

Working together for Biodiversity

Tales from the All-Ireland
Pollinator Plan 2015-2020



An Chomhairle Oidhreachta
The Heritage Council



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A Heritage Council Programme

www.pollinators.ie

FOREWORD

It's no secret that we both love wild bees. We're also old enough to have witnessed first-hand the slow disappearance of our biodiversity over our own lifetimes. When we were growing up in the 1980s, bumblebees and other insects were much more plentiful than they are now. To younger generations, what we see now is the new normal. If people don't know what has been lost, how can we expect them to feel the need to change things? The onus is on us.

For a number of years, the data were telling us that pollinators were in trouble, and research has been showing what we could do about it. There comes a time when you can't stand by anymore. When we drafted an initial plan of action in 2014, we had no idea of what was to come. We brought together a 16-member Steering Group, representative of key stakeholders across the island, and together developed the All-Ireland Pollinator Plan 2015-2020 (AIPP). Five years later, the Steering Group have become friends and we thank them for their skill, drive, and endless enthusiasm in steering the initiative. The All-Ireland approach has been a huge positive, as it has allowed us to share experiences and ideas across jurisdictions and make much more progress than we could have individually.

We've also been incredibly fortunate. Many times, people have crossed paths with the Plan at a time when we've needed them most – from the Steering Group members, to the project officers, to local champions, and for that we are very grateful.

Despite minimal funding, the first AIPP has been a success. When we started, we didn't know what to expect, but the enthusiasm and support we've seen across the island has been overwhelming. And we've since inspired and helped many other countries interested in replicating the success of the AIPP and developing their own national strategies. More recently, we've also been taking stock and learning the many lessons of the last five years. The first Plan was only the start of the journey, and together with the Steering Group, we have developed an even more ambitious version for 2021-2025. Implementation of the Plan is coordinated by the National Biodiversity Data Centre which is a programme of the Heritage Council.

Steering and overseeing a Plan is the easy bit. It's the actions on the ground that make the difference. Often, helping biodiversity calls on us to manage land in a different way than we're used to, sometimes in the face of local opposition. The people who have implemented changes across the country are the ones who deserve all the credit. This booklet showcases a small fraction of the thousands of people who have made this Plan a reality.

We know what we need to do. Across the island the seeds of change are everywhere. We have to continue; but also have to do more, and we have to do it quickly. Pollinators are in a better situation than they were five years ago, but they are still in huge difficulties. If the last five years has taught us anything, it's that together we can change their fate

- Dr Úna FitzPatrick

(National Biodiversity Data Centre)

& Prof Jane Stout

(Trinity College Dublin)

All-Ireland Pollinator Plan founders

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"we've since inspired and helped many other countries interested in replicating the success of the AIPP and developing their own national strategies."



President of Ireland, Michael D. Higgins welcoming Prof. Jane Stout (left) and Dr. Úna FitzPatrick to Arás an Uachtaráin to highlight the success of the All-Ireland Pollinator Plan on World Bee Day 2019.

Introduction

Pollinators are in decline, with one-third of our 98 wild bee species threatened with extinction from the island of Ireland. The problem is serious and requires immediate attention to ensure the sustainability of our food, avoid additional economic impact on the agricultural sector, and protect the health of the environment.

In publishing the All-Ireland Pollinator Plan in September 2015, Ireland became one of the first countries in Europe to address this problem. At its core, it is about providing food and shelter across all types of land so that pollinators can survive and thrive. As a shared plan of action, it is about coming together to work strategically and cohesively over the period 2015-2020, so that collectively we can take steps to reverse pollinator losses and help restore populations to healthy levels. The Plan is supported by more than 100 governmental and non-governmental organisations and it identifies 81 actions to make the island more pollinator friendly. The steering group provide oversight of the Plan, with implementation coordinated by the National Biodiversity Data Centre (2016-2020). The All-Ireland Pollinator Plan is entirely voluntary.

The All-Ireland Pollinator Plan 2015-2020 has five objectives:

1. Making Ireland pollinator-friendly (farmland, public land, private land)
2. Raising awareness of pollinators and how to protect them
3. Managed pollinators - supporting beekeepers and growers
4. Expanding our knowledge on pollinators and pollination service
5. Collecting evidence to track change and measure success

Within each objective, targets were set and actions identified to help achieve that target. Responsibility for delivering the 81 actions was shared out between the supporting organisations.

Wild pollinators are in trouble because our current landscape does

not provide enough food for them to survive or enough safe places for them to nest. A large focus of the Plan is to identify actions to improve the quality and amount of diverse and flower-rich habitat. These range from creating pollinator highways along our transport routes, to supporting pollinators on farmland, and encouraging the public to see their gardens as potential pit-stops for bumblebees and other insects. The Plan is also about raising awareness of pollinators and how to protect them. We have tried to ensure that everyone - from farmers, to schools, local authorities, gardeners, and businesses - know what pollinators need and what simple, cost-effective and evidence-based actions they can take to help. These are all freely available at www.pollinators.ie

The Plan is project-managed by Úna FitzPatrick within her wider role as a Senior Ecologist in the National Biodiversity Data Centre, which is a programme of the Heritage Council. We thank Bord Bía and the Heritage Council, who saw the potential of the initiative and co-funded one project officer position from 2016-2019.

We also thank SuperValu for funding that position in 2020. Without Juanita Browne, who has worked as a project officer on the Plan since 2017, much of what we have achieved would not have been possible.

The All-Ireland Pollinator Plan does not have a project budget. However, we sincerely thank the Department of Agriculture, Food and the Marine, who, from 2016-2020, have provided €15,000 annually. This has been invaluable in allowing the design of resources and outreach material. We also thank all those partners who have independently funded activities to support the Plan.

The last five years have seen the 81 actions in the 2015-2020 Plan delivered. Across all sectors, the number of individuals and organisations engaging with the Plan and taking actions continues to increase. We are working with farmers to develop a framework by which all farms can become more pollinator-friendly; 55% of all Councils across the island have formally partnered with the Plan and agreed to take actions on public land; hundreds of local communities have embraced the initiative and made their local area more pollinator

friendly; already 270 businesses have come on board and agreed to take actions. We have made a hugely positive start. However, we are at the start of the journey and as we look forward to the next five years, we need to engage more, monitor more, and manage more land for biodiversity. Thanks to all those who have engaged, the island has become more pollinator friendly. We need to continue and to give the insects time to respond. The AIPP will ultimately only be a success if in 10, 20 and hundreds of years from now, this island is buzzing with healthy honeybees and we have diverse, healthy



and stable wild pollinator populations, providing us with the services on which we are so dependent. In a win-win scenario, if we achieve this, we also create a colourful, diverse, and healthy environment for ourselves.

We thank every single person who has engaged with the Plan. It has shown in every sector and in every corner of this island, people do care and that we can come together to make changes for the better. Lots of small actions, taken together, make a big difference.

This booklet, published to mark the end of the first phase of the AIPP, celebrates those efforts and the positive changes already made. Undoubtedly, collating information for this has been the most difficult part of the entire initiative so far!

There are hundreds of tales we could have told and examples we could have chosen. We have highlighted a random selection to show the diversity of actions and range of sectors helping. To those thousands of people, groups and organisations who should also be in this booklet, we can only say that we are very grateful to work together with all of you on this.

Farmland

With around 65% of our landscape as agricultural land, the long-term success of the Pollinator Plan hinges on making farms more biodiversity friendly. Success also relies on properly communicating with farmers, recognising their efforts, and in being able to develop pragmatic and realistic mechanisms by which they can help. In the first five years, working together with farmers, we have made a very positive start.



Exciting new project working with farmers to help pollinators

Some 50 years ago, our farms were pollinator havens. Extensive hedgerows flowered in spring and hay meadows in summer; and well-fed pollinators buzzed around, free from chemicals.

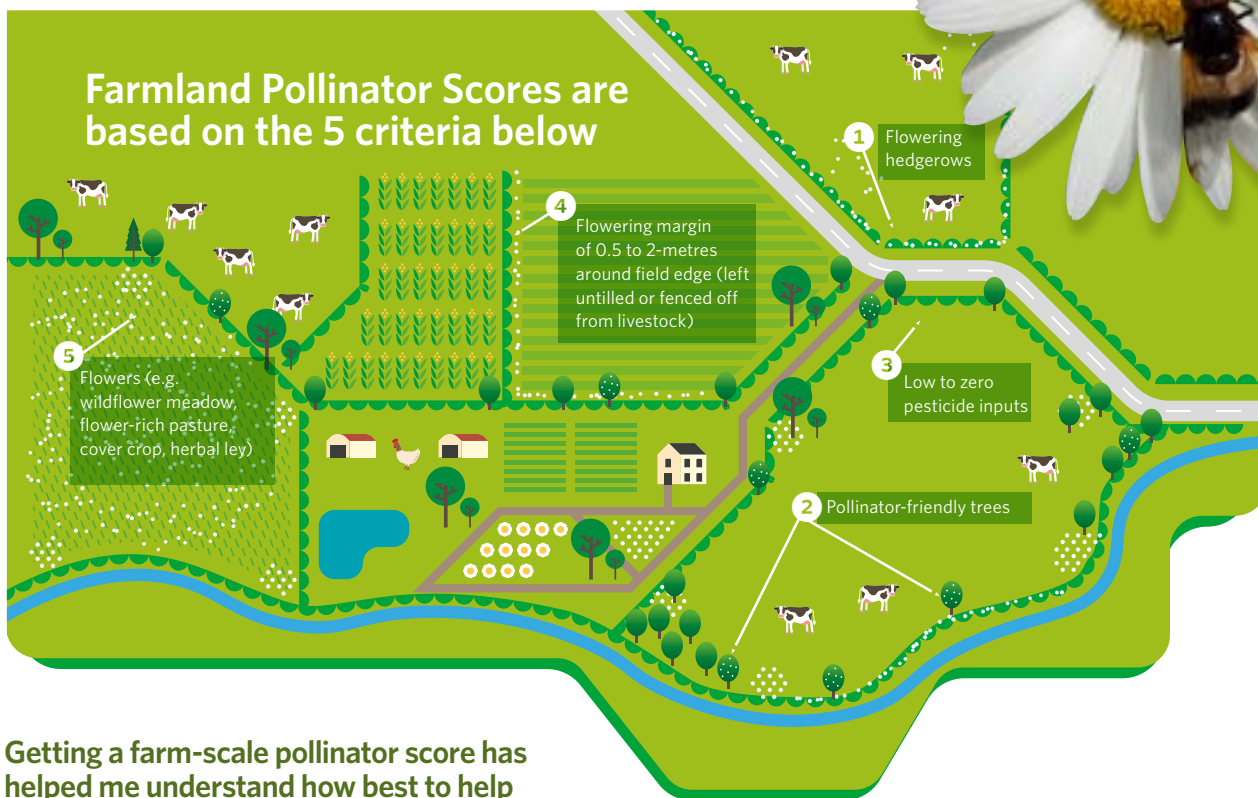
Hidden within progress, there can be downfalls, and one of those is the loss of farmland biodiversity. It's not about going backwards, but it is about coming together to create a new balance that works for everyone. In 2017, the All-Ireland Pollinator Plan published evidence-based actions for farmland, but the challenge remained on how best to engage with busy farmers to bring biodiversity back. We needed a structure that would work for all farmers; that won't impact on the farm business; that will definitely have a positive impact for pollinators; and most importantly, that rewards farmers for their efforts.

Together with a group of farmers in Co Kildare, we came up with a project called 'Protecting Farmland Pollinators' and fortunately, it was granted European Innovation

Partnership funding through the Department of Agriculture, Food and the Marine. The project, managed by the National Biodiversity Data Centre, runs from 2019-2023. It's about scientists and a group of 40 pilot farmers working together to figure out how best to improve things and to structure a scheme that works for everyone.

Some are beef farmers, some dairy, some tillage and some are mixed. Some already had an interest in biodiversity and some did not. The aim of the project is to show that any farm, regardless of type or intensity level, can become more pollinator friendly. Based on simple management actions - things like whether they have flowering hedgerow, pollinator-friendly trees, clover meadows or unmown margins - the farmer gets a pollinator score for their whole farm. The more of these pollinator-friendly habitats they have, the higher the score and the more they get paid each year. Farmers can see their progress and understand how to improve if they wish.

The Hoverfly, *Volucella pellucens*.
© Rosaleen Dwyer



Getting a farm-scale pollinator score has helped me understand how best to help

"Having participated in REPS and GLAS for years, it is fascinating to see a scoring system being put together. What is most interesting is that it is the combination of actions taken together that makes a habitat. It shouldn't be surprising but I hadn't joined the dots before... pollinators need food and shelter throughout the year! The Farm Scale Pollinator Score looks at all the pieces that are assembled to create the habitat and highlights my strengths and weaknesses. It engages me in the process and I can decide how far to push the environmental and financial gains."

