

Lisburn & Castlereagh
**Local Biodiversity
Action Plan**





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Local Biodiversity Action Plan

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Foreword



The Right Worshipful the Mayor, Councillor Tim Morrow

I have the pleasure in introducing you to Lisburn & Castlereagh City Council's first Local Biodiversity Action Plan (LBAP). This plan highlights key actions and partnerships that have been put in place to help restore, enhance and protect key habitats and species found in the Council area.

The Wildlife and Natural Environment Act (NI) 2011, also known as the WANE Act, places a statutory biodiversity duty on public bodies. As a public body, the Council is required when undertaking its functions to take into account the following five areas:

- the protection of biodiversity;
- the maintenance of biodiversity;
- enhancing biodiversity;
- restoring biodiversity; and
- promoting the understanding of biodiversity both within and outside the organisation.

The Council is taking a holistic approach to fulfilling its obligations under the WANE Act, to ensure the protection and enhancement of biodiversity including actions and considerations in the 'Where we Live' section in the Council's Community Plan and in the Local Development Plan recognising that biodiversity is key to sustainable development.

The LBAP will guide the conservation and enhancement of biodiversity in the Lisburn & Castlereagh City Council area over the next five years and beyond. I hope you embrace it and become involved in the LBAP. Contributions made at a local level will help to improve biodiversity at a national level. In order to conserve habitats and the species they support, we must take ownership and get involved now in protecting them.

Councillor Tim Morrow



Alderman James Tinsley Chair of Leisure and Community Development Committee

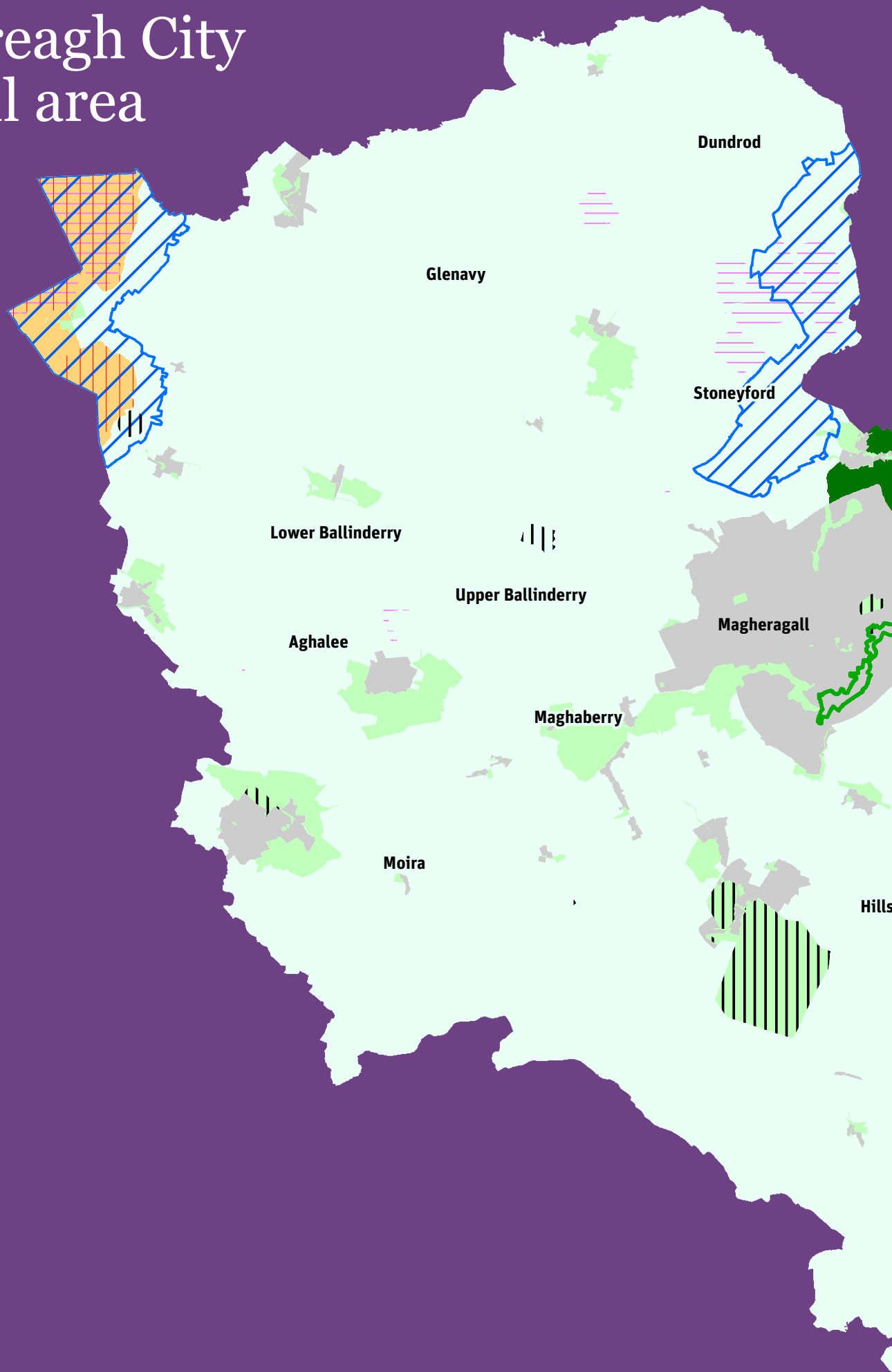
The LBAP highlights what is special in our area including key habitats and species. It also explains how we can conserve and enhance these areas and how through partnership working and local actions we can all help to protect and enhance biodiversity now and for the future.

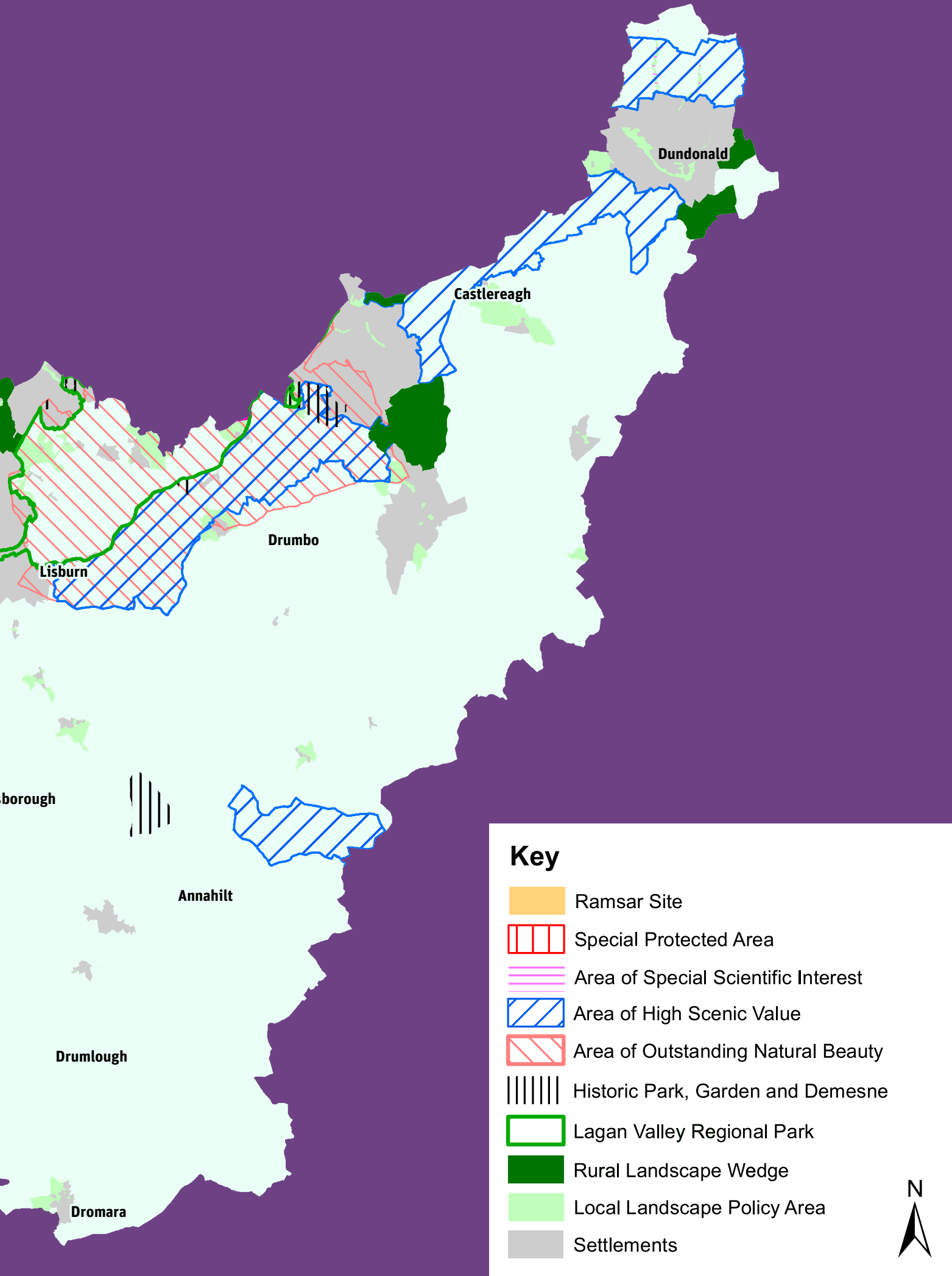
The word biodiversity encompasses the variety of life in all its shapes and sizes. The natural environment can be enjoyed at many sites in the area including open spaces and parks such as Billy Neill Playing Fields, Moira Demesne, Moat Park and Wallace Park. These natural sites are vitally important for providing shelter, food and breeding habitats for many species of insect, wild bird, waterfowl, and small mammals and also for our own physical health and wellbeing.

In order to provide for future generations it is vital that we take responsibility for our biodiversity and protect the natural environment and the wildlife that depend on it.

Alderman James Tinsley

Map of the Lisburn & Castlereagh City Council area





What is Biodiversity?

'Biodiversity' is an abbreviated term for 'Biological Diversity'; this refers to the variety of life on Earth which includes plants, animals, fungi and even bacteria. Biodiversity is found everywhere on Earth including mountains, beaches, woodland, ponds, grasslands, rivers, and even in our towns and cities.

It is important to remember that humans are also a part of biodiversity, and the way we make use of the land and manage various habitats can have a knock-on effect for many other species.

All living things are dependent upon each other and the environment around them for survival; this is called an ecosystem. Each species within an ecosystem has an important role to play – for example most plants have a special link with fungi living in the soil, without which they could not grow and reproduce; and as humans we

rely on a range of plant and animal species to provide us with food, building materials and medicines.

Various species often co-exist in groups called communities, which in turn form distinctive habitats. A wide range of habitats can be found throughout the Lisburn & Castlereagh City Council area including rivers & lakes, woodland, grassland and urban developments. Some notable habitats and the species they support are listed below:-



Carpets of spring-flowering Bluebell

Things to Look Out for around Lisburn & Castlereagh

- Newts at Moira Demesne & Castlereagh Hills Golf Course
- Butterflies at Billy Neill Playing Fields
- Carpets of spring-flowering Bluebell, Lesser Celandine, Ramsons, Wood Sorrel and Wood Anemone at Duncan's Dam
- Kingfishers along the River Lagan
- Dragonflies & Damselflies at McKee's Dam and Billy Neill Playing Fields
- Wintering wildfowl on Portmore Lough & Lough Neagh
- Whitethroat, Bullfinch, Yellowhammer and Little Grebe at Billy Neill Playing Fields
- Tree Sparrows at Portmore Lough
- Great Spotted Woodpeckers in Lagan Valley Regional Park
- Wintering Whooper Swans at Billy Neill Playing Fields
- Old veteran trees in Castle Gardens, Wallace Park and Moira Demesne
- Spotted Flycatcher at McKee's Dam
- Species-rich hedgerows at Portmore Burial Grounds

You can learn more about Biodiversity by visiting the Lisburn & Castlereagh City Council website at: www.lisburncastlereagh.gov.uk/biodiversity



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Why is Biodiversity Important?

