

Protecting Ireland's most endangered bumblebee

We need pollinators to grow many of the fruits and vegetables that make up a balanced diet. The wildflowers that provide us with colour and beauty in our landscape also need pollinators, as do many of our garden plants. Most pollination in Ireland is carried out by bees.

In Ireland, we have 99 different types of bee: the honeybee, 21 different bumblebees and 77 different solitary bees. In the service of pollination, these bees are helped by other insects like hoverflies, butterflies and moths. Unfortunately, pollinators are in trouble. We know that one third of Irish bee species are threatened with extinction. The *All-Ireland Pollinator Plan* is an island-wide attempt to help pollinators by creating a landscape where they can survive and thrive.

The Great Yellow Bumblebee (*Bombus distinguendus*) is in decline across Europe, with populations falling by more than 30% over the past 10 years. It is now regionally extinct in Switzerland. In Britain it has undergone an 80% loss of range since 1970, and is now restricted to parts of north and west Scotland.

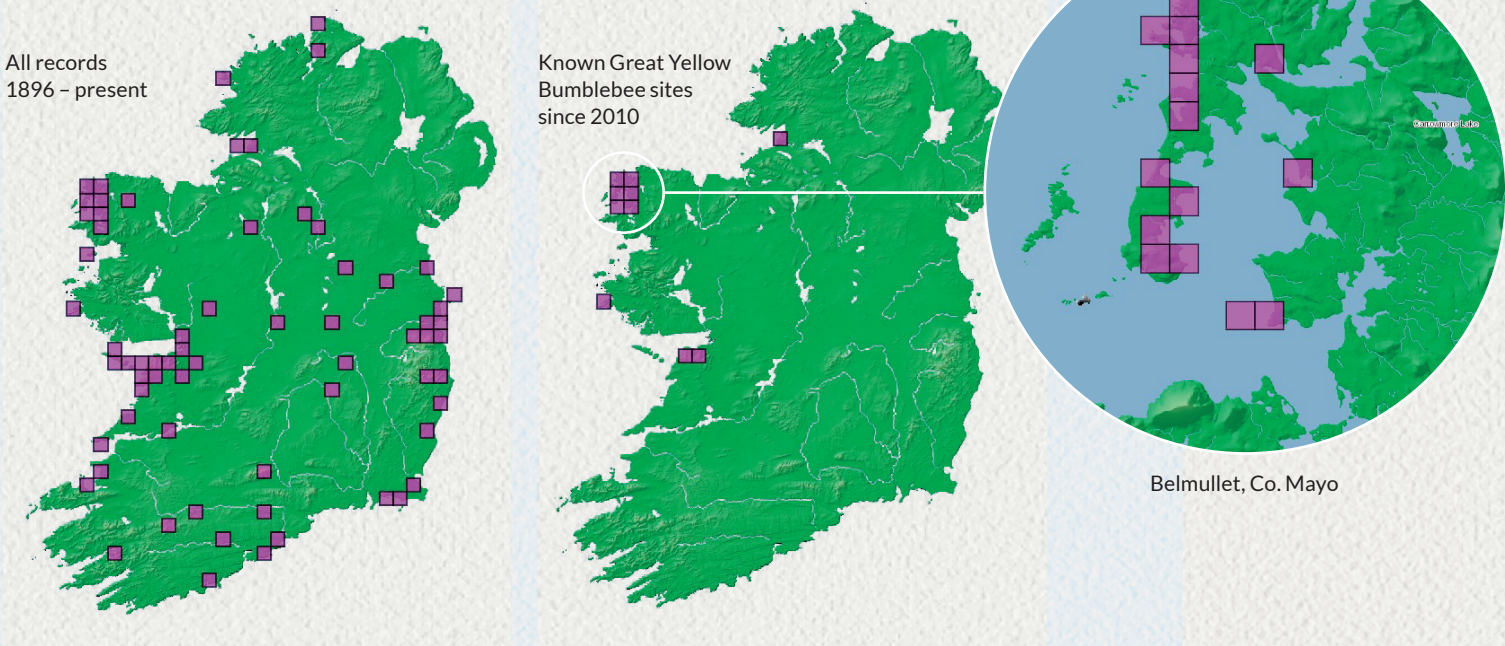
In Ireland, the Great Yellow Bumblebee was never common, but it was found across the island prior to 1960. With the large-scale replacement of hay

meadows by silage, the flower-rich areas this bee needs have largely disappeared from the Irish landscape. It is now found only on the west coast, primarily on floral-rich coastal grasslands, such as machair. It is listed as Endangered in the Irish Regional Red List of Bees (2006) and as Vulnerable in the European Red List of Bees (2014).

Currently, healthy populations are known only from the Mullet Peninsula in County Mayo.

Although, within the last decade, it has been seen occasionally in north Clare, south-west Donegal and Connemara, suggesting that it still exists at extremely low densities in these areas.

Maps generated from <https://maps.biodiversityireland.ie>



What the Great Yellow Bumblebee needs:

A supply of pollen and nectar throughout the season
The Great Yellow Bumblebee's foraging habitat is extensive flower-rich grassland, characterised by an abundance of Red Clover, Bird's-foot-trefoil, White Clover and other legumes in June, followed by Common Knapweed in later summer and autumn.

Suitable nest sites
The Great Yellow Bumblebee generally nests underground using warm, sheltered areas with small mammal burrows, typically in tussocky grasslands and vegetated sand dunes.



An Action of the County Mayo Heritage Plan



Native food plants



★★ Most important forage plants based on experiences in Ireland
★ Important forage plants

How does its life cycle differ from other bees?

Small nest size: The Great Yellow Bumblebee has a relatively small nest size of around 40 workers at any one time, with an estimated 100 over the course of the annual life cycle.

Later emergence: The Great Yellow Bumblebee is strongly associated with flower-rich grassland habitats.

It emerges from hibernation later than other bumblebee species to coincide with when this food source will be available. Late emergence means the bees have a shorter timeframe in which to complete their life cycle and are exposed to a greater risk of failing to produce sufficient offspring if floral resources are absent.



Identifying the Great Yellow Bumblebee

The Great Yellow Bumblebee is one of our largest bumblebees. Queens can be up to 2cm in length. It is entirely covered in bright yellow hairs (becoming pale mustard-yellow as the summer progresses) with a distinctive band of black hairs on the thorax. Queens, workers and males all have this banding pattern.

Find out more

To find out more about the *All-Ireland Pollinator Plan*, and to download our Guideline document 'Protecting rare pollinators: Great Yellow Bumblebee', see

www.pollinators.ie/greatyellowbumblebee

