



# EU POLLINATORS INITIATIVE

A review of Member States actions to tackle the decline of wild pollinators

## IRELAND



### STRATEGY



All-Ireland Pollinator Plan (2017-2021)



### INITIATIVES



Rural



Urban



Private sector



### NATIONAL RED LISTS

Threatened species



30%

Wild bees (2006)



### RAISING AWARENESS



Citizens



Schools children



Farmers & beekeepers

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*Acknowledgements: Úna FitzPatrick, Senior Ecologist at National Biodiversity Centre, Ireland, Jane Stout, Professor at Botany department, Trinity College Dublin, Ireland.*

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*The All-Ireland Pollinator Plan (AIPP) was initiated by a multi-stakeholder steering group. The Irish government's National Biodiversity Action Plan 2017-2021 aims to implement the All-Ireland Pollinator Action Plan and supports its business and farm guidelines as part of objectives 1 and 4. The Plan has been incorporated into the Biodiversity Strategy for Northern Ireland to 2020. The AIPP addresses all types of pollinators, including solitary bees and hoverflies. The latest annual review shows a positive picture. Of the 81 actions in the Plan, 92% are now either completed for 2018 or in train.*

*The Regional Red List of Irish Bees was published in 2006. The National Biodiversity Data Centre established the All-Ireland Bumblebee Monitoring Scheme in 2011 as the main component of its Irish Pollinator Initiative and in coordination with the Bumblebee Conservation Trust in Northern Ireland. In addition, the NBDC established in 2007 the Irish Butterfly Monitoring Scheme, which supports and co-ordinates a network of volunteer recorders across Ireland. A number of institutions carry out research on pollinators in Ireland although some knowledge gaps remain.*

*The AIPP has 10 targets with 42 actions to make Ireland pollinator friendly. These encourage stakeholders responsible for private land, public land and farmland to increase pollinator habitats and nesting and feeding opportunities. A plethora of initiatives have been launched. Many local authorities are incorporating actions published by the AIPP into their own County Development Plans and are developing their own pollinator plans.*

*There are many awareness raising initiatives and these are aimed at different sectors leading to a high public awareness of pollinators. There is a need to increase farmer awareness of the importance of wild pollinators and what actions they can take to benefit them. Some educational and citizen engagement campaigns have also been launched. The private and apiculture sector has not engaged in initiatives for wild pollinators.*



# STRATEGIES FOR WILD POLLINATORS OR ANY OTHER SIMILAR PLANS

The [All-Ireland Pollinator Plan](#) (AIPP) was initiated by a multi-stakeholder steering group and published by the National Biodiversity Data Centre (NBDC). It was supported by 68 governmental and non-governmental organisations from the Republic of Ireland and the UK region of Northern Ireland and launched in September 2015. The Pollinator Plan identifies 81 actions under 5 main objectives:

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

This is a partnership initiative developed by the Steering Group without funding and implementation is coordinated by the NBDC. Partner organisations have signed up voluntarily, acknowledging the lack of public funding. Since 2016, the Heritage Council and Bord Bia (Irish Food Board) have funded a full-time project officer position and the Department of Agriculture, Food and the Marine has provided a small budget for the development of resources ([AIPP progress report](#)).

The Irish government's [National Biodiversity Action Plan 2017-2021](#) aims to implement the All-Ireland Pollinator Action Plan and supports its business and farm guidelines as part of objectives 1 and 4.<sup>1</sup> The Plan has also been incorporated into the [Biodiversity Strategy for Northern Ireland to 2020](#).

The AIPP addresses all types of pollinators, including solitary bees and hoverflies. Strong branding and good coordination between relevant stakeholders of the AIPP has provided structure and avoided confusion. The AIPP has been used as a model for national pollinator plan development in Norway and the Netherlands ([AIPP progress report](#)).