- Andrew Bergin, Kildare farmer involved in Protecting Farmland Pollinators EIP

Solitary bee nesting habitat occupied within weeks of being created on farms – EIP project

80% of our 77 solitary bee species nest in bare soil. In early 2020, each of the 40 participant farmers created bare soil nesting sites on their farm, simply by scraping back vegetation along existing south- or east-facing banks. After just a couple of weeks, on 16 farms, these nests were occupied! And it was not just one dominant species; early results suggest at least seven different mining solitary bee species have set up home across these newly created nesting sites. If you build it, they will come!

Students in agricultural colleges learn about pollinators

Both Teagasc and the College of Agriculture Food and Rural Enterprise (CAFRE) have informed students about pollinators, as well as adopting pollinator-friendly management actions within their own sites as a teaching and awareness-raising tool.

In Northern Ireland, CAFRE maintain a range of agri-environment options within the estate to benefit pollinators. These include species-rich hay meadow restoration; pollen and nectar-rich wildflower margins; and pollinator-friendly hedgerows, with these all being used as part of a training link to the Environmental Farming Scheme. Similarly, a Teagasc Biodiversity Working Group have implemented measures on Teagasc research farms and agricultural colleges.

Hedgerow Week aims to improve management - Teagasc

Hedgerows provide invaluable networks for nature throughout the farmed landscape. In 2019, a new initiative was launched by Teagasc with a focus on the management of routinely trimmed hedges to improve them for biodiversity.

During the week, Teagasc held events for machinery contractors and farmers, as well as engaging with other stakeholders with an interest in hedgerows. They asked contractors and farmers who are trimming hedges to shape the hedge to a triangular profile from a wider base to allow light at the base, leaving the peak at least 1.5 metres (5 foot) from ground level, or the top of the hedge bank, and to allow occasional whitethorn/blackthorn saplings to grow up into individual trees. This creates the ideal conditions for birds to nest and provides flowers in spring/summer for pollinators, as well as berries in autumn for birds and mammals.



Northern Ireland Farming Scheme creates 23.5 hectares of pollen-rich field margins

The Environment Farming Scheme (EFS) first opened for applications in 2017. It includes various pollinator-friendly actions, such as: pollen and nectar margins; orchard creation, hedgerows, stone walls, tree boundaries and wildflower margins.

After two tranches, 26 agreements contain the 'Creation of Pollinator Margins – Annual Wildflower' option and four agreements contain the 'Creation of Pollinator Margins – Pollen and Nectar' option. Both options aim to specifically support pollinators.

Promoting the Pollinator Plan - Ulster Farmers' Union

The Ulster Farmers' Union (UFU) is a supporter of the All-Ireland Pollinator Plan and agreed to help deliver some of the actions to protect pollinators as we recognise that they are a vital part of the agri-food sector.

The UFU has been sharing information and encouraging our members to create pollinator-friendly habitats. We have reached out to our membership via the UFU social media pages, weekly e-bulletin, articles in the farming press, and distributed hard copies of the guideline booklet 'Farmland: Actions to help pollinators'.

The UFU has also helped to minimise the impact of spraying events on honeybees. BeeConnected is an initiative launched in 2017 by the Ulster Beekeepers Association, the Voluntary Initiative (VI), Crop Protection Association and the UFU. It brings farmers and beekeepers together, and notifies beekeepers when a neighbouring farmer is applying insecticides to their crops, allowing them to minimise any negative impacts on their hives.

- Aileen Lawson, Ulster Farmers' Union





Maintaining pollinator-friendly hedgerows on farmland

John Fogarty, Dairy farmer, Co. Tipperary

I'm very fond of the hedgerows on my farm, because of the berries and the leaves changing colour in autumn. Of course, a lot of the berries are just down to the pollinators, which I consider to be very important. I think if we realised all the fruits we would be missing in our hedgerows if we didn't have pollinators, we might treat them a little bit better.

Whitethorn, Blackthorn, Spindle, Dog Rose and Crab Apple, all these species add to the colour and glory of the hedge during the year. I try and manage the hedges to help the pollinators, give the trees a chance to flower. A lot of trees and shrubs will only flower on two-year-old wood. If you cut them every year, you won't have any flowers, therefore you won't have any fruits. And it all plays into the life cycle of the insects. If the flowers aren't there, they have no pollen to rear their young. And after a few years, they're gone as well.

I suppose we've become acclimatised now to having our hedges tightly cut and to the lack of insects on our hedges. Blackthorn and Whitethorn flowers are particularly important to bees, as they flower early, along with Dandelions and Willow, which are very important for those early-flying species.

The management of hedges has changed greatly since I was a child. When the flails came in, it became much more convenient to cut hedges every year if you wanted to. Now we're used to having very tidy, short hedges, but I think we've lost an awful lot of the colour and the wildlife we had back then. There's nowhere for birds to nest; there's nowhere for birds for food; the insects are gone; and we've

also lost a lot of plants. From continuous cutting, a lot of them have just died out.

I also think hedgerows are very important for shelter. We've had a lot of storms over the last number of years and I think a lot of farmyards would have benefitted greatly from hedgerows that provide shelter for their buildings and their stock. Livestock are out at night time, and often have only a strand of wire between them and the north wind.

A lot of my hedges are made up of Whitethorn or Hawthorn and when they're in full flower, I love to come down, because they're heaving with insects, and the buzzing is just a joy to me to hear as I'm walking past. And then in autumn, you get to enjoy the results, all the berries.

I try to manage my hedges to help insects, because it benefits both them and the birds and mammals that feed on them, and the best way to do it is just rotational hedge-cutting, every two or three years. I'm very confident that managing hedgerows as I do hasn't really cost me anything. I'm not getting paid to do it either. To me, it's just the natural way they should be.

To watch a video with John Fogarty speaking about the hedgerows on his farm, see: pollinators.ie/videos/



Councils

55% of Councils are now All-Ireland Pollinator Plan partners

Since the publication of the All-Ireland Pollinator Plan in 2015, local authorities across the island have offered support and adopted pollinator-friendly policies. In addition to training park staff on actions, reducing mowing, and switching to pollinator-friendly planting, staff in many councils have also come up with innovative and creative ways to help the Pollinator Plan gain momentum.

In early 2019, a framework to allow Councils to become formal partners to the All-Ireland Pollinator Plan was launched. In becoming Partners, Local Authorities agree to support the ethos of the All-Ireland Pollinator Plan; to consider the Plan in their policies, plans, and management decisions where possible; to carry out one pollinator-friendly action in the first year of signing up and plan to carry out at least three more within the following five years. Local authority partners also provide updates on pollinator actions they have planned, implemented or maintained at the end of each year. To date, 24 partner councils have become a network for sharing knowledge and ideas.

With current environmental challenges, including Climate Change and Habitat Loss, the All-Ireland Pollinator Plan offers local authorities a toolkit to protect the free ecosystem services provided by pollinating insects, while at the same time helping all types of biodiversity.

To find out more, see <https://pollinators.ie/councils/council-partners/>

Many elements of the Plan have been delivered with the help of the Local Authority Heritage and Biodiversity Officer network (a Heritage Council programme) in the Republic, and by the Biodiversity Officers in Northern Ireland. We would like to thank all for their ongoing support and enthusiasm.



Spreading the message in new ways – Fingal County Council Environment Department

Fingal County Council Environment Department runs an ongoing biodiversity campaign, encouraging Tidy Towns, community and residents groups to use pollen-rich plants and to mow less. In 2019, they created a social media campaign, as well as funding the display of bus shelter posters throughout Fingal. Pollinator Plan materials were purchased and sent to Tidy Towns, community groups, residents' associations and 'Adopt-a-Patch' groups, as well as sharing with council staff. The Anti-Litter/Graffiti competition is run annually and awards €2,000 to each community and residents' group to plant areas for biodiversity. Fingal's libraries also offered Pollinator Plan materials to visitors. The council also sent leaflets and guides to all garden centres in Fingal and to some landscaping companies.

In 2020, Fingal funded the broadcast of a short animated film on pollinators, in Fingal cinemas. All materials – adverts, social media graphics and film – were shared with Local Authorities around the country for their use. The Sports Sustainability Competition was also a forum used to spread the pollinator message. The Greener Communities Competition 2019 highlighted the importance of using pollen-rich plants, reducing mowing and eliminating spraying. This is a consistent message in communication with the public.



- ✓ 22 community groups received funding for pollinator-friendly planting
- ✓ 40 faith communities received materials
- ✓ Fingal County Council distributed over 5,000 Pollinator Plan booklets and 50,000 leaflets to the public
- ✓ Bus shelter posters, cinema advertising, social media campaign

96% of people would like to see more public land (roadside parks, verges, etc.) managed to support pollinators

- TCD survey, 2020



Bremore Castle is just one of the parks managed by Fingal County Council that are encouraging wildflower meadows

Reducing pesticide use - Dun Laoghaire-Rathdown County Council

Dún Laoghaoire-Rathdown County Council (DLR) introduced major changes to grass management across the county, moving towards a pollinator-friendly mowing regime. DLR are also at the forefront of trials in alternatives to chemical pesticides.

Over the last number of years, DLR's Parks and Environment staff have run trials to examine the use of alternative non-chemical weed controls, such as hot water and hot foam. The aim is to reduce the use of chemicals that can impact on nature, including humans and pollinators. There are already a number of housing estates where the use of herbicides is restricted, for example, Marlay Grange, Ludford and Kilcross.

DLR is responsible for weed control on almost 700km of roadway in the county. Up to now, as is the case for many other local authorities around the country, the primary method of weed control used on hard surfaces is spray application of a herbicidal product. In recent years, the method of application was changed to a targeted application method, rather than a spray method, which aimed to reduce the volume of herbicide used and deliver a more efficient and less environmentally hazardous approach. The product used, Nomix dual, also reduced health and safety risks to operatives by eliminating the risks associated with diluting the product before application.



The manual removal of weeds, using scuffle and brush techniques, has also been used by the Cleansing Section in many areas of the county, particularly in areas where residents have requested that herbicide not be used, or in small-scale areas requiring weed control.

The Parks Section are also in the process of reducing their use of herbicide on open spaces and are piloting alternative landscape maintenance regimes at a number of sites throughout the county. The intention is to support the reduction and ultimate elimination of use of herbicides in parks and open spaces, while supporting the All-Ireland Pollinator Plan.

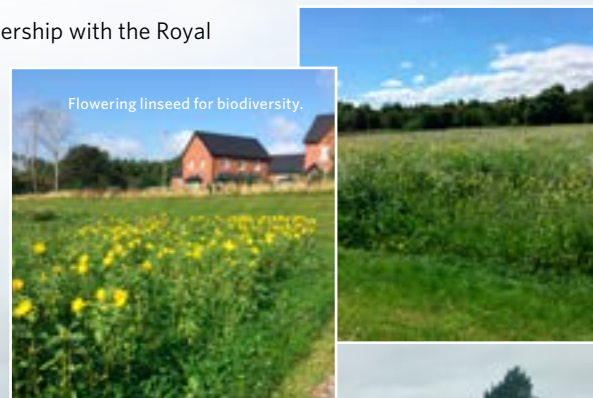
Wildflower amenity areas help people and pollinators - Lisburn & Castlereagh City Council

At Billy Neill MBE Country Park, the Council worked in partnership with the Royal Society for the Protection of Birds to create a mosaic of habitats to help birds and pollinators.

Wildflower meadows are managed as traditional meadow, with a long flowering season from spring through to autumn to provide a vital food source for our pollinating insects and a variety of native birds.

Ponds were created to form a link with the Enler River, which will improve water quality and benefit aquatic flora and fauna.

- Tracey Connolly, Biodiversity Officer, Lisburn & Castlereagh City Council



Seed-rich plants were planted to help feed our threatened birds and increase the wildlife value of the parkland. In the summer, this giant bird table is the perfect habitat for insects, which nesting birds use to feed their chicks.

Bulbs for city bees - Dublin County Council

Dublin City Council's Parks Service is brightening up the city's northside with 10,000m² of spring bulbs, 5,000m² of wildflowers, and 130m² of bee and butterfly bulb mix, sown as part of a city-wide trial, including Artane, Donaghmede, Donnycarney, Finglas Village, Cabra, Ballymun and Santry.

This ongoing work also involved planting over 700,000 bulbs along the main avenue in St. Anne's Park to provide attractive seasonal colour and a source of food for pollinators early in the year. A large-scale wildflower planting scheme was implemented along Malahide Road, one of the main arteries into the city centre, beginning at Clare Hall and covering a distance of five kilometres. A similar scheme runs along the median of the Ballymun Road between Ballymun Village and Santry.

