

Citizen Science & Bee Hotels

We work with Professor Dave Goulson and his team at the Goulson Lab, University of Sussex, helping to communicate their research on UK pollinating insects.

Insects such as flies, beetles, butterflies and moths, hoverflies and bees are vital for the pollination of most wild plants, garden plants and crops. Since it has become clear that many pollinators are in decline the Goulson Lab scientists have been researching the causes of decline and what can be done to help stop it.

There are over 250 species of bee in the UK. We're most familiar with the domesticated honey bee that lives in large colonies but it's just one of the species and there are limits to its pollination skills.



Honey bee

Our wild bees are equally important. There are 24 species of bumble bee living in the UK, they also live in colonies. Bumblebees are more efficient than honey bees at pollinating many crops such as beans and tomatoes. Tomatoes, one of the most important food industry crops, couldn't be grown commercially without Bumblebee pollination.

The remaining wild species, more than 220 of them, are known as solitary bees because they don't usually live in colonies. Individuals make nests in holes and cavities, in soil, walls, wood and hollow plant stems. Solitary bees such as Mason bees, are also vital pollinators of food

crops. They are efficient pollinators of fruit and important for commercial orchards and fruit farms because of their ability to increase crop yields and improve fruit quality.



Bumblebee

Bees that nest in cavities can be helped in gardens by providing them with artificial nests. Typically they deposit a stash of pollen in a cavity or tube, lay an egg on top and plug the egg with a protective stopper. Mason bees use stoppers of earth worked into mud, leaf cutter bees use perfectly cut circles from their favourite leaves.

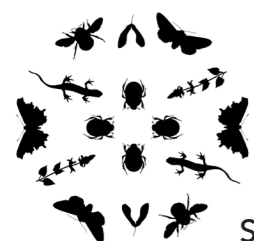


Mason bee

The bee larvae feed on the pollen plug then pupate, hibernating over winter and emerging in the spring by chewing their way out of the nest.



Solitary bee hotel with a viewing window, from Nurturing Nature nurturing-nature.co.uk



Shutford Nature Hub

Image: Rob Fowler

The Mason bee (*Osmia bicomis*) making its nest in a commercially produced bee house. Now is the time to create home made versions. Bees use them from early spring until the end of summer



Bee nests can be made by simply drilling holes into wood or by packing containers with nesting material.

We've put a couple of examples of home made bee nests into the Nature Hub phone box - illustrated below - one made from a tin can and



Nectar rich flowers

hogweed stems and another made from a clay drainage pipe and canes.

They need to be placed in a sheltered sunny position well off the ground. The base of the tin can be drilled allowing it to be screwed into a post or the frame of a shed.



Air Bee n' Bee

If you'd like to be more involved in helping pollinators you can take part in a Citizen Science project, assisting scientists at the University of Sussex to collect research data. Visit their website: thebuzzclub.uk, click on their Projects page and go to the Air Bee n' Bee project where you can download more information and forms that enable you to survey solitary bees visiting your garden.

