

— 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: Clarke's Mining Bee

Scientific Name: *Andrena clarkella*

Irish name: Beach Tholltach Clarke

Group

1 of 80 solitary bee species in Ireland.

A solitary bee female lives alone, creating their own nest. Check out our solitary bee poster:

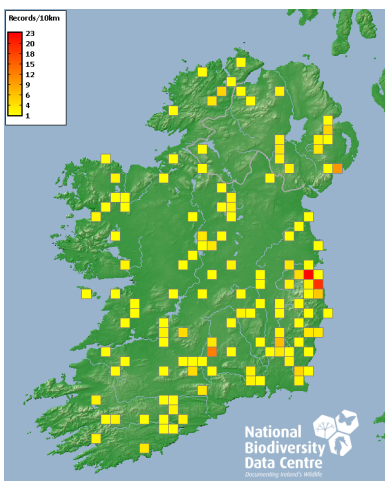
<https://pollinators.ie/wp-content/uploads/2022/10/Solitary-Bees-Poster-2022.pdf>

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 Clarke's Mining Bee was recorded on one of the 40 farms.

Distribution

Widespread and fairly common, probably under recorded.



Source: The Clarke's mining bee records as viewed on Biodiversity Maps, 2022.



Clarke's mining bee. Note: Light brown/ginger hairs on the thorax. Females with orange hindlegs and abdomen with dark hairs

Identification Tips

- The Clarke's Mining Bee is a large sized solitary species (11-15mm).
- Early spring flight period, March to June.
- Thorax with light brown/ginger hairs.
- Females have orange hindlegs and abdomen with dark hairs.
- Males smaller than females, with hairier faces.

Biodiversity Tip No. 4 Check if you have any Willow trees

Willow is a rich source of pollen and nectar in the spring for pollinators.

They grow in damp parts of the farm and can be grown easily from hard wood cuttings taken when the tree is dormant.



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 Clarke's Mining Bee was not threatened with extinction from the island of Ireland. Based on the Red List, it is 'Least Concern'.

The report noted that the Clarke's Mining Bee is an early spring species, and may be under sampled; its parasite *Nomada leucophthalma* shows no cause for concern.

Management Tips

Food for Clarke's Mining Bee:

- Encourage spring-blossoming shrubs and flowers, including Willow, especially Goat and Grey Willow, also Dandelion and Colt's-foot.

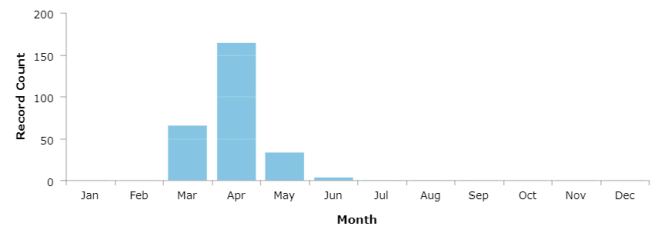
Nesting sites for Clarke's Mining Bee:

- If your farm is on sandy ground, especially with south-facing slopes, e.g. hedgerow banks and vertical sandpit faces, rabbit disturbed ground and well-used tracks, check for Clarke's mining-bee nest sites. If nests are found, try to protect these.
- Find out how to create solitary bee nest sites on the farm here: https://biodiversityireland.ie/app/uploads/2022/05/ActionSheet_Solitary-Bees-WEB-2.pdf

When?

A spring species, generally to be seen between March and June. The earliest it has been recorded in Ireland is 5 March (1943).

Records per month across all datasets



National Biodiversity Data Centre, Ireland, Clarke's Mining Bee, *Andrena clarkella* image, accessed March 2023, <https://maps.biodiversityireland.ie/Species/55562>

Where on the farm?

They forage almost exclusively on Willow, especially Goat and Grey Willow.

Check areas that have willows, including heathland, heathy woodland edges, sandpits and quarries.

Check sandy, south-facing banks for nesting sites. They can form large and dense nesting groups, known as *aggregations*.

Value

- Solitary bees provide valuable 'pollination service'.
- Cross-pollination of our wildflowers, helping them to be resilient, and boosting their fruiting ability for the next generation and wildlife.



Further Info

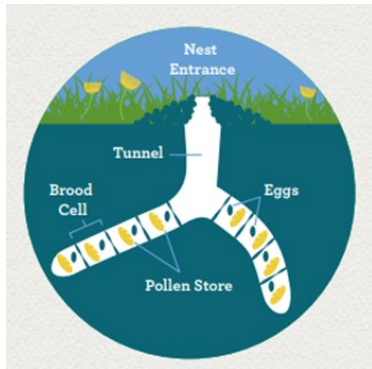
Clarke's Mining Bee obtains pollen almost entirely from Willows. It has also been observed visiting Colt's-foot and Dandelions, probably for nectar.

A single spring flight period and this peaks with the flowering of pussy-willow.

They nest in willow-rich areas, especially those with sandy soil. They make little burrows into bare soil and can occasionally be found nesting in large groups, but are also found in small groups or as single females.

When the female makes its underground nest, she leaves a food parcel for the eggs, called a pollen store.

Each egg and pollen store is sealed off and is known as a brood cell.



Similar species

It is similar to Gwynne's Mining bee, *Andrena bicolor* (9-12mm), but Clarke's Mining bee is larger in size (11-15mm).

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

Useful Links

There are also other free resources here:

<https://pollinators.ie/record-pollinators/id-guides/>

Some images can be found on BWARS

<https://www.bwars.com/bee/andrenidae/andrena-clarkella>

A lovely video clip on the 'Secret Life of Clarke's Mining Bee': <https://www.youtube.com/watch?v=yHHbTOSbN2U>

Record here

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

- On the National Biodiversity Data Centre website: <https://records.biodiversityireland.ie/record/bumblebees>

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,
Bia agus Mara
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Food and the Marine



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Rialtais Áitiúil agus Oidhreacht
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