



Armagh, Banbridge and Craigavon  
Local Biodiversity Action Plan





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## BIODIVERSITY IT IS OUR DUTY

The Wildlife and Natural Environment Act (NI) 2011 places a statutory duty on every public body to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions.

# The Biodiversity of Armagh, Banbridge and Craigavon - A Vision for the Future

What do we want the Council areas of Armagh, Banbridge and Craigavon to look like in the future? Certainly, a landscape that is rich in animals and plants and enjoyed and used by local people and tourists as well as being an asset to the area.

## Biodiversity and Sustainability - Why it Matters

Biodiversity is life in all its shapes and forms and encompasses all living things. We value our wild places and the animals and plants that inhabit them. We have a tremendous range of habitats from the urban and suburban gardens of the towns and villages to the vast waters of Lough Neagh, the rolling pastures of agricultural land and orchards to the rolling foothills of the Mourne Mountains.

We value these places and the plants and the animals they contain not only because we are part of it but also for the quality of life which they provide for us. We benefit from a multitude of resources and processes that are supplied by natural ecosystems. Collectively, these benefits are known as ecosystem services and include products like clean drinking water and processes such as the decomposition of waste. It is, however, important that we do not take them for granted and are aware of the tremendous effect we are having on our wildlife. Natural habitats and the animals and plants that live in them are being lost at an alarming rate. The pressures of development and agricultural improvement have combined to cause a loss of habitat and serious declines in a number of plants and animals.

Clare Glen, Tandragee  
© Armagh City and District Council





Site Clearance and Dumping on Bog  
© Craigavon Borough Council

## Threats to Biodiversity

As throughout much of Northern Ireland many species and valued habitats are declining within the Armagh, Banbridge and Craigavon area. When damaged or destroyed many of our habitats are impossible to restore or re-create. Adverse impact is often caused by human activity. Fortunately this means that we can change our behavior to stop the damage this is causing to biodiversity. Some of the main threats are discussed below.

### Infrastructure Development

Development of houses and commercial property with the associated infrastructure is replacing our countryside. The demand for rural dwellings can lead to the infilling of inter-drumlin hollows for houses and the destruction of their habitats and species. As the habitats become more fragmented, the movement of species becomes more restricted leaving them vulnerable to extinction in the area. Many species need a considerable territory to find food. This includes large animals like the hare and insects such as the bumblebee.

### Land Management

Major changes to agriculture, starting in the 1950's and 1960's had a profound effect on our wildlife. The move from arable and mixed farming to one of intensive grass production has had a negative effect on wildlife. Recent changes to the Common Agricultural Policy (CAP) and in particular the agri-environmental support now provided to farmers has helped to reduce the rate of loss. Many of the wildflowers, insects and birds, however, have suffered major declines.

### **Nutrient Enrichment**

The application of phosphates and nitrates to land and their discharge from industrial and sewage works has caused algal populations in lakes to bloom to the detriment of flowering plants. It causes devastating changes to the vegetation structure of our fens and grasslands, eliminating many rare and important species.

### **Climate Change**

Changes to the climate caused by the human population are reflected in changes to our wildlife. Many of the moth and butterfly species are being found further north each year and many of our cold adapted species are facing a decrease in their habitat. Wetter summers are proving challenging for some of our species with barn owls and bats being unable to forage in rain. Warmer conditions also make it possible for non-native species to gain a foothold and expand their range pushing out native species.

### **Non-Native Species**

Non-native species compete directly with our native species or can result in damage and degradation of natural habitats. Giant hogweed is an example that is commonplace along the River Bann and other rivers and has adversely affected the biodiversity of the habitat. Japanese knotweed is found notably on disused land and also along some of the rivers. Its root system can penetrate foundations and walls causing structural damage. Another non-native species in the area is the grey squirrel which has replaced the native red squirrel except in the Carrigatuke Hills.

Giant Hogweed  
© Ron Murray



# Biodiversity - The Framework

## International Framework

As international concern grew over loss of Biodiversity, 178 countries, including the UK and Ireland, signed the Convention on Biodiversity at the Rio Earth Summit in 1992. They also agreed to the sustainable use of the earth's resources and the fair and equitable sharing of benefits arising from the use of the range and variety of animals and plants.

In the same year the European Union adopted the Habitats Directive which requires member states to designate Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) to protect some of the most seriously threatened habitats and species across Europe.

## Regional Framework

The Northern Ireland Biodiversity Strategy has identified major issues affecting Biodiversity and contains specific recommendations for conservation action. It has identified priority species and habitats requiring action in Northern Ireland.

## Why Do We Need a Local Biodiversity Action Plan (LBAP)?

Local people know and appreciate their own resource and for this reason alone a local plan is necessary. Each plan provides the opportunity for local people to decide on the priorities in their area and to have a full say in the development and implementation of the plan. It provides the opportunity for everyone to be involved and contribute to the actions that we are all agreed upon.

The LBAP helps to ensure that national and Northern Ireland targets for species and habitat conservation in the Northern Ireland Action Plans are translated into effective action at the local level. It details the actions required at a local level and what must be achieved on the ground. It also comprises species and habitats that are not included on the national or regional plans but are of local importance.

Soldier Beetle on Yorkshire Fog  
© Esmee Murray





Bluebells, Gosford Forest Park  
© Esmee Murray

## Developing Our Local Biodiversity Action Plan

### The Challenges

We should not underestimate the challenge before us. Preventing any further loss of Biodiversity is a giant peak to climb and we should appreciate that local Biodiversity is still being lost at a significant rate. The pressures on Biodiversity will continue to mount.

### Local Steering Group

In the Spring of 2011 an Armagh, Banbridge and Craigavon Local Steering Group was established under the auspices of the Action for Biodiversity Project to develop the LBAP and action plans for conserving species and habitats that have been identified as important within the area. The Steering Group comprised representatives from the District Councils, Northern Ireland Environment Agency and voluntary organisations. Community involvement in the management of biodiversity in our area has been and will be key to the success in the implementation of this plan.

### Aims and Objectives

The aims and objectives of the LBAP are to:

- Identify key species and habitats that are under threat in the area.
- Prepare Action Plans in conjunction with other stakeholders.
- Identify and target key actions which will conserve and enhance the environment and wildlife of the area for the benefit of locals and visitors alike.
- Help people to discover more about wildlife in towns and in the countryside.
- Encourage greater community involvement in practical conservation.
- Develop long-term partnerships which are effective in taking action on the ground.



