

BUMBLEBEE MONITORING SCHEME

<http://pollinators.biodiversityireland.ie>

Bumblebees are Ireland's most important wild pollinator. We know many of our rare bumblebee species have declined but we don't know how our more widespread species are coping.

This scheme is a long-term project. With your participation, we hope to track changes and detect the early warning signs of a general threat to bumblebees and to Irish pollination services.

This scheme would be impossible without the help of you, the volunteer, to whom we are very grateful.

In order to participate, you will need to set up a fixed route walk of 1-2km and take recordings on a monthly basis.

Steps to getting started:

1. Let us know as soon as possible if you'd like to participate in the scheme. Previous experience of bumblebees isn't necessary.
2. Think of a 1-2km fixed route you could walk once a month. The methodology is identical to the Butterfly Monitoring Scheme, so if you already participate in that scheme you can record bumblebees along your existing transect.
3. Register on the Data Centre's online system for capturing monitoring data and put in the details of your walk <http://monitoring.biodiversityireland.ie>
4. Download the recording form (R1) and record the bumblebees you see along your fixed route walk once each month from March to October on a day when the weather is fine and sunny.
5. Once you've completed your walk enter the details of the bumblebees you spotted into the online system <http://monitoring.biodiversityireland.ie>

Our thanks are extended to the Bumblebee Conservation Trust in the UK. The methodology outlined here is very similar to the UK Bee Walk scheme and means that in the future Irish data can contribute to identifying broader trends in European bumblebees.

Thank you for participating in the Bumblebee Monitoring Scheme and dedicating your time to helping Irish bumblebee conservation.

Best wishes

Dr. Úna FitzPatrick

Ecologist

National Biodiversity Data Centre

Important information:

General

- It is important that your walk is a fixed route so that we can assess bumblebee population trends over time. Do not change your route unless this is unavoidable.
- It's also important that you understand the methodology so that your results will be valid and can be included in the long term monitoring programme. If you have any queries, please don't hesitate to get in touch.
- You should submit your records each month using the online data submission system <http://monitoring.biodiversityireland.ie>. A tutorial on how to use the system is available on the website <http://pollinators.biodiversityireland.ie/recording-schemes/bumblebee-monitoring-scheme>
- It is a good idea to retain your original paper recording forms until you have confirmation at the end of each year that all data has been safely captured by the Data Centre.
- You must complete at least 6 of the 8 monthly walks for your data to be useful for monitoring purposes.

Identifying your fixed route walk

- If you participate in the Butterfly Monitoring Scheme you can record bumblebees along your existing transect. You will need to enter the details of your walk into the online system for Bumblebee data.
- Walks should be approximately 1-2km in length, taking about 45-60 minutes to complete.
- Your route should take in flower-rich habitats. It should be accessible and located in an area that's convenient for you.
- Split the transect route into between 5 and 15 sections.
- Register on the Data Centre's online system for capturing monitoring data and put in the details of your walk <http://monitoring.biodiversityireland.ie>. There is a tutorial that provides guidance on how to complete the form. If you have any questions, please don't hesitate to get in touch.

Walking your route

- You should walk your transect monthly between and including March and October.
- Use a separate monthly recording form (R1) for each walk.
- Transects should ideally be walked between 11am and 5pm.
- Ideally transects should only be walked when weather conditions are suitable for bumblebee activity i.e. warm (minimum 13-17°C), sunny days with no more than a light breeze. It is recognised that it can be difficult to meet these conditions, particularly at the beginning and end of the scheme.
- It's a good idea to bring a mobile phone with you and to let someone know where you've gone.

Identifying bumblebees along your walk

- Bumblebees should be recorded on form R1 which lists all the Irish bumblebees that can be identified in the field. Record the sex (queen, worker, male) of each individual you see. Don't worry about the species that don't have distinctive males, just put the count in the worker column.
- Honeybees should also be recorded if possible.
- Before you begin walking, fill in the name, site, date, weather conditions and start time in the spaces provided at the top of the recording form.
- Walk your transect route at a slow steady pace and record all bumblebees you see within a fixed distance - 2.5m of either side of the transect line and 5m ahead. In some habitats, e.g. along sea cliffs or woodland rides, it is acceptable to record at a width of 5m along one side only of the transect line.
- Maintain a slow steady pace. Do not linger in hotspots to improve your count, as this will bias results.
- Nets and pots can be used to capture bumblebees for closer examination when necessary.
- Ensure that all recording is completed at the end of each walk. Double-check for errors.
- Where estimates have to be made (when numbers are too large to count accurately) make sure a figure is recorded (e.g., 46 rather than 40+).
- Fill in the % sunshine at the end of each section
- If something unusual is recorded, add a note at the bottom of the recording sheet to confirm that what you have recorded is correct. Otherwise anomalous looking data will be omitted.
- It is important to note if any changes in habitat or land use occur.
- Don't forget to fill in the finish time at the end of your walk.
- Once you've completed your walk enter the details of the bumblebees you spotted into the online system <http://monitoring.biodiversityireland.ie>. A tutorial is available on the website.
- The website provides a blog of what I'm spotting on my walks to give you an idea what to expect each month.

Tips and resources for identifying bumblebees

1. There are 18 species of bumblebee that you could potentially see along your transect. However, some are very rare, and it's much more likely that you'll only see 6-8 species. With a little bit of practice bumblebees are relatively easy to identify.
2. In 2010 the National Biodiversity Data Centre produced a pocket identification guide to Ireland's bumblebees; this is available at a cost price of 5 euro during all Data Centre events.
3. The bee species profile pages on the Data Centre pollinator website (<http://apps.biodiversityireland.ie/BeesBrowser>) have photographs and identification tips to all Irish bees including the bumblebees.
4. Where necessary, take photographs and send them to the Data Centre for identification/validation.

If you have any questions, please don't hesitate to get in touch. Many thanks for your participation and best of luck recording

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