

Local Biodiversity Action Plan for Tonaphubble and Meadow Vale Sligo Town



Collated in consultation with Tonaphubble and Meadow Vale Residents Associations.

by Woodrow Sustainable Solutions Ltd.

Part of the Parks Quarter Biodiversity Training Programme.

Client: Sligo Tidy Towns
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Acknowledgements

This Local Biodiversity Action Plan was developed from input by volunteer members of Tonaphubble and Meadow Vale Residents Associations in collaboration with Woodrow Sustainable Solutions Ltd (Woodrow).

Woodrow would like to acknowledge and thank all members of the community who gave up their time to meet and share their thoughts and ideas.

This was part of a wider programme of training and development programme for residential communities of south Sligo Town in the area known as 'The Parks Quarter'.

The funding for this project was provided by the EU LEADER fund, following an application from Sligo Tidy Towns. Sligo Tidy Towns part funded the project.

Front Page Image: The green at Tonaphubble, Sligo Town.

Source: All pictures used are property of Woodrow unless otherwise stated.

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Aims of participation in the Park's Quarter Biodiversity programme

The aim of participation in this programme is to educate, enable and encourage local residents to create more biodiverse areas in their gardens and communal areas.

How this programme and Local Biodiversity Action Plan was developed

Sligo Tidy Towns secured EU LEADER funding in 2022 to deliver a biodiversity training programme for communities across the Park's Quarter of Sligo Town. Woodrow Sustainable Solutions Ltd (Woodrow) won the tender to deliver this training for Sligo Tidy Towns.

Representatives of Tonaphubble and Meadow Vale Residents Associations were contacted to determine if the residents were interested in being involved. Having expressed an interest, representative members of the community joined this programme.

Residents met with staff of Woodrow to discuss ideas and opportunities to enhance biodiversity. These participants were assisted by staff from Woodrow to:

- Create a Biodiversity Action Plan for their estate; and to
- Identify any Biodiversity Training or workshops Woodrow could deliver to communities to raise their awareness and knowledge in this area.

This action plan was collated specifically for this group from these collaborative meetings. The proposed actions are relatively cheap and should be achievable by the community.

Existing Biodiversity in Tonaphubble

There are a number of housing estates off the Tonaphubble road, which are represented by the Tonaphubble and Meadowvale Residents Association. These residents have collaborated with Sligo Tidy Towns and Sligo Environmental Network to implement biodiversity enhancing actions in their local area. An orchard was planted with different species including apple (*Malus sylvestris*), plum (*Prunus domestica*), and gooseberry (*Ribes uva-crispa*). A native hawthorn (*Crataegus monogyna*) hedgerow was also planted.



Figure 1: The green space where the orchard was planted by the Tonaphubble and Meadowvale Residents Association.

Source: <https://earth.google.com/web/>

These actions were carried out in a communal green space (approx. 1000m²) (Figure 1). The addition of these flowering and fruiting trees to the lawn will no doubt provide forage for local populations of pollinators and birds. These positive changes are a leading example of what local communities can accomplish in Sligo town.

Indeed, a number of other green spaces are located in the vicinity and would also benefit from rolling out similar actions. Further suggestions have been made in this document as to how this grassroots work can be best supported and continued in the area.



Figure 2: Signage providing information on the project works.



Figure 3: The orchard planted by Tonaphubble and Meadowvale Residents Association.



Figure 4: A variety of fruit bushes including currants (*Ribes* spp.).



Figure 5: A wide variety of saplings were planted onsite including birch (*Betula* spp.) and Amelanchier (*Amelanchier x grandiflora* 'Ballerina'). A hazel (*Corylus avellana*) hedge was also planted with some dog rose (*Rosa canina*).



Figure 6: A hawthorn hedgerow provides flowers for pollinators in spring and fruits for birds in autumn. The herbaceous wildflowers at the base of the hedge provide good structure and is an indicator of hedgerow health.

