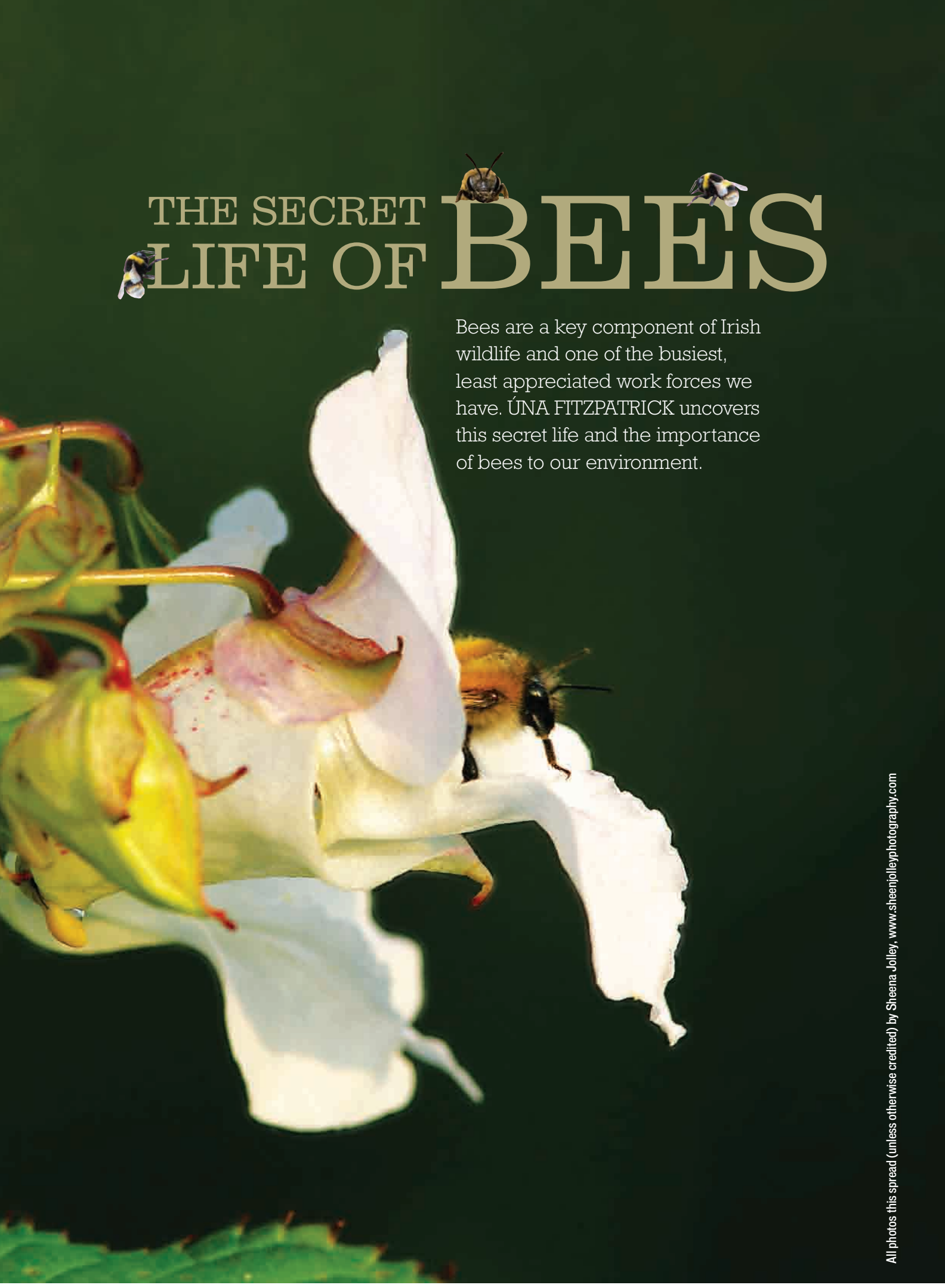
THE SECRET LIFE OF BEES

Bees are a key component of Irish wildlife and one of the busiest, least appreciated work forces we have. ÚNA FITZPATRICK uncovers this secret life and the importance of bees to our environment.



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Bumblebee on wild thyme by Pádraic Fogarty

Large carder bee by John Breen

Did you know?

Bees are not just pretty! They perform a vital role in our countryside by pollinating hundreds of types of trees and flowers including crops such as apples, blackcurrants, peas, beans and oilseed rape – not to mention the clover so loved by cows and vital to soil fertility. In fact, the Irish government recently valued the services of bees at €85 million per year! But lucky us – they do it for free!

Bees are the most important pollinator of crops and native plant species in Ireland. If people were to take over the job of pollination from bees it would probably require a workforce larger than the entire Irish population! In Ireland, crops such as apples, strawberries, raspberries, tomatoes, plums, cherries, carrots and onions are reliant on bees for pollination; and without bees many of our native plant species would quickly become extinct because they wouldn't be able to produce any seeds.

When you mention bees most people think of honey, but the honeybee only makes up one small component of Ireland's bee fauna. We also have 20 species of bumblebee and 80 species of solitary bees, adding up to a total of 101 native Irish species.

The Nature of Bees

Like honeybees, bumblebees are highly social insects. They live in colonies consisting of a queen, many female workers and some males. Unlike honeybees whose colonies last year round, queen bumblebees hibernate over winter. They emerge in spring and make a nest, often in an abandoned mouse nest, and lay eggs in it. Fertilized eggs become female worker bees whose job it is to raise the young and look after the colony. Unfertilized eggs become males who, without a thought to helping out with housework or childcare, instead head out and search for another queen to mate with. In actual fact, the poor males are forcibly driven out and have to live off nectar and pollen and spend the night on flowers or in holes! Towards the end of the season (late summer), fertilized eggs will become new queens instead of workers. The whole colony, including the males, dies as winter approaches, except for the new queens who go into hibernation until the following spring. Recently we've noticed that some bumblebees aren't hibernating as long and instead use flowering plants in gardens to try and breed over the winter months. We don't know what effect this will have yet so if you see bumblebees in winter, make a note and contact the National Biodiversity Data Centre, as it could give us valuable information on how bees are responding to our changing climate.

The Bee Identity

The bumblebee species are identified by the colour pattern on their thorax and abdomen. We commonly think of black and yellow stripes but there are many other colour patterns to watch out for. The red-tailed bumblebee is entirely jet black with a red tail, and the large carder bee gets the prize for best looking bumblebee with a ginger thorax and pure blond abdomen.

Bee Society

Although most people don't know they exist, the vast majority of bee species in Ireland are solitary rather than social bees. Solitary bees take one whole year to pass though a complete life cycle, and may only