The biodiversity of Northern Ireland is of international importance and around 20,000 species are found here in a wide variety of habitats. It is the duty of us all to protect this biodiversity for current and future generations, to ensure the continued survival of other species, and to ensure that nature continues to provide us with the basic things we require for our own survival – food, fibres, clean water, building materials, medicines, fuels, and even the oxygen we breathe!

Many habitats managed for the benefit of biodiversity also provide us with relaxing and picturesque places to relax or exercise; research shows that such places are also beneficial for both our physical and mental health and well-being. Many of these habitats are also 'outdoor classrooms' for us all to learn about the natural world.

Conserving biodiversity is part of living in a sustainable way, something we must all learn to do. This is essential as otherwise many resources we need to thrive will become scarce and more costly to acquire; an example would be the importance of pollinating insects in the

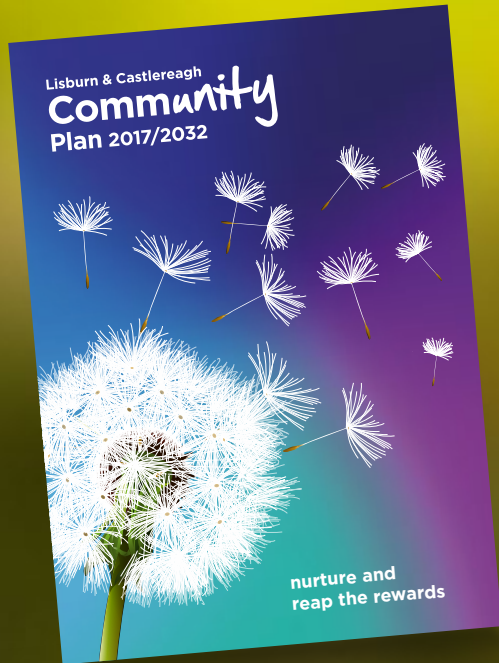
apple-growing industry. A natural, appealing landscape with a range of habitats also attracts tourists, which provides a direct benefit to the local economy.

Many wild areas give us a sense of place; they tell a story of our past and are often linked directly to historic events. Such places therefore act as 'time capsules' for both our natural and cultural heritage.

This Biodiversity Action Plan is an integral part of the Local Development Plan and Community Planning with Lisburn & Castlereagh City Council.



Kingfisher along
the River Lagan



The Community Plan

Community Planning is a new function for councils which came into effect in April 2015 as a result of the Reform of Public Administration. The Council must initiate; and having done so, maintain, facilitate and participate in, Community Planning alongside a number of named partners. Sustainable development is one of the guiding principles underpinning the Community Plan therefore the Council will check that all actions taken as a result of the Community Planning process have at least a better than neutral impact. The Community Plan recognises that wild and green spaces make vital contributions to creating

better places to live and while our environment is vital to our wellbeing, the wellbeing of our environment relies on our sense of stewardship. Therefore the Plan states that the Council will produce a comprehensive and achievable Local Biodiversity Action Plan to protect, maintain, enhance, restore and educate on biodiversity issues.

The Local Development Plan

The Local Development Plan (LDP) for Lisburn & Castlereagh City Council is the Council's first statutory spatial Plan which will provide a 15 year framework for the future development of the area.

The LDP recognises biodiversity as being a key component of sustainable development, helping to underpin economic development and prosperity, and has an important role to play in developing locally distinctive and sustainable communities.

The recreation and biodiversity value of many of our protected landscapes is recognised and the Plan will seek to support the policies outlined in the Regional Development Strategy relating to sustaining and enhancing biodiversity through protecting and enhancing the natural environment. Promoting sustainable Tourism and protecting and enhancing open space are also key themes of the Local Development Plan. This includes protecting and promoting areas such as the Lagan Valley Regional Park, Hillsborough Forest Park and outdoor

playing spaces, which can contribute significantly to sustaining a diverse biodiversity mix.

It also recognises the importance of community and strategic greenways in contributing to the health and well-being of residents, and building on existing blue and green infrastructure which contributes to the enhancement of biodiversity. Further details on the LDP can be found on the Council's website at: www.lisburncastlereagh.gov.uk



What Threatens Biodiversity?

The biggest threat to biodiversity at a global, regional and local scale is the loss of natural habitats and fragmentation of existing habitat into smaller pockets. Much habitat loss and fragmentation has occurred as a result of our increasing human population which has required us to replace natural habitats with land that is used for agriculture, housing, leisure activities, commercial units and industrial complexes. Many species require habitats of a certain size to thrive and when this habitat is lost or becomes too small to sustain such species, local extinction of that species can result.

The arrival and spread of invasive non-native species represents the second significant threat to biodiversity.

This includes pest species, which often arrive with no natural diseases or predators and so spread without any natural methods of control, often to the detriment of our native biodiversity. As global travel and trade continues to increase, the risk of greater numbers of invasive species arriving and harming our natural and built environments will also increase.

Invasive Non-native Species

In addition to damaging our natural habitats and species, invasive non-native species can often also have a significant impact on the local economy. Important invasive species within the Lisburn & Castlereagh City Council area include plants such as Japanese Knotweed, Himalayan Balsam and Giant Hogweed, and diseases such as Ash Dieback and Larch Tree Disease, both of which are fungal diseases introduced on imported trees. The Plant Health Risk Register allows us to prioritise how we deal with plant diseases and pests which can threaten our trees, crops, gardens and countryside:

www.daera-ni.gov.uk/topics/plant-and-tree-health

Climate change

Climate change also threatens our biodiversity. This has happened many times in the Earth's history, however research indicates that this is currently occurring at a faster rate than ever before. As a result many species do not have time to adjust to these changes and are at great risk of extinction. Our continued reliance on fossil fuels is contributing to climate change.

Pollution

Pollution represents a further threat to biodiversity and includes acts such as chemical pollution of our waterways, illegal dumping of rubbish, illegal poisoning of wildlife, agricultural intensification, increasing industrialisation, and air pollution caused by our continued reliance on fossil fuels. The inappropriate use of rodenticides, for example, can poison non-target animals such as birds of prey and owls.



Himalayan Balsam



Legislation which Protects Our Biodiversity

In 1992, international concerns over the use of global resources and pollution resulted in the United Nations Conference on the Environment & Development, often known as the Rio Earth Summit. 172 governments attended and one of the documents resulting from this conference was the United Nations Convention on Biological Diversity.

This document introduced the term 'biodiversity' and represented the commitment of countries such as the United Kingdom to establish a series of Action Plans to conserve biodiversity. A second Rio Earth Summit was held in 2012.

In 1979 UN member states including the United Kingdom, adopted The Birds Directive which aimed to protect all European bird species. These sites deemed important for the most vulnerable bird species were designated as Special Protection Areas (SPAs).

In 1992 the European Union also adopted a directive on the conservation of natural habitats and of wild flora and fauna, often called The Habitats Directive. This required all member states, including the UK, to designate a series of Special Areas of Conservation (SACs) to protect seriously threatened habitats and species within Europe. Coupled with the earlier Birds Directive, the Habitats Directive forms the cornerstone of European nature conservation policy. Sites designated under both directives for their conservation interest are often known as 'Natura 2000' sites.

In 1995 the EU Habitats Directive was transposed into Northern Ireland legislation as the Conservation (Natural Habitats etc.) Regulations (Northern Ireland) 1995 (as amended). This legislation provides protection for our most vulnerable habitats and species.

The Northern Ireland Biodiversity Group published its first Biodiversity Strategy in 2002. The most recent report to government in 2015: Valuing Nature - a Biodiversity Strategy for Northern Ireland to 2020. This report approaches the conservation of biodiversity from an ecosystem services approach, meaning that it recognises the need to conserve biodiversity in a way that provides us with the materials and services we depend upon for our own survival.

The Northern Ireland Biodiversity Group has also developed lists of Priority Habitats and Priority Species which detail the habitats and species most at risk in Northern Ireland. A series of Habitat Action Plans (HAPs) and Species Action Plans (SAPs) have also been produced for many of our Priority Habitats and Species. Such plans set out the conservation actions needed to safeguard our most vulnerable habitats and species.

The Wildlife and Natural Environment Act (NI) 2011, sometimes known as the WANE Act, is a revision of the older Wildlife (NI) Order 1985 and is the main piece of legislation in Northern Ireland concerned with protecting our biodiversity. It has also tightened control on invasive non-native species and has increased the penalties for wildlife crime. This legislation places a statutory duty (called the Biodiversity Duty) on public bodies such as local councils to further the conservation of biodiversity in ways that are consistent with carrying out their main functions.

What is a Local Biodiversity Action Plan?

A Local Biodiversity Action Plan (LBAP) requires the Council to work alongside a number of governmental and non-governmental partner organisations to develop and complete actions and fulfil targets which promote and enhance biodiversity within the Council area.

With time these partnerships will grow and the Action Plan will naturally evolve; the Action Plan is designed to create real changes that benefit local biodiversity.

An important part of this change involves engaging with local community groups, schools and businesses as well as ensuring all partners are actively involved in making changes that benefit our local biodiversity.





The Need for a Local Biodiversity Action Plan within Lisburn & Castlereagh City Council

The Lisburn & Castlereagh Local Biodiversity Action Plan (LBAP) has been created to initiate a series of actions designed to conserve and enhance habitats and species that are of international, national and regional importance, but also habitats and species that are of local significance within the Council area. Many of these habitats and species are important to local communities.

A Biodiversity Audit took place to establish baseline data of existing habitats and species within the Council area. Local priority habitats and species have been identified from this information, and actions proposed to ensure their continued protection and enhancement have been included in the Local Biodiversity Action Plan.

Many biodiversity corridors have been identified and through the Action Plan, such networks can be protected, enhanced and managed to assist in conserving our biodiversity. This includes the protection and enhancement of green spaces within urban areas which provide 'green oases' for local residents, businesses and visitors.

Although the Local Biodiversity Action Plan is led by Lisburn & Castlereagh City Council, it is a Plan which everyone can become involved with; everyone can do something to contribute to the Plan and make a difference for local biodiversity.

Lisburn & Castlereagh City Council is committed to the protection of our natural environment. Under the WANE Act, the Council is responsible for taking into account five key aspects of biodiversity. These are:

- **Protecting Biodiversity:** ensuring that biodiversity is protected from removal, damage and disturbance on Council-managed lands
- **Managing Biodiversity:** ensuring that existing biodiversity is maintained using appropriate management techniques such as removing invasive species
- **Enhancing Biodiversity:** where possible, biodiversity is enhanced by actions such as the planting of native trees, creating wildflower meadows, creating wetland habitats, or erecting bat roosting and bird nesting boxes



- **Restoring Biodiversity:** actions are taken where and when possible to restore former biodiversity where it has been lost from a site by e.g. restoring an area of wetland or woodland, or extending the habitat available for priority species
- **Raising Awareness of Biodiversity and its Importance:** the Council engages in a number of internal and external events which raise awareness of biodiversity issues such as littering, habitat loss, invasive species and climate change, often in partnership with other public, private, community and charitable organisations.

The LBAP will also assist in fulfilling some environmental aims which are specified in the Lisburn & Castlereagh City Council Regional Development Strategy (RDS 2035); this Strategy provides a framework for strong sustainable economic growth across the region. With respect to the environment this Strategy aims to:

- reduce our carbon footprint, which will help us to adapt to climate change as well as improving air quality
- manage waste in a sustainable way
- promote a more sustainable approach to using water, sewerage services and flood risk management
- to conserve, protect and (where possible) enhance our built heritage and natural environment.

The Council has produced this Local Biodiversity Action Plan which aims to ensure that international, national, regional and local biodiversity objectives are achieved through a range of partnerships that will benefit both current and future generations.