Some 30 white flowering cherry trees, *Prunus yeodoensis*, were planted recently in Artane, along Thorndale Walk. When mature, they will provide a beautiful cherry walk. Further tree planting took place at Ayrfield Estate and Streamville Park. Another 30 trees have been planted on the Stormanstown Green, Glasnevin.

Community groups in the north inner city were provided with thousands of crocus bulbs. Local parks staff also provide groups with advice to help biodiversity. Local schoolchildren in Ballymun created a number of pollinator-friendly areas, with new plants and trees, as part of 'Better Ballymun Day'.



Muscari © Jane Powers

Making a real difference by publishing town pollinator plans - Cork County Council

In 2020, Councillors in the East Cork Municipal District approved Ireland's first whole-town Pollinator Plan for Midleton. In accordance with the AIPP Council guidelines, it very clearly outlines exactly where actions will be taken across Midleton to identify and protect existing

Sample actions table from Midleton's Pollinator Plan:

B. Alter frequency of mowing to allow more native plants to flower

Action	Location
Create meadows (1 cut & lift per year)	<ul style="list-style-type: none"> Midleton Lodge Park Ballick Park, Youghal Road/N25 triangle
Roadside verges managed as meadows (1 cut & lift per year) *Introduce 'layered mowing' approach to other verges	<ul style="list-style-type: none"> R630 Ballincurra Road verges Midleton Northern Relief Road embankments
Short-flowering '6-week meadows' (cut every 6 weeks)	<ul style="list-style-type: none"> Northern Relief Road verges Ballyannan Woodland Walk path edges R907 Youghal Road verges Rocky Road (south of N25) Kennedy Park, riparian area Youghal Road to N25 triangle

* Similar actions will be undertaken at other locations as the plan develops.

habitats, move to pollinator-friendly mowing regimes, plant pollinator-friendly beds, trees and bulbs, provide wild pollinator nesting habitat, and reduce or eliminate the use of pesticides.

It has already been an outstanding success, with some surprising results, including the appearance of hundreds of rare orchids along previously mown roadside verges. Following on from this success, Cork County Council have announced an initiative to develop plans for an additional six Cork towns.



The team removing cuttings at Midleton's Lodge Park Meadow

- ✓ Council published a Pollinator Plan for Midleton; and Pollinator Plans will be prepared for Carrigaline, Kinsale, Bantry, Macroom, Kanturk and Fermoy
- ✓ Created short & long-flowering meadows
- ✓ Raising awareness through training
- ✓ Staff actively involved in monitoring and recording biodiversity

Green Flag for Parks Pollinator Award - An Taisce

The Green Flag Award scheme, run by An Taisce, recognises and rewards well-managed parks and green spaces, setting the benchmark standard for the management of recreational outdoor spaces around the world. Since 2017, the All-Ireland Pollinator Plan partnered with An Taisce to run the Green

Flag Pollinator Awards for Parks, with prizes sponsored by Young's Nurseries, Limerick.

The Green Flag Pollinator Awards are helping to create change on the ground and increasing awareness of the importance of pollinators.

Green Flag Pollinator Award Winners:

2017 Awards	Winners
National Winner 2017	Victorian Walled Garden, Phoenix Park, Dublin, OPW
Country Park	Castletown House Demesne, OPW
Town Park	Lloyd Town Park, Tullamore, Offaly Co. Council.
2018 Awards	Winners
National Winner 2018	Castletown House Demesne, operated by the OPW
Town park:	Liffey Linear Park
Country Park:	Ardgillan Demesne
2019 Awards	Winners
National Winner 2019	Malahide Demesne and Talbot Botanical Gardens, Fingal County Council.
Town Park:	Tymon Park, South Dublin County Council
Walled Garden	Ashtown Victorian Walled Garden, OPW
Community Garden	Headford Community Orchard



The national Green Flag for Parks Pollinator award 2019 went to Malahide Demesne and Talbot Botanical Gardens, managed by Fingal County Council.

2020 Awards	Winners
National Winner 2020	Maynooth University Campus
Country Park	Castletown Demesne, OPW
Walled Garden	Victorian Walled Garden, OPW
Community Award	Headford Community Orchard
Highly Commended/ Special Awards 2020	Dublin City Council: Saint Anne's Park Fingal County Council: Millennium Park



Garden Bumblebee, *Bombus hortorum* © Steven Falk



Council adopt bee logo

In early 2019, Kilkenny County Council became the very first All-Ireland Pollinator Plan Council Partner, making a long-term commitment to support pollinators. Kilkenny's Heritage Office has done a huge amount of work to create awareness of the importance of pollinators, including distribution of materials, radio and newspaper campaigns, outreach at agricultural shows, and even a bee-themed St Patrick's Day Parade.

The Heritage Office also commissioned a logo of the garden bumblebee, which was adopted by Kilkenny County Council to demonstrate their commitment to supporting pollinators.

Herbicide-free parks - Mid & East Antrim Borough Council

Mid and East Antrim Borough Council is committed to improving and enhancing green spaces for local communities and native wildlife. Conscious of the need to reduce, replace, and where possible, completely eliminate the use of herbicides, Council has committed to significantly reducing herbicide usage over the next three years.

A number of sites, including Bashfordsland Wood Carrickfergus, Diamond Jubilee Wood Whitehead, and Ecos Nature Park Ballymena, are now officially herbicide-free. As well as this, herbicide usage will be significantly reduced in all green spaces across the Borough.

Council has also committed to creating urban wildflower meadows across the Borough. Areas traditionally planted with floral bedding displays have been replaced with sustainable pollinator-friendly flowers and trees. One great example is Marine Gardens in Carrickfergus, with rows and rows of lavender, swarming with bees in summer. This received positive feedback from the public.

Herbicide-free urban meadows and grasslands may seem a little untidy, but are a haven for bees, butterflies and other wildlife. They can also add a beautiful splash of colour across the Borough. Council encourages public support for this initiative and hopes residents will accept some areas looking a little more wild than usual.

Council has also committed to planting 58,000 trees over the next five years - that's one tree for each household. This is a partnership project with the Woodland Trust and all trees planted will be native.

Thanks to Council's efforts around improving our Borough for biodiversity, we have won the Translink



Ulster in Bloom 'Special Award for Biodiversity' twice for Carrickfergus and Cullybackey, and won the RHS Britain in Bloom 'Gardening for Wildlife Award' for Ballymena.

Our own Mid and East Antrim in Bloom community competitions have a specific award category for 'Gardening for Wildlife' to encourage residents to consider pollinators and wildlife.

- Alison Diver, Growing Communities Officer, Parks and open spaces, Mid & East Antrim Borough Council



Mid and East Antrim Borough Council has a wide network of community volunteers, all working to make land more pollinator friendly. The Friends of Ecos Nature Park in Ballymena have created a large native wildflower bank. The volunteers learned how to manage the meadow by traditional means, such as scything and cut and lift each year. They have also set up a butterfly monitoring transect.



63% of people want more wildflowers in parks and 69% want fewer and less harmful chemicals used to kill weeds and insects.

- iReach Insights poll, 2018

Helping pollinators also reduces Carbon emissions - Derry City & Strabane District Council

Derry City & Strabane District Council developed the first Green Infrastructure Plan 2019-2032 in Northern Ireland. Biodiversity is one of the four key themes within this plan, with a key action to create a Pollinator Plan for council-owned green spaces, aligned to the All-Ireland Pollinator Plan 2015-2020. In 2020, the Council invested in new equipment to change the grass management regime at key green spaces. This campaign aims to create species-rich grassland on 4% of our estate (28ha). This involves transforming around 50 football pitches' worth of amenity grass to create grasslands rich in native wildflowers. We installed signage at these key green spaces, highlighting the biodiversity benefits of leaving the grass long at these sites, to provide a source of food and habitat for the declining bee population, to help deliver the All-Ireland Pollinator Plan. We cut and lift long grass in late August and September, when the wildflowers have completed their full cycle and set their seeds for next year. This helps to remove thick grass



and reduce the fertility to facilitate sustainable species-rich meadows in coming years.

This plan enhances ecological connectivity, contributes towards biodiversity net gain and increases the existing natural capital value of these sites by £6,500/annum. This change prevented 1.6 tonnes of carbon dioxide emissions through reduced grass cutting.

To find out more, see www.derrystrabane.com/gi

- Dr Christine Doherty, Lead Officer for Green Infrastructure of Derry City & Strabane District Council

Remediated landfill site becomes a pollinator haven - Waterford City & County Council

Kilbarry Nature Park, in Waterford City, opened in 2012 and is situated on a remediated landfill site, which closed in 2005. Unlike other public parks that contain non-native planting, the aim at Kilbarry Nature Park is to offer space to enjoy our native species. The park can be used in a wide variety of ways as it includes walking routes, play equipment, integrated wetlands and wildlife areas. It contains large areas of meadow, managed for biodiversity, which are alive with pollinators and other insects from spring through to autumn.



Site Networks

There are many organisations who manage networks of sites across the countryside. Many have embraced the Pollinator Plan and have taken steps to make their sites pollinator friendly. They are helping to create pockets of habitat across our landscape that will give our bees and other insects a fighting chance of survival.

Creating pockets of bee-friendly habitat across the rural landscape - NFGWS

In 2018, the National Federation of Group Water Schemes (NFGWS) collaborated with the All-Ireland Pollinator Plan to publish the guide: *Pollinator-friendly management of Group Water Scheme sites*. They have encouraged all Group Water Schemes to act as leaders in their communities, and manage their sites (sources, reservoirs, treatment plants) in a biodiversity-friendly way.

This includes maintaining native flowering hedgerows, planting pollinator-friendly trees, cutting grass less often, eliminating herbicide use, and providing nesting places for wild bees. With over 400 Group Water Schemes nationally dispersed across the rural landscape, the future impact of this network is huge.



Tawny mining bee © Steven Falk

Protected sites become more pollinator-friendly - Northern Ireland Environment Agency

Where possible, NIEA manage their Country Parks in a pollinator-friendly way. At Crawfordsburn Country Park this has included creating a wildflower meadow and ensuring that planters at the visitor centre are pollinator friendly. The Roe Valley Country Park has sown a field with a native wildflower mix and has held pollinator-inspired events, including walks, talks and workshops.

Ballyquintin Point Nature Reserve has changed grazing prescriptions to encourage wildflowers and provide better forage sources for pollinators and other insects.



Historic properties become pollinator havens - Office of Public Works (OPW)

The OPW have taken actions for pollinators at many of their sites. A great example of their work is Castletown House Demesne, in Co. Kildare.

Castletown House Demesne has been a regular winner of the Green Flag for Parks Pollinator Award since the competition began, taking the top national prize in 2018 and category awards for Best Pollinator-friendly Country Park in 2017 and 2020.

The OPW staff at Castletown manage 80 acres of semi-natural grassland as summer meadows, providing food for pollinators throughout the season. No fertilisers or pesticides are used. By cutting paths through their meadows, visitors are encouraged to experience at close quarters the grassland biodiversity.

The Ha-Ha network of c.1.2km offers many nesting opportunities for solitary mining bees. Staff actively manage c.60 metres of this, keeping it clear of vegetation for nest sites, and have erected signage to indicate this. This management has worked so well that the area is being used for PhD research from Trinity College Dublin. The results have identified several species of solitary bee and the plants they rely on for food.



- ✓ 80 acres wildflower meadows
- ✓ 60 metres of banks for nesting solitary bees created
- ✓ Holes drilled in wood around site and walls protected for Cavity-nesting bees
- ✓ No chemical fertilisers or pesticides used

Monitoring pollinators to help track changes - The National Trust

Across their estates, the National Trust now manages over 100 hectares of grassland as long-flowering meadow.

For example, at Mount Stewart, all gardens and amenity areas were shifted to long-flowering meadows, with a single annual cut and lift. All arable fields (on rotation) have been set with at least two-metre margins of bird cover planting, and approximately 40 acres of herbal ley pasture has been seeded.

National Trust staff completed training on the All-Ireland Pollinator Plan and the Bumblebee Monitoring

Scheme at Cushendun and Minnowburn. The National Trust now runs six butterfly/bumblebee monitoring transects across various sites, as well as weekly moth-trapping to monitor moths.

- Melina Quinn, National Trust



Removing the cuttings at Mount Stewart, autumn 2020



Ned's Meadow, previously a silage field, has been transformed into wildflower meadow

Transport Corridors



The island of Ireland is crisscrossed by a range of linear transport corridors ranging from local roads to motorways, canal towpaths to trams and railways lines, greenways to walking trails. The range of landscape types, through which our transport corridors travel, demonstrates the enormous potential for positive and sustainable interactions with these local landscapes. This can range from small scale planting beds to wider habitat enhancements – all the while addressing transport safety concerns and maintaining performance standards.