Swans on the Newry Canal, Scarva  
© Banbridge District Council

### **Audit of Species and Habitats**

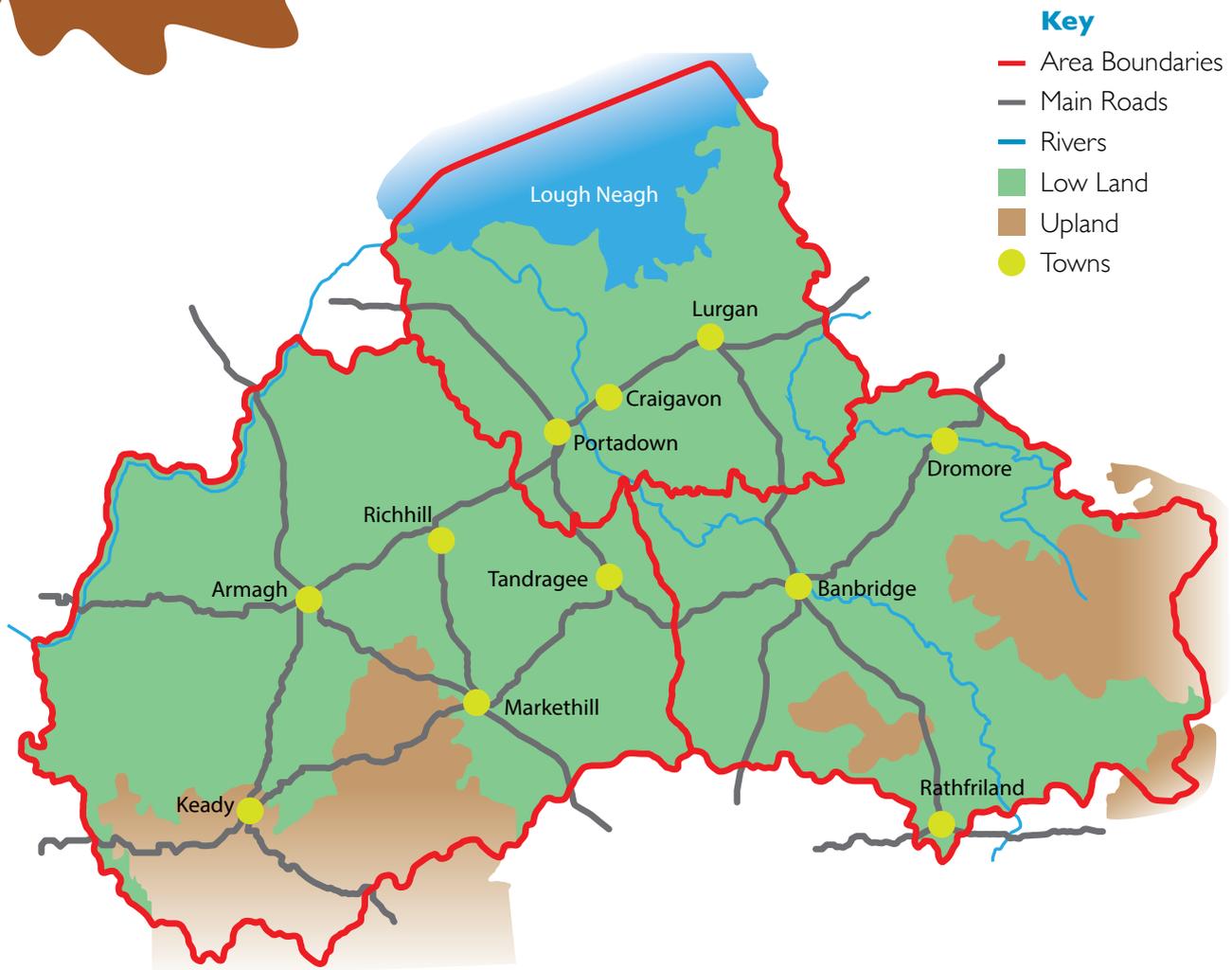
A key part of the LBAP has been the evaluation of the wildlife resource in the area. This identified the species and habitats present in the area that are under threat, national and Northern Ireland priorities in the context of the Northern Ireland Biodiversity Strategy as well as local priorities.

The Armagh, Banbridge and Craigavon Local Steering Group used criteria to decide which species and habitats should be prioritised for conservation action. Criteria used included conservation status, extent, rarity and importance to local people. These are our priority species and habitats that are described in this document for which detailed action plans will be written.

### **Action for Conservation**

The aim of the detailed action plans that will be written for the priority habitats and species selected for conservation action is to provide a series of targets and actions that can be agreed upon and then implemented.

Drawing up the detailed individual habitat and species action plans will involve a wide range of organisations and individuals. Consultation with all relevant organisations will be sought and the draft plans will be made available to the public for their thoughts and comments.



## Our Local Area

Armagh, Banbridge and Craigavon have a tremendous range of habitats from the urban and suburban gardens of the towns and villages to the vast waters of Lough Neagh, the rolling pastures of agricultural land and orchards to the foothills of the Mourne Mountains.

The Portadown- Craigavon- Lurgan conurbation is the most densely populated part of the area with the city of Armagh and the town of Banbridge also having significant populations.

At the northern boundary lies Lough Neagh, an internationally important breeding and wintering ground for wildfowl. On the southern shore lies the peatlands containing the important cutover bog sites of Brackagh and Montiags and their rich assemblage of invertebrates in the bog pools.

Further south the drumlin belt contains mostly improved grasslands. Apple orchards are centred around the Loughgall area. The land rises towards the southern boundary with the Carrigatuke Hills to the South West and the lower slopes of Slieve Croob to the East.

Running through the area are three large rivers and their associated flood plains. The River Blackwater forms part of the western boundary and the Upper Bann bisects the area on its way to Lough Neagh while the River Lagan flows into and out of the eastern boundary. There are a number of important lake Areas of Special Scientific Interest (ASSIs) scattered throughout.

