

Bumblebee Monitoring Scheme

The Bumblebee Monitoring Scheme was established in 2011 as part of the Irish Pollinator Initiative and is co-ordinated by the National Biodiversity Data Centre (NBDC). Bumblebees are Ireland's most important wild pollinators and it is known that they are in decline¹. The National Biodiversity Data Centre states that "6 [Irish bumblebees] are currently under threat of extinction with a further 3 of 'near threatened' status." The purpose of the Bumblebee Monitoring Scheme is to monitor our Irish bumbles to ". In addition, monitoring bumblebees, sensitive indicators of biodiversity can provide a good metric of local biodiversity.

The Bumblebee Monitoring Scheme uses monthly transects (walks divided into sections for surveying) to monitor bumblebee populations. These monthly transects are undertaken from March until October a period in which most bumblebees are most active. The data (information) gathered during these monthly transects is uploaded onto the NBDC website. The NBDC can then annually collate data collected by recorders and assess the data for that year and compare it against other years.

Clareabbey Transect

The Clareabbey transect (see **Figures 1 & 2**), where monitoring is ongoing, was established in 2018. The transect is approximately 1.2 km in length and much of it follows a popular local walking route west of the Clareabbey roundabout which leads to Clare Abbey. The track and the tree planting along the route were undertaken as part of the Ennis bypass (M18) which opened in 2007. The transect is divided into 5 sections with distinct habits (see **Figure 1**).

Description of the Five Sections of the Clareabbey Transect

Section 1 is composed of a grouted stone wall and a narrow strip of amenity grass and a footpath. Section 2 supports a short section of semi-natural grassland part of which is planted with a wildflower mix by Clarecastle Tidy Towns. Section 3 is composed of scattered native broadleaved trees ranging from 4-6 m in height within a rough neutral grassland. The edge of this grassland adjacent to the footpath is managed by occasional mowing. The grassland under the scattered trees is not mown. Section 4 supports narrow strips of ephemeral growth on previously disturbed ground (with limited soil) running parallel to either side of the track. This section occasionally receives application of herbicide. Section 5 is composed of a managed hawthorn hedgerow and narrow strips of grassy verges either side of the track, which is also sprayed.

Clareabbey Transect Results / Observations

The main Clareabbey bumblebee transect results are as follows:

Four types of bumblebee have been recorded along this transect, these are: white-tailed bumblebee (*Bombus luscorum*); buff-tailed bumblebee (*Bombus terrestris*) (see **Photo 1**); common carder bee (*Bombus pascuorum*); and red-tailed bumblebee (*Bombus lapidarius*) all of which are widespread and the more common of the Irish bumblebee species. Honeybees (*Apis mellifera*), an important domesticated pollinator have also routinely been recorded along the transect. White-tailed bumblebee and buff-tailed bumble worker bumblebees look very similar so it is hard to distinguish between these species for much of the year so they are recorded as an aggregate. In total, 19 of this

¹ Bumblebee Monitoring Scheme on the National Biodiversity Data Centre website. Available on: <http://www.biodiversityireland.ie/record-biodiversity/bumblebee-monitoring-scheme/about-the-monitoring-scheme/> [Accessed April 2019].

aggregate and a total of 16 of both common carder bee and the red-tailed bumblebee were recorded between April 2018 and April 2019.

Some of the key observations made during the Clareabbey bumblebee transect were:

- Bumblebees nests are present in the rough grassland in Section 3.
- Important food sources for bumblebees early in the year include dandelions and later in the year brambles.
- In order to sustain bumblebee populations, timing and choice of management is important. Useful information on management for pollinators can be found at the All-Ireland Pollinator Plan (<http://pollinators.ie/>).

