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Insect Pollinators Initiative

Can bees meet their nutritional needs in the current UK landscape?

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Bees provide a valuable pollination service for many crop plants. In return for visiting flowers, they obtain food in the form of nectar and pollen. An important but often overlooked reason that bee populations are in decline is that these important pollinators can no longer obtain adequate nutrition as a result of changes in land management practices worldwide. This project aims to find out what are the nutritional needs of honeybees and bumblebees so that they remain fit and healthy and relate this to the way that bees forage on flowering plants. The researchers will also examine how nutrition influences susceptibility to diseases and to toxins that are sometimes found in the food consumed by bees. By measuring the nutritional value of the nectar and pollen of many UK agricultural, horticultural, and native plant species, the aim will be to identify UK plant species that are important floral food sources. The results will provide a basis for the development of nutritionally-balanced, artificial food sources for bees and will allow farmers, land managers, beekeepers, and gardeners to improve foraging habitat for bee species worldwide.

This project is in partnership with Dr Phil Stevenson at the Royal Botanic Gardens, Kew.