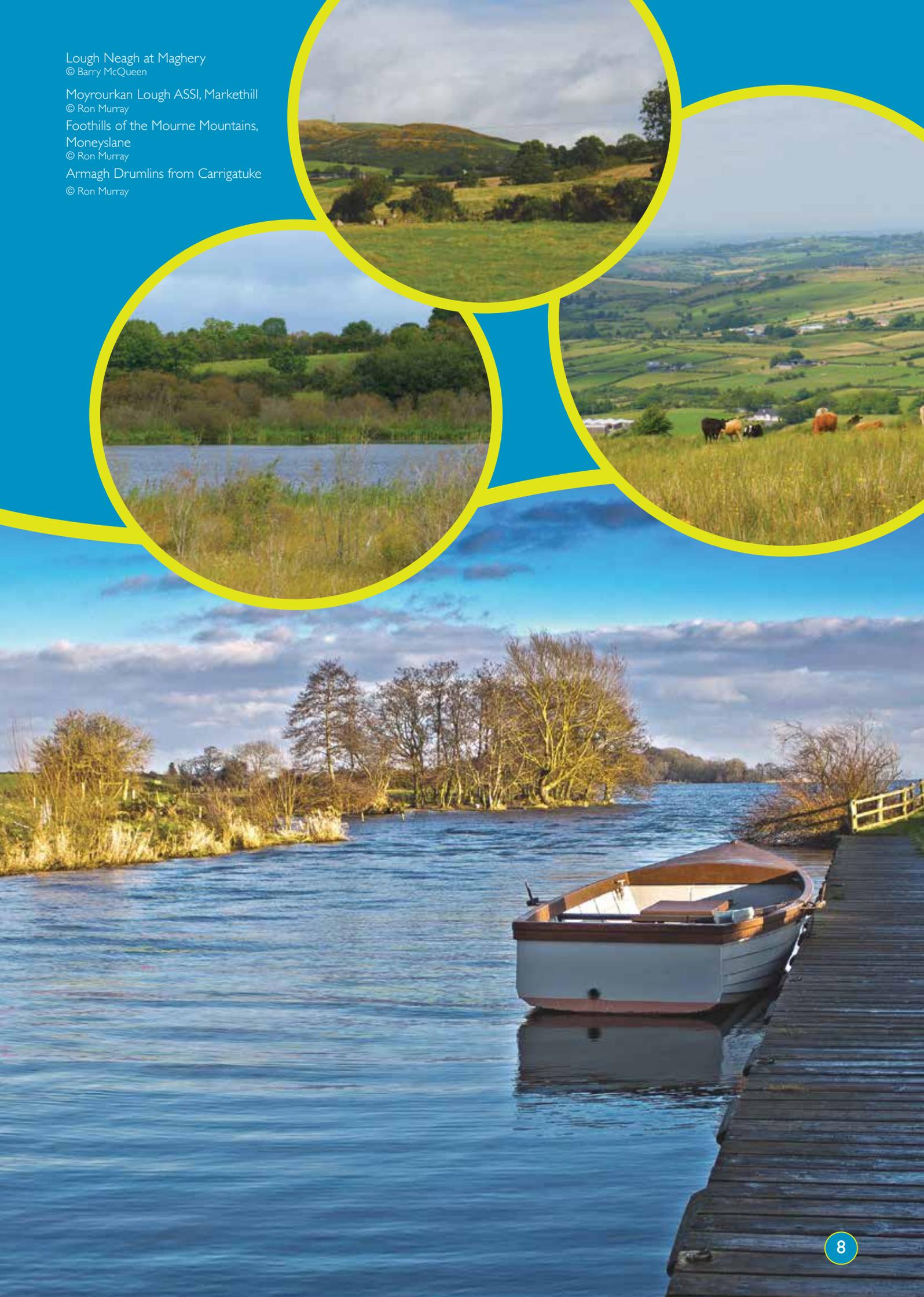
Woodland is also scattered throughout the area. Parkland is found around many of the towns, parks, golf courses and estate lands. Mixed Ashwoods is also associated with estates. Small areas of wet woodland are found around fens and lakes.

Lough Neagh at Maghery  
© Barry McQueen

Moyrourkan Lough ASSI, Markethill  
© Ron Murray

Foothills of the Mourne Mountains,  
Moneyslane  
© Ron Murray

Armagh Drumlins from Carrigatuke  
© Ron Murray



## Sites Which are Designated for Wildlife

Statutory designated sites are wildlife rich sites that have been selected for their nature conservation value. They vary in shape and size and contain important distinctive and threatened habitats and species. Designating sites helps to ensure that the species present are properly protected.

DESIGNATED SITES	Special Protection Area (SPA)	Special Area of Conservation (SAC)	Area of Special Scientific interest (ASSI)	National Nature Reserve (NNR)	Local Nature Reserve (LNR)
Lough Neagh and Lough Beg	×		×		
Montiaghs Moss		×	×		
Lackan Bog			×		
Caledon and Tynan			×		
Annacramph Meadows			×		
Moyrourkan Lough			×		
Tullybrick Lough			×		
Kiltubbrid Loughs			×		
Straghans Lough			×		
Crossbane Lough			×		
Drumcarn			×		
Derryvore			×		
Selshion			×		
Lough Gullion			×		
Brackagh Bog			×	×	
Oxford Island (Lough Neagh)	×		×	×	
Lough Neagh (Islands)	×		×	×	
Tolan's Point	×		×	×	
Montiaghs Moss			×		
Craigavon Lakes					×
Slantry Wood					×
Portmore Lough	×		×		×

Lough Neagh is also designated a RAMSAR site. Lough Neagh designations also include some land along the shoreline and the islands in the Lough. See the glossary on page 28 for further information on the designations.

## Priority Species Identified for Conservation Action

The following species are those that have been prioritised for conservation action in the Armagh, Banbridge and Craigavon area. They reflect a range of animals and plants and include national, Northern Ireland and local priority species.

GROUP	SPECIES	NORTHERN IRELAND PRIORITY	LOCAL PRIORITY
Moth	Centre-barred Sallow	✓	
Moth	Narrow- bordered Five- spot Burnet Moth		✓
Damselfly	Irish Damselfly	✓	
Butterfly	Cryptic Wood White	✓	
Bird	Great Crested Grebe		✓
Bird	Owls: Long-eared Owl, Barn Owl	✓	
Bird	House Martin		✓
Bird	Yellowhammer	✓	
Agriculture	Rare Farm Breeds, Old Apple Varieties		✓
Mammal	Hedgehog	✓	
Mammal	Bats	✓	✓
Amphibian	Smooth Newt		✓
Plant	Orchids (various)	✓	✓
Plant	Primrose		✓

### Centre-barred Sallow (*Atethmia centrago*)

Centre-barred Sallow is a Northern Ireland Priority Species moth that is well distributed within Co. Armagh with sporadic distribution elsewhere. It mainly inhabits woodland and hedgerows. The moths are on the wing during August and September. The caterpillars feed on ash trees, burrowing into the buds when newly hatched and subsequently feeding on the flowers and leaves. They are nocturnal and feed from April to the beginning of June. They stay concealed by day at the base of the food plant or in a small crevice among the bark.