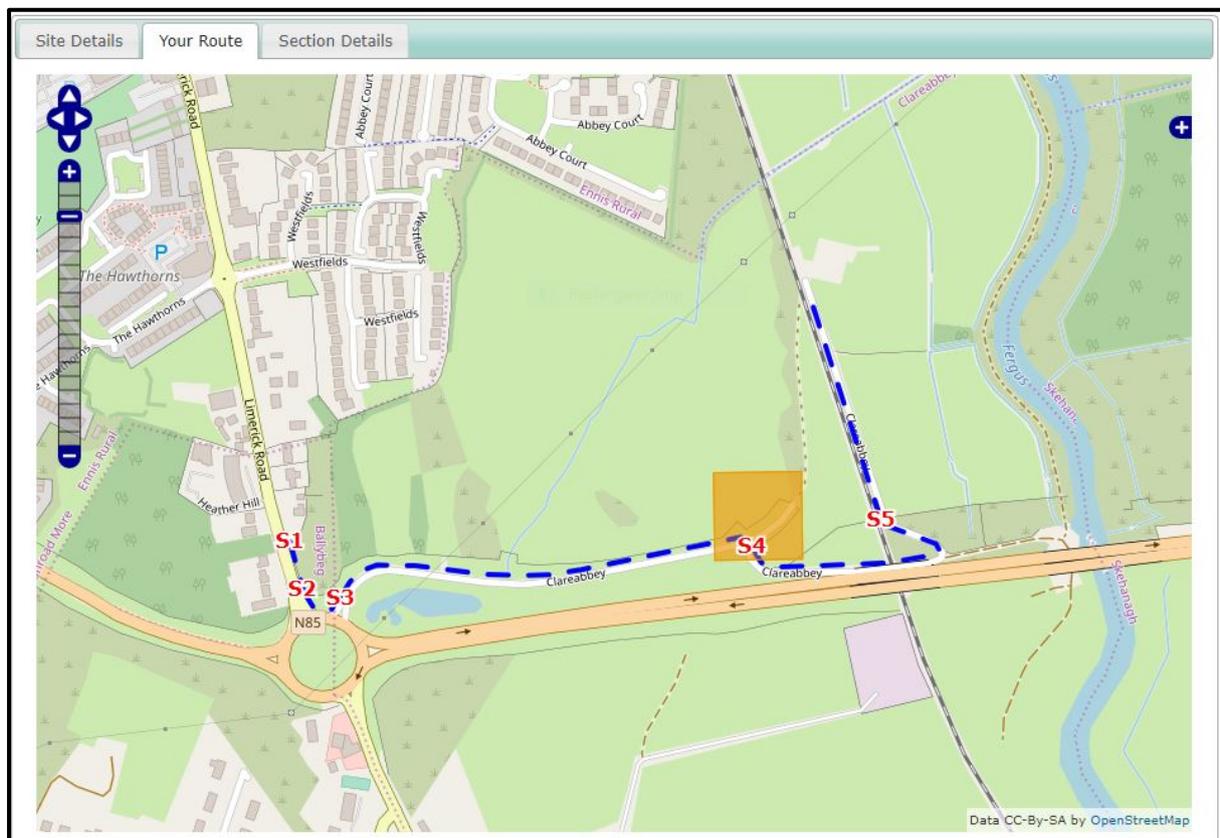


Figure 1: Clareabbey transect (blue dashed line) with the five sections, S1- S5, visible (in red text). Map source: Bumblebee Monitoring Scheme Online Recording System

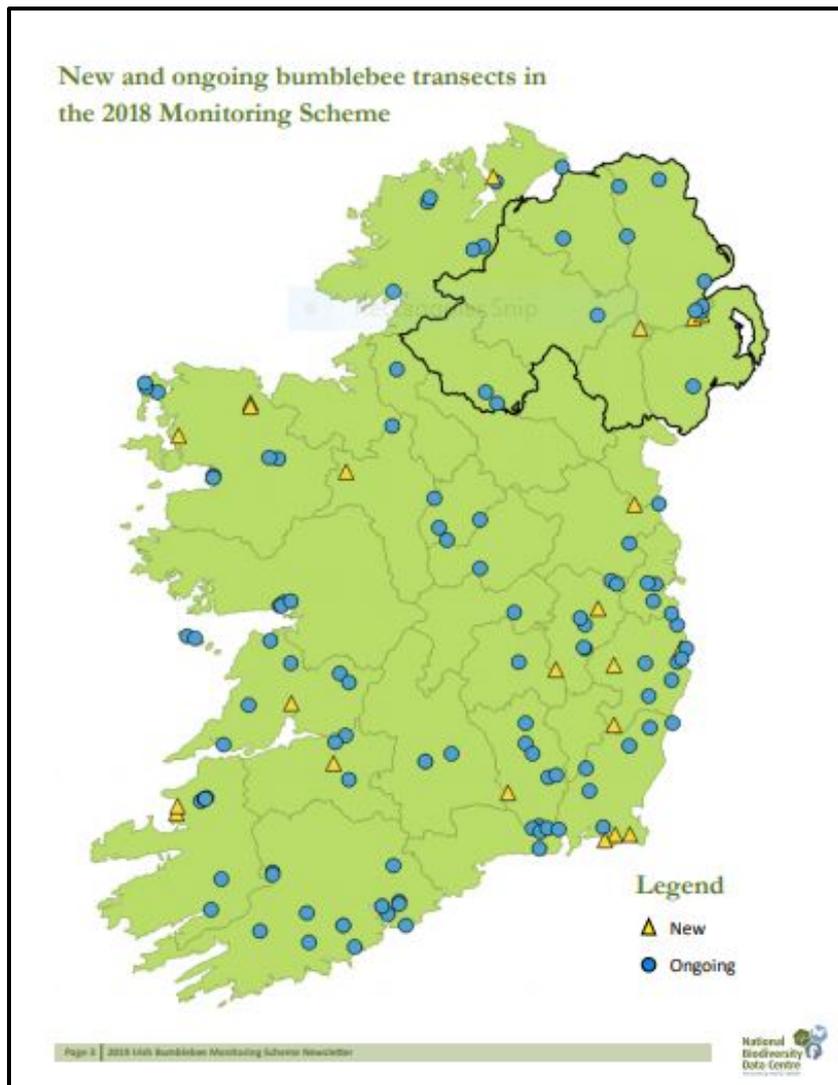


Figure 2: Bumblebee Monitoring Scheme Transects in Ireland. The Yellow Triangle Visible in County Clare is the Clareabbey Transect. Map Source: 2019 Irish Bumblebee Monitoring Scheme Newsletter, National Biodiversity Data Centreⁱ



Photo 1: Buff-tailed Bumblebee (*Bombus terrestris*) Feeding on a Dandelion Flower along the Clareabbey Bumblebee Transect

¹2019 Irish Bumblebee Monitoring Scheme Newsletter, National Biodiversity Data Centre. Available on: <http://www.biodiversityireland.ie/wordpress/wp-content/uploads/Bumblebee-Monitoring-Newsletter-2019.pdf> [Accessed April 2019].