Creating beelines on Greenways - Waterford Greenway

Greenways offer huge potential as biodiversity habitats and corridors. Waterford City & County Council have committed to making the 46-kilometre Waterford Greenway pollinator-friendly, through these actions:



75% of people are aware that bees are threatened with extinction

- iReach Insights poll, 2018

Reduced mowing on road network – Transport Infrastructure Ireland

In 2020, TII launched a pilot programme on the motorway network to comply with the All-Ireland Pollinator Plan. This pilot revised grass-cutting and weed spraying operations so as to ensure dandelion and clover were allowed to bloom on road verges.

TII are working with management of service stations to implement a reduced and delayed mowing regime to motorway service areas. They are also considering longer term changes to the landscape structure of service areas to further improve the sites for pollinators, through planting of pollinator-friendly trees, shrubs and perennials.

- Eimear Fox, TII

- ✓ Pilot scheme on reduced mowing
- ✓ Design teams to consider Pollinator Plan in new road and public transport schemes, from large scale projects such as Metro-link to small scale local road works
- ✓ Move towards pollinator-friendly service stations, in planting, grass maintenance and pesticide use
- ✓ FAQ on TII website and all contractors have been directed to use this to explain changed maintenance regimes and to promote Pollinator Plan.



Signage is used to explain reduced mowing on road network. Using a layered approach to mowing helps to create strips of wildflower meadow along the road network



Pollinator feeding stops along the Luas line - Kilmacud Luas Stop

As part of recent platform extension works at Kilmacud Luas Stop, a landscape scheme was developed to support pollinators. Where slopes were disturbed to extend retaining walls, the reinstated banks were sown with a native wildflower mix. This also allows tram users to get close-up views of the vibrant flowers. All trees and shrubs planted in the vicinity of the stop were chosen for their value for pollinators. A native hedgerow was planted along boundaries and access path. A landscape maintenance regime was developed to maximise the site's potential for pollinators.



Pollinator-friendly Mahonia and Ceanothus planted in ornamental beds beside the Luas platform to provide additional food sources.



Blue ways to bee ways - Waterways Ireland

Waterways Ireland have continued bespoke on-site management on the Royal Canal following the discovery of a large Marsh Fritillary colony outside Mullingar. This was expanded in 2019 to a pilot citizen science project in association with Butterfly Conservation Ireland and Baltrasna Boreen Biodiversity Group. The area was managed for pollinators and other wildlife and the group monitored the results. We also developed a tailored cutting programme, in consultation with our citizen science stakeholders. This will hopefully result in greater diversity over the coming years by preventing nutrient enrichment of the soil by decomposing grass.

Four new sites were managed for pollinators on the Grand Canal at Daingean, Clonony, Pollagh and Ticknevin.

A new site was left to grow to support pollinators on the Barrow Line near Athy. Pollinator management on long, linear sections of grassland poses a series of logistical issues, but Waterways Ireland are committed to trialling new management protocols to overcome this.

We continue to work with local community groups in the management/roll out of pollinator-friendly management schemes and other project supports. Some examples are: Royal Canal Amenity Group; Clones Development Society; and IWAI North Barrow Group.

Finally, Waterways Ireland advocate for pollinator-friendly management along newly opened sections of Greenway. This is undertaken in partnership with Local Authorities.

- Cormac McCarthy, Waterways Ireland



Towpaths, unfertilised and often unmanaged for decades, often act as important refuges for our native plants





Causeway Coast & Glens District Council

'Don't Mow, Let It Grow' began as a three-year partnership project between Causeway Coast and Glens Borough Council (CCGBC), the Department for Infrastructure Roads (DfI Roads) and the Northern Ireland Environment Agency (NIEA), funded by Heritage Lottery Fund (HLF) and Landfill Communities Fund (LCF). 'Don't Mow, Let it Grow' focused on the conservation of semi-natural grassland and specifically on the management of amenity grasslands and roadside verges across Causeway Coast and Glen Borough.

The project trialled different methods of managing semi-natural grasslands to show how small changes in management give large benefits to biodiversity and ecosystem services. The design and the delivery of the project was people-led, with volunteers from the general public involved at all stages. The project also delivered a high number of education and training events to raise the



profile of the issues involved. A major outcome of the project is the production of a practical management toolkit, covering all aspects of the project, which any organisation can use to show the benefits and implement similar improved operations in their management, hence spreading the benefits of the project wider than the CCGBC area.



'Don't Mow, Let It Grow' was a highly successful biodiversity and community engagement project that was developed and delivered by volunteers, dedicated Causeway Coast and Glen Borough Council, DfI Roads and NIEA staff. It was an ambitious project that surpassed its targets and delivered on value for money for the funders, the Heritage Lottery Fund.

"Don't Mow, Let it grow' will continue in the areas where it already exists and will spread further through Northern Ireland and beyond as shown by regional and international interest in the project. While there are many reasons for its success, including the intrinsic appeal of wildflowers and pollinators, the dedication of a small number of volunteers and the project steering group cannot be underestimated.

See dontmowletitgrow.com

- ✓ 11 hectares of council parks managed as annual wildflower meadows
- ✓ 19 road verges managed as hay meadows
- ✓ 40 volunteers doing surveys, litter picks, scything & awareness events



Pollinator-friendly train stations - Iarnród Éireann

Iarnród Éireann are encouraging pollinator-friendly measures at their train stations across the country, including reduced mowing, pollinator-friendly planting, erecting bee hotels and signage. Iarnród Éireann's network includes 147 stations, most with old outbuildings and yards, which also provide shelter for birds and mammals.

Train stations and non-operational lands can make huge gains for pollinators and more and more stations are signing up to our Pollinator Plan, and often work with local Tidy Towns groups. It has been such a positive experience for our staff, too. This year, we are also planting 10 acres of Native woodland.

The operational railway network in Ireland is home to approximately 4000km of linear habitats lying directly adjacent to the railway track. While operational lines require ongoing maintenance in order to run passenger and freight trains safely, opportunities can also be found to help biodiversity.

- **Emer Bambrick, Environmental Executive, Iarnród Éireann**



Creating a buzz on Belfast platform – Translink

Translink has planted wildflower seed at City Hospital station to encourage biodiversity. Working with Ulster Wildlife and the Belfast Transport Hub, works contractor Graham Construction, Translink aimed to create a 'buzz' at the station by attracting bees and other pollinators.

We are supporting the implementation of the All-Ireland Pollinator Plan's guidelines for the *Pollinator-friendly Management of Transport Corridors*. Work at City Hospital station has included ground clearance and preparation, before sowing of wildflower seed.

With over 200km of railway under Translink's management, these 'green corridors' have enormous potential for positive and sustainable interactions with the landscape. To have a healthy diet, bees need to forage from a range of different flowers from March through to October. The wildflowers sown at City Hospital Station provide a variety of flowers for bees and other insects, as well as being an attractive feature for our passengers to enjoy.

We are ...reducing the use of pesticides in line with our 'Go Eco Biodiversity work-stream' and Business in the Community's 'Business and Biodiversity Charter.'

- **Andy Bate, Environmental Manager, Translink**



Communities

Local Community Groups have been the backbone of the All-Ireland Pollinator Plan 2015-2020. They have embraced it in their droves and inspired countless others to follow their lead in taking actions. We can never underestimate their importance in normalising a new way of managing the landscape to better support our biodiversity.

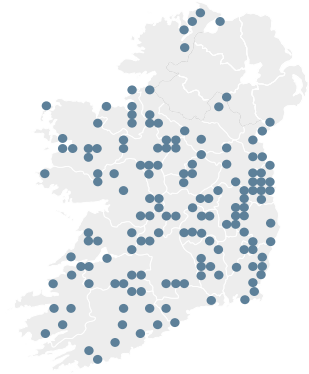


Tidy Towns Local Authority Pollinator Award

This special award in the Tidy Towns competition encourages Tidy Towns groups to implement pollinator-friendly actions in their town or village, and is open to all groups who enter the National Tidy Towns competition. The Local Authority Pollinator Award, now in its fifth year, has generous cash prizes - now totalling €10,000, and applicants have also increased their points in the overall competition through actions taken for pollinators.

Local Authority Heritage Officers and Biodiversity Officers initiated and run the award, in partnership with the All-Ireland Pollinator Plan team at the National Biodiversity Data Centre.

There has been an amazing reaction to this special award since its launch in 2016, and reading about all the achievements and actions taken for pollinators in towns and villages across the country is truly inspirational. Indeed, over 160 individual towns and villages, from every county, have entered the Pollinator Award, and not only that but according to Tidy Towns adjudicators upwards of 80% of all 918 Tidy Towns groups are implementing actions for pollinators. All entries are filled with wonderful projects, each improving and creating much-needed habitats for pollinating insects and biodiversity generally.



Over 160 pollinator-friendly towns and villages, from every county have entered the Local Authority Pollinator Award.

99% of respondents listed 'Habitat Loss' as the main threat to pollinators

- TCD survey, 2020

We thank the Heritage, Biodiversity Officers and Environmental Awareness officers in Councils across the island for their tireless support over the last five years. They have been instrumental in the success of the Plan through raising awareness and supporting action at the Local Authority and community level.



The 'Bee Motorway' at Kilkenny Castle Park, managed by OPW

Using art to create awareness of pollinators - Geashill, Co. Offaly

Geashill won the national Pollinator Award in 2017; received a regional award in 2018; and in 2019, Geashill took home the top prize for most pollinator-friendly small town in Ireland. An important part of their success has been in creating awareness of the importance of pollinators and on actions to help pollinators.

Engaging with the local primary school, Geashill Tidy Towns not only ran workshops, but also created a mural for the school and helped the children to plant their own orchard, 'Úllord na nÓg'

"To any Tidy Towns group out there who haven't yet entered the Local Authority Pollinator Awards, do it! You and your children will benefit. Your village or town as a living organism will benefit and - most important of all - your pollinators and wildlife will reap the rewards of your labour. And - it's lots of fun!"

- Pat Foley, Geashill Tidy Towns.



A mural created using bottle tops at Geashill National School

- ✓ Education programme with local schoolchildren
- ✓ 1,500 native trees planted in village
- ✓ Heritage apple orchard in local school



Building a business network for bees - Stoneybatter

On the online 'Actions for Pollinators' mapping system, Stoneybatter stands out in Co Dublin as it has so many dots marking pollinator-friendly sites.

The community in Stoneybatter have brought together many different sectors, including local businesses, schools and private gardens to try to help pollinators. By connecting with all these other sectors across their local area, the power of the community group's actions are multiplied.

So far, 70 sites in Stoneybatter have signed up to help pollinators - including 54 gardens, 10 businesses; two headquarters/campuses; one school; and three local community sites.

- ✓ 10 business supporters
- ✓ Eliminated pesticide use
- ✓ Community 'weeding by hand' days

Transforming urban roundabouts into wildlife havens - Ennis Tidy Towns

Ennis Tidy Towns worked with Ennis Municipal District staff to make 80% of the town's roundabouts pollinator friendly, without supplementary planting. The beautiful wildflower meadows are simply a result of reducing mowing and removing cuttings each year to reduce soil fertility.

To ensure public support, the edges of the roundabouts are cut short to make clear that a purposeful form of management is taking place. Sculptures of bees and butterflies, made from upcycled paint cans, were erected on Claureen Roundabout to help to show the aim of these wildflower areas.



Beechpark Roundabout's amazing floral display is simply due to reduced mowing

Creating a network of pollinator habitats - Irish Wildlife Trust, Laois/Offaly Branch

To support local community and residential groups with the creation and management of new wildflower meadows, the Irish Wildlife Trust Laois/Offaly branch (with funding from Laois Partnership Company and LEADER) purchased meadow maintenance machinery in 2018.

Since then, we have worked with 13 groups, including Tidy Towns groups, GAA clubs, and residents' associations on 21 sites (including parks, roadside verges and roundabouts, schools, residential green spaces, and sports grounds) across the two counties. Work has involved cutting and lifting the meadow hay, harvesting and sowing wildflower seed, and planting pollinator-friendly bulbs. We have also helped the groups with interpretation signs on their sites to raise awareness of the work being carried out.



One of the meadows created by Laois/Offaly IWT in a housing estate in Portlaoise



Green-winged Orchid (*Anacamptis morio*), a rare species, recently appeared on a grassy verge in a Portlaoise housing estate, which is usually mown regularly. It is c.120 years since this species was previously found in the Portlaoise area.

- ✓ Supported the creation of 21 meadows, totalling 5 hectares
- ✓ 4,800 pollinator-friendly bulbs planted
- ✓ Interpretative signage and creating awareness

Planting a 'Dispersed Urban Orchard' to join the dots - Monaghan town

Monaghan Tidy Towns committee came up with an interesting project they called the 'Dispersed Urban Orchard' or DUO Project. A habitat mapping survey of the town showed that Monaghan's biodiversity-friendly sites were not well connected, so the Tidy Towns group decided to do something about this - to create new links between existing pollinator-friendly habitats.