AIPP sectoral guidelines have evidence-based, clear, low-cost actions, with many options, which can be reported on annually, allowing tracking of implementation over time and recognition of efforts. At the end of 2018, after three years of implementation, 84% of these actions were in train or completed.<sup>2</sup>

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<sup>1</sup> Objective 1: Mainstream biodiversity into decision-making across all sectors; Objective 4: Conserve and restore biodiversity and ecosystem services in the wider countryside, as part of the National Biodiversity Action Plan 2017-2021 at <https://www.npws.ie/sites/default/files/publications/pdf/National%20Biodiversity%20Action%20Plan%20English.pdf>

<sup>2</sup> Personal communication with Dr Úna Fitzpatrick, Project co-ordinator: All-Ireland Pollinator Plan

Targets are envisaged to be achieved by a combination of implementing existing policies and initiatives, and through new projects. The implementation of the following existing policies is regarded to contribute to the strategy:

- Actions for Biodiversity 2011-2016, Ireland's 2nd National Biodiversity Plan (DAHG)
- Revised Northern Ireland Biodiversity Strategy 2015 (DOE)
- Republic of Ireland Rural Development Programme 2014-2020 (DAFM)
- Northern Ireland Rural Development Programme 2014-2020 (DARD)
- National Action Plan for the Sustainable Use of Pesticides 2013 (DAFM)
- UK National Action Plan for the Sustainable Use of Pesticides 2013 (DEFRA)
- Biodiversity Duty under the Wildlife and Natural Environment Act (NI) 2011
- Planning Policy Statement 2015 (DECLG)
- Strategic Planning Policy Statement 2015 (DOE)

It was planned to create new projects by utilizing National funding instruments and their support agencies as well as to investigate European funding instruments (e.g. EU LIFE programme; European Regional Development Fund - INTERREG).

The general targets are the following:

1 - Making Ireland pollinator friendly: By taking action on farmland, public land and private land, it is envisaged a joined-up network of diverse and flower-rich habitats to support pollinators across Ireland:

1.1 Farmland: 4 targets & 12 actions

1.2 Public land: 3 targets & 22 actions

1.3 Private land: 2 targets & 5 actions

1.4 Supporting the creation of pollinator friendly habitats: 1 target and 3 actions

2 - Raising awareness of pollinators and how to protect them: 3 targets & 11 actions

3 - Managed pollinators – supporting beekeepers and growers: 4 targets & 7 actions

4 - Expanding our knowledge on pollinators and pollination services: 4 targets & 11 actions

5 - Collecting evidence to track change and measure success: 3 targets & 6 actions

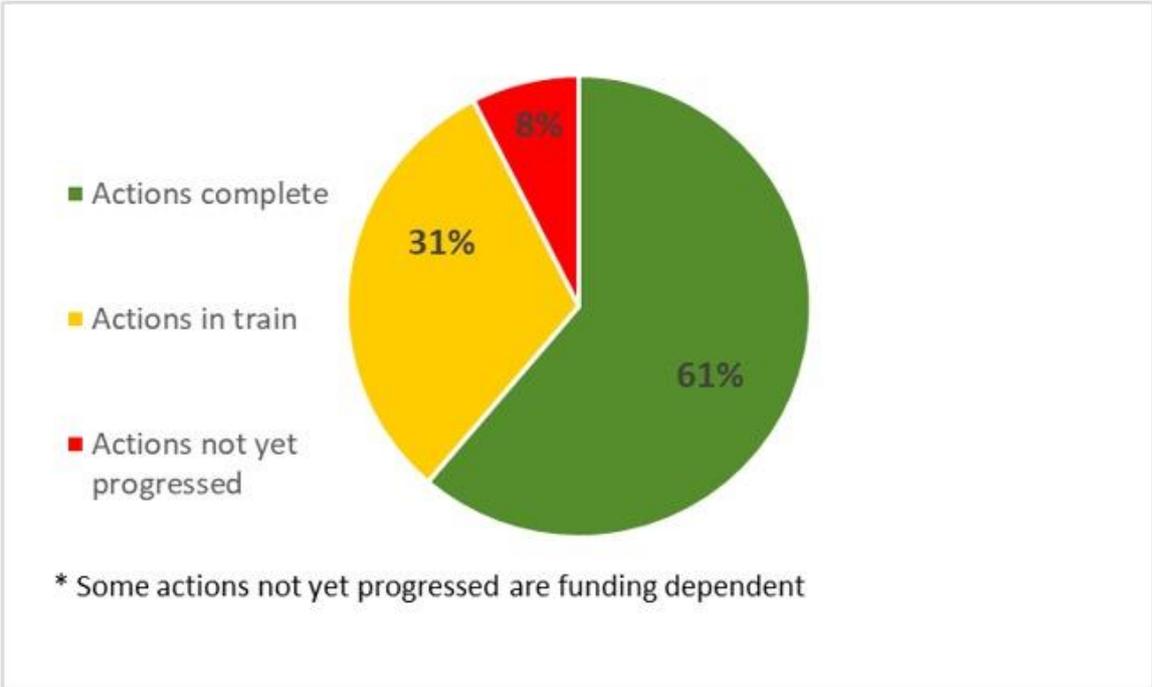
The plan was initiated by Úna FitzPatrick (National Biodiversity Data Centre) and Jane Stout (Trinity College Dublin), and then developed by a fifteen member All-Ireland steering group. The final Plan was produced by the steering group following a consultation phase, which included both public and stakeholder engagement. During the stakeholder engagement a total of 70 organisations were invited to comment on the Plan.

