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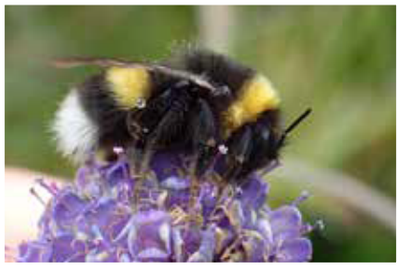


www.dcsforbees.com

National Biodiversity Data Series No. 22

DCs FOR BEES

DCs for BEES

POLLINATOR PLAN

Host In Ireland

National Biodiversity Data Centre
Documenting Ireland's Wildlife

All-Ireland Pollinator Plan
www.pollinators.ie

Contents

Foreword from Host in Ireland

When your 10-year-old daughter advises you that we are the first generation to understand the enormity of the decline in Ireland's Biodiversity, and the last generation in a position to make a real difference, you sit up and take notice. The time for living in a haze of denial and limited advocacy and awareness will only get you so far. What's needed now is action.

Bees are critically endangered. They contribute to 70% of our crops, but sadly, 33% of Irish bees are facing extinction. Bees are an indicator for biodiversity in general and once a species is extinct this cannot be reversed. The balance of nature is affected forever.

Today, we are bringing an industry together in a way that has never been done before. Host In Ireland and its data centre industry partners are uniting to make a difference with theDCs for Bees Pollinator Plan. We have pledged to deliver on actions to make Ireland more pollinator friendly and ensure the survival of our pollinators for future generations. This blueprint will help the largest and smallest of companies in the Irish data centre ecosystem to take long-term action and provide guidance on how to make a bigger impact within their global organisations.

We believe in the ripple effect of our actions. By coming together as an industry, we can leverage the very limited experts and resources for the greatest impact. It's not just the data centre industry on its own, either. We hope our example opens the floodgates for other industries to join in and make a bigger difference.

By empowering organisations with the tools they need to disperse knowledge about bees and biodiversity and take action within their local communities, we are creating advocates for this very important global issue. It is up to all of us to play a role in making changes that will reduce, stall or even reverse the extinction of our bees.

Garry Connolly
Founder and President

Host In Ireland

Host in Ireland Partners

The DCs for Bees Pollinator Plan is a shared plan of action by Host In Ireland, its 40 partners from the data centre industry and the wider industry, who have pledged to deliver on pollinator-friendly actions to make Ireland more pollinator friendly and ensure the survival of our pollinators for future generations.

Foreword from National Biodiversity Data Centre

The All-Ireland Pollinator Plan was published in 2015, making Ireland one of the first countries in Europe with an approach to address bee declines. It was developed voluntarily from the ground up and identified actions to make the island more pollinator friendly again.

One third of Ireland's 98 wild bee species are threatened with extinction and our common bumblebees continue to show startling declines in abundance. Rare species are disappearing through habitat loss and our common species are struggling because the way we currently manage the rest of the landscape means there simply isn't enough food for them to survive. Pollinators are in enormous difficulties, but we don't have to accept that. We can change their fate.

The All-Ireland Pollinator Plan is a call to action to everyone. Anyone who has some responsibility for a piece of land can make small changes to help provide food, shelter and safety for bees. However, you can't expect people to get involved unless you clearly explain what it is you are asking them to do. As an industry, data centres bring vital economic benefits to Ireland, but like all industries have challenges to face when it comes to climate and biodiversity. We are delighted that Host in Ireland and its data centre industry partners have stepped forward and are uniting to make a difference with the DCs for Bees Pollinator Plan. This guideline document provides data centres with a range of simple evidence-based actions that they can take to make their lands a place where bees and other biodiversity can survive and thrive.

Unfortunately, we are the generation who have guarded over the disappearance of our biodiversity. We have created a new normal where nature is rare, rather than something we live with and as part of. In getting behind efforts to change this, data centres can make a real difference. Bringing back wild pollinators means returning more native flowers to our landscape. More flowers mean more fruits and seeds and therefore more birds and mammals. More flowers also mean a more distinct, more colourful and more attractive environment for us to live and work in. In taking simple actions to help bees we gain so much more!