The team took a high-definition aerial photograph of the town and overlaid it with all the habitats they had created or natural habitats they were protecting for pollinators. Then they began to look for routes that could be created between their top 10 sites, in order to create ecological corridors. They discovered that there were lots of houses in between - with gardens. So, it was decided that the best approach was to try to create a large orchard but dispersed via people's gardens!

They sourced heritage variety fruit trees and advertised 'Fruit trees for a fiver'. To avail of this bargain, homeowners just had to provide their address and commit to planting the tree in their garden. The result? New vital connections creating links in a network of pollinator-friendly habitat throughout the town.



The locations of Monaghan's orchard trees in local gardens helped to join up the dots for their ecological corridors.



Garden Pollinator Awards - Buncrana Tidy Towns, Co. Donegal

Buncrana Tidy Towns run an annual Pollinator Award competition for gardens, which includes a category for flower displays by local businesses.

Regular winners in the Tidy Towns Pollinator Award competition, Buncrana Tidy Towns have also reduced mowing and let Dandelions bloom each spring for pollinators. They are also planting new native hedgerows, which include pollinator-friendly species, such as Hawthorn, Mountain Ash, Crab Apple, Wild Cherry and Dog Rose.

- ✓ Garden and Business Pollinator Awards
- ✓ Reduced grass-cutting and native hedgerow planting

A whole-town approach - Dunboyne, Co. Meath

Dunboyne Tidy Towns took a whole-town approach to helping pollinators, working with local schools, sports clubs, the library, and encouraging local businesses to plant pollinator-friendly flowers around stores and businesses.

The Tidy Towns committee's massive pollinator-friendly bulb planting scheme, called 'Dunboyne 2020', saw planting at local businesses, a preschool, four primary schools, a secondary school, Scout Den, Rehabcare, the local credit union, Dunboyne GAA Club, on a faith community site, and around 12 estates managed by participating residents' associations.

On the online 'Actions for Pollinators' mapping system, Dunboyne really stands out as it has so many dots marking pollinator-friendly sites, thanks in no small part to committee member Carmel Dillon, a true pollinator champion.



Protecting coastal pollinator habitats - East Cork Biodiversity Networking Programme

'Coastal Habitats and Walkways' is just one project run by the East Cork Biodiversity Networking Programme (ECBNP). Approximately 27 acres of coastal habitats and pathways in the Cork area have been identified for pollinator-friendly management. The Coastal Habitats and Walkways project in East Cork is funded by the Fisheries Local Action Group, Cork County Council, Irish Distillers Pernod Ricard and Carey Tools.

ECBNP is also planting 7,000 native trees across Cork as well as 10 micro-orchards for pollinators.

The ECBNP also works closely with local Tidy Town groups in Cork, providing training and equipment support to assist in making sure that landscaping not only brightens up towns and villages, but also increases biodiversity.



- ✓ 27 acres of pollinator-friendly meadows
- ✓ 10 micro-orchards

Creating Ecological Corridors through a landscape - Bruff, Co. Limerick

The community of Bruff, Co. Limerick, planned a biodiversity-friendly corridor through their village.

By mapping out sites that were already pollinator-friendly, they could identify gaps and work on making those areas more welcoming to bees and butterflies.

This network of sites act as vital 'stepping stones' for wildlife through the village.





Children create a welcome for pollinators - Mosney Village

Mosney Village, Co. Meath, joined the All-Ireland Pollinator Plan in 2019. Since then, multi-national children from the Mosney Homework Club have been learning about the importance of pollination. They have also taken action! Forty children worked together to create a 12ft-square wildflower bed with pollinator-friendly annuals and perennials. The initiative also involved the planting of foxgloves at the entrance avenue to Mosney Village, and lots of pollinator-friendly bulbs around the reception area, making the village a place where pollinators can survive and thrive.

Making a herbicide-free town - Athboy Tidy Towns

'To improve, protect and enhance our town' has been the motto of Athboy Tidy Towns for 18 years. The All-Ireland Pollinator Plan has been a marvellous tool and has become our 'bible'. Part of our policy is to refrain from using herbicides and pesticides.

Following talks with our local engineer, he agreed to a two-year trial period in Athboy using non-toxic plant control. He advised us to source alternatives. The best method we have found has been the foamstream system, which will provide eco-friendly plant control for the whole town of Athboy. Foamstream is the leading herbicide-free method of controlling weeds, moss and algae. It uses hot water and a plant-based foam, making it safe for people,

wildlife and delicate environments. In order to make this alternative to pesticides available for use by local sports clubs, schools, church grounds, cemeteries and all public areas, we feel it is important that Athboy has ownership of its own machine, with the council providing storage and workers to use on streets and footpaths.

We have just heard that we have been awarded 75% funding from Meath Partnership for our own machine!

As the biodiversity and climate crisis becomes more obvious, we owe it to future generations to do everything in our power to restore as much of our lost biodiversity as possible. We are hoping to make Athboy a herbicide-free town and, in doing so, allow it to become a refuge for wildlife. We will try to demonstrate that 'eco-friendly' and 'neat' can co-exist, and Athboy can become a showcase for other towns to follow suit.

The All-Ireland Pollinator Plan was a brilliant way of getting people engaged and has helped our work in numerous incredible ways.

A big thanks and continued success from all creatures, great and small, in Athboy.

- Mary Flood,
Athboy Tidy Towns



Faith Communities



Faith Communities often own large areas of land and can lead the way in managing our landscape to better support nature. The non-denominational guidelines suggest 24 practical actions that any Faith Community can take.

Actions include: reducing mowing; installing a bee hotel; raising awareness; organising a congregation action day; planting pollinator-friendly bulbs, trees, shrubs and flower beds; and reducing the use of pesticides.

Wear your Wellies to Church Day!

“In Carlow, our Sunday School decided to help pollinators. Their work culminated in a ‘Wear your Wellies to Church Day’ when the children completed their tasks in our Pollinator Garden”

- Ms Carolyn Good, Sunday School Teacher, Carlow



Many faith communities have adopted the pollinator guidelines to create safe spaces for biodiversity in churchyards, graveyards and religious properties across the island. The easiest and most economical way to do this is to reduce mowing. You can choose either to maintain 4-6 week meadows or long-flowering meadows, cut once each year.

Below: Fr Lyons, pictured at Glenravel Parish meadow, Co. Antrim



Longer grass cut into a spiral shape in the garden of the Church of Ireland, Carlow, allowing clover to bloom while still looking neat and adding interest.



Bringing nature close - Corrymeela Centre, Ballycastle, Co. Antrim

We have a number of wild areas, some of which are used in connection with adventure learning, rewilding programmes, and nature trails with groups. These include bug hotels, bird and bat boxes, as well as log piles.

In partnership with the Heart of the Glens, we have planted additional trees and created a wildlife pond. This pond is maturing well, with lots of wildflowers for pollinators, including marsh marigold, meadowsweet, ragged robin, thistle and red clover amongst the rushes, plantains, and grasses. Lots of frogs this year, too.

Alongside the 'Don't mow, let it grow' campaign, we stopped mowing several of our grass areas and they turned into lovely meadows, rich in several varieties of native wildflowers. Amongst them were at least three different native orchids, yellow rattle, field scabious, ragged robin, red campion, ox-eye daisy, meadow buttercup and black knapweed. During the lockdown, other areas turned to meadow and I observed many bees and butterflies, and a hummingbird hawkmoth. Butterflies seen included



Solitary mining bee, *Osmia bicornis*, peaking out from a bee hotel © Julie Kendall

the meadow brown, small copper, speckled wood, small tortoiseshell, red admiral, peacock and a green-veined white.

We also have a polytunnel, with herbs and fruit trees and bushes planted outside. The formal gardens and borders are also rich in bushes and plants that attract pollinators, including sedums, goldenrod, devil's bit scabious, Michaelmas and other daisies, flag iris, sweet pea, hebes and dahlias. Our dell, an old collapsed coal mine, houses a number of features for our pollinators - large areas of bramble and nettle, mixed with wild roses, willowherbs, cotoneaster, and foxgloves.

- Yvonne Naylor, Corrymeela Community
www.corrymeela.org



Corrymeela Centre, a reconciliation centre, have converted some of their mown grass into meadows.

38% of people have personally taken measures to help save the bees.

- iReach Insights, 2018



A nature workshop at Corrymeela Centre

Schools & Campuses

By publishing a junior version of the All-Ireland Pollinator Plan for schools immediately after the main plan, in 2016, it is hoped that children have become more aware of the importance of pollinators.

Our dedicated How-to-guide offers simple steps to help to create a School Pollinator Plan, which has led to the creation of a pollinator-friendly patchwork of school sites across the island.



Training primary school teachers on the All-Ireland Pollinator Plan - Green-Schools

In July each year, Green-Schools run a summer course for primary school teachers. Since 2016, they have been informing teachers who attend about the All-Ireland Pollinator Plan and how their school can help.

They also run teacher training seminars each Autumn, nationwide, where they similarly introduce the Plan and provide information and links. Since 2016, information has been shared with more than 700 teachers. As part of their Biodiversity theme, Green-Schools have also emailed all the relevant Pollinator Plan resources directly to schools. All this has a huge impact on the ground. In the last five years, the Green-Schools working on the Biodiversity theme have created thousands of biodiversity-friendly habitats within their grounds.



Save the Bees resources sent to 3,200 schools - SuperValu

In 2020, SuperValu became a major partner to the All-Ireland Pollinator Plan by funding the Project Officer position. In doing so, they are supporting our ongoing work with communities, councils, gardeners and schools.

In 2020, SuperValu worked with the All-Ireland Pollinator Plan to launch the 'Save the Bees' campaign, sending a Save the Bees Education Pack to 3,200 primary schools, with over half a million children. This pack contained guidebooks, posters and bookmarks, in addition to a garden kit and sign, to allow every school to create their own pollinator patch.

Unfortunately due to the COVID19 school closures, this programme had to be put on hold, but these educational materials will be valuable teaching resources for many years to come.





Nesting sites for solitary mining bees - The High School, Rathgar, Dublin

In Ireland, we have 62 species of mining solitary bees. Mining bees need areas of bare soil in which to make their nests. They usually choose south/east-facing banks.

At the High School, in Rathgar, staff and children have chosen to protect 250 metres of bare soil for mining bees. This is an enormous habitat to protect for our bees.

They also protect their native hedgerows and have planted pollinator-friendly plants to provide lots of forage for all pollinator species, including Rosemary, Campanula, Salvia, Hypericum, Vidurnum, and Lavender.

- ✓ 250 metres of bare soil protected as nesting habitat for mining bees
- ✓ Planted pollinator-friendly flowers and shrubs
- ✓ Native hedgerows protected
- ✓ Long-flowering meadow
- ✓ Eliminated pesticide use

Collecting wildflower seed - Powerstown Educate Together NS Forest School

At Powerstown Educate Together NS Forest School, staff and pupils have created a long-flowering meadow, which will be cut and lifted just once each year. The staff also invited an expert from the Heritage in Schools scheme to visit to talk to the children about the All-Ireland Pollinator Plan. In autumn, they collected their own local wildflower seed and scattered it through their meadow.



Letting Dandelions bloom - Claddagh National School, Galway

At Claddagh National School, Galway, students and management have chosen to reduce grass-cutting, by only mowing every six weeks in order to allow dandelions to grow in spring to feed our early pollinators, such as queen bumblebees newly emerged from hibernation. Letting your dandelions bloom is a really important action in early spring.

By maintaining a short-flowering meadow, Claddagh NS also allow clover to bloom, providing food in summer.

- ✓ Six-week meadows
- ✓ Pollinator workshops with Green Sod Ireland 'Bee Aware'
- ✓ Planted pollinator-friendly flowers, shrubs and a vegetable garden
- ✓ Eliminated pesticide use



Heath Bumblebee collecting pollen from a Dandelion © Anneke Vrieling



Massive meadows - Alexandra College, Dublin

Alexandra College, in Dublin, have taken a number of actions for pollinators, including a large long-flowering meadow, of 2,700m². This meadow area is cut just once a year and clippings are removed to reduce soil fertility and encourage more wildflowers.



Moths are also pollinators. This is the Burnet Moth, a day-flying species. © Cherry Townsend

Reduced mowing - North Presentation Primary school, Cork

North Presentation Primary School, Cork, have created a mosaic of different grass-cutting regimes to suit their school, which helps to offer food for pollinators in various areas of their grounds throughout the year.

