Diversity is Queen

A DISCOVERY exhibit by Bumblebee Conservation Trust

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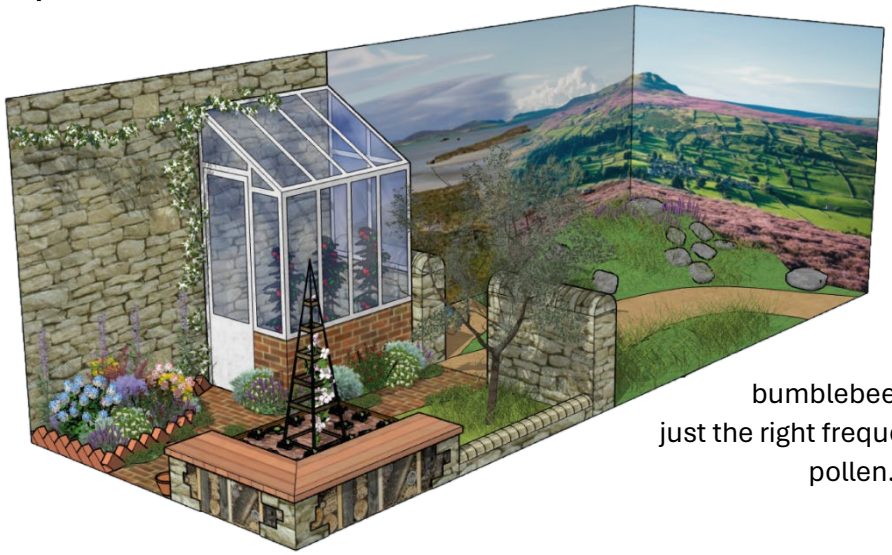

What does physics know, bumblebees can most definitely fly! In fact, to get airborne, bumblebees use the huge muscles in their thorax to flap their four wings more than 200 times per second. These same muscles allow bumblebees to be the only pollinators of tomatoes, in the UK. Tightly packed within the tomato flower, pollen can only be released when a bumblebee clamps on and vibrate its flight muscles at just the right frequency, resulting in a be covering explosion of pollen…and eventually, delicious, juicy tomatoes.

Our 'Diversity is Queen' exhibit inspires gardeners to consider the diversity of nature and the importance of providing a range of food sources and habitats for our wild pollinators, so that they in turn can provide their vital ecosystem services.

The exhibit represents four key bumblebee habitats. The first is gardens with a diversity of flowers throughout the year, which can provide vital habitats for many of our bumblebees. The second is Machair, a low-lying coastal grassland, found only on the western shores of northern Scotland and Ireland. Machair provides a vital last refuge for the rare great yellow bumblebee. Moorlands are the third habitat, usually found in upland areas and dominated by dwarf shrubs such as heather and bilberry, providing habitat for rare bilberry bumblebees. The last habitat is species rich grasslands, in the south of England and Wales, which support the last few fragile populations of the UK's rarest bumblebee, the shrill carder bumblebee.

Great Yellow bumblebee

Bilberry bumblebee

Shrill carder bumblebee

About the Trust

Bumblebees are familiar and much-loved insects that pollinate our crops and wildflowers, but in the last 80 years our bumblebee populations have crashed: two species have become nationally extinct, while several others have declined dramatically. Bumblebee Conservation Trust (BBCT) is a UK-based national charity established in 2006 in response to these ongoing declines. We have a vision to create a world where bumblebees are thriving and valued. Our mission is to increase the number and distribution of bumblebees. A growing number of committed supporters are helping our team of staff make a big difference for bumblebees, across the country.

Different types of bees

There are around 275 different species of bee, in the UK. 1 species of honeybee, 24 species of bumblebee and around 250 species of solitary bees. So much of what people think they know about bees, only applies to honeybees. For example, as the name suggests, honeybees are the only species that makes the honey we love to eat, are the only species to live in a hive and are the only species to die when they sting you. The remaining 274 species of solitary and bumblebees, are wild bees and have a different and fascinating lifecycle.

Bumblebees complete their lifecycle annually, building colonies of between 50 to 400 individuals, predominantly living in underground nests, often in abandoned rodent nests, and occasionally in our bird boxes or compost bins.

Why are bumblebees such great pollinators?

Having evolved in a cooling Himalayan region, between 25 and 40 million years ago, bumblebees evolved into large, hairy insects, able to survive in cooler climates. Bumblebees can even control their own body temperature, by vibrating their huge flight muscles. These cold weather adaptations allow bumblebees to fly earlier in the morning, later in the evening and for longer in the year, than most other pollinators. This combined with statically charged, hairy bodies and messy eating habits mean bumblebees are amazing pollinators, transferring lots of pollen grains from flower to flower, as they forage for food.

Things we can do in our own gardens – why are gardens so good?

Gardens have been shown to provide 85% of all nectar, within urban areas and can provide a huge diversity of flowers. This clearly shows the potential of gardens for bumblebees conservation and the important role gardeners can play.

There are 3 simple things gardeners can do to make their spaces bumblebee-friendly.

Provide food for bumblebees: choose plants that have a supply of pollen and nectar that pollinators can access by avoiding doubles and sterile varieties. Plant a variety of flower shapes and aim to keep your garden in bloom for as much of the year as possible.

Avoid the use of pesticides.

Provide nest and hibernation sites: leave some untidy areas in your garden, such as piles of leaves or some tussocky grass.

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