Dr Úna FitzPatrick
Co-founder and Project Manager
of the All-Ireland Pollinator Plan

National Biodiversity Data Centre
Documenting Ireland's Wildlife

All-Ireland Pollinator Plan
www.pollinators.ie

Why is Pollination Important?

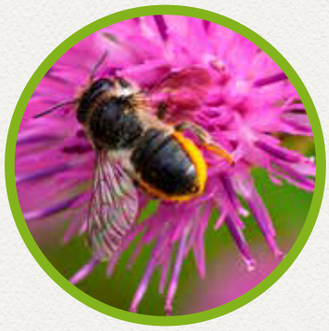
Pollination occurs when pollen is moved between flowers, leading to fertilisation and successful seed and fruit production for plants. Pollination plays a vital role in the reproductive cycle of flowering crops and wild plants. It is an essential part of food production, the beauty of our landscape and our wellbeing.

Pollinators are vital to the growth of pollinator-dependent food crops. The annual value of pollinators is at least €59 million in the Republic of Ireland. We know that three quarters of our wildflowers also benefit from being pollinated by insects – without bees, we will lose the colourful and distinct natural beauty of our landscape, which makes Ireland a pleasant place to live and an attractive destination for tourists.

There are 99 different types of bee in Ireland:

Honeybee (1)

Bumblebees (21)

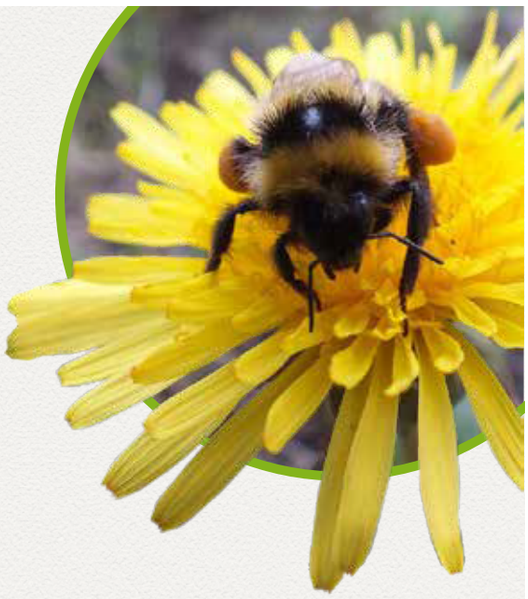


Solitary bees (77)

Who are our Pollinators?

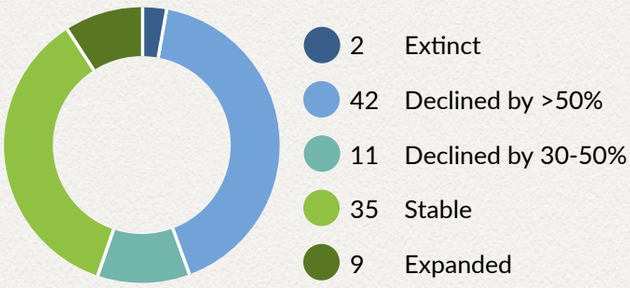
In Ireland, some plants are pollinated by the wind, but many are pollinated by insects. Most insect pollination is carried out by bees. We have one type (species) of managed honeybee and 98 different wild bees. That includes 21 bumblebee and 77 solitary bee species. To protect pollination service, we need healthy honeybees, but we also need to have an abundance and diversity of wild bees, as well as other insects like flies, moths and butterflies.

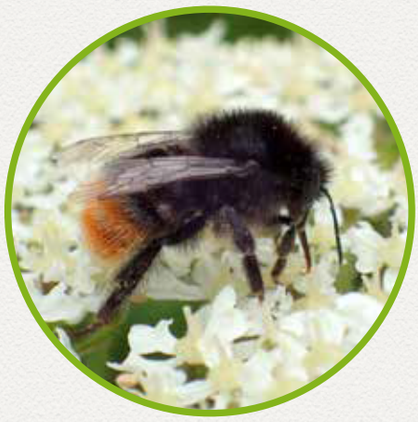
Bee populations are indicators of biodiversity in general and our 11,000+ insect species, each of which play an important and vital role in our ecosystem.



