

Local Biodiversity Action Plan for Markievicz Heights Sligo Town



Collated in consultation with Markievicz Heights Residents.
by Woodrow Sustainable Solutions Ltd.

Part of the Parks Quarter Biodiversity Training Programme.

Client: Sligo Tidy Towns
April 2023

Acknowledgements

This Local Biodiversity Action Plan was developed from input by volunteer members of Markievicz Heights in collaboration with Woodrow Sustainable Solutions Ltd (Woodrow). Woodrow would like to acknowledge and thank all residents of Markievicz Heights 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 welcoming sign at Markievicz Heights, 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.

Having expressed an interest, the residents of Markievicz Heights joined this programme.

This action plan was collated specifically for this group. It lists suitable ideas for the area on how the area could be enhanced for wildlife. The proposed actions are relatively cheap and should be achievable by the community.

Existing Biodiversity in Markievicz Heights

There are around 40 residential homes in Markievicz Heights. Many of the homes face a green area (15m x 70m approx.) which forms the primary communal space (Figure 1). A number (7) of semi-mature broadleaf trees decorate the site. The trees lend structure to the space, as well as seasonal interest, and most importantly for this project they provide good habitat for nesting birds and a variety of native insects. An ornamental fir (*Abies* spp.) is located to the east of the green and provides good colour year-round (Figure 2).



Figure 1: The communal grass area at Markievicz Heights. A number of semi-mature broadleaf trees are located in this area.

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

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Frequent mowing of the lawn stops a variety of wild plant species from growing in the communal area. As such, it is of low conservation importance. Changes to grassland management can improve the biodiversity potential of the space and shall be discussed in detail in coming chapter.

A variety of horticultural trees, shrubs and herbaceous plants are present in the residents' private gardens. Together these plantings have the potential to make a significant net-positive contribution to the biodiversity of the Markievicz Heights.



Figure 2: An ornamental fir (*Abies* spp.) provides good colour year round. The fresh green growth can be seen clearly in this image as well as the striking blue fruiting cones.

Summary of Actions to enhance biodiversity in Markievicz Heights

This is a summary of the proposed biodiversity enhancing activities for the Markievicz Heights

No.	Proposed Action	Proposed location / method of action
1	Install a Rainwater Harvesting System and Water Trolley	Local water saving initiatives such as this will allow residents to maintain the biodiversity enhancing changes made to the green space – such as pollinator friendly plantings
2	Create shelter (homes) for solitary bees.	Create bee-hotels using piles of wood for a variety of pollinating insects including solitary bees.
3	Let Dandelions Bee	Encourage the estate not to cut the grass in the central amenity area until after the first dandelions have bloomed. Bees emerging from winter hibernation are starving and dandelions are superfoods for bees when there is little alternative food sources/flowers available in early Spring.
4	Reduce mowing a discrete area to allow wildflowers to bloom.	Create a small, discreet area in which the grass is allowed to grow longer. This will allow wildflowers to bloom. You don't have to buy wildlife seed, just stop mowing! With a clear, sharp edge, it would be obvious that the growth is deliberate.
5	Encourage Manual weeding.	To reduce the use of harmful chemicals, it is recommended that manual weeding is encouraged.
6	Erect bird boxes.	Whilst there are only a small number of mature trees in Markievicz Heights, some bird boxes could be erected on these trees, and possibly in gardens where appropriate to provide shelter for garden birds.
7	Install a birdbath	This will allow birds to groom themselves and provide residents with an opportunity to observe bird behaviour and improve their bird identification skills
8	Erect bat boxes	Bat boxes can be installed in trees or on the outside of buildings providing habitat for bat roosts. Careful night-time lighting, and provision of habitats and food, can increase the population of these protected mammals.
9	Relocate post box	There is currently a post box which residents expressed concerns over aesthetic impact. This could be moved to outside the Mace shop in Cairns Hill, which has expressed interest in taking it.
10	Plant Pollen-Rich Ornamental Plants	Ornamental plants put on a fantastic display especially when planted in en-masse but pollen-rich varieties must be selected.

Details of the proposed actions for biodiversity and resources

This Local Biodiversity Action Plan (LBAP) includes a lot of actions that would help the community connect with nature and help support local biodiversity directly. 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 proposed 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

The competition hand book for TidyTowns community is also packed with great advice for communities:

<https://www.tidytowns.ie/competition/handbook/>



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

Action 1: Install a Rainwater Harvesting system and Water Trolley

With summer droughts likely to become more frequent and severe local water saving initiatives such as this will allow residents to maintain the biodiversity enhancing changes made to the green space – such as pollinator friendly plantings. It will also reduce pressures on public water supplies throughout the drier months. A water trolley and pump will allow residents to deliver the water supply to the areas that need it most.

Action 2: Create Shelter (homes) for Solitary Bees.

Habitats can be created for solitary bees and other insects. This can be done in a simple and innovative way. It's so simple even kids can join in! The disused bird bath can be converted to a bug hotel by inserting twigs and other detritus into the structure (Figure 3). This will perform a similar ecological function to deadwood in a woodland – supporting the life-cycle of insects.



Figure 3: This ornamental structure can be converted into a bee hotel

Action 3: Let Dandelions Bee.

The war against dandelions is over! These flowers are packed with nutrients which are ideal for bees emerging from hibernation. If the Rathanna residents did not cut the first blooming dandelions, this would be a great food source for bees where there is little other food sources. Each dandelion head consists of individual flowers (florets) full of pollen and nectar. Nectar is the liquid bees feed on that is full of complex sugars (carbohydrates). Pollen provides protein and fats.



