





STROKESTOWN TIDY TOWNS – COMMUNITY BIODIVERSITY

This tool has been produced by Strokestown Tidy Towns as an easy-to-follow easy-to-follow guidelines for organisations, community groups, and residents' associations to manage and enhance the biodiversity of their local communal green spaces.

Just like people, plants and animals want to live and flourish, and most can quickly adapt to less than perfect conditions as long as the essentials of access to food, access to water, protection from predators, and a safe place to rear their young are available.

Traditionally, urban spaces have been created and managed to suit people and there has been a tendency to forget that people cannot thrive without the support of their 'natural' environment – clean air to breathe, clean water which can replenish itself, plants and animals as food.

I hope all users find this support both informative and helpful.

CHAIR: Strokestown Tidy Towns



ABOUT STROKESTOWN

Strokestown (*Béal na mBuillí – the mouth of the ford of the Strokes*) is a small town (*pop. 825, CSO 2016*) in County Roscommon and is set amongst a mature landscape with many lakes and turloughs. The landscape can be described as 'rolling' due to the presence of drumlins.

The town is noteworthy for its wide streets (Church Street is the widest street thoroughfare outside of Dublin) and its 'cross-like' street layout. Strokestown Park House is the principal historic building in the town and, with the onsite National Famine Museum (recently remodelled as a result of substantial Government funding) and mature gardens, is the predominant tourist drawer in the area.

The nearest designated site for nature is Annaghmore Lough (SAC & pNHA, NPWS site code 001626). The Lough is designated due to the presence of alkaline fens and Geyer's Whorl snail (Vertigo Geyeri). In addition, the site is also used by Whooper Swans (Cygnus Cygnus) and Golden Plover (Pluvialis Apricaria), both listed as EU Birds Directive Annex 1 species.

ABOUT STROKESTOWN TIDY TOWNS

Strokestown has been part of the Tidy Towns family since the 1960s and successive committees and unsung individuals have worked together in the intervening years to promote the benefits of working together, living together and changing together.

In recent years the world, and our community, has witnessed a 'turning of the tide' and there is now a far wider understand the importance of encouraging wildness back into their environments and managing green spaces in such a way that all living organisms can flourish side by side.

The current committee has been together since March 2022 and has exciting and distinct plans for #OurTown #YourTown #MyTown.

We would like to expressly thank Roscommon County Council, Roscommon Leader, Strokestown Town Team, all previous committees and supportive volunteers for their tireless work in helping to promote Strokestown as an attractive environment to live, work and visit.



WHAT IS BIODIVERSITY?

Biodiversity refers to the variety of life on Earth! It includes all living things (organisms) that make up the natural world (including us as humans).

Biodiversity also refers to the places where animals and plants live (habitats) and the complex interactions between living things and their environment (ecosystems).

WHY IS BIODIVERSITY IMPORTANT?

Humans are a component of biodiversity, and we are dependent on biodiversity to provide a range of ecosystems. Human activities such as agriculture, forestry and fishing depend on an environment provided by a healthy biodiversity.

We rely on biodiversity for the provision of clean air and water, food, medicines, natural landscapes, flood control, noise pollution control and much more.

A healthy environment is essential for human health and wellbeing and biodiversity provides us with natural amenities, parks, green spaces, wildlife and landscapes to enjoy.

The attractiveness of our Strokestown as a tourist destination, a place to live and do business depends, to a large extent, on a biodiverse environment surrounding our community.

KEY TERMS		
Associated Species	Animals and plants do not live in isolation but depend on others for their survival. A species that is known to interact closely with another species or rely on it for some part of its life cycle, is known as 'associated'. See 'obligate'	
Biodiversity	The term biodiversity (biological diversity) was coined at the Convention on Biological Diversity in 1992. It is defined as the total number of species and types of organisms living on the planet, combined with the environments in which they live, and the interactions formed within and between species	
Climate Change Abatement	All European countries are required by law to take action to minimise carbon dioxide emissions in an effort to reduce the speed with which climate change is taking place. Abatement means the measures that a country, region, or local community takes to offset climate change. The Irish Government has a major reforestation programme underway because tracts of forest can absorb large quantities of harmful carbon dioxide and release oxygen, which is essential for our survival	
Ecosystem	A biological community of interacting organisms and their physical environment	
Ecosystem services	The many and varied benefits that humans freely gain from the natural environment and from properly-functioning ecosystems. Ecosystem services are grouped into four broad categories: provisioning, such as the production of food and water; regulating, such as the control of climate and disease; supporting, such as nutrient cycles and oxygen production; and cultural, such as spiritual and recreational benefits. Many ecosystem services are assigned economic values to help inform decision-makers	
Green Infrastructure	Green Infrastructure (GI) is based on the principle that 'protecting and enhancing nature and natural processes are consciously integrated into spatial planning and territorial development. Accordingly, the Green Infrastructure Strategy defines GI as 'a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services' in both rural and urban settings (EC, 2013a)	