Centre-barred Sallow  
© Rachel Scopes (Butterfly Conservation)





### Narrow-bordered Five-spot Burnet Moth (*Zygaena ionicerae*)

The adults fly in the daytime, visiting various flowers and are on the wing in June and July. Adult moths begin emerging in late June and numbers peak in July. The dramatic coloration is a defence against predators and warns them that it is poisonous. The adults actually contain cyanide based chemicals within their body and assimilate the compounds from the plant material consumed as caterpillars. The pupa can be found enclosed in transparent cocoons attached to grass stems. These tend to vary from pale whitish-yellow or greenish-yellow to white. The adult has 5 spots on each wing, with the single spot near the wing tip. There is a similar species the Six-spot Burnet moth which is more common.



### Irish Damselfly (*Coenagrion lunulatum*)

The Irish Damselfly is found in cutover bog and mesotrophic pools and flies from the beginning of May to August. Adults stay close to breeding sites, resting and feeding in marginal and surrounding vegetation. Adult males sit on floating aquatic plants often chasing other males and changing perches. Pairs are seen approaching breeding sites together. Females lay their eggs into the submerged stems of aquatic plants. The eggs hatch into larvae, which grow through a series of moults until they are fully grown. The larvae then climb out of the water by crawling up the stems of emergent plants, shed their skin and emerge as adults.

### Cryptic Wood White (*Leptidea juvernica*)

The Cryptic Wood White is a Northern Ireland Priority Species found in open habitats such as species rich grassland, hedgerows and roadside verges where it feeds on meadow vetchling and greater and common bird's foot trefoil. Adults can be found on the wing from late May until early July. Males can be found patrolling for females, rarely stopping to rest or feed, especially in sunny weather. On dull days, the butterfly will rest on the underside of a leaf with its wings closed.





## Great Crested Grebe (*Podiceps cristatus*)

Known for its elaborate mating display the Great Crested Grebe feeds mainly on fish but also small crustaceans, insects and small frogs. It breeds in the vegetated margins of lakes usually producing two young which are able to swim and dive from hatching. The grebe was hunted almost to extinction in the 19th Century for its head feathers, which were used to decorate hats and ladies' dresses.



## Long-eared Owl (*Asio otus*)

The Long Eared Owl is a medium sized owl slightly smaller than a pigeon with brownish feathers and long black ear tufts. It hunts mostly over open country flying slowly and feeding on small mammals and birds. It breeds in old stick nests, laying between 4 to 6 eggs which take 25 to 30 days to incubate. The young have a characteristic call which is considered similar to a rusty hinge and often provides the best opportunity to find this secretive bird.



## Barn Owl (*Tyto alba*)

The Barn Owl occurs mainly in lowland mixed farmland where rough grassland exists with some hedges and trees. It feeds on a wide variety of small mammals and is active from dusk until dawn. Wood mouse, pygmy shrew in the fields and house mouse and young rats around farm buildings form a large proportion of its diet. Frogs even occasionally bats and small birds are also taken. All prey are hunted and located using the owl's sharp sense of hearing. Barn owls frequent a range of nesting sites from old barns, ruined buildings and tree cavities. They nest in dark undisturbed locations lined with the remains of their pellets. Between 4 to 6 white eggs are laid, staggered at intervals of two days. The female incubates the eggs after the first is laid. They hatch at two day intervals, about one month after being laid. The young vary widely in size and spend two to three months in the nest.

Narrow-bordered Five-spot Burnet Moth  
© Danny Gibson

Cryptic Wood White Butterfly  
© Craigavon Borough Council

Irish Damselflies  
© Craigavon Borough Council

Great Crested Grebe  
© Danny Gibson

Long-eared Owl  
© Breffni Martin

Barn Owl  
© Patricia Mackey



## House Martin (*Delichon urbica*)

The House Martin is a migratory bird which winters in sub-Saharan Africa and returns to Ireland to breed between April and May. It usually feeds over freshwater sites on insects before returning to build convex nests on the outside of buildings. It is a very noisy bird especially at the colonial nesting sites where it usually lays 4 or 5 white eggs. The young fledge at about 22-32 days and second broods are normal. After fledging the young gather in increasing large groups often on wires with swallows before heading off to their wintering grounds by the end of September.



## Yellowhammer (*Emberiza citrinella*)

Most obvious in spring and summer, when the male has a bright yellow head and breast and perches on the top of bushes to defend its territory, singing a distinctive 'little bit of bread and no cheese' song. The colours of the female are duller, but both sexes have white outer tail feathers and a chestnut rump. Breeding takes place between April and July with two or three broods per season. A nest is built on or close to the ground, usually near hedges or banks. Thick hedges, shrubs or groups of trees are essential for nesting.



## Rare Farm Breeds

### Old Apple Varieties

Conserving rare breeds adds to food security and landscape management. Our native breeds contain a genetic diversity which may be important in the future. It includes native breeds of animals such as the Dexter and Irish Moiled cattle and old varieties and cultivars of apples such as Keegan's Crab and Widow's Friend.

House Martin  
© Danny Gibson

Yellowhammer  
© Breffni Martin

Irish Moiled Cattle  
© Craigavon Borough Council

## Hedgehog (*Erinaceus europaeus*)

Hedgehogs are well known for the presence of spines and their ability to roll into a ball as a defence mechanism. Nocturnal in their habitats they feed mostly on insects but will eat a range of items including slugs, bird's eggs, mushrooms, berries and even grass roots. They hibernate in the colder weather and normally live for between 4 to 7 years.