Local Biodiversity Action Plan Partners

After the initial Northern Ireland Biodiversity Strategy in 2002, the first Local Biodiversity Action Plans (LBAPs) were drawn up by various councils throughout Northern Ireland.

The current LBAP is part of the commitment made by Lisburn & Castlereagh City Council to fulfil its Biodiversity Duty under the WANE Act, and also to work towards achieving the mission of the most recent Northern Ireland Biodiversity Strategy which is “to make progress towards halting overall biodiversity loss, establish an ecosystem approach and help business and society in general have a greater understanding of the benefits that nature can bring to everyday life in Northern Ireland”.

An integral part of the development of the LBAP for Lisburn & Castlereagh City Council was the formation of partnerships between a number of representatives from within the Council, statutory and non-statutory organisations. It is anticipated that as the LBAP continues to evolve, more partners will be invited to participate. At present the partner organisations include:

Bat Conservation Ireland

Belfast Hills Partnership

British Trust for Ornithology (BTO)

Butterfly Conservation Northern Ireland

Department of Agriculture, Environment and Rural Affairs (DAERA)

Groundwork Northern Ireland

Lagan Valley Regional Park (LVRP)

Local Community Groups

Local Schools

Local Businesses

National Biodiversity Data Centre

Natural World Products

Northern Ireland Bat Group

Northern Ireland Swift Group

Royal Horticultural Society (RHS)

Royal Society for the Protection of Birds (RSPB)

The Conservation Volunteers

The Woodland Trust

Translink

Ulster Wildlife



The Lagan Canal,
Lagan Valley Island.

Selection of Habitats and Species within the Local Biodiversity Action Plan

A number of local habitats and species were then selected for inclusion in the LBAP using a number of selection criteria; these included:

- Priority Habitats (habitats which require conservation as they are rare, declining and / or are of national importance)
- Priority Species (species which require conservation as they are rare, declining and / or are of national importance)
- Habitats and species which are of local significance
- Species which are easily visible
- Species which are iconic
- Species which encourage people to act by engaging in environmental activities which benefit biodiversity

Habitats within the Local Biodiversity Action Plan

Habitats were identified according to their dominant use and the dominant vegetation type

- Grasslands
- Farmland
- Lowland Meadow
- Purple Moor-grass & Rush Pasture
- Roadside Verges
- Woodlands & Hedgerows
- Coniferous Woodland
- Wet Woodland
- Ashwoods
- Lowland Mixed Deciduous Woodland
- Parkland
- Hedgerows
- Wetlands
- Rivers & Streams
- Ponds
- Lakes
- Fens
- Reedbeds
- Urban Areas
- Amenity Areas
- Industrial Sites
- Cemeteries
- Gardens
- School Grounds

Species / Species Groups within the Local Biodiversity Action Plan

BIRDS

- Barn Owl
- Farmland Seed-eating Birds
- House Sparrow
- Swift

MAMMALS

- Bats
- Pine Marten

INVERTEBRATES

- Pollinators

AMPHIBIANS

- Smooth Newt

PLANTS

- Neutral Grassland / Lowland Meadow Plant Assemblage
- Lesser Butterfly Orchid
- Frog Orchid



Common
Blue Butterfly



Lupin

Grasslands

Key Grasslands to Visit

Billy Neill Playing Fields

Slievenacloy Nature Reserve (ASSI)

Portmore Lough

(Ramsar site, SPA, ASSI)

The majority of land within the Lisburn & Castlereagh Council area is dedicated to agriculture. Intensification of agricultural practices has had a dramatic impact upon grassland habitats, and it is estimated that Northern Ireland has lost around 97% of its species-rich hay meadows within the last 50 years. The application of fertilisers, herbicides and pesticides as well as frequent re-seeding of agricultural grassland has favoured only a small number of nutrient-loving plant species. The result is that very few semi-natural grasslands now exist and many of our once-abundant wildflowers, as well as their pollinators, are now much more localised. Grassland habitats which are of greatest benefit for wildlife are now restricted to areas where soil nutrient levels are low and the grasslands are managed in a more traditional, less intensive manner. Such areas of grassland can be older than some of our cathedrals!

The Department of Agriculture, Environment and Rural Affairs (DAERA) operate agri-environment schemes to encourage farmers to use good practice when managing their land to reduce any negative impacts on biodiversity. Such schemes are vital to ensuring the conservation of biodiversity within our agricultural landscape.



1. Farmland

The dominant land use within the Lisburn & Castlereagh City Council area is farmland. Aside from urban areas such as Lisburn City, South Belfast, Newtownbreda and Dundonald, the area is predominantly rural with scattered villages. Outside of areas formally designated for their nature conservation value, lowland farmland is typified by lush green fields where White Clover and Perennial Ryegrass are dominant, and field boundaries consist of maintained hedgerows or barbed wire fencing. Such grasslands are managed for grazing and silage production, the latter having replaced more traditional hay-making.

Upland farmland is present in the southern Belfast Hills, which form the northern-most part of the Council area; here farmland is dominated by relatively species-poor acid grassland which is more often unenclosed; where field boundaries do exist these are more likely to be in the form of barbed wire fencing.

The dominance of farmland within the Council area means it is often a very important habitat for a range of declining plant and animal species such as Barn Owl, Linnet, Bullfinch, Yellowhammer, Lesser Butterfly and Frog orchids, waxcap fungi and many bat species. Farmland managed less intensively and/or under agri-environment schemes offer greater benefits for biodiversity, as field margins and boundary hedgerows are often managed to enhance features beneficial for wildlife rather than to maximise crop or livestock productivity.



2. Lowland Meadow

Lowland meadows, also known as hay meadows, are managed in a more traditional way to produce hay rather than silage. This involves cutting the meadow later in the year, when most plants within the grassland have set seed. The result is a grassland which is more species-rich than grasslands managed more intensively for agriculture.

A small number of species-rich lowland meadows survive within the Council area, most being small in size and rather isolated. These are important sites for many native wildflowers such as Common Knapweed, Red Clover, Ox-eye Daisy, Common Birds-foot Trefoil, Yellow Rattle and Lady's Bedstraw. Such species also support a wide range of pollinating insects including butterflies, moths and bumblebees.

3. Purple Moor Grass & Rush Pasture

Areas of this often species-rich grassland are present at Slievenacloy Nature Reserve. A number of sedge and orchid species are often found within this habitat such as Glaucous, Carnation, Tawny and Flea sedges, marsh-orchids and Lesser Butterfly Orchid. These species require low soil nutrient levels and low levels of grazing.

4. Roadside Verges

Many roadside verges inadvertently act as valuable corridors for the dispersal of plant and animal species across the landscape. In many areas of countryside they provide the only areas of lowland meadow habitat in an otherwise intensively-farmed environment and can provide resources for wildlife such as sources of nectar for pollinating insects such as butterflies, moths and bumblebees; seeds for farmland finches and buntings; cover for small mammals and a wide range of invertebrates; also foraging habitat for bats and raptors such as Kestrel, Buzzard, Barn Owl and Long-eared Owl. Where roadside verges occur in conjunction with hedgerows and/or mature trees, their value to wildlife is greatly increased.

What Threatens Our Grasslands?

- Invasion of scrub and tall ruderal vegetation
- Over-grazing and under-grazing
- Changing agricultural practices
- Cessation of annual management e.g. no longer mown or grazed
- Use of inorganic fertiliser, supplementary addition of organic fertiliser and herbicides
- Drainage of wet grasslands
- Ploughing and re-seeding of old permanent grasslands
- Excessive cutting of amenity grassland

Actions for Grassland Habitats

Action	Lead Partner(s)
1. Creation of species-rich lowland neutral grassland at key Council sites	Lisburn & Castlereagh City Council; Ulster Wildlife
2. Protection & enhancement of existing species-rich grasslands	Lisburn & Castlereagh City Council; Ulster Wildlife; Lagan Valley Regional Park; RSPB
3. Reduce frequency with which selected areas of amenity grassland are cut	Lisburn & Castlereagh City Council
4. Work with local farmers to encourage adoption of practices which benefit biodiversity via agri-environment schemes	Belfast Hills Partnership; Lagan Valley Regional Park; RSPB
5. Erect Barn Owl boxes in suitable habitat	Ulster Wildlife
6. Work to address continued agricultural pollution incidents	Lisburn & Castlereagh City Council; Lagan Valley Regional Park; Department of Agriculture, Environment & Rural Affairs
7. Ongoing monitoring and control of invasive non-native species	Lisburn & Castlereagh City Council; Ulster Wildlife; Belfast Hills Partnership; Lagan Valley Regional Park
8. Promotion of grassland biodiversity through local events, groups and Council publicity	Lisburn & Castlereagh City Council
9. Promote the recording of key grassland plant and animal species	Lisburn & Castlereagh City Council; all partners
10. Manage a proportion of roadside verges for biodiversity	Lisburn & Castlereagh City Council; Ulster Wildlife; DFI Roads
11. Participation in Ulster in Bloom competition	Lisburn & Castlereagh City Council; DFI Roads
12. Create and install features in existing and newly created meadows to benefit invertebrates including bug hotels and beetle banks	Lisburn & Castlereagh City Council

Action Plan for Species associated with Grassland Habitats

- Barn Owl
- Farmland Seed-eating Birds
- Pollinating insects

Partner Organisations

- Ulster Wildlife
- Royal Society for the Protection of Birds
- British Trust for Ornithology
- Lagan Valley Regional Park
- Belfast Hills Partnership
- Translink
- Royal Horticultural Society
- Groundwork Northern Ireland

Woodlands & Hedgerows

Key Woodlands to Visit

Moira Demesne (SLNCl)

Hillsborough Castle

Hillsborough Park (lake designated as a SLNCl)

Derriaghy River Glen (SLNCl)

McKee's Dam (SLNCl)

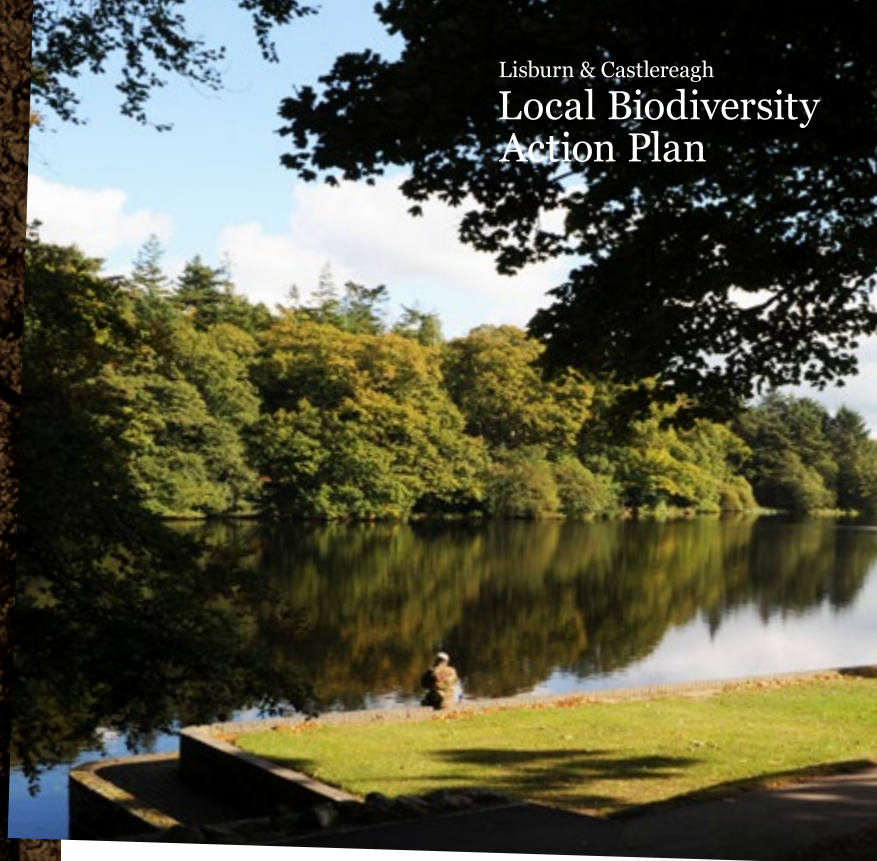
Portmore Lough (Ramsar site, SPA, ASSI)

Wallace Park

Castle Gardens

Most of Northern Ireland would have been cloaked in woodland in prehistoric times. Clearance of this vast woodland began around 6,000 years ago to provide land for agriculture and settlements, and to provide timber for building and for use as fuel.