- ✓ First grass cut delayed until mid-April to allow Dandelions to bloom
- ✓ Six-week meadows: 100m²
- ✓ Long flowering meadow (cut annually) 30m².
- ✓ Planted pollinator-friendly bulbs, shrubs and a vegetable garden
- ✓ Bare earth bank created to offer nesting sites for mining bees: 10m



Sandpit Blood Bee, *Sphecodes pellucidus*, a mining solitary bee © Steven Falk



In Northern Ireland, 32 schools are taking part in Polli:Nation, with Butterfly Conservation Northern Ireland. From Derry to Down and as far as Fermanagh schools are doing amazing things to support pollinators.

Planting pollinator-friendly bulbs – Portglenone Primary School, Co. Antrim

Pupils and parents of Portglenone Primary School, took part in their Polli:nation 'Big Bulb Plant'. Not only did they plant over 3,000 bulbs to provide essential spring food for early bumblebees, they also topped the list with the biggest volunteer turnout to a Polli:nation school event in Northern Ireland.



The 'Big Bulb Plant' at Portglenone Primary School

- ✓ 100m native hedgerows protected
- ✓ Protect ivy-covered fence
- ✓ Long-flowering meadow 500m²
- ✓ Planted 3,000 bulbs as well as pollinator-friendly herbs, perennials and fruit trees.

Long-flowering meadow – Cambridge House, Ballymena

Cambridge House has created a large long-flowering meadow of 3,000m². This new vibrant habitat can be used for teaching Ecology and students have been learning all about pollinators. They also planted lots of pollinator-friendly herbs, perennials and shrubs.



Protecting flowering native hedgerows – Bush Primary School, Dungannon, Co. Tyrone

One of the most important actions we can take to help pollinators is to protect our native hedgerows and to allow them to bloom each spring.

Bush Primary School are protecting 100m of native hedgerows for pollinators. Whitethorn blooms in May, making our hedges look white in May, while Blackthorn blooms in March. Hedgerows provide a very important food source for bees and other pollinators.

- ✓ Protecting flowering hedgerows
- ✓ Earth banks/bare soil protected for mining bees: 30m
- ✓ Letting dandelions bloom by delaying first grass cut until mid-April
- ✓ Planted pollinator-friendly perennials, shrubs, herbs and fruit trees.



Students sowing the seeds for the future - Seymour Hill Primary School, Co. Antrim

McIlroy Park, a Lisburn and Castlereagh council park, is situated within Lagan Valley Regional Park. Two locations within McIlroy Park were sown as wildflower meadows, c.300m² each in size. One was planted by Seymour Hill Primary School children, Lagan Valley Regional Park staff, Council Staff and the NIEA pollinator officer.

Lagan Valley Regional Park staff and volunteers continue to manage these areas on an annual basis, cutting the meadow in a traditional manner by using Austrian scythes. This allows the meadow to flourish each year, providing many environmental benefits, a haven for pollinators and other wildlife, pleasure for visitors to the site, whilst connecting local children and the community to the park.





Wildflower meadows at Trinity College Dublin, the first university to develop a Campus Pollinator Plan

Eliminating pesticide use on university campus - UCD

2019 has been a hugely exciting year in UCD, in which a number of new initiatives in support of the Pollinator Plan were implemented. An increase in the proportion of our grassland managed under reduced mowing regimes and the discontinuation of the use of glyphosate in the management of amenity areas are just two examples.

This is supplemented by newly planted areas, new wildflower meadows and other green infrastructure projects, such as a sedum roof on the Moore Centre for Business, will help to provide a valuable food source and habitat for pollinating insects into the future.

UCD Lyons Research Farm have initiated a range of measures over the past year, including Integrated Pest Management procedures; reduced mowing of amenity grass and encouraging beneficial clover mixes in pasture swards; renovating hedgerows with pollinator-friendly species, such as whitethorn; and allowing earthen banks to remain bare following infrastructure construction to provide nesting sites for solitary bees.

Academic colleagues have been at the forefront of research and engagement on pollinators, through tours of the orchard during World Bee Day, participating in panel discussions, e.g. 'Making your garden pollinator friendly' during Staff Engagement Day and through academic projects such as the UCD Bumblebee Monitoring Programme on the Belfield campus.

Top Green Flag for parks Pollinator Award for university - Maynooth University

Maynooth University continues to commit to the promotion of pollinators across campus and to the wider locality. Our Green Campus Committee and MU Grounds Department coordinate numerous initiatives and activities aimed at developing pollinator-friendly habitats and maximising biodiversity across the campus. We also strive to reduce the University's impact on the natural environment and some of our ongoing Biodiversity projects are briefly described below.

We removed a number of annual bedding areas on campus and replaced with pollinator-friendly herbaceous schemes. We have also implemented a new targeted weed suppression system that has drastically reduced the volume of weed killer (from 500 litres to 10 litres) used on campus.

We produced Design Guidelines for all new landscape and building projects, which specify that only plants and trees beneficial to biodiversity can be used, and that short-flowering meadows instead of lawns are factored into the design phase.

- Stephen Seaman, Grounds Supervisor, Maynooth University



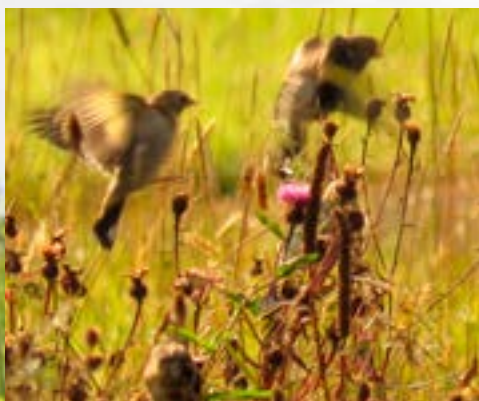
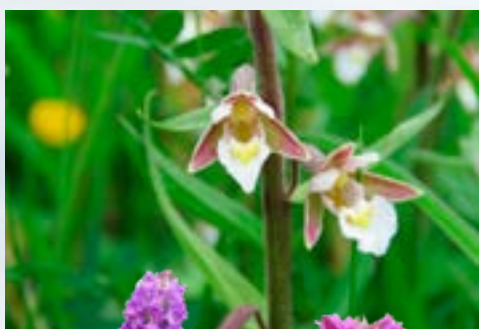
The flower bed at the front of campus which had been planted for the past 100 years with annuals such as pansies, petunias and begonias, now holds only pollinator-friendly plants. It was risky but everyone loves it!

- ✓ Over 15 acres of 'Don't Mow' meadows created across campus
- ✓ All flower beds converted to pollinator-friendly schemes
- ✓ Reduced pesticide use
- ✓ Numerous workshops and outreach events on pollinators
- ✓ Monitoring and recording pollinator populations across campus

Hospitals

Nature is good for your health

Causeway Hospital, Coleraine



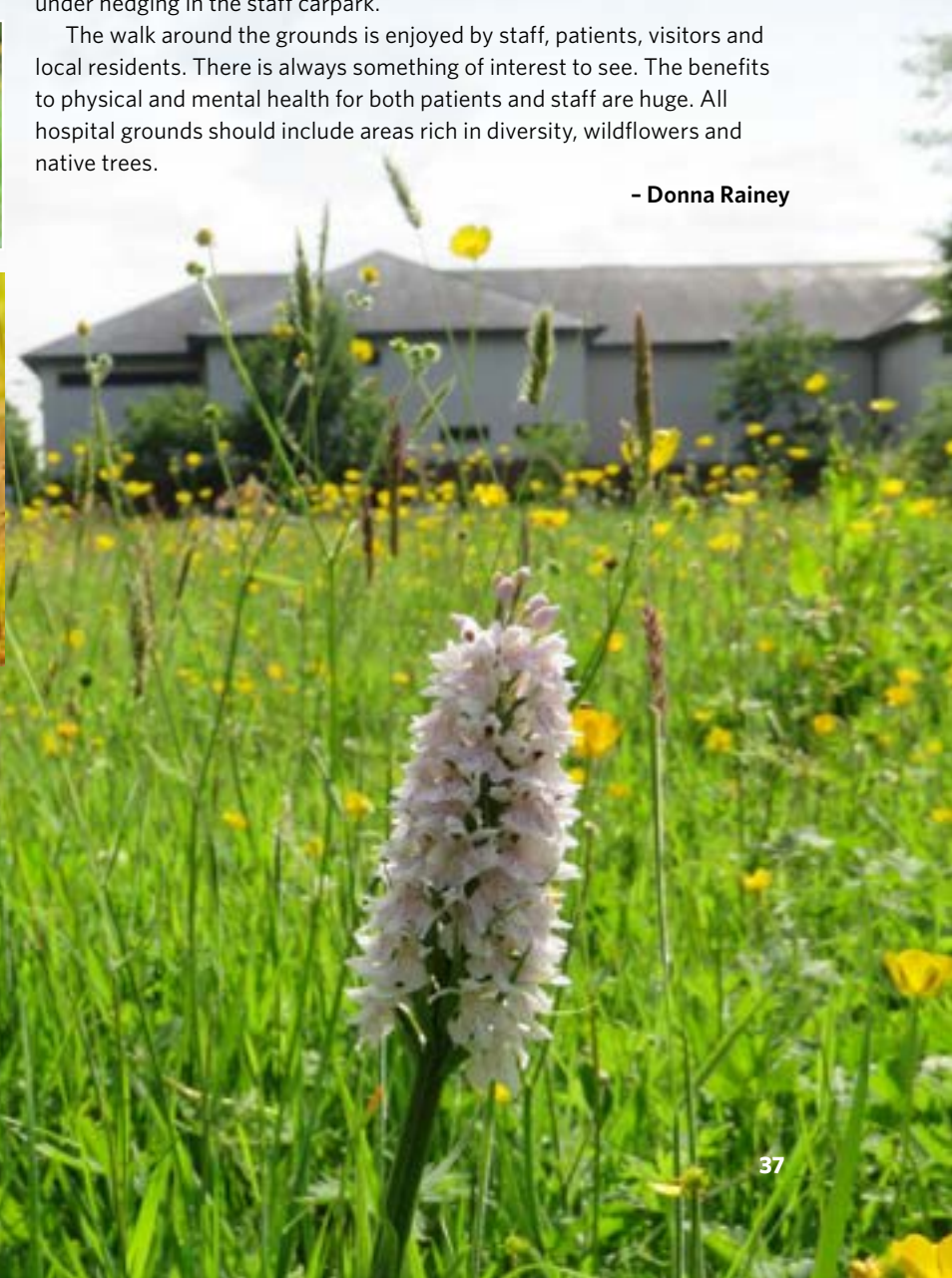
A flock of Goldfinch feasting on autumn seeds in the wildflower meadow at Causeway Hospital. The grounds have been transformed into an oasis for biodiversity, where rare flowers, insects and bird life are thriving.

I am a nurse in Causeway Hospital in Coleraine. There are extensive grounds around the hospital and much of the area is suitable for meadow. I discussed this with Mr Bamber McKay, Grounds Manager. It was decided to set aside areas to only mow each Autumn, and where all the cuttings would be removed. The results have been stunning. Many species of butterflies, moths, bumblebees and hoverflies frequent the meadows. Birds and even hedgehogs enjoy the bountiful supply of food. A population of Marsh Helleborine orchids were found in the large wet meadow several years ago.

This year a large population of Common wintergreen was discovered under hedging in the staff carpark.

The walk around the grounds is enjoyed by staff, patients, visitors and local residents. There is always something of interest to see. The benefits to physical and mental health for both patients and staff are huge. All hospital grounds should include areas rich in diversity, wildflowers and native trees.

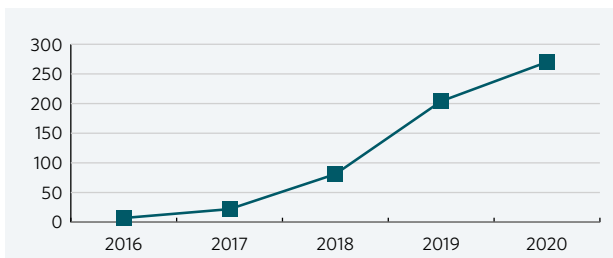
- Donna Rainey



Business supporters

As of October 2020, 270 companies have formally partnered with the Pollinator Plan. This means that they agree to take actions to help pollinators and to update us on what they have planned, implemented, or maintained each year, to help us promote their work and to facilitate knowledge exchange. A guideline document, published, in collaboration with Bord Bia, in 2017, outlines 18 evidence-based actions for businesses. Bord Bia helped establish this network by funding a part-time business pollinator officer from 2016-2019.

All types of businesses are helping, from Derry to Kerry; from small local companies to multinationals; from bakeries to distillers, supermarkets and property developers.... They are all playing a role in helping to protect pollinators on their land or within their local community. To see the current list of business supporters or to download the annual review outlining what each has done to help, visit: pollinators.ie/businesses



Local business funds community initiative - West Coast Crab Sales Ltd.