Progress is measured terms of the number of actions that are achieved; and by changes in the abundance of wild and managed pollinators in the landscape. Every action has one or more associated progress measures.

The strategy is reviewed every year by the steering group and expanded/restructured as required. In addition, a subgroup was established to investigate existing funding options and discuss future innovations, and a group was formed to liaise with DoELG and Local Authority Environmental Awareness Officers to prioritise pollination initiatives in Agenda 21 Grants. Furthermore, the plan is to be incorporated into future relevant national strategies and new version of the Pollinator Plan is to be developed for 2020-2025.

The latest annual review shows a positive picture ([AIPP annual review 2018](#)). Of the 81 actions in the Plan, 92% are now either completed for 2018 or in train. This is up from last year and is a very positive figure for three years into implementation. For those not progressed, it is either due to human resource limitations at the NBDC or because they have not obtained the necessary funding.

**Status and progress of the Pollinator Plan’s original 81 actions at the end of year 3**





# IMPROVING KNOWLEDGE OF POLLINATOR DECLINE, ITS CAUSES AND CONSEQUENCES

## RED LISTS ON POLLINATORS AND DATA ON POLLINATOR POPULATIONS

The Regional Red List of Irish Bees produced in 2006 (Fitzpatrick et al 2006) identified 30 (30%) threatened bee species (6 critically endangered, 10 endangered and 14 vulnerable), 3 regionally extinct species, and 16 data deficient species out of a total of 99 assessed species on the island of Ireland.

The Irish Pollinator Initiative recognises the need to measure success by creating a baseline data of where pollinators occur and how abundant they are, as well as the need to track how that changes in the future. That is the ongoing goal of the Irish Pollinator Initiative which was set up by the National Biodiversity Data Centre in 2011 to drive pollinator conservation through [better data](#).

## POLLINATOR MONITORING SCHEMES

The NBDC established the [All-Ireland Bumblebee Monitoring Scheme](#) in 2011 as the main component of its Irish Pollinator Initiative and in coordination with the Bumblebee Conservation Trust in Northern Ireland. The NBDC has also established a [solitary bee monitoring scheme](#) which asks participants to register sites with group nesting species and count the number of active nest holes once a year. The NBDC hosts a website where members of the public can record sightings of pollinator species including bumblebees, hoverflies and solitary bees ([Ireland's Citizen Science Portal](#)).

### **All-Ireland Bumblebee Monitoring Scheme**

Bumblebee populations are monitored on over 100 sites by a network of volunteers across the island of Ireland. Volunteers record observed bumblebees once a month from March to October on a 1-2km transect which they select themselves. Coordinated by the National Biodiversity Data Centre. This scheme is run in parallel to the BeeWalk programme run by the Bumblebee Conservation Trust in England, Wales and Scotland.

The NBDC holds the records of pollinators in Ireland. Presence/absence distribution information is collected in 10km grid squares (ITM). Information on distribution of all pollinators groups is available online. Monitoring initiatives are carried out by a combination of research and citizens science initiatives.