## Bats

Bats found in the Armagh, Banbridge and Craigavon area

- Nathusius' pipistrelle - *Pipistrellus nathusii*
- Soprano pipistrelle - *Pipistrellus pygmaeus*
- Common pipistrelle - *Pipistrellus pipistrellus*
- Brown Long-eared bat - *Plecotus auritus*
- Leisler's bat - *Nyctalus leisleri*
- Daubenton's bat - *Myotis daubentonii*
- Natterer's bat - *Myotis nattereri*
- Whiskered bat - *Myotis mystacinus*

The only true flying mammal, Irish bats feed exclusively on insects. Catching their prey at night, they use echolocation, producing a series of calls, which are generally too high pitched for humans to hear. As insect feeders they hibernate during the winter becoming torpid as food becomes scarce and their body temperature drops. They seek out underground shelters, houses or even trees during hibernation.



## Smooth Newt (*Lissotriton vulgaris*)

Newts are the only tailed amphibians in Ireland and are generally brown in colour. The adults engage in an elaborate courting display before breeding in early spring in ponds with the female laying her eggs singly on vegetation. They feed on invertebrates and also frog tadpoles and take about 18 months to develop into an adult. After the breeding season the adults live in damp places often underneath logs or other debris during the warmer months. The loss of wetlands has dramatically reduced numbers of newts in the last 30 years.





## Orchids

Orchids found in the Armagh, Banbridge, Craigavon area:

- Bee Orchid - *Ophrys apifera*
- Marsh Helleborine - *Epipactis palustris*
- Broad-leaved Helleborine - *Epipactis helleborine*
- Bird's-Nest Orchid - *Neottia nidus-avis*
- Common Twayblade - *Listera ovata*
- Irish Lady's-Tresses - *Spiranthes romanzoffiana*
- Greater Butterfly-Orchid - *Platanthera chlorantha*
- Lesser Butterfly-Orchid - *Platanthera bifolia*
- Pyramidal Orchid - *Anacamptis pyramidalis*
- Fragrant Orchid - *Gymnadenia conopsea*
- Common Spotted Orchid - *Dactylorhiza fuchsii*
- Heath Spotted Orchid - *Dactylorhiza maculata*
- Early Marsh Orchid - *Dactylorhiza incarnata*
- Northern Marsh Orchid - *Dactylorhiza purpurella*
- Early-Purple Orchid - *Orchis mascula*

Orchids can take up to 8 years from germination to bloom with their tiny seeds dependant on a relationship with a fungus in order to thrive. Ploughing and other disturbance of the land can disturb the associated fungi and prevent the orchids from growing. The Common Spotted Orchid is the most widely distributed species, often seen on road verges, permanent pasture and undisturbed sites.

## Primrose (*Primula vulgaris*)

The Primrose is a low growing herbaceous perennial with pale yellow flowers on a single slender stem. The flowers are surrounded by a basal rosette of leaves. One of the early spring flowers, it is often seen in open woods, shaded hedgerows, road verges and railway embankments. In appropriate conditions, it can cover the ground in open woods and shaded hedgerows. It has suffered from over enthusiastic picking of wildflowers.

Fragrant Orchid  
© Breffni Martin

Primrose  
© Breffni Martin

## Priority Habitats Identified for Conservation Action

We have identified six broad habitat types in the area and outline some of the main attributes of each and where they can be found. The key features of each are described followed by specific habitats that have been prioritised for conservation action by the LBAP Steering Group. These include national, Northern Ireland and local habitats.

The key broad habitat groups are:-

- Woodland
- Wetlands
- Grassland and Arable
- Rivers & Canals
- Peatlands
- Open Mosaic Habitats on Previously Developed Land



Loughgall Country Park  
© Barry McQueen

### Habitats for Which Action Plans will be Prepared

<p><b>Woodland</b></p> <ul style="list-style-type: none"> <li>• Parkland</li> <li>• Mixed Ashwoods</li> <li>• Wet woodland</li> <li>• Species-rich hedgerows</li> </ul>	<p><b>Rivers and Canals</b></p> <ul style="list-style-type: none"> <li>• Rivers</li> <li>• Canals</li> </ul>	<p><b>Wetlands</b></p> <ul style="list-style-type: none"> <li>• Lowland fens</li> <li>• Reedbeds</li> <li>• Ponds</li> </ul>
<p><b>Peatlands</b></p> <ul style="list-style-type: none"> <li>• Lowland raised bog</li> </ul>	<p><b>Grassland and Arable</b></p> <ul style="list-style-type: none"> <li>• Lowland meadows</li> <li>• Floodplain grazing marsh</li> </ul>	<p><b>Open Mosaic Habitats on Previously Developed Land</b></p> <ul style="list-style-type: none"> <li>• Quarries</li> <li>• Landfill sites</li> <li>• Road verges</li> <li>• Waste ground</li> <li>• Parks and Gardens</li> </ul>



Rowan Trees, Lackan Bog, Ballyrone © Ron Murray

## Woodland

The island of Ireland is the least wooded area of the European Union. Even by these standards woodland cover is generally low in the area with little planted or mature woodland.

Most of the mature broadleaved or mixed woodlands in our area are associated with present or former estates. These estate woodlands support a diverse range of mainly non-native trees including broadleaves. There are many fine estate woodlands in demesnes and mill properties along the Upper Bann and other rivers.

New native broadleaved woodlands are being planted by Non Governmental Organisations ((NGOs) such as the Woodland Trust. Although no true natural woodland exists, well established semi-natural woodland is valuable for wildlife as is developing scrub.

### Key Woodland Locations with Public Access

Name	Location	Description
Huntly Wood	Banbridge	Mature Deciduous Woodland
Slantry Wood	Portadown	Local Nature Reserve
Gosford Forest Park	Markethill	Deciduous and Coniferous Plantation
Loughgall Country Park	Loughgall	Public Park and Estate Woodland

## Parkland

Parkland is a relic of the demesnes of the large estates that existed in the area. As one of the few habitats that was not stripped of its trees by the 19th Century, it generally contains some of the oldest and largest trees in Northern Ireland. These are very important for some highly specialised groups of species that require old wood to thrive. Old or veteran trees previously associated with parkland occur where the land has often been converted to other uses such as arable farming and amenity land.

Parkland supports the roosts of the Long-eared bat as well as rare lichens and invertebrates that live in decaying wood in the old trees. Parklands are either grazed, or mown in the case of those forming part of golf courses or public parks. Parkland in Northern Ireland as a whole is threatened or is in declining condition.