Northern Ireland is one of the least wooded areas of Europe with only 8% of the land covered by woodland, compared with the European average which is 44%. There are approximately 1,695 hectares of woodland in the Lisburn & Castlereagh City Council area at present.



1. Coniferous Woodland

This consists of areas planted with non-native species such as Sitka Spruce, Norway Spruce and Larch. While such woodlands harbour relatively few plant and animal species when compared to native woodlands, they can be important for Priority Species such as Goshawk, Pine Marten and Red Squirrel.

2. Wet Woodland

Wet woodland can be found along the shores of Portmore Lough and Lough Neagh, and are occasionally also found around the margins of lakes, along the banks of rivers such as the River Lagan, and in areas where the ground is waterlogged. Alder, birches and several species of willow are common in such areas. Often the high humidity present beneath the tree canopy favours the growth of mosses and liverworts as well as fungi. Dead trees within a wet woodland are an important habitat feature and can often harbour colourful fungi such as Scarlet Elf Cup and the tiny Eyelash Fungi.

3. Ashwoods

Ash woodland occurs on base-rich soils and while Ash is the dominant tree species, many others can be present including Wild Cherry, Rowan, Holly, Hazel and Hawthorn. Such woodland often has a rich diversity of plants in the ground layer including scattered ferns as well as carpets of Bluebell, Wood Anemone, Opposite-leaved Golden Saxifrage and Wood Sorrel.



4. Lowland Mixed Deciduous

Woodland

Many long-established woodlands are mixed deciduous woods in lowland areas, found within an enclosed landscape and often rather small in size. Several occur within former private estates and owe their continued existence to the protection this afforded the trees.

Tree species are often varied between locations and quite often carpets of spring-flowering ground flora such as Bluebell, Wood Anemone, Ramsons and Lesser Celandine are present. Such woodland can also be an important habitat for woodland fungi, lichens and mosses, and for bird species such as Spotted Flycatcher, Treecreeper and Great Spotted Woodpecker.



Spotted Flycatcher

5. Parkland

Parklands are a mosaic habitat characterised by grassland and veteran and/or ancient trees together with the plant and animal species they support, particularly insects, lichens and fungi. The grassland is often maintained through grazing, although in many instances grazing is now absent and grassland management is in the form of mowing that often allows such areas to be used for amenity purposes. Scrub often surrounds the base of veteran trees and offers some protection.

Parkland often has its origin as the grounds of a former private estate which has protected many trees from being harvested for their timber. Such veteran trees will have a wide trunk which is also hollowing in many instances as well as having rot holes, all of which can support a wide range of specialised invertebrates, lichens and fungi. Veteran trees with hollows may support cavity-nesting birds such as Great Tit, Blue Tit, Coal Tit, Barn Owl and Great Spotted Woodpecker as well as bats which may roost within the cavities and forage across the parkland mosaic.

Other parkland features which make them important for biodiversity include dead standing and/or fallen dead wood, fallen but re-generating trees (often known as Phoenix Trees) and often scrub around the base of veteran trees which provides some protection. Tree-spacing within parkland can also be variable and result in a range of tree forms including open-grown trees with wide growth and a broad crown and trees growing in small clusters with a closed-canopy, which will display tall growth and a narrow crown.



© John Harding / British Trust for Ornithology

6. Hedgerows

Hedgerows are important within the landscape as they represent the dominant form of tree cover in an otherwise open and agricultural landscape. Their linear and often inter-connected nature as well as their structure (which is similar to that of woodland) allows them to act as a network of corridors across the landscape, which can be vital for plant and animal species dispersing across the countryside. In this way animals such as insects, bats, squirrels and woodland birds can navigate across the landscape between two or more areas of woodland.

In farmland, hedgerows also provide vital nesting habitat for a number of declining bird species such as Dunnock, Song Thrush, House Sparrow, Tree Sparrow, Linnet, Bullfinch and Yellowhammer.

Hedgerows offering the greatest benefit to biodiversity harbour one or more native woody tree or shrub species. Hawthorn is our most common hedgerow tree species, followed by Ash which is the most common large tree often found within hedgerows. A hedgerow is classified as 'species-rich' when it contains six or more native tree or shrub species within a 30-metre length; such habitat can support a wide variety of invertebrates, mammals and birds as well as a diverse range of plants in its understorey and ground layers. As many as 170 plant species of plants have also been recorded in hedgerows throughout Northern Ireland.

Hedgerows in gardens and amenity areas often consist of non-native tree and shrub species which provide fewer benefits for wildlife, however many will provide valuable nesting, roosting and foraging habitat for a range of declining bird species.

What Threatens Our Woodlands and Hedgerows?

- Tree diseases such as Ash Dieback
- Woodland felling and fragmentation
- Hedgerow Removal (wire fences are easier to maintain)
- Invasive non-native species such as Rhododendron, Cherry Laurel, Salmonberry and Grey Squirrel
- Inappropriate management such as cutting hedgerows too frequently
- Planting of non-native tree species such as Beech and Field Maple
- Application of herbicides and fertilisers to field edges which causes a decline in hedgerow and woodland species diversity



Meadow Vetchling

Actions for Woodland & Hedgerow Habitats

Action	Lead Partner(s)
1. Increase woodland cover within the Council area through the creation of native woodland on selected Council sites, utilising available schemes for woodland restoration and creation	Lisburn & Castlereagh City Council; Lagan Valley Regional Park; The Woodland Trust
2. Protection & enhancement of existing semi-natural woodland and species-rich hedgerows	Lisburn & Castlereagh City Council; Lagan Valley Regional Park; The Woodland Trust
3. Improving connectivity between areas of existing woodland	Lisburn & Castlereagh City Council; The Woodland Trust
4. Creation of woodland & hedgerow management plans to create and enhance these habitats within the Council area	Lisburn & Castlereagh City Council; The Woodland Trust
5. Ongoing monitoring and control of invasive non-native species	Lisburn & Castlereagh City Council; Lagan Valley Regional Park
6. Promotion of woodland and hedgerow biodiversity through local events, groups and Council publicity	Lisburn & Castlereagh City Council; all partners
7. Surveying for Pine Marten	Ulster Wildlife
8. Erect bat boxes within key woodland and parkland sites	Northern Ireland Bat Group / Lagan Valley Regional Park
9. Erect a variety of bird nesting boxes within key regional park; woodland and parkland sites	Lisburn & Castlereagh City Council; Lagan Valley Regional Park; Belfast Hills Partnership; BTO
10. Liaise with landowners to encourage sensitive hedgerow management, encouraging re-planting and restoration where necessary using sources of agri-environment funding	Lisburn & Castlereagh City Council; Lagan Valley Regional Park
11. Plant native species-rich hedgerows on selected Council sites to act as demonstrations for planting wildlife-friendly hedgerows	Lisburn & Castlereagh City Council
12. Provision of tree planting packs to school and community groups to encourage tree planting	The Woodland Trust
13. Creation of habitat piles to support resting newts at key sites including bug hotels and beetle banks	Lisburn & Castlereagh City Council

Action Plan for Species associated with Woodland & Hedgerow Habitats

Bats • Pine Marten • Farmland Seed-eating Birds
• Smooth Newt

Partner Organisations

Woodland Trust • Northern Ireland Bat Group
• Ulster Wildlife • Lagan Valley Regional Park
• British Trust for Ornithology



Wetlands

Key Wetlands to Visit

Lagan Valley (Regional Park, AONB)

Lough Neagh (Ramsar, SPA, ASSI)

Portmore Lough (Ramsar, SPA, ASSI)

McKee's Dam (SLNCl)

Billy Neill Playing Fields

Duncan's Dam (SLNCl)

Hillsborough Forest Park (lake designated as a SLNCl)

Hillsborough Castle

Moira Demesne (SLNCl)

Castlereagh Hills Golf Course

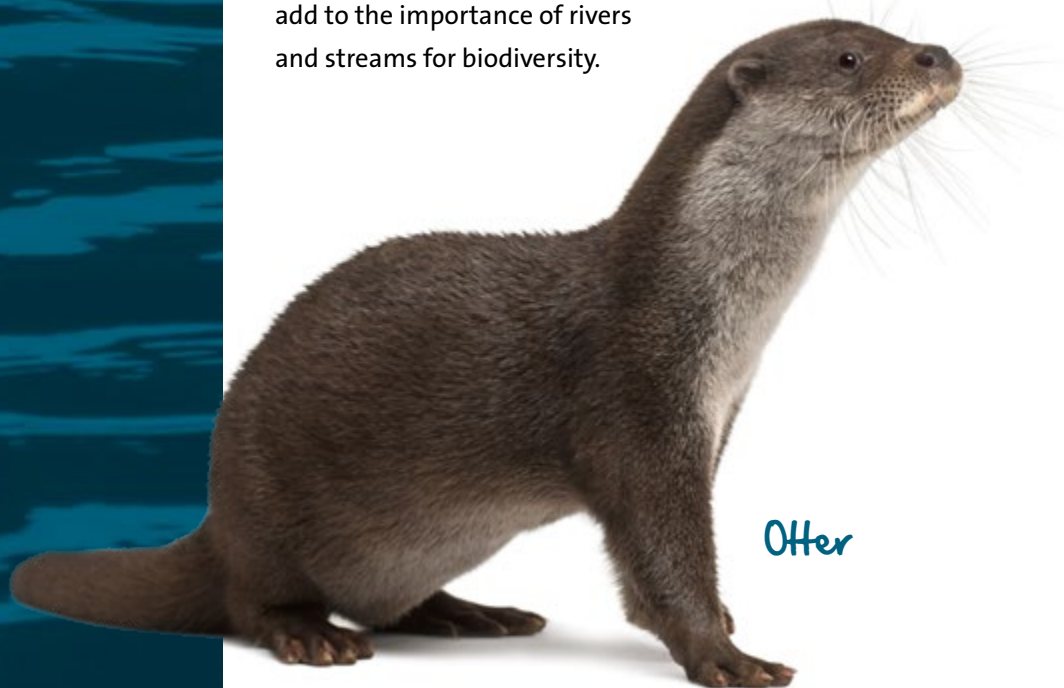
A variety of wetlands can be found within the Council area including rivers, streams, lakes, ponds and fens. The largest wetlands within the area are part of Lough Neagh, Portmore Lough and the River Lagan with its many tributaries.



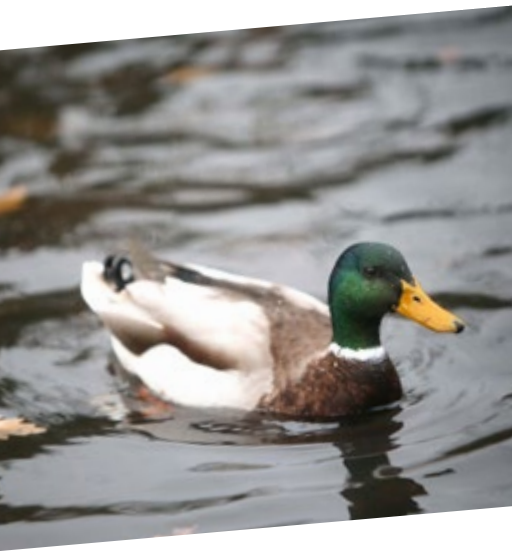
1. Rivers & Streams

The meandering River Lagan flows south-west to north-east across the Council area, through rolling drumlins and a diverse landscape encompassing farmland, woodland, parkland and Lisburn City itself. This combination of attractive landscape features was recognised in the creation of The Lagan Valley Regional Park in 1967, and it is the only regional park within Northern Ireland. Shared with Belfast City Council, this area encompasses approximately 4,200 acres of land and 11 miles of riverbank. Much of the area is also included within the Lagan Valley Area of Outstanding Natural Beauty and within Areas of High Scenic Value.