Any [citizen can be involved](#) in pollinator monitoring in Ireland by:

- Submitting casual sightings of bees and hoverflies
- Taking part in the Bumblebee Monitoring Scheme
- Learning to identify some solitary bee species
- Taking part in the Solitary Bee Monitoring Scheme
- Taking part in Rare Bumblebee Watch

- Helping track expansion in our two most recent bumblebee arrivals
- Helping look for new populations of very rare species
- Keeping an eye out for new arrivals

In addition, the NBDC established in 2007 the [Irish Butterfly Monitoring Scheme](#), which supports and co-ordinates a network of volunteer recorders across Ireland. The scheme now records on average 40,000 butterflies each year from over 120 sites across Ireland.

A lack of funding means that the AIPP is unable, with its current human resources, to take full advantage of the momentum and interest that it has generated, and that it is not possible to carry out periodic random systematic national surveys of solitary bees and hoverflies.<sup>3</sup>

## RESEARCH INITIATIVES

A number of institutions carry out [research on pollinators in Ireland](#). Trinity College Dublin, NUI Galway, NUI Maynooth, Dublin City University and UL/Teagasc are conducting research on pollinators in various fields, including:

- Pollination ecology, plant-pollinator interactions, pollinator diversity and drivers of decline, landscape and agroecology, pollinator conservation, valuing pollinators and pollination services
- Plant-pollinator diversity, interactions and conservation, pollinator behavioural ecology, agroecology, impacts of pesticides on bee behaviour and provision of pollination services.
- Cellular and molecular level effects of various stressors (pathogens, parasites and pesticides) in both native and commercial bees, bumblebee conservation, DNA barcoding and genomics.
- Analytical chemistry, honey chemistry, pesticide contamination of soils/floral resources.
- Disease tolerance/resistance in native Irish honeybees, wild honey bees.
- Pollen analysis, honey bees, disease, beekeeping.

Collaboration between Maynooth University, NUI Galway, Trinity College Dublin and Dublin City University has led to the establishment of a [Pollinator Research Network for Ireland](#). The research group of [Dr Jane Stout](#) at Trinity College Dublin have researched the drivers and consequences of pollinator decline in Ireland since 2004.

There is scope for more research to develop and expand the range of options offered to farmers and/or improve existing agricultural measures beneficial for pollinators, which could then be supported under rural development programmes in future.

## TAXONOMICAL EXPERTS ON POLLINATORS

See above.

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<sup>3</sup> Personal communication with Dr Jane Stout, Trinity College Dublin, Deputy Chair of the Pollinator Plan Steering Group



# INITIATIVES TACKLING THE CAUSES OF POLLINATOR DECLINE

## ACTION PLANS ON SPECIES AND HABITATS

The All Ireland Pollinator Plan 2015-2020 aims at tackling the causes of pollinator decline. No separate species action plans have been identified.

## FARMER AND LANDSCAPE INITIATIVES, AS WELL AS LOCAL LEVEL STRATEGIES

The AIPP has 10 targets with 42 actions to make Ireland pollinator friendly. These encourage stakeholders responsible for private land, public land and farmland to increase pollinator habitats and nesting and feeding opportunities.

The following **public sector initiatives** have been identified:

In agricultural areas:

- The Republic of Ireland Green Low Carbon Agri-Environment Scheme (GLAS) offers two actions to support solitary bees (bee boxes and sand habitats), and other options which have indirect benefits for pollinator nesting and foraging habitats<sup>4</sup>.
- The Northern Ireland agri-environment-climate scheme offers an option for sowing 10m wide pollen and nectar margins, as well as wider habitat management options.

Many local authorities are incorporating actions published by the AIPP into their own County Development Plans and are developing their own pollinator plans.<sup>5</sup> Independent local authority initiatives include:

- South & East Cork Area Development launched an initiative to create a blueprint for communities on how to create more pollinator-friendly areas ([‘wild work’](#)).
- Wexford County Council launched a campaign in 2014 under the Wexford County Biodiversity Action Plan 2013-2018 to encourage planting pollinator-friendly gardens and wildflower meadows ([‘Let’s Bee Friendly’](#)), and a pilot project covering four areas was launched to enhance biodiversity along road verges, including wildflowers and associated pollinators ([‘Life Lives on the Edge’](#)).