What is the Threat?

Unfortunately our pollinators are in decline, and the problem is serious. One third of our 99 bee species are threatened with extinction from the island of Ireland. If we want them to exist to pollinate crops and wild plants for future generations, we need to manage the landscape in a more pollinator-friendly way.





What do our Pollinators Need to Survive?

Food:

Lack of food is a major cause of pollinator declines. Bees are declining because our landscapes have changed dramatically over the last 50 years, meaning we've drastically reduced the amount of wildflowers our landscape provides for pollinators to feed on. Bees only feed on pollen and nectar from flowers. Nectar gives the adults energy for flying and they feed pollen to their young. To have a healthy balanced diet, bees need to be able to feed on a range of different flowers from MARCH right through to OCTOBER. Spring is when bees are most at risk of starvation.

Shelter:

Bumblebees nest in long grass (often at the base of hedgerows). Most solitary bees nest by making little tunnels in bare soil, while a small number nest in existing cavities in dry stone walls, masonry or wood.

Safety:

Bees need to be protected from insecticides. Equally, they need areas of food and shelter that are free from herbicides and fungicides.

What Can We Do?

The DCs for Bees Pollinator Plan is a shared plan of action by Host In Ireland, its 30 partners from the data centre industry and the wider industry, who have pledged to deliver on pollinator-friendly actions to make Ireland more pollinator friendly and ensure the survival of our pollinators for future generations.

This plan is focused on actions that any business in the data industry can take, from the smallest supplier to the largest data landowners. It aims to create awareness of what individuals and businesses can do, and drive real action that can help to reduce, stall or even reverse the extinction of our bees.

Business Benefits

As well as helping to fight one of the greatest threats, not only to bees but to the entire planet, there are numerous benefits to coming together as an industry for this initiative:

Create a greater purpose for the industry, to which every business within it can align.
Act as an exemplar for other industries to follow suit and make a real difference.
Help to attract new talent to the industry, who are looking for a greater purpose to their working life.
Bring the industry together in a way that has never been done before - because it's good to connect.
Help businesses to create and supplement a meaningful CSR programme.
This programme can be a blueprint you can roll out for your business to make an even bigger impact and engage your employees in a meaningful way.
It's also an opportunity, if you are a regional outfit, to communicate a success story to the rest of your business.

DCs FOR BEES

A sub-initiative of Host in Ireland

Host in Ireland has brought the data centre industry together to develop a two-phase approach to make a lasting difference.

Phase 1: Difference Days

Host in Ireland creates opportunities for partners and people in the industry to create a lasting difference through the DCs for Bees initiative. The first Difference Day was in 2019, when 100 people from the data centre industry came together to work alongside the Native Woodland Trust to change a part of our landscape permanently and for the better. 100 people planted 2,000 trees covering two acres. More planting days are planned in the future.

Phase 2: Long-term positive impact

The DCs for Bees Pollinator Plan backed by the National Biodiversity Data Centre, has been developed specifically for the data centre industry, and includes a toolkit of pollinator-friendly actions to make Ireland more pollinator friendly and ensure the survival of our pollinators for future generations.

DCs for Bees Ambassador program – creating a community of passionate advocates to drive pollinator-friendly action and change.

Data Centre Actions to Help Pollinators

This list of suggested actions for data centres is broken into actions suited to outdoor and indoor space. It also highlights the level of expense and labour estimated for each action.

Outdoor actions for pollinators

A Protect what you have

Most importantly, identify and protect existing areas in your outdoor space that are already good for pollinators

Action 1 -£

Protect areas at your office or data centre land that are already providing food and shelter for pollinators

Action 1. Protect what you have - if you already have native hedgerows around your site, your most important action may be to protect them and allow them to flower to produce food for pollinators.