Although the River Lagan harbours a wide range of biodiversity including species such as Kingfisher, Otter, Banded Demoiselle Damselfly and Atlantic Salmon, its various tributaries and even the smallest stream are equally of great importance to wildlife within the Council area. Bank-side habitats such as areas of wildflower meadow, fen and woodland further add to the importance of rivers and streams for biodiversity.



Otter



2. Ponds

Ponds are scattered throughout the landscape and represent areas where the water table rises above the surrounding land, or areas which become waterlogged due to impermeable soils. Many ponds have been filled-in as the scope of agricultural intensification has spread across the landscape, and with them we have lost many local populations of amphibians, fish, wetland invertebrates and wetland plants.

Ponds are often home to a rich diversity of wetland plants which in turn support a wide range of aquatic invertebrates, dragonflies and damselflies, Smooth Newt, birds such as Kingfisher, Reed Bunting and Sedge Warbler and perhaps even a visiting Otter.

3. Lakes

Lough Neagh is the largest freshwater lake in the British Isles, covering an area of approximately 151 square miles. Only a small portion of the Lough falls within the Council area which encompasses Ram's Island. It is classed as a

eutrophic lake, meaning its water contains high levels of nutrients, and its margins are marked by a mosaic of species-rich wet grassland, reedbeds, islands, wet woodland and farmland.

Portmore Lough, lying a short distance to the east of Lough Neagh is 286 hectares in area and connected to Lough Neagh via two drains. It is also classed as a eutrophic lake and only the northern and eastern portions of the Lough are included within the Council area; these encompass an extensive fringe of wet woodland habitat as well as reedbeds and areas of fen vegetation.

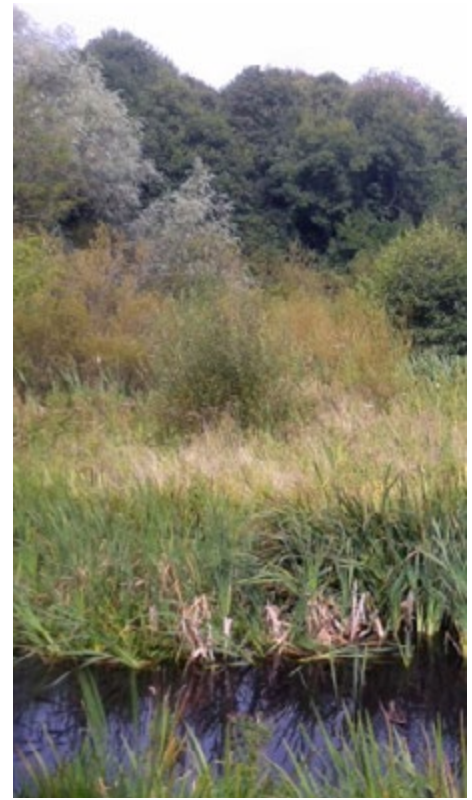
Lough Neagh is designated as Ramsar sites due to the internationally important numbers of wildfowl which spend the winter in these areas. Both Lough Neagh and Portmore Lough have also been designated as Special Protection Areas due to their importance for breeding, over-wintering and migrating birds; in addition both loughs are designated as Areas of Special Scientific Interest.



Sedge
Warbler



Banded
Demoiselle
Damselfly



4. Fens

Fens are wetlands which receive their water from rain rather than a stream or groundwater; they are often found within the floodplain of a river or lake, or a waterlogged hollow between drumlins. They tend to be nutrient-poor and are a particularly important habitat for aquatic plants, dragonflies, damselflies, and insects such as aquatic beetles.

Many lowland fens have been lost as many would have occurred in poorly-drained low-lying areas which have since been drained for use as farmland. Remaining fens therefore tend to be small in size and quite isolated. Those which remain are often in poor condition as a lack of management has allowed many to revert to wet woodland.

Drains have also been cut through many fens to facilitate

better drainage of surrounding land, however this also allows nutrient-rich water to enter the fen and vegetation then becomes dominated by a small number of nutrient-loving species such as Greater Reedmace and Reed Canary-grass. Many fen plant and animal species can be lost as a result.

5. Reedbeds

Reedbeds are areas dominated by Common Reed, our tallest native species of grass, where the water level is at or above ground level for most of the year. Many reedbeds have been lost with the drying-out or in-filling of many lowland wetlands to 'improve' the ground for agricultural use. Today reedbeds within the Lisburn & Castlereagh City Council area are largely restricted to the margins of Portmore Lough, where they support species such as Reed and Sedge warblers.

What Threatens Our Wetlands?

- Nutrient enrichment of water from pollution incidents such as agricultural run-off
- Alteration of water levels
- Drainage of wetlands
- Invasive non-native species such as Himalayan Balsam, Japanese Knotweed, Giant Hogweed and Canadian Pondweed
- Change in land use around wetland margins
- Erosion of river and stream banks
- River canalisation





Actions for Wetland Habitats

Action	Lead Partner(s)
1. Protection of rivers from pollution using SuDS	Lisburn & Castlereagh City Council
2. Creation of ponds at suitable Council sites	Lisburn & Castlereagh City Council
3. Ongoing monitoring and control of invasive non-native species	Lisburn & Castlereagh City Council; Lagan Valley Regional Park; Belfast Hills Partnership
4. Promotion of wetland biodiversity through local events, groups (water sports; anglers) and Council publicity	Lisburn & Castlereagh City Council; Lagan Valley Regional Park
5. Managing ponds for Smooth Newt	Lisburn & Castlereagh City Council
6. Discouraging feeding of waterfowl at public parks with ponds or lakes	Lisburn & Castlereagh City Council

Action Plan for Species associated with Wetland Habitats

- Wintering waterfowl assemblages at Lough Neagh & Portmore Lough
- Reed Bunting
- Smooth Newt

Partner Organisations

- Lagan Valley Regional Park
- Royal Society for the Protection of Birds
- Belfast Hills Partnership

Contact for reporting water pollution incidents

The Department of Agriculture, Environment and Rural Affairs (DAERA) is responsible for dealing with incidents of water pollution and provides a water pollution hotline which is available 24 hours a day and 365 days a year. It also provides an emergency pollution Email address. These are:

DAERA 24-hour Water Pollution Hotline: 0800 807 060

DAERA Water Pollution E-mail address: emergency-pollution@daera-ni.gov.uk

Urban Areas

Key Urban Sites to Visit

Millbrook Riverside Walk

Glenmore Activity Centre & Deadwall
Plantation (woodland designated as a
SLNCh)

Carryduff Park

Seycon Park

Wallace Park

Castle Gardens

Moira Demesne (SLNCh)

Moat Park

Urban areas such as Lisburn City Centre shelter a wide range of plant and animal species, many of which are depend upon human activities and man-made structures for their survival. These include House Sparrow, Dunnock, Hedgehog, Swift and several species of bat. Within urban areas, green spaces such as parks and golf courses can also provide important oases for biodiversity.



Swift

1. Amenity areas

Green spaces within built-up areas provide an oasis where people can relax and unwind; they also provide a wealth of benefits to wildlife. Parks and golf courses, for example, can provide landscaped ponds which attract a variety of aquatic plant and animal species including Smooth Newt; areas of tree planting equate to open woodland or parkland; and areas of rough grassland may develop into species-rich lowland meadow.

2. Industrial Sites

Sites (often called brownfield sites) such as factories, commercial units, abandoned industrial parks and quarries may seem like unlikely places to find wildlife – but it is there! Many sites have green areas which are not managed and so develop into meadow, scrub or woodland; businesses may provide green spaces for employees and such areas can attract wildlife especially if trees, wildflowers and ponds are present; occupied and derelict buildings can both provide nesting and roosting sites for birds and bats; and abandoned land which was formerly used for industrial or commercial purposes may be unsuitable for re-development but become colonised with a range of unusual plant species that grow in the thin and nutrient-poor soils.

Flower-rich grassland can develop as well as patches of scrub, and a range of unusual invertebrate species can colonise. Often other interesting habitat features such as shallow ponds will be present. Brownfield sites include disused quarries.



© James O'Neill



3. Cemeteries

Cemeteries can also be unlikely areas which are beneficial for wildlife. They are often enclosed by hedgerows and incorporate scattered tree and shrub planting, all of which provide suitable nesting sites for birds as well as foraging habitat for bats and a range of bird species. Flowering trees, shrubs and bedding plants will also attract pollinators such as bumblebees and butterflies.

The quiet nature of cemeteries means that for the most part, they are undisturbed areas where wildlife can flourish; many older or larger cemeteries will include less-managed areas where the grass has been allowed to grow into meadow and a woodland floor community has been allowed to develop beneath planted trees. Older cemeteries in particular are of great importance to biodiversity; they are usually small and often enclosed by species-rich hedgerows which can include less-often encountered tree species such as Yew and Crab Apple, as well as incorporating large, mature trees.

4. Gardens

Gardens can harbour a wide range of plant and animal species depending on whether they are in urban or rural locations, or depending on how manicured or 'wild' they are. Urban gardens can provide important nesting, roosting and foraging habitats for birds and bats in the form of trees, hedges and shrubs; flower beds provide bare soil where mammals and ground-dwelling birds can forage; flowering plants provide a source of nectar for pollinators such as bees and butterflies; and we can also boost the biodiversity value of our gardens by installing bird tables and hanging feeders to attract seed-eating birds. Rural gardens can similarly provide suitable habitat for a wide range of species in an otherwise agricultural landscape which may otherwise lack features of benefit to biodiversity such as hedgerows, mature trees and flowering plants.

Less manicured gardens or gardens which have a 'wild'

corner are of greater benefit to biodiversity as often log piles and branch piles can shelter hedgehogs, nesting birds and a range of invertebrates; a garden pond can attract animals to drink and bathe as well as aquatic plant and animal species who may take up residence; the construction of 'bug hotels' can provide invertebrates with a safe place to shelter; and 'weed' species may colonise and provide seeds which are a food source for declining bird species such as House Sparrow.

5. School Grounds

Green spaces within schools which are not used for particular sports activities can often be developed into wildlife 'gardens' which would function as an outdoor classroom. In addition, mature trees and/or hedgerows are often present around and within the school grounds which add further benefits to biodiversity.

6. Allotments

Allotments are a refuge for both people and wildlife. Many of the plants and animals that struggle to survive on intensively managed farmland find a refuge on allotment sites'.

What Threatens Biodiversity in Urban Areas?