Summary of Actions to enhance biodiversity in Tonaphubble

This is a summary of the proposed enhancement activities for the Tonaphubble and Meadowvale Residents Association to enhance local biodiversity.

No.	Proposed Action	Further Information
1	Create Homes for Solitary Bees in the Hawthorn Hedge.	Bee boxes are easy to make and will provide new habitat for native bees.
2	Enhance the Existing Hawthorn Hedgerow.	The existing hawthorn hedge could be further enhanced with supplementary planting and appropriate management.
3	Plant an Edible Hedge in an Open Green Space.	An edible hedge is composed of native species which are edible for pollinators and birds. People can eat some of the fruits also, however care must be taken with children as the fruits such as sloes can contain large stones.
4	Leave Piles of Leaves in Quiet Corners.	To increase habitat for hedgehogs over winter months while they are hibernating.
5	Plant a Herb Garden in a Flower Bed.	Herbs are full of antioxidants and goodness. And what better to have some fresh-growing parsley to pop into your soup?
6	Plant Pollen-Rich Ornamental Plants in a Herbaceous Border.	Biodiversity doesn't have to mean uncultivated. Choose pollinator-friendly horticultural varieties to create an impressive herbaceous boarder.
7	Build and Install Bird Boxes in Trees.	Whilst there are only a small number of mature trees in Tonaphubble, some bird boxes could be erected on these trees, and possibly in gardens where appropriate to provide shelter for garden birds.
8	Erect Bird Feeders or grow Your Own.	Put up bird feeders in gardens, and supply water in the winter. Or indeed grow flowers, such as sun flowers.

Proposed Training & Workshop Summary

This is a table of training the residents were interested in receiving. This will form part of a wider programme of workshops and training activities to be delivered for the wider South Sligo Parks Quarter.

Proposed Workshop/walk / Talk	
Deliver a seed-collection and cuttings Workshop.	This workshop will focus on how to save money by collecting seeds, and also how to grow plants from cuttings. The practical elements of gathering, storing and propagating seeds will also be covered.
Deliver a Low-maintenance pollinator-friendly planting workshop.	This workshop will discuss low-maintenance planting schemes.
Bees and Pollinators Workshop.	This workshop will discuss the difference between social and solitary bees, their life-cycle, behavior, habitat preferences, and sources of food.
Activity workshop/s.	Create bird boxes or bat boxes or bird feeders.
Garden Bird Workshop.	This workshop could cover the basics of visual and aural bird identification for common garden visitors. It will also highlight their resource requirements.
Bat walk & workshop.	This workshop will cover the basics of bat ecology, including life-cycle, bat behaviour, and habitat requirements. The workshop would include an educational sunset bat walk using handheld equipment for species identification.
Tree planting activity/workshop.	Most cost-effective for community groups is using bare-root trees.

Details of the proposed actions for biodiversity and resources

This Local Biodiversity Action Plan LBAP includes actions that would help support local biodiversity directly and help the community connect with nature. Increasing plant diversity is often the first step in this process as flowers provide food for pollinating insects and fruits provide food for our birds. Mature trees provide habitat for insects, birds, and bats. All these interrelated relationships create the wider ecosystem.

Ireland is now following the second All Ireland Pollinator Plan (AIPP) which runs from 2021-2025. There is great free information, posters and resources at the website www.pollinators.ie. There are many simple actions outlined in the AIPP that communities can undertake to reverse declines in biodiversity. Many of the proposed actions detailed in this section link directly to those in the AIPP. An excellent resource is this community action booklet: https://pollinators.ie/wp-content/uploads/2021/08/Local-Communities_actions-to-help-pollinators-July-2021-WEB-JB.pdf



Image shows section from 'Gardens: actions to help pollinators'

Source: https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Gardens_actions-to-help-pollinators-July-2016.pdf

The competition handbook for TidyTowns community is also packed with great advice for communities: <https://www.tidytowns.ie/competition/handbook/>

Action 1: Create Homes for Solitary Bees in the Hawthorn Hedge.

