

# — BIODIVERSITY — on your Farm

The National Biodiversity Data Centre has set a challenge for farmers to record some of the amazing biodiversity found on your farm during the year. We have 40 species for you to record.

Are you up for the challenge?

## Species: Large Carder Bee (also commonly known as the Moss Carder Bee)

Scientific Name: *Bombus muscorum*

Irish name: Bumbóg Charda Caoinaigh

### Group

1 of 21 bumblebee species in Ireland. The Large Carder Bee is a rare bumblebee species.

Check out our Bumblebee poster:

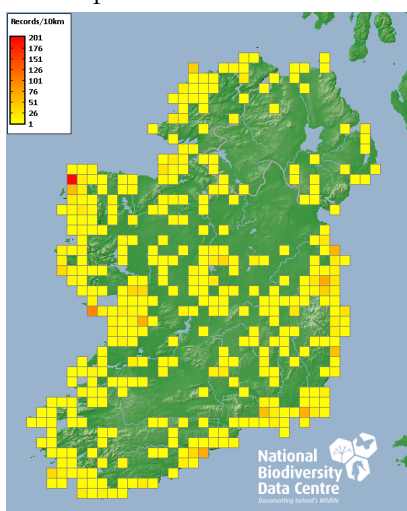
[https://pollinators.ie/wp-content/uploads/2019/06/SE-29-NBDC-Bee-Poster-2019\\_EMAIL.pdf](https://pollinators.ie/wp-content/uploads/2019/06/SE-29-NBDC-Bee-Poster-2019_EMAIL.pdf)

### How common on farms

Biodiversity surveys were carried out across 40 farms within the National Biodiversity Data Centre's 'Protecting Farmland Pollinators' EIP project (<https://biodiversityireland.ie/projects/protecting-farmland-pollinators/>). The 40 farms were chosen to reflect farms of differing types and intensity levels. The Large Carder Bee was recorded on two of the 40 farms.

### Distribution

Widespread but not common.



Source: The Large Carder Bee records as viewed on Biodiversity Maps, 2023.



@ Steven Falk

Large Carder Bee. Note distinctive blonde abdomen with no dark hairs. Thorax is bright ginger/rust coloured hairs.

### Identification Tips

- Medium-large sized bumblebee, queens can be 18mm in length.
- Distinctive blonde abdomen with no dark hairs.
- Thorax entirely covered with bright ginger/rust coloured hairs.
- Near threatened conservation status in Ireland.
- Occurs in large open areas of flower rich habitat.

### Biodiversity Tip No. 10

Retain and maintain hay meadows and pasture (species-rich grasslands).

They're an amazing habitat for pollinators.

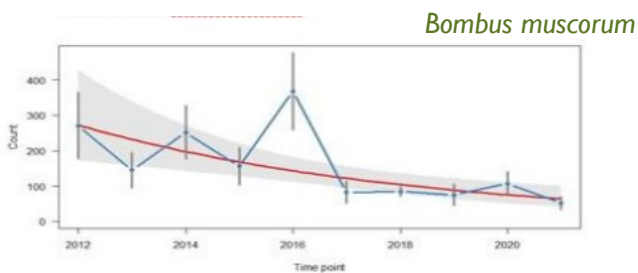


@ Ruth Wilson

## Conservation Status

Red Lists are an internationally recognised methodology for assessing conservation status. An Irish Bee Red List was published in 2006. It found that the Large Carder Bee was 'Near Threatened' with extinction from the island of Ireland.

Data from the All-Ireland Bumblebee Monitoring Scheme (<https://biodiversityireland.ie/surveys/bumblebee-monitoring-scheme/>) unfortunately, moved *Bombus muscorum* from a moderate decline to a strong decline. This species is listed as Vulnerable in the 2014 European Bee Red List. Ireland is one of its strongholds within Europe, making our trends all the more concerning. In a positive note, a number of local communities have been coming together through the All-Ireland Pollinator Plan to create joined up habitat corridors and protect the species in their local area. It is hoped that they can inspire others to follow their example, and give the Large Carder Bee a fighting chance at long term survival.



Source: Report on the All-Ireland Bumblebee Monitoring Scheme. 2012 to 2021.