- Development of species-rich brownfield sites
- Invasive non-native species such as Japanese Knotweed and Himalayan Balsam; some are planted in gardens including Himalayan Honeysuckle and Russian Vine
- Excessive grass cutting
- Excessive use of herbicides and pesticides
- Lack of cavities suitable for roosting bats and nesting birds such as Swift
- Tree diseases such as Ash Dieback
- Air pollution from industrial activity and motor vehicles
- Inappropriate street lighting
- Fragmented nature of green spaces

Actions for Urban Habitats

Action	Lead Partner(s)
1. Erect interpretation panels at key Council sites to highlight their biodiversity value	Lisburn & Castlereagh City Council
2. Evolution of the Local Biodiversity Implementation Plan as a working document to guide Council departments on how to manage land assets to benefit biodiversity	Lisburn & Castlereagh City Council
3. Organise events as a means to highlight the importance of urban habitats for biodiversity e.g. guided walks in parks, talks, press releases	Lisburn & Castlereagh City Council
4. Improve the value of urban green spaces for biodiversity by setting up 'friends of' groups at selected sites	Lisburn & Castlereagh City Council
5. Continued development of urban greenways to connect wildlife habitats	Lisburn & Castlereagh City Council
6. Installation of bat roosting boxes at suitable locations	NI Bat Group
7. Installation of House Sparrow nesting boxes at suitable locations	Lisburn & Castlereagh City Council; BTO
8. Installation of Swift nesting boxes at suitable locations	Lisburn & Castlereagh City Council; NI Swift Group
9. Encouraging wildlife-friendly gardening through community workshops and community gardens	Lisburn & Castlereagh City Council
10. Work with local schools to enhance school grounds for biodiversity	Lisburn & Castlereagh City Council; BTO
11. Work with local community groups to enhance community areas for biodiversity	Lisburn & Castlereagh City Council
12. Promote the use of compost made from food and garden waste (from householders within the Council area) via composting and wildflower planting events	Lisburn & Castlereagh City Council; Natural World Products
13. Use of compost made from food and garden waste in selected amenity planting schemes newly created meadows to benefit invertebrates including bug hotels and beetle banks	Lisburn & Castlereagh City Council; Natural World Products
14. Allotments. Planting seed-rich plants to attract sparrows and finches; planting native wildflower areas and hedges to attract pollinators; erecting mini-beast hotels and bird nesting boxes; creating and maintaining habitat piles (branch piles, compost heaps) and creating invertebrate-rich habitat to attract hedgehogs; education and awareness of Invasive Non Native species within allotments.	Lisburn & Castlereagh City Council

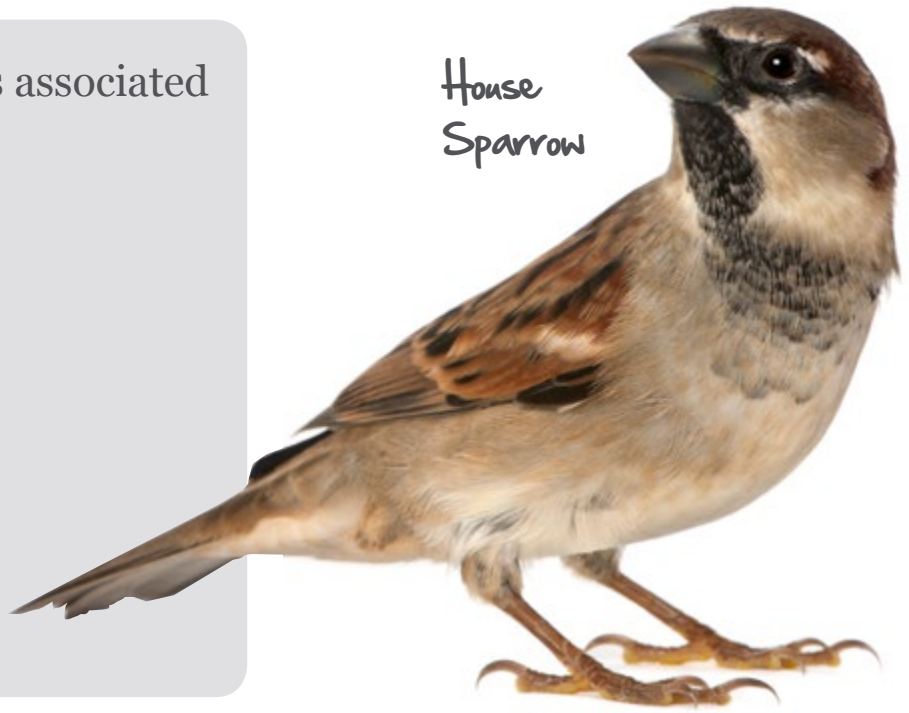
Action Plan for Species associated with Urban Habitats

- Swift
- House Sparrow
- Bats

Partner Organisations

- Northern Ireland Swift Group
- Royal Society for the Protection of Birds
- Northern Ireland Bat Group
- British Trust for Ornithology
- Natural World Products

House
Sparrow



Wildflower Seed Planting

Local Species Selected for Action

The following species have been selected for Action within the Local Biodiversity Action Plan as they are a Northern Ireland Priority Species, are of local significance, easily visible, iconic, and or would encourage people to act by engaging in environmental activities which benefit biodiversity.

Many of the species and species groups selected for action will also benefit from Actions listed previously under each habitat category.

1. Invasive Non-native Species



Many invasive non-native species have been introduced into our environment intentionally in the past; others have escaped from private gardens or estates. These species were imported without their natural pests, diseases or predators which would usually help to control their numbers. The result is that they often spread rapidly through the countryside, to the detriment of native species.

A record of the invasive non-native species found within Council grounds has been compiled; those posing the greatest threat to local biodiversity have been identified and include Japanese Knotweed, Himalayan Balsam and Giant Hogweed (sometimes referred to as 'The Big Three'), together with Salmonberry.

Actions to Tackle Invasive Non-native Species

Action

1. Develop an invasive species management plan to tackle known populations of invasive species within Council maintained land; to include a 'traffic light' system to prioritise control of certain species
2. Provide invasive species training to organisations managing land within the Council area; training to include species identification, relevant legislation and appropriate management measures
3. Support the work of Lagan Valley Regional Park in controlling invasive species within Lagan Valley
4. In association with partner organisations, seek funding to control 'the Big Three' invasive non-native species - Giant Hogweed, Himalayan Balsam and Japanese Knotweed
5. Highlight the danger invasive non-native species pose to local biodiversity through press releases, talks, guided walks and at environmental events

Lead Partner(s)

Lisburn & Castlereagh City Council;

Lisburn & Castlereagh City Council;

Lisburn & Castlereagh City Council;
Lagan Valley Regional Park;

Lisburn & Castlereagh City Council;
Lagan Valley Regional Park;

Lisburn & Castlereagh City Council;
Lagan Valley Regional Park;
Belfast Hills Partnership

2. Barn Owl



Barn Owl



Although well-known, the Barn Owl is one of our most endangered species which has been in decline for many decades; today it has an estimated population of around 30 to 50 breeding pairs remaining in Northern Ireland. This species requires tree cavities, outbuildings and other suitable sheltered places for roosting and nesting; it forages over rough grassland (including field margins and roadside verges) hunting for small mammals such as Wood Mouse, House Mouse, Brown Rat and Pygmy Shrew.

Key threats to the Barn Owl

- lack of suitable nesting and roosting sites
- lack of sufficient hunting habitat
- accidental rodenticide poisoning
- collisions with cars
- wet spring and summer weather (due to climate change) which can prevent birds breeding successfully
- crashes in small mammal populations

Actions for the Barn Owl

Action

1. Continue to collate data on Barn Owl sightings within the Council area
2. Continue to identify suitable areas for the erection of Barn Owl nesting boxes
3. Work with farmers to encourage more sensitive use of land for Barn Owls
4. Disseminate information relating to the safe use of rodenticides, working in partnership with Think Wildlife the Campaign for Responsible Rodenticide Use
5. Highlighting the plight of the Barn Owl through press releases, environmental events and nestbox building workshops
6. Creation of lowland meadow and species-rich hedgerows in selected areas to support small mammal populations as prey for Barn Owl

Lead Partner(s)

Ulster Wildlife

Ulster Wildlife

Ulster Wildlife;
RSPB

Lisburn & Castlereagh City Council;
Ulster Wildlife

Ulster Wildlife

Lisburn & Castlereagh City Council;
Ulster Wildlife; RSPB



3. Farmland Seed-eating Birds

Yellowhammer, Reed Bunting, Linnet and Skylark have been grouped together here as they form a group of four Northern Ireland Priority Species which are seed-eating farmland birds.

Yellowhammer is rarely found far from areas of arable or mixed farming. Nests are built within dense hedgerows or gorse, both of which are also likely to provide much invertebrate prey upon which this species feeds its young; adults however feed mainly on seeds outside of the breeding season, when they require winter stubble, wild bird cover and sources of weed seeds.

Reed Bunting nest on the edge of wetland habitats such as wet grassland, reedbeds, ditches and fens, as well as farmland; they rely on farmland during the autumn and winter to forage for seeds.

Linnet frequents open habitats with dense hedgerows and areas of scrub, particularly where gorse is present. Nests

are built within hedges and scrub, and this species relies more heavily on a source of seeds throughout the year to a greater degree than other finch species.

Skylark frequents open fields where it not only forages but also nests on the ground. It is reliant on areas of shorter vegetation within a field where it can forage and construct its nest. Skylark also prefers large, open fields as such habitat makes it more difficult for predators to find and predate upon its eggs and young during the breeding season. Skylark can be found breeding on lowland grassland, but in many areas it is now confined to breeding in upland grasslands.

All four species can be found in flocks within farmland during the winter months, when they rely heavily on grain split in stubble fields and weed seeds as a source of food. Such seed-rich fields are sometimes referred to as 'giant bird tables'.

Actions for the Farmland Seed-eating Birds

Action	Lead Partner(s)
1. Encourage landowners to participate in agri-environment schemes which encourage sensitive hedgerow management, retention of scrub and hedgerows, protection of species-rich grassland, planting of wild bird cover, and reversion of improved grassland to spring-sown cereal crops which yield grain in winter stubbles	Lisburn & Castlereagh City Council; RSPB
2. Trial planting of sacrificial crops or wild bird cover at key sites to supplement winter food supplies	Lisburn & Castlereagh City Council; RSPB
3. Highlight the threats these species face via press releases, guided walks and at environmental events including those aimed at the farming community	Lisburn & Castlereagh City Council
4. Encourage sensitive management of hedgerows by creating dense, species-rich demonstration hedgerows at key sites and running hedgerow management workshops	Lisburn & Castlereagh City Council
5. Encourage participation in the RSPB Garden Birdwatch project	Lisburn & Castlereagh City Council; RSPB

Key threats to Farmland Seed-eating Birds

- Change from arable or mixed farming to livestock farming
- Traditional spring sowing of crops has changed to autumn sowing of crops which clears winter stubble feeding sites
- Loss of scrub and hedgerow nesting habitats
- Loss of rough grassland and meadows which are a source of weed seeds
- Increased use of herbicides and pesticides
- Inappropriate hedge management e.g. trimming during the nesting season

Yellowhammer



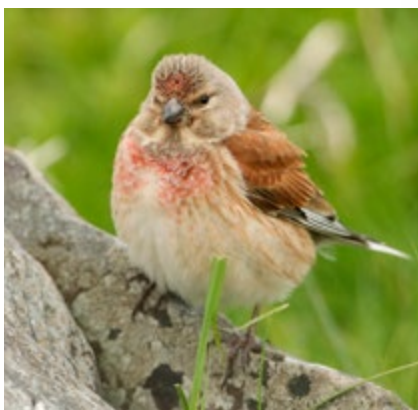
Linnet



Skylark



Reed Bunting



4. House Sparrow



House Sparrow



© John Harding / British Trust for Ornithology

The familiar House Sparrow is never found far from our towns and cities and often builds its nest in buildings, tree holes, thick hedges and even in disused House Martin nests. This species can also be found in more rural locations, although never far from human habitation. While it feeds on insects during the breeding season, a source of weed seeds and/or winter stubble is important during the autumn and winter months.