B Reduce mowing

Reducing the frequency of mowing allows wildflowers (food) to flower among the longer grass... without spending money on wildflower seed.

Action 2 -£

Mow 1/3 of all grassy areas at your office or data centre under a pollinator-friendly regimen

Action 3 -£

Create a long-flowering meadow at your office or data centre

Reducing mowing allows wildflowers to grow. By mowing paths through longer grass these areas can still be used and can increase interest and use.

Key

- Cost of each action ranges from zero/cost savings -£ to most expensive £ £ £
- Effort required to carry out each action is indicated by the number of spades
- **Our FAVOURITE** actions are marked with a bee

C Pollinator-friendly planting

Take the actions below to ensure you have flowers blooming that can provide food for pollinators from March all the way through October.

Action 4
Identify new and underutilised outdoor space - balcony, roof, window boxes for pollinator-friendly planting

Action 5
Plant a clover lawn at your office or data centre

Action 6
Plant pollinator-friendly containers, window boxes, hanging baskets, or patio pots at your office or data centre

Action 7
Plant pollinator-friendly bulbs at your office or data centre

Action 6: Plant pollinator-friendly containers at your office or data centre

Action 8: Plant pollinator-friendly heritage fruit trees

Action 8
Plant heritage variety orchard trees on your property

Action 9
Plant pollinator-friendly trees and shrubs on your property

Action 10
Participate in Native Woodland pollinator-friendly tree planting

Action 11
Create a pollinator-friendly flower bed at your office or data centre

Action 12
Plant a native wildflower meadow at your property

Action 13
Plant pollinator-friendly containers in plant and machinery areas

Action 14
Plant native hedgerows for pollinators in plant and machinery areas

Planting willow from cuttings is an inexpensive and valuable pollinator action as willow offers food to pollinators in early spring

D Provide nesting habitats

In addition to food, pollinators need safe places to live

Action 15 — Plant native hedgerows for pollinators

Action 16 — Create earth banks for solitary mining bees

Action 17 — Drill holes in wood at your property

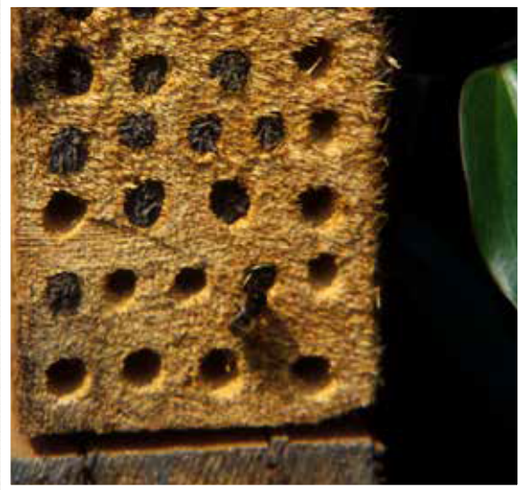
Action 18 — Install a bee hotel at your property

Action 19 — Introduce bee hotels in plant and machinery areas

Action 15: Plant native hedgerows, which will not only help pollinators but all types of biodiversity. To offer food as well as nesting sites, make sure to allow hedgerows to flower by only cutting every 2-3 years

Action 16: Create earth banks for solitary mining bees

Action 19: Install a bee hotel



Action 17: Drill holes in wood at your property for cavity-nesting solitary bees

E Reduce use of pesticides

Pesticides include insecticides, fungicides and herbicides, all of which can be harmful to pollinators

Action 20 **Eliminate the use of insecticides**

Action 21 **Eliminate or reduce the use of herbicides**

Action 22 **Adopt the pollinator-friendly pesticide code**

Adopt a pollinator-friendly pesticide code. Reducing use *of herbicides will mean more wildflowers for pollinators* to feed on.

