

## Bumblebee aware for March 2020

Gardeners enjoy having flowers to look at during the greyer months of the year and there are varieties that make this possible. In the wild, the situation is different. Perennial flowers growing in hedges and wildflower meadows do not bloom until April and annuals only do so a month later. There are some trees and shrubs, like hazel and pussy willow that are making pollen now but the main season for flowers is from May onwards.

The Buff-tailed bumblebee, this month's star, is one of the easiest to spot because the queens emerge from hibernation in February and are the most likely bees to be seen on daffodil, bluebell and crocus. Her body is mainly black but she has one yellow/orange band on her thorax (the middle bit), another on her abdomen, and then a white tail. However, this white area has a ring of buff-coloured hairs next to the black part of her abdomen. She nests in underground burrows and may produce 500 offspring with the nest which will be active until October.



She has a short tongue and favours open flowers such as cotoneaster, heather, bramble, scabious, knapweeds, etc. but not deeper flowers like red clover. This last point is interesting because in 1885, four species of bumblebee were shipped from the UK to New Zealand to pollinate the red clover plants. It was such a success that the farmers were able to produce seed from their clover rather than buying new seed every year. The national dairy and beef industry was built on the efforts of those bees. Honeybees had failed to pollinate the crops because their tongues are too short.



A good way of filling your garden with relevant flowers is to visit garden centres once a month. All you have to do is to see which species are being visited by bumblebees and then buy some or make a note to do so later. Field scabious is the flower in the picture. It is a wild one that flowers for many months and is a magnet for bees.

The most critical times for foraging bumblebees are Autumn, when they are building up the fat reserves that they will live on for the Winter months, and Spring when they emerge from hibernation with empty reserves. The queen bumble uses lots of energy looking for a nest site and for supplies of pollen and nectar, while she is developing the fertilised eggs that she carries. Once the eggs have been laid, she shivers constantly to keep the eggs at 30 degrees C. She also has to collect food for the developing larvae until they are mature enough to go out and forage. This single mother has such difficulty in feeding her larvae adequately that some of this first brood may be much less

than a quarter of her size. These workers will remain like this because most adult insects cannot grow bigger as a result of feeding well in later weeks.

The massive impact of food availability is why our gardens can make a vital difference to the survival of that bee and her family. Many bumblebee colonies fail to produce males and new queens at the end of the season because there has been too little food around.

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