KEY TERMS	
Habitat	The place where a plant or animal normally lives and grows
Microhabitat	A microhabitat is a small habitat, perhaps just a few centimetres in diameter,
	which is different from other habitats in the immediate locality
Natural Capital	Natural capital can be defined as the world's stocks of natural assets which
	include geology, soil, air, water, and all living things. It is from this natural
	capital that humans derive a wide range of services, often called ecosystem
	services, which make human life possible.
Naturalised	Sycamore and fuchsia are examples of plant species that are not native, but they
	have naturalised in Ireland, i.e., they have become well established but they are
	not overly damaging the environment.
Obligate Species	The complete dependency on another species for survival is known as
	'obligate'. For example, a lichen is not a single organism, but it is formed by the
	obligate relationship between a fungus and a blue green alga. They are so
	tightly knit as to appear to be one functioning organism and cannot live
	independently.
Rhizome	Many plants produce rhizomes, which are underground stems that can form
	extensive, underground root-like networks. Rhizomes are frequently more
	tenacious than roots. Many seriously invasive plants, such as the knotweeds, winter heliotrope, and bracken rely on their rhizome systems to disperse
	rapidly.
Wildlife	Animals (and sometimes plants) that live wild in an area without being
	introduced and managed by humans.

INTERNATIONAL FRAMEWORK

In 1992, the international Convention on Biological Diversity (CBD), held in Brazil, defined biodiversity as a combination of ecosystem structure and function, as well as its components, such as species and habitats.

In other words, biodiversity means the number and types of species that are found across the world, as well as the complex, dynamic environments and networks in which they live.

This network is sometimes known as the 'web of life'.

Increasingly, biodiversity planners are looking through the lens of ecosystem services, the term used to describe the many and varied benefits that humans freely gain from the natural environment. Ecosystem services include the pollination of food crops and native plants by insects, carbon sequestration by trees, bogs, and grasslands, nutrient cycling, natural control of diseases, and the recreational and spiritual values of the countryside.

In other words, cultural, social, and economic values must be considered in biodiversity management.

Biodiversity and wildlife are not the same thing. The traditional focus on the protection of threatened species conflicts with the principles of biodiversity management because, by the time species become threatened, the processes that maintain biodiversity are already compromised. Individual species are also regarded as generally poor indicators of biodiversity when it comes to actual planning. The connections between organisms is often a much better way to assess the healthy functioning of an ecosystem



HABITAT MANAGEMENT

Habitat creation is one way to enhance an area for biodiversity. Examples of small-scale habitat creation (particularly appropriate for community groups, schools and residents) include managing an area as meadow grassland or wildflower lawn, planting hedgerows, treelines / groves of trees or creating a pond.

Habitat creation should only be attempted in an area that it is currently of low biodiversity value such as amenity grassland.

Introducing a habitat uncommon in an area such as a pond may be of more benefit than planting more trees in an area that already has good tree cover.

Creating a small complex of habitats such as a woodland or grove of trees, along with some meadow grassland around the edges to create a collection of semi-natural habitats will be of more benefit to biodiversity as it will provide resources for a greater number of species.

TREE & HEDGEROW PLANTING

Planting native hedgerows, trees and woodlands provides food, shelter and microhabitats for a range of plant and animal life and is one of the easiest ways of increasing biodiversity value in an area.

Native trees and shrubs are best for wildlife. These species colonised Ireland naturally and have adapted to the environmental conditions of our island – other plants and animal life has adapted to co-exist with them.

MEADOW GRASSLANDS & WILDFLOWER LAWNS

The traditional hay meadows once widespread in Ireland are now very scarce due to changes in farming practices.

Meadows are a haven for wildlife in summer, being rich in wildflowers and the insects, bugs, birds and bats that depend on them.

Managing little used grassland areas a meadow is one way to increase the resources available to wildlife. This allows for the growth of wildflowers which provide essential pollen for our pollinating insects.

Long grass also hosts a variety of other insects and invertebrates and produce seed – both of which are important food sources for birds.

Bat species will forage over a meadow grassland rich in insect life.

Long grass also provides cover and nesting habitats for birds and small animals.