Key Threats to the House Sparrow

- Efficient grain harvesting and storage in rural areas has reduced availability of spilled grain
- Autumn sowing of crops clears winter stubble
- Increased use of herbicides and pesticides has reduced availability of weed seeds and insects in both rural and urban areas
- Predation by cats
- Collision with cars
- Loss of scrub and hedgerow nesting habitats
- Loss of rough grassland and meadows which are a source of weed seeds
- Inappropriate hedge management e.g. trimming during the nesting season
- Loss of urban and rural gardens

Actions for the House Sparrow

Action

1. Encourage landowners to participate in agri-environment schemes which encourage sensitive hedgerow management, retention of hedgerows, protection of species-rich grassland, planting of wild bird cover, and reversion of improved grassland to spring-sown cereal crops which will yield grain in winter stubbles
2. Trial planting of sacrificial crops or wild bird cover at key sites to supplement winter food supplies
3. Highlight the threats faced by this species via press releases, on guided walks, at environmental events and via school and community group activities such as nestbox building workshops
4. Installation of House Sparrow nesting boxes at key sites
5. Encourage participation in the RSPB Garden Birdwatch project
6. Promote the biodiversity value of gardens regardless of size

Lead Partner(s)

- Lisburn & Castlereagh City Council
- Lisburn & Castlereagh City Council; RSPB
- Lisburn & Castlereagh City Council
- Lisburn & Castlereagh City Council; BTO
- Lisburn & Castlereagh City Council; RSPB
- Lisburn & Castlereagh City Council

5. Swift

A summer visitor from Africa, the Swift arrives in Northern Ireland during May to begin its breeding cycle and leaves again in August, so is with us for a relatively short period of time. This species spends most of its year flying, only perching when it returns to the nesting site during its short breeding season! During its stay it requires suitable cavities for nesting; these are often found in old buildings. It feeds on flying insects in open air and so can forage anywhere these are plentiful.

Key Threats to the Swift

- Many former nesting sites have been lost when old buildings have been demolished or been subjected to unsympathetic restoration
- Wet summers reduce the availability of flying insects, resulting in fewer young being produced or failed breeding attempts
- Most new modern buildings give little or no opportunities for Swift to nest
- A gradual loss of natural habitats such as woodland, wetland, meadow and bog results in fewer aerial insects upon which Swifts feed



Actions for the Swift

Action

1. Installation of Swift nesting boxes at suitable locations
2. Use of Swift sound systems to attract Swifts to new nesting sites
3. Monitoring of existing and newly erected Swift nesting boxes
4. Encouraging developers to integrate Swift bricks into new or re-developed buildings
5. Surveying of possible, probable and confirmed Swift nesting sites within the Council area
6. Increasing the profile of the Swift through press releases, guided walks, nestbox building workshops at school and community events
7. Provide advice to developers and home-owners when Swift mitigation is required during renovation works
8. Enhancement of existing, and creation of new, areas of insect-rich habitat such as lowland meadow

Lead Partner(s)

- Lisburn & Castlereagh City Council;
NI Swift Group
- Lisburn & Castlereagh City Council;
NI Swift Group
- NI Swift Group
- Lisburn & Castlereagh City Council;
NI Swift Group
- NI Swift Group
- Lisburn & Castlereagh City Council;
NI Swift Group
- NI Swift Group
- Lisburn & Castlereagh City Council

6. Bats



Pipistrelle
Bat



Daubenton's Bat



Leisler's Bat

There are currently eight species of bats known to live and breed in Northern Ireland. The most recent bat (and also our newest mammal), Nathusius' Pipistrelle, was discovered as recently as 1996.

With a wingspan of 12cm, Leisler's bat is our biggest species weighing in at around 15 grams, less than a packet of crisps.

Our smallest bat, the Pipistrelle, can eat around 3,500 small insects, such as midges, in one night. Bats make great guests at any barbecue! Bats are gentle mammals and are vulnerable to disturbance.

Bats and their roosts are protected by law throughout Ireland and the UK. This means that bats should not be disturbed at any time no matter where they are. Roosts are also protected at all times regardless of whether bats are present or absent.

Anyone in Northern Ireland wishing to carry out work on any structure which may interfere with the bats, or their roost, should first contact the Department of Agriculture, Environment and Rural Affairs (DAERA) for guidance. If bats are discovered during any building or renovation works, all activity should cease until advice is sought from DAERA.

Key Threats to Bats

- Tree roosting and breeding sites are lost when old trees are cut down
- Exclusion from or entombment of bats in their roosts both unintentionally and intentionally due to loft conversions and other building work
- The use of breathable roof membranes at bat roosts
- Lighting can adversely affect bat roost emergence, commuting routes and foraging areas. For example, the illumination of the underside of bridges
- Increased use of pesticides reduces the availability of flying insects
- Removal of linear landscape features such as hedgerows and mature trees result in increased fragmentation of suitable roosting and foraging habitat
- Road construction can fragment commuting and foraging routes
- Predation by cats
- Draining or infilling of wetlands such as ponds results in fewer flying insects
- Change from hay-making to silage production prevents many insects from reaching adulthood, again resulting in fewer flying insects

Actions for Bats

Action

1. Installation of bat roosting boxes at suitable locations within the Council area
2. Monitoring of existing and newly erected bat roosting boxes
3. Increase the profile of bats through guided walks and training workshops, bat box building workshops with schools and community groups, press releases and at environmental events

Lead Partner(s)

Lisburn & Castlereagh City Council;
NI Bat Group

NI Bat Group

Lisburn & Castlereagh City Council;
NI Bat Group

Actions for Bats

Action	Lead Partner(s)
4. Encouraging developers to incorporate bat bricks into newly erected or re-developed buildings	Lisburn & Castlereagh City Council; NI Bat Group
5. Surveying of possible, probable and confirmed bat roosting sites within the Council area	NI Bat Group
6. Provide advice to developers and home-owners when bat mitigation advice is required during renovation works	NI Bat Group
7. Participation in the BATLAS 2020 Project	Lisburn & Castlereagh City Council; Bat Conservation Ireland
8. Creation of lowland meadow habitat along roadside verges which are bat foraging areas	Lisburn & Castlereagh City Council DFI Roads
9. Planting of native trees and hedgerows which creates foraging habitats for bats	Lisburn & Castlereagh City Council
10. Participation in the Gardening for Bats Campaign	Lisburn & Castlereagh City Council
11. Use the services of a trained ecologist to conduct a bat survey prior to any developments to buildings or works involving mature trees (even minor works such as limb removal)	Lisburn & Castlereagh City Council; NI Bat Group

7. Pine Marten

The beautiful Pine Marten is one of our most elusive mammals due to its habit of being most active at night and frequenting woodland habitats, particularly older areas of woodland. It is more abundant and widespread than formerly thought, and receives full protection under European law at all times of the year.

Key Threats to the Pine Marten

- Felling of woodland habitat and removal of hedgerows
- Roads fragment suitable habitat and result in increased collisions with cars



Pine Marten

Actions for Pine Martens

Action	Lead Partner(s)
1. Surveying for Pine Marten in suitable habitats within the Council area	Ulster Wildlife
2. Increasing the profile of this species through press releases and at environmental events	Ulster Wildlife

8. Pollinators



Bumble Bee



Honey Bee



Pollinating insects include the familiar butterflies, moths, bees and bumblebees – but did you know that many flies, particularly hoverflies, are also important pollinators? Solitary bees, a little-known group of insects, are another important group of pollinators; while we have only 18 species of bumblebee in Northern Ireland, there are 77 species of solitary bee!

When pollinators visit a flower they are dusted with pollen grains, and are in return rewarded with food in the form of sugar-rich nectar. On visiting other flowers to gather more nectar, pollen is deposited onto the flowers and results in fruit and/or seeds being produced which are essential for the continued existence of the plant. The process of pollination does not just benefit the pollinators as well as the plant, but it also provides fruit- and seed-eating animals with a vital source of food.

The process of pollination benefits the pollinators, the plants and the many animals that rely on fruit and seeds as a food source – including humans. It is estimated that in our part of the World, 78% of all plant species rely on pollinators for their continued survival. When numbers of our pollinators decline, this therefore has a drastic knock-on effect for many plant species as well as the animals they support.

A loss of pollinators is not just disastrous for biodiversity and our local landscape, it can also be detrimental to our economy. For example the value of the apple-growing industry in Northern Ireland is estimated at £7 million per year and is dependent on pollinators for apple production. A decline in pollinators translates into a decline in fruit production, which leads to higher prices in the supermarket. It is a problem which affects us all!

Key Threats to Pollinators

- They are losing their homes: habitats such as woodland, hedgerows and species-rich grassland are lost every year as a result of increasing agricultural intensification and urban sprawl; those which remain are also of lower quality and so support fewer pollinators
- Insects are very sensitive to climate change: our changing climate results in plants flowering at slightly different times of the year and insects are slow to adapt to these changes, perhaps emerging from hibernation too early or too late to find flowers to pollinate
- The use of certain pesticides to improve crop yield may pose a risk to pollinating insects if used inappropriately
- Introduced diseases and pests such as the Varroa mite can devastate populations of honeybees
- There are relatively few places where wildflowers can thrive due to the frequent cutting of roadside verges, a change from hay production to silage production, and the tendency to keep recreational areas such as gardens and parks 'well-maintained'. Pollinators therefore find it difficult to find adequate sources of food

Actions for Pollinators

Action

1. Increase the extent of species-rich wildflower meadow habitat within the Council area by creating new meadows and expanding the area of existing meadows, in both urban and rural locations
2. Reduce the frequency of amenity grassland cutting per year at selected Council sites, giving common grassland plants the chance to flower
3. Encourage gardeners to plant species which are beneficial to pollinators through pollinator and or wildlife gardening workshops and the creation of demonstration wildflower meadows in selected areas
4. Encourage farmers to adopt agri-environment schemes which promote pollinator-friendly practices
5. Support the All-Ireland Pollinator Plan
6. Provide pollinator identification training to encourage people to report sightings
7. Liaise with landowners to encourage sensitive hedgerow management, encouraging re-planting and restoration when necessary using sources of funding such as agri-environment schemes
8. Plant native species-rich hedgerows on selected Council sites to act as demonstrations for planting wildlife-friendly hedgerows
9. Seek funding to create community wildlife gardens with pollinator-friendly wildflower areas
10. Manage a proportion of roadside verges as wildflower meadow to benefit pollinators

Lead Partner(s)

- Lisburn & Castlereagh City Council
- Lisburn & Castlereagh City Council
- Lisburn & Castlereagh City Council; Butterfly Conservation NI
- Lisburn & Castlereagh City Council
- Lisburn & Castlereagh City Council; Lagan Valley Regional Park; National Biodiversity Data Centre; Butterfly Conservation NI
- Lisburn & Castlereagh City Council
- Lisburn & Castlereagh City Council; Lagan Valley Regional Park
- Lisburn & Castlereagh City Council; Lagan Valley Regional Park
- Lisburn & Castlereagh City Council; Butterfly Conservation NI
- Lisburn & Castlereagh City Council; DFI Roads



Silver Y Moth



Six-spot Ladybird



Wood Ants

9. Smooth Newt



Smooth Newt

Our only native amphibian and protected at all times by law, the Smooth Newt grows to 10cm in length. Like frogs, this species makes its way to ponds in early spring where it lays its eggs. These will similarly develop into tadpoles and slowly emerge as miniature versions of the adults. Newts hibernate during autumn and winter.

Key Threats to the Smooth Newt

- Drainage and in-filling of wetlands such as ponds
- Water pollution events such as spillage of agricultural effluent
- Stocking ponds with fish
- Urban development
- Loss of foraging and resting habitats such as lowland meadow and woodland
- Excessive cutting of many grasslands
- Habitat fragmentation
- Construction of roads

Actions for the Smooth Newt

Action

1. Creation of ponds at key sites within the Council area
2. Enhancement of existing ponds to maximise their benefit to newts
3. Highlighting the threats which newts face via platforms such as public events, school and community outreach events, guided walks
4. Use of services of a trained ecologist to survey wetlands and or adjacent habitat in advance of any proposed development works which may adversely affect newts

Lead Partner(s)

Lisburn & Castlereagh City Council

Lisburn & Castlereagh City Council

Lisburn & Castlereagh City Council

Lisburn & Castlereagh City Council



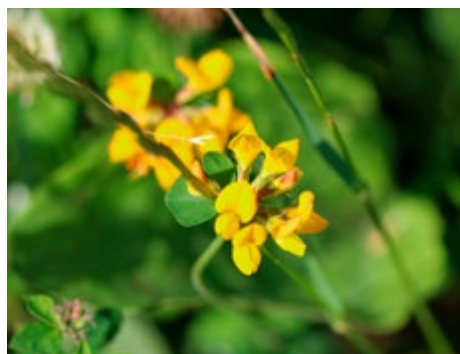
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10. Lowland Meadow Plant Assemblage



Birds-Foot Trefoil

Lowland species-rich meadows can support a large number of plant and animal species, however they are now uncommon or rare in our local landscape. Once-familiar flowering plants such as Ox-eye Daisy, Yellow Rattle, Common Knapweed, Meadow Vetchling and Birds-foot Trefoil are now restricted to small pockets in the landscape.