Indoor actions for pollinators

F

Raise awareness: Communication actions

To help spread the word about pollinators and the actions to help them, guidelines for a number of different sectors have been published, including local communities, schools, gardeners, farmers and more. You can support the Pollinator Plan by raising awareness in these sectors. The communication-based actions below will help your business contribute to the conservation of pollinators and biodiversity beyond your own property.

Raise awareness in your supply chain

Action 23 -£

Influence suppliers and contractors to take action within the DCs for Bees Pollinator Plan

Raise awareness with local businesses

Action 24 -£

Ask local businesses to sign up to the All-Ireland Pollinator Plan

Action 25 -£

Involve local businesses in your pollinator actions

Action 26 -£

Influence your business network to take action within the DCs for Bees Pollinator Plan

Action 27 -£

Influence your local authority to take pollinator-friendly actions

Action 28 -£

Influence your building management company or business park management company to take pollinator-friendly actions

Action 24: Ask local businesses to sign up to the All-Ireland Pollinator Plan. Over 240 businesses have already become business supporters.

Share a link to the business section where they will find all they need: https://pollinators.ie/businesses/

Raise awareness in your local community

Action 29 £ £
Fund printing of pollinator guidelines for community groups

Action 30 £ £
Develop a community campaign

Action 31 £ £
Fund printing of the Junior Pollinator Plan for local schools

Action 32 £
Sponsor signage for community groups

Action 33 £ £
Sponsor pollinator-friendly planting in local communities

Action 34 £ £
Fund construction or purchase of bee hotels for local community groups

Action 35 £ £
Sponsor a pollinator-friendly award

Action 36 £ £
Purchase native wildflower seed for a community group

Action 37 £ £
Sponsor an expert to do a school visit

Action 38 £ £ £
Sponsor All-Ireland Pollinator Plan projects

Action 31: Fund printing of the Junior Pollinator Plan for local schools.

Action 32: Sponsor signage for community groups

Action 33: Sponsor pollinator-friendly planting in local communities

Raise awareness in your workplace

Action 39 — £ £ — Hold a training session/workshop on pollinators for your staff

Action 40 — £ £ — Fund printing of pollinator-friendly 'Garden Guidelines' for your staff

Action 41 — -£ — Appoint a DCs for Bees ambassador in your company

Action 42 — £ £ — Use pollinator friendly giveaways for marketing events

Action 41: Appoint a DCs for Bees ambassador in your company

Action 40: Fund printing of pollinator-friendly 'Garden Guidelines' for your staff

There are also posters, bookmarks and flyers available at www.pollinators.ie/resources

APPENDIX: Pollinator-friendly Pesticide Code

Pesticides include insecticides, fungicides and herbicides. Of these, insecticides pose the greatest direct hazard to insect pollinators. However, herbicide use is having a much greater negative impact on pollinators because it is so widely used.

Herbicides, fungicides and plant growth regulators typically have little or no toxicity to pollinators, but many of the plants we spray as weeds are vital sources of food for pollinators, especially in early spring. Pollinators need a range of flowers to feed on from spring through to autumn. The overuse of these chemicals is making it very difficult for them to find enough food to survive in our landscapes.

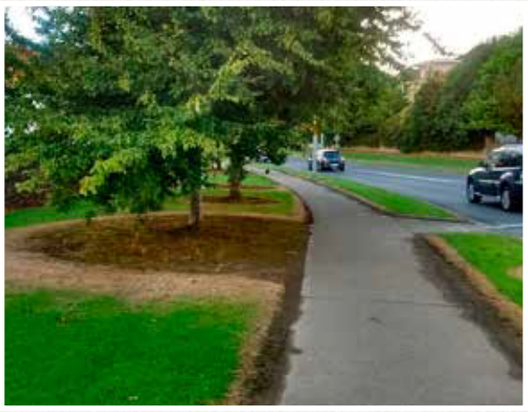
NOTE: Pesticides should be used sparingly and only when absolutely necessary, such as in the treatment of invasive species like Japanese Knotweed.