### Key Parkland Locations

Name	Location	Description
Scarva House	Scarva	Estate Woodland
Lurgan Park	Lurgan	Public Park
Palace Demesne Public Park	Armagh	Public Park
Caledon and Tynan ASSI	Tynan	Estate Woodland

## Mixed Ashwoods

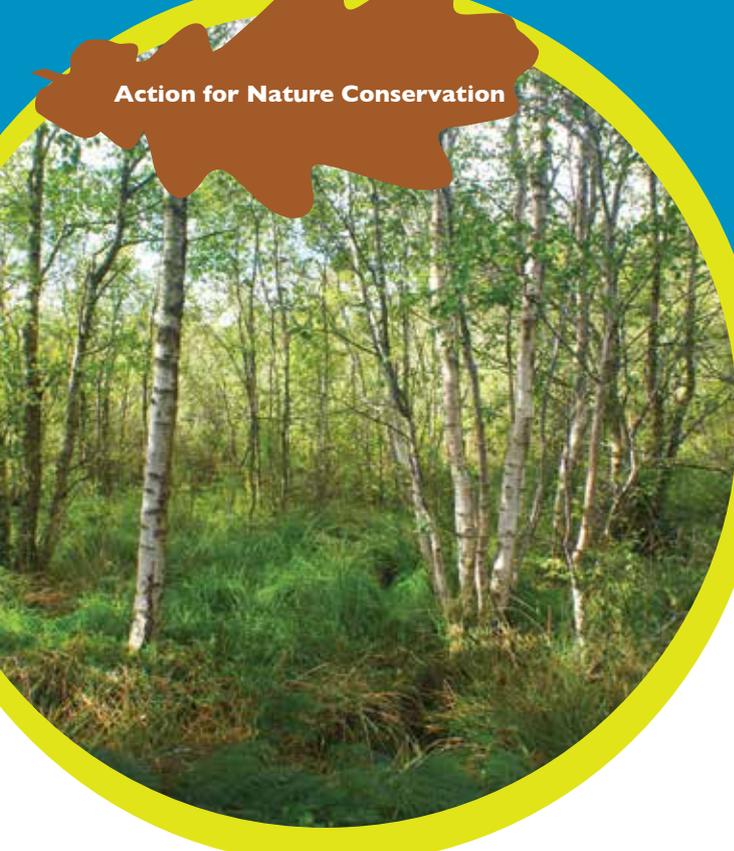
The term Mixed Ashwoods is used for a broad range of woods on richer soils where ash is generally the dominant species, although locally oak, downy birch and even hazel may be common. Rowan may also be present. Stands occur throughout the area.

It is interesting to note that the predominant woodland, before it was extensively cleared was oak woodland. This is reflected in the extensive use of Derry, the Irish word for oak, in place names e.g. Derryinver, Derryvore, Derryadd and Derryvane to name but a few.



### Key Mixed Ashwoods Locations

Name	Location	Description
Whyte's Estate	Loughbrickland	Estate Woodland
Coney Island	Maghery	Planted 19th Century Woodland



Wet Woodland, Lackan Bog, Ballyroney  
© Ron Murray

## Wet Woodland

Wet Woodland is especially frequent around lakes including Lough Neagh and the interdrumlin hollows associated with the area.

Small areas of alder/willow woodland are found as part of a complex wetland habitat mosaic with cutover bog and fen. Willows tend to be concentrated in a narrow band along the lower, wetter edge of lakes, but are also intermixed with the dominant alder and birch further from the lake side or in the centre of islands. Ash is common in drier parts.

## Key Wet Woodland Locations

Name	Location	Description
Brackagh Bog NNR	Brackagh	Cutover Bog/Wet Woodland
Clare Glen	Tandragee	Woodland
Lackan Bog	Ballyroney	Cutover Bog and Fen Carr

## Ancient or Species Rich Hedgerows

The area has a low density of woodland but this is partly compensated by a high density of hedges. Any hedgerow which contains 6 or more native woody species in an average 30 metre strip or has a rich base of wildflowers is considered species rich as are all ancient townland boundary hedges.

Hedges are often rich in wildlife and are an important refuge particularly on agricultural grassland where they provide vital corridors for wildlife.

Hedges tend to be well managed on some of the intensive dairy farms. Hedgerows on higher ground contain gorse and are predominantly gappy. Hedgerows are widespread throughout the area.



Hedgelaying at Loughgall Country Park, Loughgall  
© Ron Murray

## Rivers and Canals

This includes all watercourses down to the smallest tributary. They have often been heavily modified by drainage operations. They are especially important as wildlife corridors linking other semi-natural habitats. The large rivers which are part of the Lough Neagh catchment support an assemblage of fish species including salmon, brown trout, including the migratory Dollaghan trout, eels and sticklebacks. Other fish that have been introduced include pike, perch, rudd, minnows, bream, tench and roach.

### Rivers

The Blackwater, Lagan, and Upper Bann and their tributaries the Callan and Cusher traverse the area. They provide vital wildlife corridors for a number of animals as well as hosting a range of fish and invertebrates such as dragonflies and mayflies. Many of the rivers host coarse and salmonid fish. The rivers of the Lagan catchment lack some of the coarse fish species mentioned but contain trout, and salmon, that are increasingly returning to the catchment. The Tynan River also supports white-clawed crayfish. The Oona Water is important for brown trout fishing. The otter is widespread along all these rivers

### Key River Locations

Name	Access Points
River Lagan	Dromore, Donaghcloney
River Blackwater	Charlemont, Maghery, Blackwatertown
River (Upper) Bann	Banbridge, Charlestown, Gilford, Portadown

### Canals

The abandoned Lagan and Newry Canals and also the largely dewatered Ulster Canal wind their way through the area. The bank side and channels of these canals support a diverse range of habitats, flora and fauna including several Northern Ireland priority species. Many are easily accessible for public access.

### Key Canal Locations

Name	Access Points
Lagan Canal	Aghagallon
Newry Canal	Portadown (Moneypenny's Lockhouse), Scarva,
Ulster Canal	Benburb

## Wetlands

The area is particularly rich in wetlands that range from the wide expanses of Lough Neagh in the North to the inter-drumlin fens of the South of the area. Wetlands are particularly rich in wildlife. Nutrient enrichment (eutrophication) and drainage are a major threat to these habitats.

