biodiversity in County Roscommon - Roscommon Heritage Poster Series
- Wildflowers of County Roscommon – Roscommon Heritage Poster Series
- Bogs of County Roscommon - Roscommon Heritage Poster Series
- Turloughs of County Roscommon - Roscommon Heritage Poster Series
- County Roscommon's Graveyards
- County Roscommon Hedgerow Survey Report
- County Roscommon's Hedges
- Hedgerow Translocation - Documenting the Successful Translocation of a Mature Hedgerow
- Heritage in Roscommon – Where to Go? What to See?
- Landscaping your House in County Roscommon with Native Trees and Shrubs
- Loughnaneane Park Roscommon - Primary Schools Education Pack
- Habitat Mapping in County Roscommon



*Tufted duck. Photo by John Earley*

## FURTHER READING

Asher, J., Warren, M., Fox, R., Harding, P., Jeffcoate, G., and Jeffcoate, S. (2001). *The Millennium Atlas of Butterflies in Britain and Ireland*. Oxford University Press.

Blamey, M., Fritter, R., and Fritter, A. (2003). *Wild flowers of Britain and Ireland*. A & C Black.

Cabot, D. (1999). *Ireland, A Natural History*. Harper Collins Publishers.

Carey, M., Hamilton, G., Poole, A. and Lawton, C. 2007. *The Irish squirrel survey 2007*. COFORD, Dublin.

*County Roscommon Heritage Plan 2012-2016*, Roscommon County Council

Curtis, T.G.F. and McGough, H.N (1988). *The Irish Red Data Book 1 Vascular Plants, Wildlife* Service Ireland, The Stationery Office

*Roscommon County Development Plan 2008-2014*. Roscommon County Council.

Foulkes, N. and Murray, A. (2005). *Roscommon Hedgerow Survey Report*. Roscommon County Council

Nelson, B. and Thompson, R. (2004). *The natural history of Ireland's dragonflies*. The National Museums and Galleries of Northern Ireland.

*Ireland's 2nd Biodiversity Action Plan (2011 - 2016)*. Government Publications Office

Viney, Michael (2003). *Ireland*. A Smithsonian Natural History. Smithsonian Books



## USEFUL WEBSITES

[www.batconservationireland.org](http://www.batconservationireland.org)  
[www.birdwatchireland.ie](http://www.birdwatchireland.ie)  
[www.botanicgardens.ie](http://www.botanicgardens.ie)  
[www.bsbi.org.uk](http://www.bsbi.org.uk)  
[www.fisheriesireland.ie](http://www.fisheriesireland.ie)  
[www.coford.ie](http://www.coford.ie)  
[www.coillte.ie](http://www.coillte.ie)  
[www.epa.ie](http://www.epa.ie)  
[www.heritagecouncil.ie](http://www.heritagecouncil.ie)  
[www.ipcc.ie](http://www.ipcc.ie)  
[www.mothsireland.com](http://www.mothsireland.com)  
[www.biodiversityireland.ie](http://www.biodiversityireland.ie)  
[www.npws.ie](http://www.npws.ie)  
[www.roscommoncoco.ie](http://www.roscommoncoco.ie)  
[www.teagasc.ie](http://www.teagasc.ie)



*Grasshopper. Photo by John Earley*

*Orange-tip butterfly. Photo by John Earley*





## APPENDIX 1: LIST OF PROTECTED SITES IN ROSCOMMON

(Data sourced from [www.npws.ie](http://www.npws.ie) in January 2012)

### SPECIAL AREAS OF CONSERVATION

River Shannon Callows SAC (000216)  
Coolcam Turlough SAC (000218)  
Lough Ree SAC (000440)  
Ballinturly Turlough SAC (000588)  
Bellanagare Bog SAC (000592)  
Callow Bog SAC (000595)  
Carrowbehy/Caher Bog SAC (000597)  
Cloonchambers Bog SAC (000600)  
Derrinea Bog SAC (000604)  
Errit Lough SAC (000607)  
Lisduff Turlough SAC (000609)  
Lough Croan Turlough SAC (000610)  
Lough Funshinagh SAC (000611)  
Mullygollan Turlough SAC (000612)  
Cloonshanville Bog SAC (000614)  
Castlesampson Esker SAC (001625)  
Annaghmore Lough (Roscommon) SAC (001626)  
Four Roads Turlough SAC (001637)  
Corliskea/Trien/Cloonfelliv Bog SAC (002110)  
Killeglan Grassland SAC (002214)  
Lough Arrow SAC (001673)  
Lough Forbes Complex SAC (001818)  
River Moy SAC (002298)  
Drumalough Bog SAC (002338)  
Ballynamona Bog and Corkip Lough SAC (002339)  
Corbo Bog SAC (002349)  
Tullaghanrock Bog SAC (002354)

### NATURAL HERITAGE AREAS

Lough Namucka Bog NHA (000220)  
Moorfield Bog/Farm Cottage NHA (000221)  
Suck River Callows NHA (000222)  
Bella Bridge Bog NHA (000591)  
Cornaveagh Bog NHA (000603)  
Derrycanan Bog NHA (000605)  
Kilronan Mountain Bog NHA (000617)  
Carrickynaghtan Bog NHA (001623)  
Tullaghan Bog (Roscommon) NHA (001652)  
Lisnarrigh Bog NHA (002072)  
Corry Mountain Bog NHA (002321)

### SPECIAL PROTECTION AREAS

Lough Gara SPA (004048)  
Lough Arrow SPA (004050)  
Lough Ree SPA (004064)  
River Suck Callows SPA (004097)  
Lough Croan Turlough SPA (004139)  
Four Roads Turlough SPA (004140)











*Cinnabar moth caterpillars*









*Biodiversity is all around us in Roscommon; it is found in the gardens, parks, fields and hedgerows on our doorsteps and in our neighbourhood, as well as the very special habitats of national and international importance in protected sites such as woodlands, bogs and turloughs. In Roscommon, biodiversity gives us a county rich in natural heritage and resources. Where there is life there is biodiversity.*