There are over 70 solitary bee species in Ireland. These pollinators carry out essential ecosystem services. Unlike honeybees, solitary bees do not live in colonies – as indeed the name suggests. New habitat for these species can be created by using sticks, bamboo, and drilled wood. Natural cavities, such as hollows in bamboo, are used by solitary bees to lay their larvae. In this way, bee boxes can help support the life-cycle of solitary bees.

These bee boxes should be located in the edible hedge (see below) so pollinators do not have to travel far for their food.



Figure 7: An example of a bee box which is appropriate for use by solitary bee species and other insects.

Action 2: Enhance the Existing Hawthorn Hedgerow.

The site already has a mature hawthorn hedge along the southern wall. It is understandable that this hedge must be maintained, in order to prevent it encroaching out onto the green space. However, it is important that the hedge is able to flower and fruit each year. As such, cutting should be restricted to a third of the hedge every three years. This will ensure that two thirds of the hedge is in flower in spring and in fruit in autumn each year. Hedge cutting must be restricted to the months outside of the breeding season – when birds are nesting. Hedge cutting may take place between September 01st -February 28th.

Climbing plants provide structural diversity in woodlands and hedgerows alike. In Ireland our native climbing species are limited to ivy and honeysuckle (*Lonicera periclymenum*). Both perform essential ecosystem services. Ivy flowers out of season in Autumn when other sources of forage are scarce. Similarly, it fruits in the Spring before other species and provides food for birds and small mammals. Honeysuckle flowers release nectar resources in the evening time which provides important forage for nocturnal insects, such as moths. As such, these species should be encouraged when they seed themselves in the hedgerow. Other scrambling species such as brambles (*Rubus fruticosus*) and dog rose may also be found in hedgerows. These species also help create suitable habitat for wildlife.

The herbaceous layer of a hedgerow is where wildflowers grow. As such, weeds and other wildflower species should be encouraged and allowed to grow here. These might include flowering species such as; foxglove (*Digitalis purpurea*), creeping buttercup (*Ranunculus repens*), meadowsweet (*Filipendula ulmaria*), ox-eye daisy (*Leucanthemum vulgare*), and purple loosestrife (*Lythrum salicaria*). Indeed, cutting around a 1m wide strip surrounding the base of the hedgerow should be minimized to once or twice a year preferably in the Autumn months.



Figure 8: A native hedgerow with elderberry in flower and wildflowers including ox-eye daisy see growing in the field margin.

Source: <https://www.nationalruralnetwork.ie/wp-content/uploads/2019/04/Hedgerow-CasestudyASPaul21-Send-for-New-Website.pdf>

Action 3: Plant an Edible Hedge in an Open Green Space.

An edible hedge is composed of native species which are edible for pollinators, birds, and humans. However, care must be taken with children as some of the fruits can contain large stones (such as sloes) and some are not palatable when raw (such as hawthorn). Suitable native species for this hedge include; blackthorn (*Prunus spinosa*), crab apple (*Malus sylvestris*), elderberry (*Sambucus nigra*), hazel, hawthorn, wild cherry (*Prunus avium*), and bird cherry (*Prunus padus*).

The diversity of this hedge can be further increased by including some non-edible shrubs, such as; spindle (*Euonymus europaeus*), holly (*Ilex aquifolium*), rowan (*Sorbus aucuparia*) and guelder rose (*Viburnum opulus*). These are flowering shrubs which provide resources for pollinators and fruits for birds.



Image shows a useful information booklet discussing species rich hedgerows for pollinators.

Source: <https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Hedgerows-2018-WEB.pdf>

Action 4: Leave Piles of Leaves in Quiet Corners.

