

Urban Beekeeping



Cormac Farrell is an environmental scientist and bee-keeper, best known as the Head Beekeeper for the Australian Parliament. He manages several apiaries throughout Canberra, including training apiaries, organic orchards and tall rooftop apiaries, creating unique food experiences that educate and inspire, pushing the boundaries of what cities can produce.

PRAISE FOR URBAN BEEKEEPING:

'This is a thorough, informative and delightful book. Open to any page and you'll find fascinating stories, intriguing bee-facts and beautiful pictures grounded in Cormac's broad experience and deep knowledge.'

— *Stuart Anderson, co-inventor of the Flow Hive*

'Beautiful! Delightful and essential reading for the beginner and advanced bee lover alike ... Reading *Urban Beekeeping*, you'll get to know Leafcutter, Blue Banded, native stingless, and a swarm of other bees. And you'll get to know the author, Cormac Farrell, whose enthusiasm, intelligence, thoughtfulness and warmth infuse every page. This is not just a book about bees. Woven through the buzz about our honey-making friends is an underlying message about our relationship with nature and our responsibility to shape a future we can share with all living things.'

— *Tanya Ha, environmental advocate and science journalist*

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The City as a Hive

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This book would not be possible without all of the folks
who have encouraged, mentored and even criticized me
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FOREWORD

It was the spring of 2013, and I had a big problem — my bees had swarmed. Not just anywhere, but onto my partner's favourite yellow dress. She called me to impress upon me (at high volume, and with salty language) how important it was that the bees were off her dress pronto! Normally this is great for a beekeeper — swarms are a chance to establish new colonies — but I had another rule: only one hive allowed at home.

I didn't realize it at the time, but this was a pivotal point that would impact both my beekeeping and my career. The solution was to convince my boss to let me keep the bees on a balcony at our office in the city. I knew that people had been keeping bees in the middle of cities for almost as long as we have had cities. New York City has a world-famous group of beekeepers, as do many Australian cities. I successfully convinced my boss that it was not an entirely crazy idea to have office bees as pets, and shortly afterwards we had a thriving office hive in the centre of Canberra. The bee colonies were a point of interest for the office, and in a strange way put us on the map; we were a small outpost of the larger offices, but suddenly we had company-branded honey jars highly sought after as client gifts.

Along the way I became known as the 'bee guy' in the company, which opened doors and started conversations, helping my team to build networks. It also opened my eyes to how bees are more than just a means to get more fruit and some honey — they are a pathway to changing how we see city environments and urban landscapes.

Then came the really big jump: we had to move offices and the new place had no safe roof access for beekeeping, so we had to cast about for new digs for our homeless office beehives. The Australian National University beekeeping club was in a similar situation, with a new student accommodation building about to be dropped into their apiary site. They had some alternative sites, but they had a promising lead: our national parliament. A recent inquiry had highlighted the importance and vulnerability of bees globally. As luck would have it, the Department of Parliamentary Services was keen to try something outside the box for their sustainability strategy and, after several months of negotiations, we were moving beehives

into the Parliament gardens in the dead of night, and I was suddenly the new head beekeeper for the Parliament of Australia. Thus the transformation from backyard beekeeper to the nation's 'bee guy' was complete!

It is a strange thing keeping bees. In many ways they are alien to us, acting more like a distributed 'hive mind' than a collection of individuals. Honeybees send each other detailed coordinates for flowers, using interpretive dance. That would be strange enough, but this dance is done in the darkness of the hive, with the surrounding bees sensing the steps and direction of the dance by the vibrations it sends through the honeycomb. Native stingless bees are just as ingenious, leaving a scent trail as they fly to allow their sisters in the hive to home in on flowers they have found.

Bees have fascinated people for millennia. Whether it be due to a casual use of honey on toast, their role in agriculture or the religious and mystical inspiration bees create, people have always loved bees. When many people think of bees, they immediately think of the ubiquitous honeybee, *Apis mellifera*, which underpins much of our agriculture around the globe. However, the actual role of the over 20,000 species of bees worldwide is now becoming increasingly apparent, not to mention all the other pollinators we rely on.