## Management Tips

### Food for the Large Carder Bumblebee:

On the farm:

- Encourage species-rich grassland, including Birds-foot trefoil, Kidney vetch, Knapweed, Scabious, Clover and Vetch.
- In field margins and non-farmed areas encourage - Bramble, Yarrow, Woundwort.
- Heath - manage to have flowering Ling heather.

Nest sites:

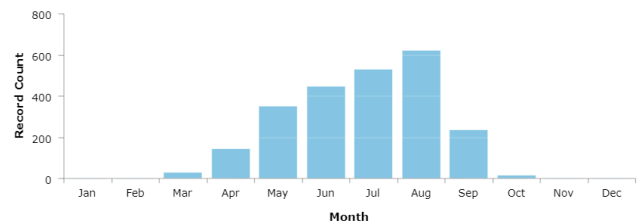
- Leave some areas of long grass, where bumblebees make their nest.
- Ditches may be important nesting habitat in wet grassland.
- They generally have between 40 and 120 workers in a nest.

## When?

The earliest the Large Carder Bee was recorded is 7 March, 1997.

They usually emerge late from hibernation, the Queens appear by May, workers by June and males by July.

### Records per month across all datasets



National Biodiversity Data Centre, Ireland, Large Carder Bumblebee (*Bombus muscorum*), image, accessed May 2023, <<https://maps.biodiversityireland.ie/Species/56019>

## Where on the farm?

It is currently found in greatest densities on coastal meadows, flower-rich dune systems, machair and Burren grassland, unimproved grassland and damp meadows.

It is also found on flower-rich bogs and heaths.

## Value

- Provides valuable 'pollination service'.
- It's unique to have the Aran Islands form of this species.
- Cross pollination of our wildflowers, helping them stay resilient and boosting their fruiting ability for wildlife and the next generation.
- Health and wellbeing: There's nothing better than hearing a bumblebee buzzing or watching it move from flower to flower while feeding. So, it's fair to say, it give us that 'feel-good' factor.

## Further Info

In Ireland, it is currently found in greatest density in coastal areas where flower-rich dunes, machair or Burren grasslands remain. It also occurs on flower-rich bogs and heaths. Uniquely in Ireland, it can be found in urban environments, particularly in areas where there are large meadows in urban parks.

The Large Carder Bee emerges late from hibernation and is dependent on native grassland plants. It has a naturally small nest size and does not travel far from its nest to feed. These factors make it more vulnerable to decline. It is in trouble because our landscape no longer contains enough of the habitats it requires for food, close to safe areas where it can nest.

## Similar species

A unique form occurs on the Aran islands (*Bombus muscorum* var. *allenellus*) that has black hairs on the sides of the thorax.

## Affected by a change in climate?

They may be affected by a change in flowering periods.

## Need some help with identification?

Just drop us a line, we'll be happy to help:  
[pollinators@biodiversityireland.ie](mailto:pollinators@biodiversityireland.ie)

## Useful Links

Protecting rare pollinators: Helping the Large Carder bee in your Local Community

[https://pollinators.ie/wp-content/uploads/2022/08/How-to-guide\\_-\\_Protecting-rare-pollinators\\_Large-Carder-Bee\\_2022-WEB.pdf](https://pollinators.ie/wp-content/uploads/2022/08/How-to-guide_-_Protecting-rare-pollinators_Large-Carder-Bee_2022-WEB.pdf)

Try our free online course on how to identify common bumblebees. It includes activities and quizzes to test your progress, and get feedback on answers: <https://learn.biodiversityireland.ie/courses/commonbumblebees>

There are also other free resources here: <https://pollinators.ie/record-pollinators/id-guides/>

## Record here

Your records will help us build a picture of farmland biodiversity in Ireland. If you're happy with your Large Carder Bee identification, you can submit your record:

- On our website at the National Biodiversity Data Centre: <https://records.biodiversityireland.ie/record/biodiversity-on-your-farm>

or

- You could also download our free smartphone App for recording in the field

*Android App:*

<https://play.google.com/store/apps/details?id=nbdc.mobile.biodiversity>

*iPhone App:*

<https://apps.apple.com/ie/app/biodiversity-data-capture/id906361120>

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An Roinn Talmhaíochta,  
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