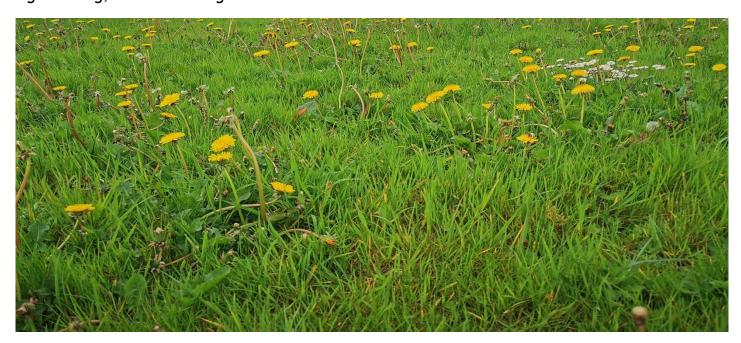
MAKING MEADOWS: where & how to encourage wildflowers naturally

Meadow grassland can be established in parkland areas or along grass verges.

In general areas of meadow grassland, or long grass verges, should be cut once a year in Autumn and the cuttings removed. Removing the cuttings is important to prevent the build-up of nutrients in the soil – wildflowers flourish in a nutrient poor soil where they can compete successfully with more competitive grasses.

Gradually over the years the number and diversity of wildflowers within the meadow will increase. It may take several years before you see an increase.

Avoid using commercially available wildflower seed mixes to enhance your meadow. These mixes often contain species that are not native to Ireland and are really only suitable for gardening, not for creating natural meadow habitats.



POLLINATOR FRIENDLY PLANTING

Much is spoken about the importance of pollinator plants, and rightly so.

These are hugely important species not only for our wildflowers and trees but also for many of the plants on which we depend for food. Any biodiversity considerations should have a strong focus on pollinator plants.

While native plants are best for wildlife (and should only be planted in wild areas) there is a wide range of both native and non-native garden plants, provide food for pollinating insects, which can be used in garden and formal plantings.

Planting a range of pollinator-friendly plants, flowering at different times of the year, will provide an important source of pollen and nectar for pollinating insects throughout the Spring, Summer and Autumn.

POLLINATOR FRIENDLY PLANTING

Plants for Pollinators: Naturally Native

Here are some common (and often overlooked) plants that are native to County Roscommon and Ireland.

These are of great benefit to insect pollinators:

Dandelion, Daisy, Bluebell, Bugle, Red & White Clover, Ivy, Blackthorn, Hawthorn, Forget-me-Not, Heather, Bramble, Primrose, Foxglove, Rowan, Spindle

POLLINATOR FRIENDLY PLANTING

Plants for Pollinators: Non-Native

Here are some widely available plants that are good for pollinators and also look great in any planting scheme:

Nepeta, Rudbeckia, Aubretia, Cotoneaster, Berberis, Ribes (currants), Buddleia, Hydrangea, Lavender, Privet, Dogwood, Hebe, Cranesbill, Achillea, Campanula



COMPOSTING

Compost your garden and food waste in a designated composting area, such as that available on the Tower View estate.

Composting reduces the amount of waste going to landfill sites and provides a rich source of nutrient-rich material for gardening. This reduces the need to purchase garden compost which, historically has often been sourced from peat bogs contributing to the loss of these treasured habitats.

Your compost heap also becomes a natural habitat! Worms, beetles, slugs and even hedgehogs will make themselves at home in a well-managed composting area.

Avoid tipping garden waste into verges, waysides or wild areas. Grass cuttings disposed of in this way can smother natural habitat growth, can pollute water and can even kill fish.

Garden plants disposed of inappropriately can take roots, spread and become invasive outcompeting native plants and leading to damage to our natural habitats. Japanese Knotweed (Fallopia Japonica) is one such plant and the dumping of garden waste including this has aided its spread across County Roscommon and Ireland.



BEE-NESTING HABITATS

Honeybees live in hives are cared for by beekeepers – our wild bees don't enjoy such protections and must find a suitable place to nest.

Bumblebee colonies make their nests at ground level, often amongst long grass or other vegetation. Cut such long grassy verges between September and March to avoid disturbing these important living areas.

Solitary mining bees make their nests in tiny burrows in south/east facing banks of bare soil, sand and peat. Keep vegetation sparse on any earth banks or stony areas to provide suitable nesting areas. Scrape any garden growth back to bare soil on an annual basis during October to February to create bare ground providing areas for solitary bees to burrow into.