The one thing that all bee species are dependent on is abundant flowers that are free of pesticides, and this drives the most important change in your mindset that you have to make to be a successful beekeeper. Bees are intrinsically connected to the landscape that surrounds them, and as a beekeeper you will see the world through a different set of eyes. What previously looked like empty space or waste ground now looks like an opportunity for a flower garden. For me, this meant that the trees (which I already loved) became even more valuable if they flowered — these are the powerhouses of urban food production and habitat for all sorts of species. It also became critical for me to influence home gardeners to be thoughtful and careful in what they spray, lest this be carried back to hives in the surrounding suburbs.

One of the things I love most about my original career as a forester was how small and insignificant you feel when standing in an ancient forest. You come to realize that your time and place on this planet, for all the seeming importance that we get wrapped up in day to day, is really nothing. Bees tend to have a similar effect on me — I find it endlessly amusing (and humbling) that for all of our magnificent technology, literature and art, we are almost completely reliant on bugs in a box to feed ourselves.

One of the central conceits that beekeeping explodes is the idea that humankind is

somehow superior to the other creatures on this planet, that other creatures are expendable in our quest for development, profit, life in general. The reality often dawns on new beekeepers fairly early: it is in fact the other way around. We are the expendable ones, and it is plants and their pollinators, soil microbes, and detritivores that are the really critical part of life on Earth. This flip in perception often changes people's view of the world in a fundamental way.

When I was training at university to be a forester, we had an apiarist (as bee farmers are formally known) come in to talk about the value that forests held for bees and beekeepers. It was a revelation, particularly how complex proper nutrition for bees was, with the plants on the forest floor (that foresters too often ignored) in fact being critical for sustaining hives. I carried this lesson with me until many years later, when it became a critical part of designing sustainable urban forests for pollinators.

I want this book to be part instruction manual for urban beekeepers, and part manual for city planners, governments and citizens in creating a more sustainable way of life. When I was growing up there was a very clear sense that cities were for people, with green spaces to be carefully controlled, to look pretty but be basically useless. Wildlife and wild things were to be left in the bush. It always seemed a bit dull to me — why can't we have some wild things in town? And why can't we grow at least some of our food in our cities?

Of course, this means that we have to change the way we live, and the way we design our urban spaces. We have to be open to less concrete and more green, less control and a bit more give towards nature. In return we get cleaner air, more green space to help keep us sane, and delicious, unique food to be proud of. Seems like a reasonable trade to me.

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Bees in the city

Subverting the Concrete Jungle

When I was growing up, there was a stark divide between the city and the country. I always knew which of the two I preferred. We lived close to the edge of the city, and I spent a lot of my early teenage years running traplines for rabbits and foxes, fishing in the local streams and generally being outdoors every chance I got. Later when I started working as a forest ecologist, cities were pretty much given up as 'dead' land, with the focus of conservation and land management 'out there' in the wider countryside.

More recently, though, there has been the realization that we don't have to have a hard delineation — we can bring some of the natural landscape into the city. Not only does this bring aesthetic beauty and wildlife into town, but increasingly we are realizing the practical benefits of this. Urban areas with higher tree canopy cover consistently outperform other areas for property prices, and improve health outcomes. The increasing prevalence of heat-waves has highlighted the importance of shade and cooling vapour from the trees as they breathe (yes, trees actually do breathe in a cycle).

However, the thing that I have been most passionate about has been the capacity for the urban forest to provide food. Not just for us, but for wildlife that is increasingly relying on cities as refuges and transit paths between remnant habitats. Of course, this can never fully



The Parliament
bees happily
foraging on the
River Peppermint
trees fringing the
entrance roads.



Amazing where you can cram a bit of greenery into urban areas — like under this powerline.

substitute for natural habitat, but it definitely helps, and allows us to enjoy some unique food and beautiful wildlife along the way.

