



Solitary Bees

Of all the strange hobbies I could have picked up over the first lockdown, 'wild beekeeper' was not one I would have predicted. A freebie with the purchase of a few bird boxes for our new garden, the bee hotel was the same size as a Blue-tit box, but with six rows of four small holes each instead of one big one. I fixed it to the front of the house where it would get some morning sun, and didn't think much more about it.

Towards the end of the summer, however, I noticed that all the holes had become sealed, most with dried mud. Carefully, I eased out the six removable trays and was astonished by what was revealed. Each of the channels reaching back from the entrance holes was full, most divided into surprisingly uniform chambers by narrow mud walls at each end. Within each of these chambers was what looked like a single, small, dark coffee bean. By contrast, another channel was filled with something resembling a long, narrow cigar. Yet another couple were apparently filled with cotton wool. What was I looking at?

Sussex is home to no fewer than 226 different species of bee, the greatest variety of any county in the UK (I'm reliably informed that Surrey is one behind us, at 225). Aside from honeybees and the various species of the familiar bumblebee, the vast majority of these are classed as 'solitary' bees, so called because rather than having one queen relying on a colony of workers, every female is responsible for her own nest. Some are 'mining' bees, which make their nests underground, while others are cavity-nesters, who will use holes in walls, or bee hotels. If you've ever seen bees swarming round a bee hotel, you might think 'solitary' is something of a misnomer, and indeed many are gregarious and nest in close proximity to each other where the conditions suit them. Last summer, I was lucky enough to discover Sussex's fifth colony of a fairly rare solitary bee called the Early Colletes, or 'spring mining bee', at a site in Plumpton - several thousand buzzing together over a sand bank. It's a potentially alarming scene, but like most solitary bees, they don't sting and show no interest in people.

A little research revealed that the 'coffee beans' in my bee hotel were cocoons of the Red Mason Bee, the commonest resident of most bee hotels, while the 'cigars' had been made by Leafcutter Bees, and the 'cotton wool' was actually fluff from our *Stachys byzantina*, or 'Lamb's-ear', harvested by the Wool Carder Bee to encase their cocoons. Following advice, in October I gently removed all the cocoons, storing the Leafcutter and Wool Carder's in a matchbox, and washing the Red Mason Bee cocoons (amazingly, they're waterproof) before putting them away in the shed for the winter. Doing this increases their survival rate, as fewer will be parasitized by the tiny solitary wasp species that prey on them (although some argue that one should let nature take its course and not be so fussy!). Even if you leave all cocoons in situ, it's still a good idea to take the hotel down and store it somewhere dry and cool for the winter to avoid water damage or the attentions of woodpeckers looking for an easy meal. Just don't forget to put it back out again by April!

I've now invested in a larger 'deluxe' bee hotel from www.nurturing-nature.co.uk complete with observation windows, so I can actually watch the bees wriggle along the nesting channels with their pollen deposits before they seal each of their larvae inside their cozy, mud-lined chamber. It's a remarkable feat of precision, wild engineering that I feel privileged to witness. Last autumn I was astonished to harvest 350 Red Mason Bee cocoons from my two hotels.

Like all pollinators, our native solitary bees have been in decline for years, but there's plenty we can all do to help them. From cutting out garden chemicals, to letting beautiful dandelions grow on our lawns, and planting wallflower, lavender, borage and fruit trees - every little helps. And whether it's a homemade creation or off-the-shelf 5-star accommodation, no wildlife-friendly garden should be without its own bee hotel.

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