

Pollination

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Pollination is the transfer of pollen between flowers. Specifically, it is the transfer of pollen from the anthers (the male, pollen-bearing plant-parts) to the stigmas (the female, pollen-catching plant-parts), allowing plants to fertilize and set seed. Pollination therefore enables reproduction in plants.

Some plant species such as some trees and grasses rely on the wind to distribute their pollen. Now, in early Spring, especially on a sunny day, you may have noticed shimmering catkins on some trees such as Hazel (see image below). Their bright colours are the pollen building up. These are early blossoming species. Most trees will wait a little while longer before they put out their blooms.

Most flowering plants however do not rely on the wind for pollination; instead, they rely on the actions of animals to assist in pollen transfer. Many different types of animals visit flowers to collect nectar and pollen for energy and nutrients. As they do so, they can unintentionally transfer pollen from one flower to the next. These creatures are often referred to as pollinators.



In other parts of the world the array of pollinators can include birds (e.g. hummingbirds in South America), mammals (e.g. lemurs in Madagascar) and even lizards (e.g. geckos in Mauritius)! In Ireland our most important pollinators are insects, particularly bees, hoverflies, butterflies, moths and other fly species.



Why are Pollinators Important?

Pollinators provide a very important service. Through their actions of pollen transfer, they enable plants to be fertilised, thus seed formation occurs, leading to the production of fruits, nuts, and seeds. In many cases these are a source of food for humans, e.g., beans, peas, strawberries, pears, apples, courgettes, cucumbers, and tomatoes, to name just a few.

More than half of Ireland's bee species have undergone substantial declines in their numbers since 1980. The distribution of 42 species has declined by more than 50%. This is a cause for concern, in terms of food production for humans, but also in the more general sense of biodiversity loss and ecosystem resilience.

How can we help Pollinators?

To support a healthy population of pollinators locally, it is necessary to provide a good source of food throughout the year, and to ensure availability of landscape features that provide suitable nesting and hibernation sites.

A rich diversity of flowering plants in general will ensure that there are blooms available to feed pollinators almost year-round, and not just in the summer months (when the majority of flowering plants produce blossoms).

Along with food, pollinators need suitable nooks and crannies to shelter, nest and hibernate. Features such as old stone walls, south facing earth banks and old plant canes can accommodate certain bee species for example.

Action 1 – Audit Flowering Plants

Starting from early Spring, conduct a weekly (or fortnightly) walk around your school, noting (and taking photographs if possible) of what, if anything, is in bloom each week. This can be done as part of the Monitoring and Evaluation Step on the Biodiversity theme and will help to populate the repeat Habitat Map. More importantly however, the information recorded will inform your community of any gaps, in terms of food availability for pollinators, on your school grounds.



Cross-reference the flowers that you find against the lists in the All-Ireland Pollinator plan resources or other online information such as www.wildflowersofireland.net , [The Royal Horticultural Society](http://TheRoyalHorticulturalSociety) or a good wildflower guidebook, to ascertain if there are pollinator-friendly plants blooming for each survey. Not all flowers are nectar-rich so it is important to differentiate where possible.

If you notice any weeks are particularly low in flowering plants, decide what actions you can take to address that – e.g. are the particular flowers that you could grow that would bloom at that particular time of year, or are there landscape management changes that could rectify the situation e.g. letting lawns grow for a few weeks at a time might allow daisies and dandelions to bloom and feed the insects.

Action 2 – Find out what could work on your campus

Visit the All-Ireland Pollinator Plan's Resource section on www.pollinators.ie and find the plants and landscape features that would work best for you, your students, and your school campus.

Check out the [Nesting Guide](#) for information on installing appropriate landscape features. Browse the [Garden Actions to Help Pollinators](#) to find out about what nectar-rich plant species are highly recommended, and for lists of pollinator-friendly plants by season.



Action 3 – Plan to do “FIT” Counts

As the days become milder, insect activity will be on the increase, and pollinators are more likely to be visible. A good tool for monitoring pollinator activity in general, can be to conduct Flower-Insect Timed Counts or “FIT Counts”. You can find full information and guidance on how to do these [here](#) – they are very straight forward!

The information gathered by individuals or school groups can also be sent back to the National Biodiversity Data Centre, as part of their Citizen Science project, and so your work can contribute to the creation of a more accurate picture of what is going on for pollinators in Ireland.

Good luck with you actions this month!