Piles of leaves can provide appropriate habitat for hedgehogs over winter months while they are hibernating. Such habitat is also essential for the life-cycle of many insects. The leaves can be gathered from under the deciduous trees during the autumn months. Fallen branches and sticks can also be added to these piles. They can then be piled and left at the base of the hedges - away from disturbances. Children will no-doubt have fun taking part in this activity.

Action 5: Plant a Herb Garden in a Flower Bed.

Herbs can be planted in flowerpots or directly into the ground. There is no need to create a raised bed although this can be done for aesthetic reasons. By planting a wide variety of herbs you will ensure there is forage for pollinators throughout the growing season. For example; basil flowers from July-Sept, borage from April-Oct, lavender from June-Aug, oregano from June-Aug, rosemary from April-June, sage from June-Aug, and thyme from May-Aug.

Most of these species listed are Mediterranean herbs and as such prefer warm temperatures and free draining soil. This should be taken into consideration when selecting the location for the herb garden.

Some plants such as borage, rosemary and mint can get very big and out compete other species. As such, these species should be planted in a separate bed away from other more delicate herbs.



Image shows a variety of herbs which are both delicious and of benefit to pollinators

Source: <https://www.pollinators.ie/wordpress/wp-content/uploads/2019/03/AIPP-Herbs-A5-Flyer-PRINT.pdf>

Action 6: Plant Pollen-Rich Ornamental Plants in a Herbaceous Border.

Ornamental plants need more care and attention than their wild relatives. However, they can put on a fantastic display especially when a few select species are planted en-masse. A well-designed garden will have a mix of shrubs, large showy perennials, and smaller herbaceous plants. This offers structure throughout the year as well as intense displays of colour in the summer months.

When designing gardens for biodiversity it is essential to select flowers which are rich in floral resources – both pollen and nectar. This will support local populations of pollinators. Some such shrubs include; viburnum (*Viburnum tinus*), mahonia (*Mahonia japonica*), and heather (*Erica cinerea*). Larger perennials include; allium (*Allium hollandicum*), hemp-agrimony (*Eupatorium cannabinum*), and vervain (*Verbena rigida*). Smaller herbaceous plants sneezeweed (*Helenium spp.*), catmint (*Nepeta 'Six Hills Giant'*) and lamb's ear (*Stachys byzantina*).

Not all of these plants are native - but this is okay as the recommended species are non-invasive horticultural varieties. In addition, the planting is to take place in an urban environment which is highly modified and as such not representative of a native habitat.

Choosing contrasting colours will make for a fun and playful display. Whereas choosing a limited colour scheme (such as mauve and pink) is more appropriate if a formal display is desired. You can keep things simple and formal by planting a bank of English lavender (*Lavandula angustifolia*). Or for a more playful cottage garden style try a mix of rudbeckia (*Rudbeckia fulgida* var. *sullivantii* 'Goldsturm'), catmint, and ox-eye daisy (*Leucanthemum vulgare*).

A good place to start is using the guide below. Select your favourite species from the list and search online for existing garden designs using these species. This will provide a good template for your own community planting.