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<sup>4</sup> E.g. arable margins, grey partridge margins, riparian margins, low input permanent pasture, fallow land, wild bird cover and other habitat improving actions

<sup>5</sup> Personal communication with Dr Jane Stout, Trinity College Dublin, Deputy Chair of the Pollinator Plan Steering Group

- Waterford City and County Council is developing a Pollinator Plan for a recently opened 46km walking and cycling route across the county ([Greenway](#)).<sup>6</sup>
- A partnership of eight councils across Northern Ireland gained Heritage Lottery Fund provides support to restore flower-rich habitats to increase food and shelter availability for pollinators ([‘Bee-licious’](#)). In 2017 the project organised [events](#) throughout Northern Ireland to raise awareness of pollinators.
- Causeway Coast and Glens Borough Council (NI) are leading a project which focuses on conserving semi-natural grasslands, especially the management on road verges to make them pollinator-friendly ([‘Don’t mow, let it grow’](#)).

[Plantlife](#) has launched an initiative called [“Save Our Magnificent Meadows”](#) to protect and restore wildflower meadows and grasslands which has already enhanced 32 ha of lowland meadows. A total of 11 organisations are involved, including Ulster Wildlife and Farmers. Access has been improved, interpretation erected, swards have been enhanced with wildflower mixes and scrub cleared. Six primary schools, four secondary schools, a farming college and Queens University have engaged in site visits, species studies, grassland restoration, mini-meadow creation and wider community engagement. An [online platform](#) has also been created.

## MEASURES ON PESTICIDES

Actions A6 and A7 within Target 1.1.3 of the AIPP are aimed at encouraging the sustainable use of agricultural pesticides (ie insecticides, herbicides and fungicides) and maintaining data on pesticide use in Ireland, respectively. In particular, it defines actions to:

- Develop best practice guidelines for farmers to reduce their use outside of cropping systems to minimise risk to pollinators.
- Support existing work to raise awareness on the responsible use of pesticides within agriculture by enhancing online resources to provide clear and simple guidelines
- Within Northern Ireland, support the UK wide Voluntary Initiative on Promoting Responsible Pesticide Use
- Maintain data on the pesticides that are used in Ireland, where they are used, and what for.

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<sup>6</sup> Personal communication with Dr Jane Stout, 19/10/17, Trinity College Dublin, Deputy Chair of the Pollinator Plan Steering Group



# RAISING AWARENESS, ENGAGING SOCIETY-AT-LARGE AND PROMOTING COLLABORATION

## TRAINING AND AWARENESS RAISING CAMPAIGNS

The AIPP has 3 targets with 11 actions to raise awareness of pollinators and their importance. The targets are supported by the following initiatives:

- An [annual public meeting](#) that rotates around the four provinces, to raise awareness, discuss progress and plan for future action.
- In 2017 the Green Flag Awards introduced '[The Pollinator Project Award](#)' for parks that have especially supported local pollinator populations or promoted their importance.
- The AIPP in collaboration with [Origin Green](#) (the Irish national food sustainability programme) published '[Farmland: actions to help pollinators](#)' in September 2017 aimed at farmers who wish to support pollinators. It has distributed the AIPP business guidelines to all of its 500 participating companies and plans to distribute the farmland guidelines to all Origin Green participating farms ([Origin Green Sustainability Report 2016](#)).

There are many awareness raising initiatives aimed at different sectors, aimed at achieving a high public awareness of pollinators. Since publication of the AIPP, the number of partner organisation has risen from 68 to over 90 and participant numbers within each targeted sector are also growing.<sup>7</sup> The Origin Green network has enabled a high dissemination among farmers.

There is also a need to increase farmer awareness of the importance of wild pollinators and what actions they can take to benefit them, for example by increasing the abundance of flowering plants on grassland.