Image courtesy of the All Ireland Pollinator Plan

Action 4: Reduce mowing a discrete area to allow wildflowers to bloom.

Part of the 'Don't Mow (yet) – let is Grow' campaign is to encourage people to let grass grow long and adopt a different mowing regime. When the grasses grow they can flower, and often seeds in the soil get a change to grow also – such as cow slips or even some orchids. Communities could adopt a six or twelve week mowing regime.

Whilst some may be concerned that it could look untidy, or abandoned, maintained a neat mown edge makes it obvious that the area is still maintained.

This will benefit pollinators and save time and money for the community. Overtime this area will become richer with native flowers. This will save money and resources associated with lawn management.

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Images from Maynooth University Campus where paths have been mown through longer grass areas.



Image of Keadue, Roscommon, where section of grass is allowed to mow.

Action 5: Encourage Manual Weeding

To reduce the use of chemicals there are different ways to weed and reduce weed growth. This includes mulching, hand-pulling, hoeing digging, pulling weeds by hand before they set seed.

Action 6: Erect bird boxes.

Participants can support local populations of small birds by putting up bird boxes. They could be placed in back gardens, on the few mature trees in the. Aim to have them up before the breeding season (maybe by March). They can also be left out all year, providing shelter and a place to roost in the winter.

They should be positioned out of direct sunlight – best facing north or south-east; and away from areas where cats can easily access them. We often see these placed too high, or poorly made with entrance holes too large for the target species. If bird feeders are placed near a nestbox, the nesting bird will spend a lot of energy defending its territory – so please don't.

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.



This is also an easy template on how to make your own bird box and can be downloaded at:

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

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Action 7: Install a Birdbath

Small garden birds rely on fresh rainwater for both drinking and grooming. A water bath will provide a focal point to observe bird behaviour and practice bird identification skills.

Action 8: Erect bat boxes

These flying mammals are amazing animals. Like humans, they are warm blooded and suckle their young with milk. Some can eat up to 3000 midges a night. Bats are under threat through loss of habitat meaning they have less food and shelter. Further negative impacts on local bat populations include increased use of pesticides and increased lights at night. Residents of Markievicz Heights can easily make a difference by providing shelter through provision of bat boxes.

Bat boxes can be installed in trees or on the outside of buildings providing habitat for bats to roost. In the Summer pregnant bats gather together to have their young. The offspring and female bats stay together in 'maternity roosts' until late Summer. Insulated boxes are better for winter hibernation roosts.

BirdWatchIreland

Making a bat box

A how-to guide

The 'Kent' bat box is easy to make, self-cleaning and will provide shelter for roosting bats in your garden.

The tools

Saw, hammer or drill

Pencil and tape measure

The materials

Rough sawn (untreated) timber
25mm nails or screws
Wood glue

Name	Quantity	Size (mm)
Roof (A)	1	250 x 150 x 20
Back (B)	1	450 x 150 x 20
Centre (C)	1	330 x 150 x 20
Front (D)	1	210 x 150 x 20
Centre Rails (E)	2	330 x 20 x 20
Front Rails (F)	2	210 x 15 x 15
Stand-offs (G) (optional)	2	20 x 30 x 20

Step 1 Using the diagram and table, measure and mark out the timber*. Labelling the sections can come in handy later.

Step 2 Assemble the box by nailing/screwing panels together.

Step 3 Use the wood glue to fill in any small gaps in the joints to draught-proof the box.

The installation

The boxes should be fixed up as high as possible in a sheltered location which gets sun for part of the day. Walls as well as trees are suitable. Multiple boxes may be fixed around the circumference of a large tree trunk.

Bats require a clear flight-line to and from the box, so avoid locations with overhanging branches or other obstacles.

Place boxes well away from bright outdoor lights.

IMPORTANT: Do not use wood stain or preservatives on the bat box!

* Smooth timber such as plywood can be used, but make sure to score the timber surface horizontally to provide a surface that the bats can grip to.

5m above ground

Heritage Officer Programme | An Chomhairle Oidhreachta The Heritage Council

For detailed information on Ireland's bats, visit www.batconservationireland.org
www.birdwatchireland.ie

Image shows the great leaflet prepared by Bat Conservation Ireland detailing how to make basic wooden bat boxes and how to put them up.

https://www.batconservationireland.org/wp-content/uploads/2013/09/Leaflet_3_batboxes.pdf

Action 9: Relocate, Replace or Enhance Post Box

There is currently a post box located within Markievicz Heights (Figure 4). Residents have expressed concerns over its aesthetic impact. The post box could be moved to the local shop, Mace in Cairns Hill, which has expressed interest in taking it. Alternatively, the post box could be replaced with a new model or repaired/painted. Coordination with *An Post* will be necessary in order to achieve this aim.



Figure 4: The local post box looks weathered and somewhat unsightly.

Action 10: Plant Pollen-Rich Ornamental Plants

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 during the winter 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, mahonia, and heather. Larger perennials include; allium, hemp-agrimony, and verbenas. Smaller herbaceous plants sneezeweed, catmint and lamb's ear.

Not all of these plants are native, but this is okay as the recommended species are non-invasive horticultural plants and the planting is to take place in an urban environment.

Choosing contrasting colours will make for a fun and playful display. Whereas choosing a limited colour scheme is more appropriate if a formal display is desired. You can keep things simple and formal by planting a bank of English lavender. Or for a more playful cottage garden style try a mix of rudbeckia, catmint, and ox-eye daisy.

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>