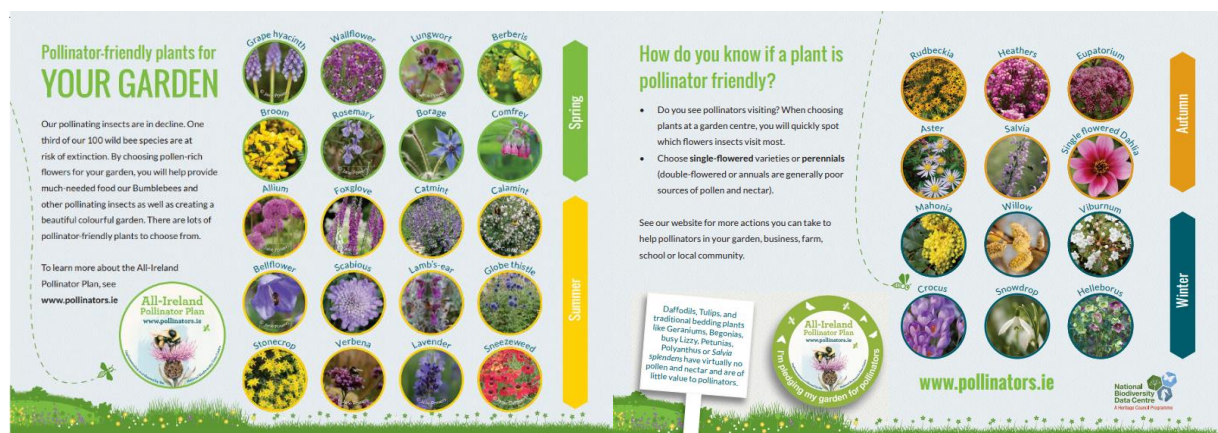


Image shows a flyer depicting pollinator friendly plants. Source: <https://pollinators.ie/wp-content/uploads/2022/05/AIPP-A5-Flyer-Garden-2022-PRINT.pdf>

Action 7: Build and Install Bird Boxes in Trees.

Local populations of small birds can be supported by putting up bird boxes. They could be secured in trees. Aim to have them up before the breeding season when the birds begin to make their nests (March/April).

They should be positioned at least 2m above ground level and out of direct sunlight – best facing north or south-east. The entrance hole should just be wide enough for the target species. For example, Blue tit requires a small hole (25mm). Anything bigger will attract bigger species.

If bird feeders are placed near a bird box, then the nesting bird will spend a lot of energy defending its territory – so please keep this in mind when selecting an appropriate location.

There is a great information page with lots of FAQs about bird boxes:

<https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/garden-birds/nestboxes/>

A possible workshop in collaboration with a local Men's Shed could provide opportunity to show families how to assemble pre-cut parts to make a bird box.



Image shows a template on how to make your own bird box. Source:

<https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/nestbox-designs-for-birds-and-wildlife/>

Action 8: Erect Bird Feeders or Grow Your Own.

The RSPB (UK Wild bird conservation charity) recommends feeding birds throughout the year, not just in the winter. Feeders are a great way to get close-up views of birds. There are many different types of feeders— including ones that fit onto windows, that are perfect for excellent views. You can also make your own bird tables. Just place them quite high, away from cats, and not too exposed.

It is important to keep feeders clean and to prevent transfer of diseases. Move them if birds are not attracted to them. Sweep up any debris under feeders also. A lot of money is spent on buying bird food so try and ensure you know it comes from a good, environmentally responsible source.

Sunflowers, ornamental thistles, and coneflowers can all be grown during the Summer months. Once these flowers go to seed in Autumn birds will feed on them in-situ.

Expert guidance on feeding birds can be found at the following websites:

<https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/garden-birds/feeding-your-garden-birds/>

<https://www.rspb.org.uk/get-involved/activities/nature-on-your-doorstep/garden-activities/open-a-bird-cafe/>

Create a flower bed and select plant species to provide forage for birds. During the Autumn and Winter months birds will feed on nutrient-rich high-calorie seed heads.

Some examples of species which produce attractive seed-heads for birds include; teasel, (*Dipsacus fullonum*), Sea holly (*Eryngium spp.*), Globe thistle (*Echinops spp.*), Echinacea (*Echinacea purpurea*), Rudbeckia (*Rudbeckia spp.*), Turkish sage (*Phlomis russeliana*), Hyssop (*Agastache spp.*).

The seedheads of these species should not be cut back at the end of the growing season. Instead, they should be left to decay in-situ. These stores of food provide natural bird feeders all through the cooler winter months.

Many of these plant species mentioned also provide a spectacular display in the summer months providing resources for pollinators. As such, they are multifunctional.

Further information can be found at the Royal Society for the Preservation of Birds (RSPB) available at; <https://www.rspb.org.uk/get-involved/activities/nature-on-your-doorstep/garden-activities/leave-seedheads-standing/>