Great Yellow Bumblebee © Steven Falk

The lack of outdoor office space has not deterred West Coast Crab Sales from helping. Instead, they have donated to support the actions of the local Tidy Towns group. This has included developing a pollinator-friendly garden along the north end of the canal banks in Belmullet town, and other local actions to help bring the endangered Great Yellow Bumblebee back from the brink of extinction on the Mullet Peninsula.



Salvia © Jane Powers

Shopping Centre helps to educate the public - Dundrum Town Centre

Since joining the Pollinator Plan as a Business Supporter in 2017, Dundrum Town Centre have planted hundreds of bee-friendly plants and use signage to explain the importance of these areas to the public. They have also distributed Pollinator Plan materials in the Centre and have funded the distribution of the Junior Pollinator Plan to all primary schools in their local area. Other shopping centres are also helping in a similar way.

Making outdoor space bee-friendly - Analog Devices International

Analog Devices International (ADI) Limerick's Green Team Ireland have been implementing a range of pollinator-friendly actions at their Limerick site. They have delayed the first cut of lawns to late April to allow dandelions to flower; identified and protected existing pollinator-friendly perennial beds and flowering hedgerow; created a long-flowering meadow area; changed from traditional bedding with little value for pollinators to pollinator-friendly heathers in their ornamental containers; and follow the Pollinator-friendly Pesticide Code. They have also worked to raise awareness of the importance of pollinators and biodiversity to staff within their organisation.

Tourism sites become pollinator havens – Blarney Castle

Most famous for 'kissing the Blarney Stone', this site has also become a pollinator's paradise. There are bug hotels in the herbaceous border, wildflowers in the walled garden, native woodlands and hives of native black honeybees. Future plans include managing areas in a less manicured, more naturalised manner, eliminating the use of herbicides and insecticides, and ultimately creating pollinator-friendly corridors across the estate.



Retailers promote pollinator-friendly plants – Lidl

Lidl recognise the importance of biodiversity to their business success and consider bees to be an essential part of their team in producing food. As part of their 'A Better Tomorrow' sustainability strategy and Origin Green commitments, they have signed up as a Business Supporter of the All-Ireland Pollinator Plan. They have promoted a bee-friendly plant range and have ensured that these plants do not contain pesticides that are harmful to pollinators. They



have also been making their head office in Dublin, their new distribution facility in Newbridge, as well as various local stores pollinator friendly. Other retail partners have also helped by branding bee-friendly plants and promoting the Pollinator Plan in promotional material.

Property developers make new sites pollinator friendly – Gannon Homes

At new developments such as Clongriffin Town, Gannon Homes have planted large numbers of pollinator-friendly bulbs, along with carefully chosen perennials to create a year-round food source for pollinators. They have also created wildflower areas, which can be enjoyed by pollinators and residents alike.

Importantly, they have curtailed intensive landscaping management in areas where wildflowers can naturally grow, and are using permanent signage to explain the importance of all their actions to residents. Many other property developers, such as Cairn Homes, are also making their sites pollinator friendly.

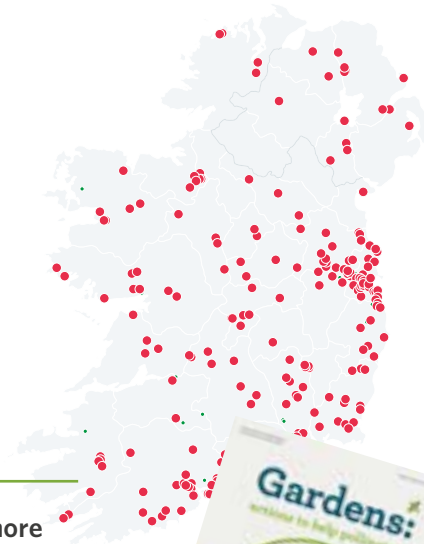
Airports become pollinator-friendly - daa

As part of daa's Sustainability Programme and Biodiversity Policy, Dublin and Cork Airports have created wildflower areas around their airport campuses to attract bees, butterflies and other wildlife. Dublin Airport have their own polytunnels and nurseries on-site in the gardening section, potting up to approximately 40,000 plants annually.

In 2020, Dublin Airport created wildflower meadows on three key locations around the airport, most notable at the green space outside Terminal 2, while Cork Airport created a wildflower meadow across from the main terminal. As part of our ongoing commitment, daa plans on expanding our wildflower programme in 2021 at both Cork and Dublin Airport.



Gardens



Gardeners play their part by offering pitstops for hungry pollinators

Across the island, gardens are playing a vital role. Already more than 400 are mapped on 'Actions for Pollinators', but we know that many thousands more people have made their garden pollinator-friendly. Regardless of size or location, gardens can be vital pit stops for our pollinators, birds, and other wildlife. It doesn't cost much, it will bring you great joy, and you can be guaranteed that what you are doing is really helping.



Gardening for the birds and the bees - Yvonne Naylor, Co. Antrim

We moved into our house in 2012 and over the years have put in a wildlife pond, bird feeding station and nest boxes. We also planted fruit trees and native shrubs and fruits and vegetables. We also planted an edible hedge, pollinator-friendly flower beds and herbaceous borders.

We also stopped mowing the grass under the fruit trees, inserted some yellow rattle seeds collected from the meadows at Corrymeela using a dibber and were rewarded

with a lovely mini-meadow including buttercup, daisy, dandelion, lady's smock, thyme-leaved speedwell, greater chickweed, ox-eye daisy, selfheal, red clover, cat's-ear, black knapweed, ragged robin, orange hawkweed, and a common spotted orchid. In another part of the garden we had corn camomile, poppy, ox-eye daisy and red campion.

I also carried out 'Flower Insect Timed' surveys in the garden in May and June, and found the cotoneaster and foxgloves attract lots of bees.



Before



After

Sports Clubs

With approximately 15,000 clubs across the island, sports clubs can play a vital role in conservation of our biodiversity if managed in a pollinator-friendly way.

Wildflower meadows around football pitches - Laois GAA

Laois GAA are delighted to begin a new dawn at their O'Moore Park Stadium and LOETB GAA Training Centre in Portlaoise. We recognise that everyone has a responsibility to take steps to create a healthier environment using the UN Sustainable Development Goals as our guide. We are piloting one of Ireland's first Green Stadium projects, incorporating Energy, Water, Waste, and Biodiversity programmes.

Laois GAA wish to maximise the ground's biodiversity value by creating new wildlife habitat, including hedgerows, trees, wildflower meadows and green wall areas. On previously unused areas at the rear of our terraces, we now have wildflower meadows totalling two acres. We are also working with BirdWatch Ireland, installing swift boxes. We are putting up interpretation signage and murals by artist Neil McGuire. We will be running biodiversity events involving our local primary schoolchildren and the general public.

- Peter O'Neill, Chairman, Laois GAA



Wildflower meadows make great 'roughs' - Ballycastle Golf Course, Co. Antrim

Ballycastle Golf Club is a coastal site. The native meadows were created with several practical golfing purposes in mind. The management regime that creates the best 'rough' areas is also the same one that supports natural wildflower meadow habitat.

The meadows look great in summer, are full of wildlife, and are cost-free to maintain as a local farmer takes the species-rich grass to feed to his cattle. The sandy, nutrient-poor soils on the course create ideal conditions for many wildflowers and have allowed the meadows to develop quickly.

Sports Club creating nesting habitat - Roger Casements GAA, Co. Antrim

At Roger Casements GFC in Portglenone, Co. Antrim, volunteers have created extensive bee banks, removing vegetation from south or east-facing banks around the pitches to keep soil exposed for mining bees.

Raising awareness & Tracking change

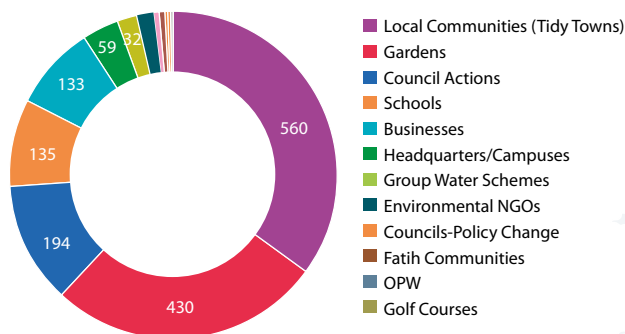


New innovative mapping system tracks actions across sectors

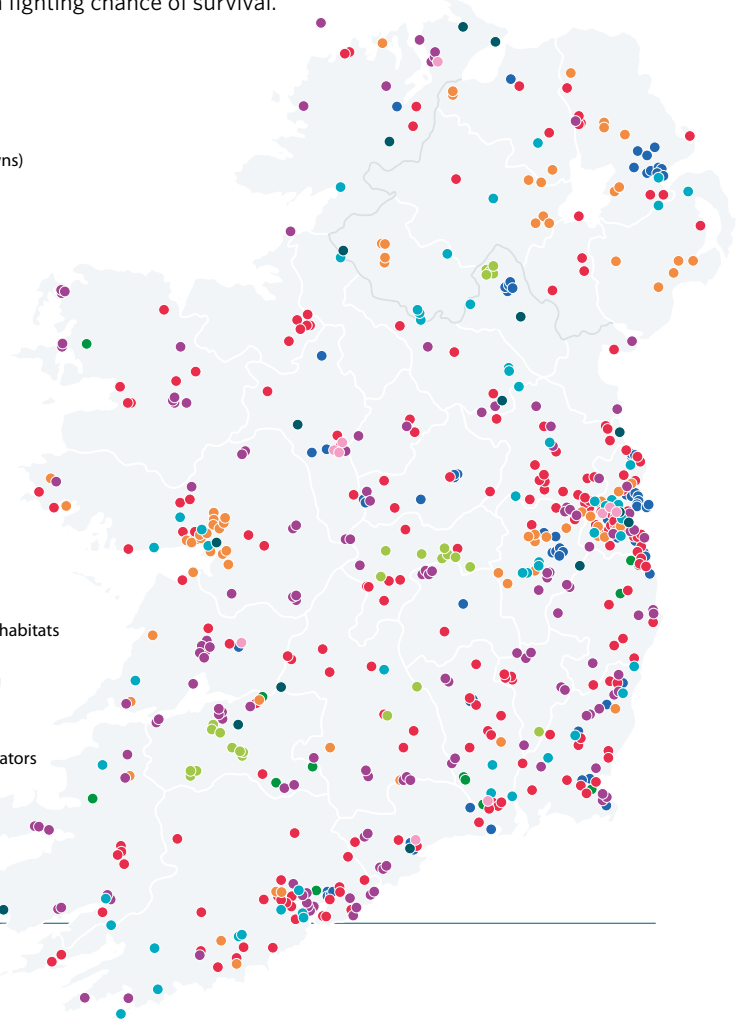
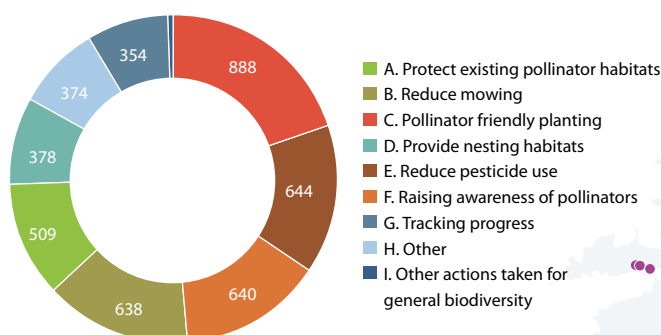
The All-Ireland Pollinator Plan aims to create a joined-up network of diverse and flower-rich habitats to support pollinators across the island. With so many people, across so many different sectors helping, this can be difficult to track.

To assist, the National Biodiversity Data Centre developed a publicly available online mapping system, called 'Actions for Pollinators', which allows all those who take pollinator-friendly actions to log their location and the action(s) taken. This system is the first of its kind to publicly track progress across sectors under an agreed biodiversity plan. More than 1,500 pollinator-friendly sites have already been logged, with the system being gradually opened to new sectors. It is possible to search by the sector or by the type of action to see progress. Its real value is at local level, where it can help coordinate the creation of joined up habitats in order to give our pollinators a fighting chance of survival.

The Actions for Pollinators Mapping system shows the number of pollinator-friendly sites by sector



Total number of actions logged on the Actions for Pollinators mapping system



Since 2012 citizen scientists have been helping us understand changes in wild pollinators

Within the National Biodiversity Data Centre, 100+ bumblebee monitoring scheme volunteers walk a fixed 1-2km route once a month from March-October and record the number of different bumblebees they spot.

Without the generous efforts of this group of citizen scientists, we simply would have no way of understanding what is happening with our wild pollinators in the landscape. Unfortunately, the 2012-2019 data paints a worrying picture for some of our bumblebees, including the Common Carder Bee. The more quickly we can all work together through the All-Ireland Pollinator Plan to return food and shelter to the landscape, the better for our wild bees and other insects!