## Reedbeds

Reedbeds are widely distributed on the margins of water bodies, along lowland and upland streams, reservoirs, sewage treatment works and as a temporary habitat on fens and bogs. Reedbeds can originate in one of two ways. They can occur naturally as part of silting up of open water or they can develop through human activity, for example, when agricultural practices (such as peat cutting) have ceased, or where grazing and water control have been abandoned on low lying land.

Reedbeds often occur as a transitional zone along the shore of lakes and are dominated by the common reed and other large grasses or large sedges. Typically only one or a small number of different plant species are present. They are an important habitat for a number of bird species which use the reeds for shelter, feeding and breeding.

## Fens

Fens are commonly found around lakes in interdrumlin hollows often as part of a complex mosaic with other wetland habitats (e.g. reedbeds, wet woodland).

The fens of north Armagh have long been recognised as being of national and international significance, not only for their plant life, but as part of wet habitats that provide a diversity of habitats for mammals, insects and birds. Although not as extensive as formerly, because of drainage for agriculture, the fens and other wetland habitats remain of importance. Fens are not only confined to the lake shores, they also occur as isolated patches along the major rivers and in interdrumlin hollows.

Fens also originated from cutover lowland bogs and large parts have been colonised by alder and willow scrub. Many fens have become enriched by nutrients from surrounding agricultural land.



## Key Wetland Locations

Name	Location	Description
Portmore Lough	Aghagallon	RSPB Bird Reserve with Extensive Reed Beds
Moyrourkan Lough ASSI	Markethill	Swamp & Fen
Dane's Cast Fen	Poyntzpass	Fen
Crossbane Lough/Straghans Lough ASSIs	Keady	Swamp and Fen

## Ponds

Ponds are small water bodies of less than 2 hectares and greater than one square metre. They are important as a source of water for many species and have an associated wildlife of their own.

Ponds vary from the small uniform structure of some of the cutover bogs to the open water areas of the interdrumlin fens and the artificial water bodies created on farms and golf courses.

## Peatlands

Northern Ireland has a large proportion of the UK's lowland raised bogs that are of national importance. Although lowland raised bog is widespread in the northern part of the area, almost all has been cutover in the past and much has been colonised by birch woodland.



## Lowland Raised Bog

Lowland Raised Bogs are particularly frequent in the north of the area around Lough Neagh and the Armagh orchard belt. There are no remaining intact bogs as the lowland raised bog has been cutover and much reclaimed for pasture. There is, however, an impressive complex mosaic of habitats with peat ramparts, trenches, pools and drains interspersed with small hay fields, alder and willow carr and tall hedgerows. This diversity of habitats supports a range of plant and animal communities associated with acid bog, rich fen and swamp.

## Key Peatland Locations

Name	Location	Description
Montiaghs Moss ASSI	Aghagallon	Cutover Bog with Extensive Pools
Peatlands Park	Birches	Cutover Bog
Lackan Bog ASSI	Ballyroney	Cutover Bog
Brackagh Bog ASSI	Portadown	Cutover Bog



Lowland Hay Meadow, Killylea  
© Ron Murray

## Grassland and Arable

Grassland is the prevalent vegetation type in the area. Much of it, however, is improved agricultural land, intensively managed with heavy applications of inorganic fertilisers, installation of drains and often reseeded with a high proportion of perennial ryegrass. This type of grassland is generally of low conservation interest. Similarly, arable crops with their associated high levels of fertiliser, herbicides and pesticides have low conservation interest, though they can provide a food resource for some birds and a few moths. Some patches of more wildlife rich areas, however, do exist and these habitats include less intensively managed pasture and meadows, hedgerows and field margins.



### Lowland Meadows

This includes many unimproved and semi-improved grasslands which are used for hay or grazing. It includes grassland with a high percentage cover of fine-leaved grasses; such as bent or fescues and an absence or very low percentage cover of ryegrass. If the agricultural improvement is slight, particularly if the amount of fertiliser applied has been low, then the meadow can be rich in wildflowers.

The habitat has typically survived as hay meadow, but increasingly it is also characterised by unimproved neutral pastures where livestock grazing is the main land use. In non-agricultural settings, lowland meadow type communities may be found in recreational sites, churchyards, roadside verges and a variety of other localities. There are no large areas of lowland meadow in Northern Ireland. The habitat is typically fragmented, even in areas where it is relatively frequent. It is often restricted to those small parts of field parcels where agricultural operations are difficult such as steep slopes.

### Key Lowland Meadow Locations

Name	Location	Description
Navan Fort	Armagh	Semi-improved Grassland
Oxford Island	Lurgan	Species Rich Pasture
Annacramph Meadows ASSI	Loughgall	Species Rich Meadows

## Floodplain Grazing Marsh

Floodplain Grazing Marsh includes periodically inundated pasture or meadows. It occurs as a wide range of vegetation types ranging from rushy pasture to wet grassland and is particularly prevalent in the north of the area. It is especially important for breeding waders which have exhibited a sharp population decline due to the loss of the habitat to drainage and related agricultural improvement. The improvement of some pastures has, however, benefited wintering geese and swans that graze on them.

There are extensive areas of wet grassland around Lough Neagh and Portmore Lough as well as along the Blackwater and Lagan floodplains that support important populations of Northern Ireland priority breeding wader species such as lapwing, golden plover, curlew, redshank and snipe. This Floodplain Grazing Marsh is the subject of its own Northern Ireland habitat action plan. Of particular note are the high numbers of breeding snipe recorded at the Knockbane Site of Local Nature Conservation Importance (SLNCI) at the southern end of the Blackwater Valley. Wet grasslands also occur patchily along smaller rivers and streams.

Species-rich examples of wet grassland are under threat from drainage, heavy grazing and eutrophication. Equally under grazing of wet grassland can result in an over-dominance of rushes making them less suitable for breeding waders.



Whooper Swans on Floodplain Grazing Marsh  
© Craigavon Borough Council

### Key Floodplain Grazing Marsh Locations

Name	Location	Description
Upper Bann Floodplains	Portadown to Charlestown	Lower Floodplain of Lough Neagh and the River Bann
Dromore Lowlands	Dromore	Rough Grassland Alongside the River Lagan
Blackwater Flood Plain	Caledon	Low Lying Pasture Adjacent to the River Blackwater

## Open Mosaic Habitats on Previously Developed Land

Artificial habitats are important for certain plants, birds, insects, dragonflies, butterflies and day flying moths. These man made habitats include quarries, road verges, suburban gardens and waste ground.