The key is to find a balance between our needs (such as maintaining short grassland within a public park for sporting activities) and the needs of our local wildlife (such as permitting strips of species-rich grassland to develop around the margin of a public park). Such a balance often provides many benefits for local wildlife and areas of wildflower meadow act as an outdoor classroom where families, schools and community groups can re-engage with nature.



Common Knapweed

Key Threats to Lowland Meadow Plant Assemblage

- Intensification of agriculture e.g. no margin around crops or pasture for wildflowers to flourish
- Increased use of herbicides
- Tendency to maintain road verges as short grassland
- Tendency to cut large areas of amenity grassland frequently
- Tendency to manicure gardens and plant non-native plants or those which provide little or no benefit to wildlife such as pollinators and birds
- Declining populations of pollinating insects

Actions for Lowland Meadow Plant Assemblage

Action

1. Encourage gardeners to plant species which are beneficial to native species such as pollinators and seed-eating birds, through wildlife gardening workshops and the creation of demonstration wildflower meadows at selected Council sites
2. Encourage farmers to adopt agri-environment schemes which promote the retention, enhancement or creation of areas of lowland meadow
3. Increase the extent of species-rich wildflower meadow habitat within the Council area through the creation of new meadows and expanding the area of existing meadows, in both urban and rural locations
4. Reduce the frequency of amenity grassland cutting per year at selected sites, giving common grassland plants a chance to flower

Lead Partner(s)

Lisburn & Castlereagh City Council

Lisburn & Castlereagh City Council;
RSPB

Lisburn & Castlereagh City Council;
Ulster Wildlife

Lisburn & Castlereagh City Council

11. Lesser Butterfly & Frog Orchids



Lesser Butterfly Orchid

These small and delicate orchids are often over-looked and are most likely to be encountered in parts of the Belfast Hills, in species-rich damp grasslands such as those at Slievenacloy Nature Reserve. They require an open grass sward and thrive areas where soil nutrient levels are relatively low.

Key Threats to Lesser Butterfly and Frog Orchids

- Agricultural intensification has converted heathland into grazing pasture, ploughing activity, soil drainage, and applied herbicides and fertilisers which all promote vigorous grass growth at the expense of delicate meadow species such as orchids
- Increased grazing pressure in parts of the Belfast Hills
- Planting of conifer plantations in the Belfast Hills
- Declining populations of butterflies and moths which pollinate Lesser Butterfly Orchid

Actions for Lesser Butterfly & Frog Orchids

Action

1. Re-surveying of sites where these orchids are known to be present or potentially present
2. Provide habitat management recommendations to benefit orchid populations
3. Provide training so that people can identify orchids confidently

Lead Partner(s)

Belfast Hills Partnership
Belfast Hills Partnership
Belfast Hills Partnership



Frog Orchid



Common Twayblade



Early Purple Orchid

What You Can Do To Help Biodiversity

At a time when our biodiversity is under immense pressure, there is something everyone can do to help our local wildlife. The success of the Biodiversity Action Plan depends not just on the work of Lisburn & Castlereagh City Council and the partner organisations, but also the work that individuals and communities engage in to enhance our environment for biodiversity.

What can One Person Do?

- Your own garden can be a haven for wildlife, no matter how large or small; bird feeders and tables help to feed many birds during times of unfavourable weather
- Creating a garden pond provides drinking and bathing water for birds and mammals such as hedgehogs, as well as possibly also attracting other wetland inhabitants like frogs
- Create log and branch piles. These may look untidy but they provide valuable habitats for many insects as well as frogs, newts and hedgehogs
- Create your own garden compost heap. This allows you to make your own compost for use in the garden, saving you money!
- Leaving areas of your garden to 'go wild' will encourage native plants to flower and attract a wide range of insects and birds
- You could plant your own wildlife garden by selecting flowering plants which attract pollinators
- Recording the species you find in your garden and anywhere else you visit will allow us to keep an eye on how well or poorly each species is faring over time. Records can be submitted to the Council Biodiversity Officer or to the Centre for Environmental Data and Recording (see list of useful contacts overleaf). Even records of 'common' species are important
- Encourage friends and family to engage with nature, especially children - they will have to solve many environmental problems that we have helped to create. The earlier they start, the better they will be!
- Keep an eye on local wildlife and report anything which might be a wildlife crime. Water pollution, disturbance of protected species and habitats, littering and dumping of rubbish are things which will have a negative impact the whole community as well as local wildlife
- Join one of the many great organisations within the Council area and do your bit to help them conserve our biodiversity. Your time and skills are valuable. Volunteers are always welcome and you could even become the local wildlife expert!
- Attend biodiversity events to meet like-minded people and show your support for our local biodiversity.

What Can Farmers Do?

- Cut hedges outside of the growing season to ensure that nesting birds are not disturbed and that fruit and seeds are available as a winter food source for wildlife
- Retain hedgerows as important wildlife corridors rather than replacing with wire fencing
- Apply herbicides and pesticides in a way that does not affect field margin and hedgerow habitats

What You Can Do To Help Biodiversity *continued*

- Leave a strip of uncut grass around the field margin as a refuge for native plants and animals
- Cut field margins outside the growing season to allow native plants to set seed and insects to complete the summer part of their lifecycle
- Find out if you are eligible to take part in an agri-environment scheme such as the Environmental Farming Scheme
- Plant an area of woodland – forestry grant schemes are available
- Install a constructed wetland to treat farmyard dirty water.
- Start a school or community project that will help us to complete actions listed in the Biodiversity Action Plan. Pick a local habitat or species and decide what you could do to help. Could you install Bat, Swift or House Sparrow boxes? Or organise a community tree planting event? Contact the Council's Biodiversity Officer or one of the local environmental organisations to find out how you can make a difference!

What Can a School or Community Group Do?

- Create an area for wildlife within the school grounds or within a community garden. These areas are not just important for wildlife, they are often also great places to relax
- Visit local woodlands, meadows, wetlands and urban green spaces – they are the perfect outdoor classroom!
- Engage with local environmental organisations – many can help you to plant native trees, sow a wildflower meadow, create a garden pond and survey what plants and animals live in your area
- Create a wildlife area. Could you sow an area of wildflower meadow? Or plant a native species hedgerow? Wildlife areas can also be great places to spend your lunchtime!
- Visit local green spaces during work breaks; this helps to lower blood pressure and reduce stress levels
- Liaise with the Council's Biodiversity Officer or one of our local environmental organisations and use staff training days to help with tasks such as tree planting or helping to control invasive species
- You could sponsor a local wildlife project such as creation of a wildflower meadow or pond, or the planting of a woodland or native species-rich hedgerow
- Small and large businesses can sign up to a Prosperity Agreement. These are voluntary agreements through which NIEA and an organisation can explore opportunities for reducing environmental impacts in ways that create prosperity and wellbeing.

Useful Contacts

- Lisburn & Castlereagh Biodiversity Officer - tracey.connolly@lisburncastlereagh.gov.uk
- Belfast Hills Partnership - www.belfasthills.org
- Biodiversity in Northern Ireland - www.biodiversityni.com
- British Trust for Ornithology - www.bto.org
- Botanical Society of the British Isles - www.bsbi.org.uk
- Butterfly Conservation - www.butterfly-conservation.org
- Centre for Environmental Data and Recording (CEDaR) - www.nmni.com/cedar
- Department of Agriculture, the Environment and Rural Affairs - www.daera-ni.gov.uk
- Ecoschools - www.eco-schoolsni.org
- Forest Service - www.dardni.gov.uk/forestry
- Habitas - www.habitas.org.uk
- Lagan Valley Regional Park - www.laganvalley.co.uk
- National Biodiversity Data Centre - www.biodiversityireland.ie
- National Trust - www.nationaltrust.org.uk
- Northern Ireland Bat Group - www.bats-ni.org.uk
- Northern Ireland Environment Link – www.nienvironmentlink.org
- Northern Ireland Forest School Association - www.nifsa.org.uk
- Northern Ireland Fungus Group - www.nifg.org.uk
- Northern Ireland Raptor Study Group - www.nirsg.com
- Northern Ireland Swift Group - www.saveourswifts.co.uk
- Royal Society for the Protection of Birds - www.rspb.org.uk
- Saving Our Magnificent Meadows - www.magnificentmeadows.org.uk
- The Conservation Volunteers - www.tcv.org.uk
- Ulster Wildlife - www.ulsterwildlife.org
- Walk NI - www.walkni.com
- Woodland Trust - www.woodlandtrust.org.uk

For advice on injured bats, bats on the ground or in a building, or bats discovered during building or tree works, visit:
www.bats-ni.org.uk/ground-and-injured-bats/

Interfering with protected species and/or damaging the habitats on which they depend, damaging protected habitats, poaching, badger baiting and infringements on the Animal Welfare Act are all types of Wildlife Crime. If you suspect a wildlife crime, contact your nearest Police station or call 101 from a landline; state they you believe a wildlife crime has occurred and be sure to ask for a Crime Reference Number.

Glossary

ASSI

Area of Special Scientific Interest; a nature conservation designation which protects areas that represent the best samples of our natural heritage and / or geological history

AONB

Area of Outstanding Natural Beauty; an area which has been designated for conservation as a result of its significant landscape value

Biodiversity

The diversity of all living things on Earth including plants, animals, fungi and bacteria

Biodiversity Duty

The duty placed on public bodies such as councils under the Wildlife and Natural Environment Act (NI) 2011 to further the conservation of biodiversity in ways that are consistent with carrying out their main functions

DAERA

The Department of Agriculture, Environment and Rural Affairs

HAP

Habitat Action Plan; a plan to enhance a habitat for the benefit of biodiversity

INNS

Invasive Non-native Species; species which have been accidentally or deliberately introduced into our environment and result in damage to native habitats and/or species

LBAP

Local Biodiversity Action Plan; a plan developed between partner organisations to develop and complete actions, and fulfil targets, which will promote and enhance biodiversity within the local area

Priority Habitat

A habitat which requires conservation action because of its rarity, importance and/or decline in quality and/or spatial area

Priority Species

A species which requires conservation action because of its rarity, rapid population decline and/or international importance

SAC

Special Area of Conservation; an area designated under the EU Habitats Directive for the protection and conservation of seriously threatened habitats and species

SAP

Species Action Plan; a plan to benefit a particular species

SLNCI

A Site of Local Nature Conservation Importance; sites are designated according to their flora, fauna and/or earth science interest

SPA

Special Protection Area; an area designated under the EU Habitats Directive for the protection and conservation of sites which are important for our most vulnerable species of birds

Ramsar site

A Ramsar site is a wetland site designated for its international importance to nature conservation. Named after the 1971 Convention on Wetlands which was held in Ramsar, Iran

Acknowledgements

Lisburn & Castlereagh City Council would like to thank all the partner organisations for helping to lay the groundwork for the LBAP. We look forward to working alongside each of you to develop the actions laid out in this plan.

The Council would also like to thank all the local schools and community groups that we have had the pleasure of working with to help increase awareness of, and improve habitats for, biodiversity in their local areas.

Many thanks for staff within the Northern Ireland Environment Agency, the Department of Agriculture, Environment and Rural Affairs (DAERA) who also offered much valuable assistance with the content of this Plan.



Common Buzzard



Lisburn & Castlereagh
**Local Biodiversity
Action Plan**