Some of our many monitoring scheme recorders at an Annual Recorders Event in Belmullet in 2017, in search for the Great Yellow Bumblebee (*Bombus distinguendus*)

This monitoring scheme was deliberately established in advance of developing the All-Ireland Pollinator Plan so that some baseline data would be in place to assess the future impact of the Plan.

Increasing numbers of people learn how to identify wild bees

The number of people learning about wild bees and other pollinators continues to increase. Since 2016 we have seen a huge increase in the number of casual bee records submitted to the National Biodiversity Data Centre. This network plays a very important role in improving our knowledge.

The Tawny Mining Bee (*Andrena fulva*) is a beautiful spring-flying solitary bee that reappeared from extinction in Ireland in 2012, appearing in counties Wicklow and Kilkenny. Since then, thanks to the growing network of

interested people, it has been reported from counties Dublin and Kildare in 2019; and from Tipperary, Waterford and Down in 2020! They have also been helping document the spread of our two most recent bee arrivals, the Wool Carder Bee (arrived 2015) and the Tree Bumblebee (arrived 2017), as well as helping track some of our most endangered bees, including the Great Yellow Bumblebee.



Bee orchid © Dominic McGrath

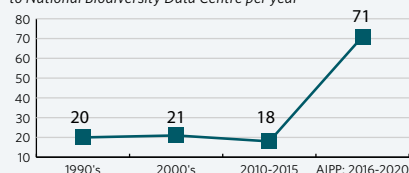
Bee orchids herald the return of native wildflowers

Bee Orchids are one of our most beautiful wildflowers, and an amazing example of plant-pollinator coevolution. The plant emits a scent that resembles a female solitary bee. Amorous males fly in to try to mate with it and end up pollinating the flower. Sadly, the right bee species doesn't live here, so it is self-pollinated in Ireland.

Bee Orchids also rely upon a symbiotic relationship with mycorrhizal fungi, to extract sufficient nutrients from the soil, making them particularly vulnerable to chemical applications. You'd imagine it would be difficult to help such a complex component of our biodiversity. It's not – we just need to give it space to flourish and stop tidying it out of our landscape.

The National Biodiversity Data Centre typically receives sightings from around 20 sites each year. However, that has hugely increased since 2016. It's difficult to identify a definite link, but equally hard not to assume that it has something to do with the reduced mowing that is encouraged through the All-Ireland Pollinator Plan. If Bee Orchids are increasing, so are lots and lots of other wildflowers.

Average number of Bee Orchid records submitted to National Biodiversity Data Centre per year



Those little seeds have been waiting in the soil for decades to get a chance to pop up and show us their beauty. Maybe we should heed what they're telling us – it's easy to help our biodiversity recover if we choose to.

Beekeeping associations get behind the Pollinator Plan

Although the honeybee is not in trouble, as it is not in decline in Ireland, it is an important pollinator. The Ulster Beekeepers Association, the Institute of Northern Ireland Beekeepers, the Federation of Irish Beekeepers Associations, the Irish Beekeepers Association CLG and the Native Irish Honeybee Society have continually promoted the All-Ireland Pollinator Plan to their members since 2015. They have helped by communicating the Plan's aim of healthy honeybees, healthy pollinators, but also helped raise awareness of the plight of Ireland's 98 wild bee species, of which one-third are threatened with extinction.



Native Irish Honeybee Society works to protect native populations

Molecular studies have shown that Ireland has a pure population of *Apis mellifera mellifera* (known here as the native Irish honeybee). Elsewhere in Northern Europe, the original home of *Apis mellifera mellifera*, it has been severely hybridized. Since 2012, the Native Irish Honeybee Society has been carrying out excellent work to protect this important genetic resource.

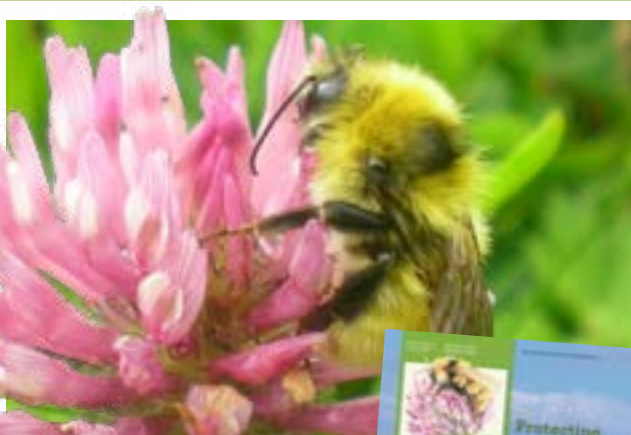
An Post helps raise awareness of native bees

In 2018 An Post released stamps, based on illustrations by botanical artist Shevaun Doherty, to pay tribute to Ireland's native bees.

In 2015, Shevaun kindly donated the image that we use for the All-Ireland Pollinator Plan logo.



Working together to save the Great Yellow Bumblebee



The Great Yellow Bumblebee is in decline across Europe, with populations falling by more than 30% over the past 10 years. In Ireland, it was never common, but it was found across the island prior to 1960. Today, it is largely confined to the Mullet Peninsula

With the large-scale replacement of hay meadows by silage, the flower-rich areas this bee needs have largely disappeared from the Irish landscape. It is now found only on the west coast, primarily on floral-rich coastal grasslands, such as machair. It is listed as Endangered in the Irish Regional Red List of Bees (2006) and as Vulnerable in the European Red List of Bees (2014).

Today, healthy populations are confined to the Mullet Peninsula, making it one of very few places in Europe with

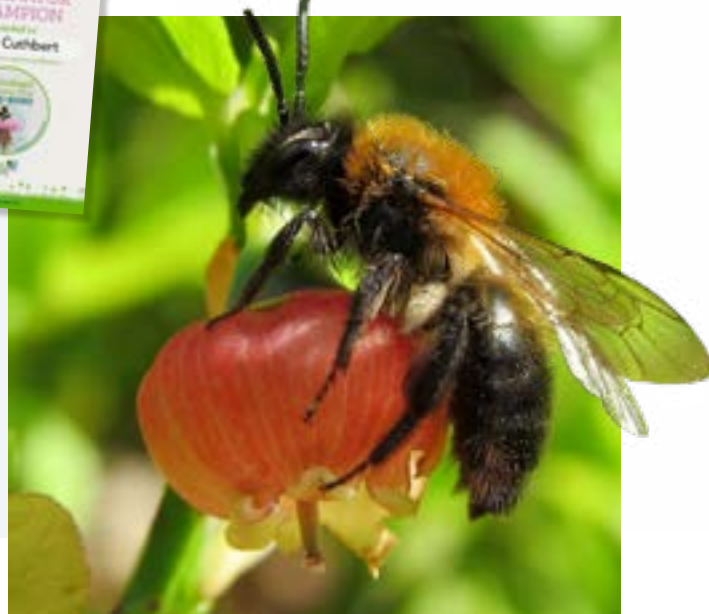
a sustainable population. Its outlook became much brighter in 2018, when Mayo County Council agreed to adopt the Great Yellow Bumblebee and offered help towards its protection. Mayo County Council have begun working with BirdWatch Ireland and Belmullet Tidy Towns to try to protect areas and safeguard this endangered bee. <https://pollinators.ie/helping-endangeredpollinators/great-yellow-bumblebee/>



Pollinator champions create change on the ground

Across all sectors, there are individuals who champion the Pollinator Plan, mainly in a voluntary capacity. Without a shadow of doubt, the Plan would not have achieved what it has without those people, and we can never thank or acknowledge them sufficiently.

Since 2018, we have been recognising a small group of champions. We send a certificate and our personal thanks to new pollinator champions each December. Awardees are not publicised, as these are most often people who do not wish to be personally promoted.



Bilberry Mining Bee
Andrena lapponica © Steven Falk

Irish pollinator research reveals exciting findings

Research is key to understanding the drivers and consequences of pollinator decline, and to providing the knowledge to reverse that decline. In Ireland, the Irish Pollinator Research Network brings together researchers from all over the island of Ireland. Together, we have shown that pollinators contribute up to €59 million to Irish crop production, and that the cost of global pollinator loss to the Irish economy could be up to €843 million per year. Irish heather honey has been shown to have a similar physiochemical composition to Manuka honey, with potential health benefits.

Data from Irish studies have been used in global analyses that have shown that increased diversity of pollinators increases crop yields globally, and that non-bee insects are important contributors to global crop production. But pollinators provide more than just crop pollination, and contribute in many ways to human wellbeing. However, agricultural intensification and invasive species alter pollinator communities, across Ireland, in complex ways.



Recent research has shown that even very low concentrations of fertiliser and herbicide alter plant growth and interactions with flower-visiting insects, and that not all invasive species affect pollinator communities in the same way.

Other countries look to the All-Ireland Pollinator Plan – sharing knowledge internationally



The All-Ireland Pollinator Plan has been featured in presentations made by Dr Úna Fitzpatrick and Prof Jane Stout at many international events, and has attracted international acclaim and interest.

Advice has been requested from more than ten countries, both within and outside Europe, who are interested in learning from the initiative and developing something similar. It has informed the development of pollinator strategies published in Scotland (2017), Norway (2018) and the Netherlands (2018).

We have also worked with the EU Pollinator Initiative, which aims to encourage all Member States to develop national pollinator plans. In 2020, they published a template, based on the All-Ireland Pollinator Plan 2015-2020 to help national authorities create effective pollinator strategies.

Given the success of the Plan, the government in the Republic of Ireland agreed to join 'Promote Pollinators, the Coalition of the Willing on Pollinators' in 2018. The coalition was established in 2016 during the 13th Conference of the Parties to the Convention on Biological Diversity (CBD COP13) and aims to share knowledge and expertise globally.

The All-Ireland Pollinator Plan has been recommended as a template for the development of national pollinator strategies by EU Member States .



The hoverfly *Leucozona laternaria* © Joanna Hodgeton

All-Ireland Pollinator Plan Steering Group 2019-2020:

- **Dr Úna FitzPatrick** (Chair), National Biodiversity Data Centre
- **Prof. Jane Stout** (Deputy Chair), Trinity College Dublin
- **Ken Bradley**, Environmental Policy Division, Department of Agriculture Environment and Rural Affairs (DAERA)
- **Pauline Campbell**, Northern Ireland Environment Agency, DAERA
- **Niamh Carmichael**, Centre for Environmental Data and Recording (CEDaR)
- **Rachael Conway**, Butterfly Conservation
- **Hannah Denniston**: Department of Agriculture, Food and the Marine
- **Eimear Fox**, Local Communities, Tidy Towns Adjudicator
- **Susie Hill**, Ulster Beekeepers Association

- **Dr Catherine Keena**, Teagasc
- **Dr Mary Montaut**, Federation of Irish Beekeepers' Associations
- **Dr Archie Murchie**, Agri-Food and Biosciences Northern Ireland
- **Anne Murray**, Local Authorities, Dún Laoghaire–Rathdown County Council
- **Dr Brian Nelson**, National Parks and Wildlife Service
- **Sarah-Jane Phelan**, Transport Infrastructure Ireland
- **Melina Quinn**, National Trust

Thanks to the following past members, who assisted with the Plan over the previous five years:

Dr John McMullan, Dr Gerry Clabby, Jerome Walsh, Catherine Bertrand, Dr Tomás Murray, Dr Damian McFerran, Dr Veronica Santorum.

All-Ireland Pollinator Plan Officer (2017 to date):
Juanita Browne.

Thanks to Dr Erin-Jo Tiedeken and Gemma Hughes who previously worked in this role.

Please visit www.pollinators.ie for useful resources, including guidelines for each sector, videos, pollinator-friendly plant lists, and how-to-guides.



National Biodiversity Data Centre



A Heritage Council Programme

Thanks

The All-Ireland Pollinator Plan is a shared plan of action. It is about all of us coming together to create an island where pollinators can survive and thrive. We extend our heartfelt thanks to the many thousands of people – whether in their farm, park, school, garden, sports grounds, community or business property – who have engaged with the Plan in its first five years and have taken action to help. They have proved that together we can make a difference, and we look forward to an even more ambitious second phase for 2021-2025.

Text: this booklet has been compiled by Dr Úna FitzPatrick and Juanita Browne, National Biodiversity Data Centre

Design: Vitamin Creative Ltd.

Citation: *Working Together for Biodiversity - tales from the All-Ireland Pollinator Plan 2015-2020*, National Biodiversity Data Centre, Series no. 24, Waterford, November 2020



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Funding for design of All-Ireland Pollinator Plan resources, from 2016 to 2020, has been provided by the Department of Agriculture, Food and the Marine.



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An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