Cavity nesting bees make their nests in south-east facing stonewalls, masonry, cavities in wood or dead plant stems. Visit such areas on a sunny evening between May to September – if bees are seen then protect these areas from disturbance and, in particular, ensure that no herbicides or pesticides are used in the vicinity. Additional nest sites can be provided by drilling into holes in fence posts (to 10cm deep & 4-8mm in diameter).



HERBICIDES & PESTICIDES

Strokestown Tidy Towns strongly recommend that you avoid herbicides and pesticides as these cause harm to wildlife, directly and indirectly, and can be unsafe for human use.

As an example, using slug-killer pellets can result in fewer thrushes and hedgehogs due to the transfer of lethal chemicals.

Suggestions for alternatives can be found here: <u>Homemade Weed</u> Killers



PROTECTING BIODIVERSITY

Conserving and protecting biodiversity can be as simple as getting the time right! Scheduling actions to avoid or minimise disturbance to wildlife and habitats is crucially important.

HEDGEROWS

Without management hedgerows can becoming 'gappy', reducing their value to wildlife and their stock-proofing function. Under the Wildlife Act 1976, as amended, it is illegal to cut hedges between 1st March 31st August in order to protect nesting birds (unless there are clear traffic Health & Safety reasons to do so).

Hedgerows should be cut back, on average, every three years on rotation. This means that not all hedgerows are cut in any one year, allowing some to be left uncut to provide resources for wildlife. Hedgerows can be cut between September and March but cutting later in the Autumn season (i.e., November or December) is less disruptive to pollinating insects.

Hedgerows should be cut to an 'A' shape which allows sunlight to reach the bottom of the hedge, promoting a full and dense growth. The top of the hedge should be left uncut to leave some fruit and seeds through the Autumn and Winter months for birds to feed on.

GARDENS

Similarly delaying the annual garden clean-up, normally carried out in Autumn, until early Spring provides some additional shelter for wildlife.

Dead plant stems and fallen leaves provide places for invertebrates and other small wildlife to shelter and hibernate during Winter months.



RAISING AWARENESS

Community groups, such as Tidy Towns and Resident's Associations, play an essential role in raising awareness of biodiversity.

Encouraging or facilitating people to engage with an appreciate wildlife is key to biodiversity conservation. Providing opportunities for people to experience biodiversity is vital to driving peoples' attention and interest.

Even more effective, however, is increasing the amount of time people spend outdoors connecting with nature. Furthermore, the health benefits of spending time with nature is widely recognised with known benefits for both physical and mental wellbeing.

Raising awareness of biodiversity can be facilitated by organising wildlife-themed walks, bat walks, wildflower walks and bird-watching or competitions such as best wildlife-friendly housing estate, best wildlife garden or a wildlife photography competition.

Better still is providing chances for people to volunteer on a project such as invasive plant species removal, tree planting or encouraging people to get involved in Citizen Science events. Often the social element of such events can be attraction needed to get people involved.

When residents, businesses and visitors understand more about biodiversity and wildlife in their local area this can instil respect, ownership and can remind them of the value of nature and lead to more effective conservation.



CITIZEN SCIENCE: we can ALL be environmental scientists

Citizen Science engages the public in participation in recording wildlife.

Keeping records of wildlife species, and submitting this information to the National Biodiversity Data Centre (NBSC) at https://biodiversityireland.ie/ (or other dedicated recording schemes), is a great way of getting people involved in biodiversity conservation and can help groups and individuals improve skills in wildlife identification whilst fostering a personal appreciation of nature.

All records are invaluable, even of common species seen daily.

Such data is important in supporting research and policy formation and contributes greatly to our knowledge of biodiversity and its conservation.



BIODIVERSITY RESOURCES

The following online resources are used by Strokestown Tidy Towns to promote biodiversity in our community:

Wildflower meadows: https://biodiversityireland.ie/practical-advice-on-

managing-wildflower-meadows/

Japanese Knotweed: https://biodiversityireland.ie/urban/

Pollinator Community Action: https://biodiversityireland.ie/communities-helping-our-

endangered-pollinators/

Pollinator signage: https://pollinators.ie/resources/

Citizen Science recording: https://records.biodiversityireland.ie/start-recording

Bumblebee identification: https://pollinators.ie/record-pollinators/id-guides/

Butterfly identification: https://biodiversityireland.ie/garden-butterfly-monitoring-

scheme-an-ecourse/

Composting: https://stopfoodwaste.ie/

Annaghmore Lough: https://www.npws.ie/sites/default/files/protected-

sites/synopsis/SY001626.pdf