## EDUCATIONAL CAMPAIGNS AND MATERIALS ON WILD POLLINATORS

- The NBDC website has published '[Actions for Pollinators](#)' guidelines aimed at gardeners, local communities, schools, businesses and councils, and has developed a mapping tool where people across different sectors can log their location and pollinator friendly actions they have taken.
- A [Junior Pollinator Plan](#) for children was published to coincide with an educational pollinator show ('[BEES! A Musical](#)').
- An Taisce (The National Trust for Ireland) is incorporating pollinators into [Green-Schools](#) and [Green-Campus](#) initiatives to encourage the pollinator-friendly management of educational properties.

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<sup>7</sup> Personal communication with Dr Jane Stout, Trinity College Dublin, Deputy Chair of the Pollinator Plan Steering Group

- Dublin Zoo took part in the EU Pollinators communication campaign for primary school children in 2019.

## CITIZEN ENGAGEMENT CAMPAIGNS

- More than 200 gardens have logged their actions for wild pollinators on the AIPP mapping tool (Actions for Pollinators).
- In County Fermanagh, Ulster Wildlife is leading an initiative to protect and restore wildflower meadows and grasslands which has already enhanced 32 ha of lowland meadows ([‘Save our Magnificent Meadows’](#)).
- The Tidy Town initiative hosted [‘Let’s Get Buzzing’](#) local authority pollinator awards in 2016 and 2017 to encourage pollinator-friendly actions in towns and villages. Through the Tidy Towns pollinator award, more than 70 local communities in 2017 made their local area more pollinator friendly in line with evidence-based advice from the AIPP.
- Laois and Offaly County Councils with support from Creative Ireland launched a project in 2017 to explore Irish pollinators through art ([‘National Pollinator Public Art Project’](#)) and have commissioned a [piece of music](#) that includes recordings of Irish pollinators.

## PRIVATE SECTOR INITIATIVES FOR WILD POLLINATORS

A framework for businesses to sign up as a supporter of the All-Ireland Pollinator Plan was established in late 2016. In signing up they agree to take one pollinator-friendly action in the first year and to carry out at least two more within the following five years. Currently 125 companies are [business supporters of the AIPP](#) and are taking actions for wild pollinators.

Origin Green, Ireland's food and drink sector sustainability programme, is working with the AIPP to ensure that evidence-based pollinator actions for farmland contribute towards their sustainability criteria.<sup>8</sup>

## APICULTURE SECTOR INITIATIVES FOR WILD POLLINATORS

None identified.

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<sup>8</sup> Personal communication with Dr Jane Stout, Trinity College Dublin, Deputy Chair of the Pollinator Plan Steering Group

# REFERENCES

Fitzpatrick et al (2006) *Regional Red List of Irish Bees*. Higher Education Authority.

[https://www.npws.ie/sites/default/files/publications/pdf/Fitzpatrick\\_et\\_al\\_2006\\_Bee\\_Red\\_List.pdf](https://www.npws.ie/sites/default/files/publications/pdf/Fitzpatrick_et_al_2006_Bee_Red_List.pdf)

Regan EC et al (2010) Ireland Red List no. 4—butterflies. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Ireland

## Educational materials

### ***Farmers***

Factsheets of the National Biodiversity Data Centre Ireland. Language English

- “Farmland: actions to help pollinators” [https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Farmland\\_actions-to-help-pollinators-2018-WEB.pdf](https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Farmland_actions-to-help-pollinators-2018-WEB.pdf)
- Food for pollinators on the farm; [https://www.pollinators.ie/wordpress/wp-content/uploads/2018/09/Pollinators-A5-Flyer\\_farmland\\_PRINT.pdf](https://www.pollinators.ie/wordpress/wp-content/uploads/2018/09/Pollinators-A5-Flyer_farmland_PRINT.pdf)

### ***Schoolchildren***

All Ireland Pollinator Plan Junior Version 2015-2020, Language: English <https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Junior-Pollinator-Plan-2018-WEB-1.pdf>

### ***General audience***

- Life Cycle: Bumblebees NBDC Ireland, Language: English [https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Life-Cycle-Bumblebee\\_highres\\_infographic.pdf](https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Life-Cycle-Bumblebee_highres_infographic.pdf)
- Life Cycle: Solitary bees NBDC Ireland, Language: English [https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Life-Cycle-Solitary-Bee\\_highres\\_infographic.pdf](https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Life-Cycle-Solitary-Bee_highres_infographic.pdf)