When I first started urban beekeeping, one of the funniest episodes was convincing the lawyers from the company I was working for that it was even possible to keep bees in the city. ‘What will they eat? Surely they will starve?’ they asked on several occasions. It is a reasonable question — for so long the central business districts were a concrete jungle, devoid of green life. Happily, there have always been gardeners sneaking greenery into the city, and this has now accelerated as attitudes change. In reality, our towns and cities are some of the best places to be a beekeeper and produce honey to rival the best in the world. This was illustrated in a funny anecdote one of our company lawyers later relayed to me. At their annual meeting with their insurers in London, they had prepared a detailed brief on the company beehives. The insurers were completely unfazed, apparently commenting ‘Oh,

you mean like the hives the Queen keeps at Buckingham Palace?’ Turns out that the Queen had her own urban hives producing honey in the heart of London, and the idea of honey from the city of London was a long-established tradition, seen to be a completely normal thing to do.

Keeping bees on public buildings and landmarks is increasingly the normal thing to do, and has been happening in European cities for some time. Paris has hosted beehives on landmark buildings for decades, with Louis Vuitton headquarters, the Paris Opera and Notre Dame Cathedral all supporting thriving colonies of honeybees. The Notre Dame bees even miraculously survived the 2019 fire that destroyed much of the building, and have become a symbol of hope during the rebuild.

Across the Atlantic, the White House started keeping bees under President Obama, and these bees were a focal point when he established some of the first pollinator protection policies. While his successor was certainly no environmentalist, his vice president, Pence, is a keen beekeeper. Under President Biden a new Pollinator Protection Initiative has seen beehives placed on government buildings at eleven locations across the United States.¹ The United Nations headquarters in New York has a beautiful Slovenian AZ hive, which is a pair to the one installed at the Slovenian embassy in Canberra.

Here in Australia, the Parliament of Western Australia became the first to keep bees, with the Queensland Parliament keeping a pair of native stingless bees. Both our former and current Governors-General are patrons of World Bee Day, with Government House in Canberra supporting several hives. Their boss, Charles III and his wife Queen Camilla, are also well-known beekeepers, and are patrons for the Elephants & Bees charity that supports beekeeping for poverty alleviation in Africa. Surely a royal decree to care for our bees across the nation cannot be too far away!

This dense bank of Lavender provides beauty, wonderful scent and constant nectar for one of my nearby rooftop apiaries.



BECOMING AN URBAN BEEKEEPER

For me, the transition from a backyard enthusiast to something more serious was a gradual process, a case of seeing opportunities, sometimes biting off more than I could chew and then chewing like crazy! However, the common element was always fitting the approach to beekeeping to the space that I had available. Sometimes this meant establishing honeybee apiaries, while in other situations native bees were the best choice.

The great news is that the estimated 2000 species of bees that we have in Australia are some of the most adaptable, useful and beautiful creatures that live alongside us, and almost anyone has some space for them. The space that you have will largely define what you can do, and may even go so far as to choose the species of bee that you keep.

Most of us start as a beginner beekeeper with one or two hives in our backyard, and that is certainly how I started with honeybees. Moving into an urban or inner-city space is different: you potentially have the freedom to have more hives than you ever could in a suburban backyard, but at the same time you are often presented with a blank canvas — either an empty field, a concrete rooftop or a patch of waste ground that nobody else wants. Equal parts daunting and exciting for most of us!

Moving a hive of live bees to the roof in a lift. Totally normal, right?



Hanging out in one of my tall building rooftop apiaries.



Getting close up with one of my bees

Generally, urban spaces where bees are kept tend to fall into two broad categories: open areas at ground level that can often work like a miniature farm, and apiaries crammed into the spaces of a large structure, often a roof, balcony or even the spaces between buildings. Some urban beekeepers even use a network of suburban backyards to spread small groups of hives across the wider landscape. Each situation offers its own opportunities and challenges, but in almost all cases it is possible for bees to survive and thrive!

Most importantly, all such beekeeping situations provide opportunities to change the way our communities see the urban landscape, often in a way that opens up opportunities for food, friendships and fun.