Do's

- Check the label and select pesticides that are less harmful to pollinators
- Always follow the product label instructions fully
- Treat only the target area
- Spot-treat rather than use blanket sprays
- Follow the buffer zone instructions on the product label
- Leave areas of pollinator-friendly habitat free from all pesticides. These include areas of clover or wildflowers, the base of hedgerows, and any natural areas
- Minimize spray drift to non-target areas by:
  - Using equipment that reduces drift
  - Checking the weather forecast before application and be mindful of changing conditions
  - Ensure that you spray when the wind is blowing away from pollinator friendly habitat

Don'ts

- Do not apply pesticides to bees or other pollinating insects
- Do not spray flower-rich areas (including weeds) when flowers are in bloom and providing food for bees (as bees will then bring tainted pollen back to the nest to feed to their young). Plants that we might consider weeds, like dandelions, vetches, clovers, deadnettles and knapweed are important food sources as they provide high quality pollen and nectar for bees
- Do not apply pesticides to areas that have been identified as important nesting areas for wild pollinators
- Do not apply pesticides to standing water



Unsustainable use of pesticide

Supporting the All-Ireland Pollinator Plan:

If you would like to sign up as a DCs for Bees Supporter of the plan, email a copy of this page signed by a member of senior management to ufitzpatrick@biodiversityireland.ie, and cc marketing@hostinireland.com. In doing so, your organisation agrees:

1. To carry out at least one pollinator-friendly action suggested in this document within the first year of signing up, and to plan to carry out two additional actions by 2025.
2. To track the pollinator actions (https://pollinators.biodiversityireland.ie/) you have planned, implemented or maintained each year when contacted, to help us promote your work .
3. That your business supports the ethos of the All-Ireland Pollinator Plan.
4. Once you've signed up, please send us a copy of your logo. We will only use your logo to promote your pollinator-friendly work in the following three ways: a) on the Partners page of our website (www.pollinators.ie), b) on our blog, and 3) in our annual report. In return you will receive a copy of the All-Ireland Pollinator Plan's Business Supporter logo and the 'DCs for Bees' Supporter badge for use in CSR/ sustainability reports and on blogs/case studies[1].

Along with the business benefits that come from supporting the Pollinator Plan, companies that sign up will receive a certificate of participation. You can also access support from the National Biodiversity Data Centre organisation in developing your plans to take pollinator-friendly actions within your business[2].

We look forward to working with you to ensure that our pollinators and the critical service of pollination are available for generations to come.

Business Name:

_____

Senior Management Signature:

_____

Print (name and job title):

_____

Point of contact (if different than above):

_____

Email:

_____

1 Additional use of the Pollinator Plan Business Supporter logo requires written approval
2 Currently the capacity of the National Biodiversity Data Centre organisation to provide support includes consultations over the phone or email

Tracking

It is important to track the pollinator-friendly actions we take in the data centre industry, to help measure the success of the DCs for Bees Pollinator Plan. Please use the online mapping system (https://pollinators.biodiversityireland.ie/) from the All-Ireland Pollinator Plan to track and record your pollinator-friendly actions.

(https://pollinators.biodiversityireland.ie/)

This booklet is one of a series of Guidelines produced to help different sectors take actions under the All-Ireland Pollinator Plan. For more information and other useful resources, please see **www.pollinators.ie**

National Biodiversity Data Centre
Documenting Ireland's Wildlife

The All-Ireland Pollinator Plan is coordinated by the National Biodiversity Data Centre.

Thanks to the following who donated photographs: Host in Ireland, Cyrus One, T5 Data Centers, Steven Falk, Anneke Vrieling, Réamaí Mathers, Neil Foulkes, Michael Keating, Peter Cuthbert, Bryan Pinchen, Tom Cuffe.

About the National Biodiversity Data Centre

The National Biodiversity Data Centre is a national organisation that collects and manages data to document Ireland's wildlife resource, and to track how it is changing. Find out what biodiversity has already been recorded in your local area: **maps.biodiversityireland.ie**

Help us to build up the knowledge of biodiversity in your local area by submitting sightings to **records.biodiversityireland.ie**

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Host In Ireland