Gardens can often be an important resource for wildlife and provide an opportunity for us to encourage biodiversity and appreciate the animals and plants that are found there.

Other sites like cemeteries and golf courses can support a wide range of habitats and species and if managed sympathetically, can provide a rich resource. Amenity areas provide an opportunity for the public to engage with nature.

Quarries and capped landfill sites also provide opportunities for our wildlife.

Eastway, Craigavon with Wildflowers  
© Craigavon Borough Council

Wood Anemone  
© Craigavon Borough Council



# Conservation Actions

Detailed action plans will be produced for the priority species and habitats in consultation with stakeholders and the local community. The action plans will set out exactly how we intend to enhance and protect both species and habitats and will be strongly focused on community and partnership involvement. As well as the habitat and species action plans there are a number of generic objectives which can improve Biodiversity and enable people to engage with nature. The objectives of the detailed action plans and indicative actions are set out below.



## Objectives

## Indicative Actions

Describe and Evaluate the Nature Conservation Value of the Area

- Survey for suitable sites and species
- Map and assess sites and species
- Maintain a register of sites of conservation interest
- Produce a wildlife inventory of all areas of biodiversity interest in the area
- Identify factors that are damaging to wildlife and limit them where possible
- Encourage environmental recording

To Maintain, Enhance and Improve the Nature Conservation and Wildlife Resource of the Area

- Get involved in statutory consultations and comment on relevant legislation
- Encourage agri-environmental grants
- Create, restore and conserve habitats
- Encourage volunteering and public management
- Partner other organisations to undertake environmental projects
- Promote other schemes for improving biodiversity
- Produce management plans for public spaces
- Control invasive species
- Encourage alternatives to peat
- Promote use of demonstration sites and best practice.
- Promote the preservation of rare breeds and plant cultivars
- Undertake to safeguard nature sites

To Promote Environmental Education, Awareness and Enjoyment of the Nature Conservation and Wildlife Resource of the Area

- Promote the development of public access to sites of nature conservation
- Provide interpretation panels at suitable sites to promote biodiversity
- Hold walks, talks and events to promote wildlife
- Raise awareness and highlight issues and priorities.
- Promote environmental education
- Encourage environmental NGOs and public involvement
- Encourage research and training events
- Acquire potential nature reserves and wildlife corridors.
- Encourage environmental recreation and sustainable tourism



Young Naturalist  
© Craigavon Borough Council

## How You Can Help

Get involved in the LBAP.

### Recording wildlife

We need to find out more about our local wildlife. Local people are best placed to collect records and our knowledge will be complemented by records received from local people. This information can help us to build a picture of the distribution of our local wildlife. Individuals can join the County Armagh Wildlife Society or other environmental groups. The Centre for Data Recording, CEDaR is established to receive and collate all wildlife records.

### Identifying the threats and issues

Similarly, information on the threats to the local biodiversity such as pollution, dumping or wildlife crime will help to protect the most threatened habitats and species. Report such issues to either the relevant council or the PSNI.

### Volunteering

There are opportunities for enthusiastic individuals to get involved in the management of sites and to help wildlife. People can volunteer to help out at events such as the removal of invasive non-native species or participate on a regular basis managing a nature site.

### Events

Taking part in the various environmental events will help to keep you informed, provide some exercise and a lot of enjoyment. We intend to run events throughout the area to allow as many people as possible to take part.

### Training

Training events will be organised to inform and educate people and allow enthusiasts to play a bigger role in helping wildlife. Some will be of general interest assisting in the identification of our local species.

### Making your garden more wildlife friendly

It is easy to attract wildlife to your garden no matter how large or small. Simple changes can make your garden more appealing. Bird or bat boxes attract breeding birds and roosting bats. Insects are attracted by many types of flowers. Habitat piles of loose or stacked logs or branches are a great way to provide food and shelter to many types of animals. Feeding the birds is one way many of us contribute to the conservation of our wildlife.

## Glossary

### **ASSI – Area of Special Scientific Interest**

Areas of Special Scientific Interest (ASSIs) are areas of land that have been identified by scientific survey as being of the highest degree of conservation value. They are usually in private ownership

### **SPA - Special Protection Area (for birds)**

Special Protection Areas (SPAs) are designated under the European Commission Directive on the Conservation of Wild Birds. All European Community member States are required to identify internationally important areas for breeding, over-wintering and migrating birds and designate them as Special Protection Areas (SPAs).

### **SAC - Special Area of Conservation (for species and habitats)**

Special Areas of Conservation (SACs) are those which have been given greater protection under the European legislation of The Habitat's Directive. They have been designated because of a possible threat to the special habitats or species which they contain and to provide increased protection to a variety of animals, plants and habitats of biodiversity importance both on a national and international scale.

### **NNR - National Nature Reserve**

Nature reserves are chosen from among the very best examples of our wildlife, habitats and geology. The primary aim of managing these sites is to conserve their features now and for future generations through the development of experience and techniques in managing land for conservation. A secondary aim is to provide opportunities, where practical, for the public to experience these natural habitats and landscape features and to interact quietly with nature.

### **LNR - Local Nature Reserves**

Local Nature Reserves are designated by local councils, in conjunction with the Joint Nature Conservation Committee, and provide an opportunity to connect people with nature. Often located near centres of population, they provide green space for wildlife and people.

### **SLNCI - Site of Local Nature Conservation Importance**

SLNCIs are designated in accordance with PPS 2: Planning and Nature Conservation. Sites are identified on the basis of their flora, fauna or earth science interest.

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## Links to other websites for further information

**Armagh City and District Council**  
[www.armagh.gov.uk](http://www.armagh.gov.uk)

**Banbridge District Council**  
[www.banbridge.gov.uk](http://www.banbridge.gov.uk)

**Craigavon Borough Council**  
[www.craigavon.gov.uk](http://www.craigavon.gov.uk)

**Action for Biodiversity**  
[www.actionforbiodiversity.eu](http://www.actionforbiodiversity.eu)

**Biodiversityni**  
[www.biodiversityni.com](http://www.biodiversityni.com)

**Butterfly Conservation**  
[www.butterfly-conservation.org](http://www.butterfly-conservation.org)

**Centre for Environmental Data and Recording**  
[www.habitas.org.uk](http://www.habitas.org.uk)



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