

## Baby it's cold outside

Some reference books suggest that bumblebees do not emerge from hibernation until outside temperatures reach 10C. They then shiver to raise their body temperature to 35C so that their flight muscles can work. At this stage they have to find food quickly. We have recently found queen bees crawling on the ground when the air temperature was only 6C. When we brought them indoors and offered them sugar water, they ignored it and just rested for about 15 minutes but, after this time, they revved up and flew away. This suggests that they were suffering from hypothermia rather than hunger. Human brains would not work at 6C and it is easy to understand that bees would become disorientated in such conditions.

Saving even a small life like this is surprisingly satisfying. Remember to use a drop of water containing a few grains of sugar rather than honey for this. There is a real risk of passing viral germs like Deformed Wing Disease to bumblebees if you use honey because the pathogen infects honeybees in a hive, and because honey is made by passing nectar from the stomach of one honeybee to another to concentrate it. Furthermore, many samples of honey contain traces of insecticides that can harm bumblebees (but not humans).

The warmer weather has already brought out the large bumbling Buff-tailed bumblebees, and recently, the highly energetic Hairy-footed flower bees, but this month's species is the relatively small **Early bumblebee** (*Bombus pratorum*). She has a black body with two yellow bands, and an orange-red tail. She usually forms her nest underground but is not dogmatic about it. Her colony will only contain about 100 individuals. This species is out and about in March, before most pollinators start collecting and so there is less competition for food at a time when few flowers have reached full production of pollen and nectar. Being a small species, she needs less forage to grow her family of small worker daughters.



The hedges and woodlands generally contain no flowering plants at this time of year but there are some bumblebees out and about. Often, they can be seen flying to and fro, a few feet above ground, looking for nest sites among leaf litter. They also do this in gardens and allotments with an eye to spotting an opportunity in a compost heap, under a garden shed, or in a log pile.



We can assist their survival during the cold weather by growing Crocus, Primrose, Pulmonaria, Ribes, and winter varieties of Clematis, Heather and Honeysuckle. For bedding plants to help them during the main pollinator season, choose species such as Cosmos, **Wallflower**, Snapdragons and Scabious because the bees love them, they flower for ages and they are pretty.