New Scientist 20 May 2022

## Graham Lawton

DURING one of the pandemic lockdowns in 2020 – it must have been the first, as we were spending a lot of time sunbathing in the garden – one of my neighbours started keeping bees. He would emerge from his back door wearing the full get-up and fumigate the hive before examining the interior for honey. We live in London, so barely knew him, and he never offered us a jar of honey, but it was an entertaining spectacle that gave us some cheer on those dreary days.

I didn't know it then, but my neighbour was part of a global trend. London, along with Berlin, New York, Paris, Zurich and many other cities, has seen a huge rise in urban beekeeping in recent years. I was all for it: we live in a gritty part of town where any sort of rewilding is welcome. My wife and I discussed taking up beekeeping too, or at least making our little garden more bee-friendly with a few bee hotels or more flowers.

We didn't do any of these things, and I am relieved that we didn't. Because, although urban beekeeping feels like it must be making a positive contribution to nature conservation by helping to reverse the pollinator decline, the truth is rather different. Far from helping, it can actually do harm.

To understand why, it is important to recognise that the domesticated bees we keep in hives – the European or western honeybee (*Apis mellifera*) – isn't remotely endangered and doesn't need saving. What do need saving are the hundreds of other species – many of them bees, but also butterflies, hoverflies, moths, beetles, bats and birds – that also provide vital pollination services.

Many of these wild pollinators are in a worrying decline across the world. However, their city-dwelling populations are surprisingly healthy. Bee species richness has been found to be higher in urban areas than in surrounding farmland, and bumblebees also thrive better in cities. This is largely due to the fact that cities contain a wide variety of bee-friendly habitats with relatively low use of pesticides and copious blooms of wild and garden flowers: parks, gardens, allotments, cemeteries, railway verges, campuses and more.

That is great for wild bees and other pollinators – until swarms of domesticated honeybees swoop in and start competing with them for the nectar and giving them their diseases and parasites. Paradoxically, what starts as a well-intentioned attempt to increase pollinator numbers has the exact opposite effect.

One recent study in Paris, for example, found that where hive density is highest, solitary bees, bumblebees and other wild pollinators struggle to get enough to eat. Similar urban food deserts have been documented in London, where beehive density is now more than eight times the UK average.

Another study done across 14 cities in Switzerland found that between 2012 and 2018, the density of beehives almost doubled from 6.5 per square kilometre to more than 10, and there was no longer enough urban green space to sustain the hives, let

alone the wild pollinators. The authors concluded that urban beekeeping has become a classic "tragedy of the commons" where unregulated over-exploitation of a finite resource is making everybody worse off. Maybe that is why I never got a jar of honey: there wasn't any. It may also explain why my neighbour has ditched his hive, like a surplus-to-requirements lockdown dog.

Honeybee hives also pose a risk to plants. Many have co-evolved with specialist pollinators and don't do well when honeybees nick their nectar and fail to keep their half of the bargain, which is to spread their pollen.

The trend towards urban apiary is part of a wider one of "bee-washing", where supposedly bee-friendly activities are promoted without any basis in science. This form of greenwashing includes the installation of bee hotels, which have never been proven to be a reliable way of providing a habitat for wild bees, and the planting of pollinator gardens, which haven't been proven to benefit the wild species that need help. Such activities detract or take resources away from ones that can actually help, such as altering agricultural systems to make them less damaging to wild bees; conducting further research on how honeybees affect wild urban pollinators and plants; and restricting the unregulated and unsustainable growth of beekeeping in cities.

In 2018, the United Nations designated 20 May as World Bee Day to raise awareness of the vital role bees and other pollinators play in keeping people and nature healthy. If you want to do bees a genuine favour, ignore the buzz around urban beekeeping and lobby your representatives to push for restrictions on the practice. Not as fun as getting a hive, but, as my neighbour found out to his cost, that often comes with a sting in the tail.