

MODERN GREEN HOMES

Sanctuary

ISSUE
59

BACKYARD
BUILDS SPECIAL

BACKYARD BONUS

Garden rooms,
studios & home offices

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PLUS

Flood-resilient extension
8.3-Star Perth downsizer
Get your alfresco roof right
Eco decking options



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PRODUCTS

These products are independently selected by our editorial team. If you have recommendations for products you think would be of interest we'd love to hear from you. Email: sanctuary@renew.org.au



Paper benchtops now in colour

We have long admired Paperock at *Sanctuary*, as a strong and versatile material especially suited to benchtops and splashbacks in kitchens. The black sheets are made from layer upon layer of recycled paper, which is bonded and cured, offering a strength comparable to concrete or stone. Now, for those who need some colour in their lives, Paperock has released their multi-hued Tactile range. Choose from seven matt colours including light or dark concrete, indigo, white, forest, mauve and blush, with the coloured Paperock top layer laminated to low-formaldehyde FSC-certified exterior grade plywood. The product is suited to kitchens and bathrooms because it's impervious to water, and it's also impact and scratch resistant. Pricing starts at \$189 per square metre for 19mm thick sheets; 25mm thick sheets are \$238 per square metre.

www.paperock.com.au

Office furniture subscription

Step inside a co-working space these days and you might see a Nook soundproof box, with its padded components made from recycled bottles. Sydney-based Recess, the maker of the Nook, has recently branched out to make a range of stylish office furniture from responsibly sourced materials: all timber is from FSC-certified suppliers and chairs are made from recycled mesh and foam. The WFH Bundles are good value for home office setups, and organisations can now also rent furniture – from ergonomic chairs to desks – from Recess via its subscription service. It's a great solution designed for the hybrid working model that's been widely adopted during the pandemic. Recess also offers free pickup of old office furniture when businesses purchase new products; from there, it gets upcycled and rehomed. Anything that saves vast quantities of desks and chairs from ending up in landfill each year is a great initiative.

www.recess.com.au



Low-carbon concrete

The carbon emissions associated with making concrete are a huge concern, so the more environmentally-friendly concrete options that are available the better. ECOPact from Holcim is a lower-carbon concrete that uses industrial by-products fly ash and slag to replace cement, the most carbon-intensive component of concrete, helping to divert waste from landfill at the same time. Switching out cement can reduce the carbon impact by 30 to 60 per cent. Holcim has also pledged to achieve net-zero carbon emissions by 2050 and has commenced a product innovation program for low-carbon concrete solutions to help reach that goal. The concrete is available in a range of strengths and can be used at home for slabs and driveways. Discuss the product with your builder, who can then place an order. Read more about eco-concrete alternatives in *Sanctuary 58's* green concrete feature.

www.holcim.com.au/ecopact

REVIEWS

If you have recommendations for films, books, smartphone apps, podcasts, websites or anything else, email: sanctuary@renew.org.au

BOOKS



The Good Life

Hannah Moloney

Affirm Press, 2021

\$40

For Hannah Moloney a ‘good life’ centres on sustainability, community and radical hope. A well-recognised permaculturalist with previous environmental advocacy experience, Hannah explores how everyday readers can achieve a fulfilling and sustainable life while helping to combat the climate crisis. From composting to car sharing and reducing food waste (look out for the excellent ‘summer glut’ salsa recipe), *The Good Life: How to Grow a Better World* is not short on creativity.

Drawing from her own experience creating a permaculture garden and small urban farm on a steep block in suburban Hobart, Hannah provides accessible information, case studies, photographs and diagrams to ensure that her message is approachable and useful for all readers, irrespective of age, wealth or home ownership.

Chapters cover how to make a positive difference in the garden, the home, and in the local community. At the end of each chapter readers are given the chance to reflect and brainstorm what changes they hope to make in their own lives. And throughout, Hannah is at pains to illustrate the extraordinary impact that ordinary lifestyle changes can have when combating an exacerbating climate emergency.

Absorbing and inspiring, *The Good Life* is both a fantastic introduction for those new to sustainable living and permaculture, and a useful read for those already on their sustainability journey and wanting to learn more.

Review by James King



All Together Now: The co-living and co-working revolution

Naomi Cleaver &
Amy Frearson

RIBA Publishing, 2021

\$84

Authored by an interior designer and an architect/journalist, both British, *All Together Now* is a comprehensive and insightful look at shared space for both living and working. Commissioned before the Covid pandemic but completed and published in the midst of it, it arrives at a time when lockdowns and work-at-home orders have blurred the definitions of ‘home’ and ‘workplace’, and when many of us – despite enjoying the newfound flexibility offered by remote working – are also craving physical togetherness. “In a world where virtual exchanges ... have become the go-to methods of communication, buildings and spaces that facilitate meaningful face-to-face interactions have become more valuable to us than ever,” the authors write.

Chapters cover shared space typographies such as co-living, multigenerational living, co-working spaces and student housing, and each includes fascinating case studies from the UK and Europe plus one or two further afield. My favourites include the 3 Generation House in Amsterdam, a five-storey house that’s configurable into anything from one to four separate dwellings; a co-living and co-working retreat in Bali, Indonesia, that caters mainly for those living the sort of nomadic lifestyle that truly remote working makes possible; and Garden House in London, a share house for two to four people with multifunctional spaces designed to allow everyone to work comfortably from home.

The authors also offer a design toolkit covering what they consider the “essential ingredients” – both emotional and practical – of a successful shared space, such as cultivating a sense of ownership, safeguarding privacy without isolation, incorporating nature, making space multifunctional, building in storage, and considering acoustics. All in all, the book is both a valuable guide for designers and a thought-provoking read for anyone interested in how we can best organise the way we live and work in a post-pandemic world.

Review by Anna Cumming

Inner-city upgrade

LOCATION Glebe, NSW • WORDS Rachael Bernstone • PHOTOGRAPHY Richard Glover



At a glance

- Compact, airy secondary dwelling on just 25m²
- High-quality increased urban density
- Designed for flexible use, with plenty of storage
- Excellent natural light and ventilation

This Sydney backyard studio turns an underutilised carport area into a multi-use living space, making best use of the tiny inner-city site.

Tucked behind this terrace house in Glebe, in central Sydney, is a small, neat backyard studio designed to make the most of all corners of the tight urban block, extend the family's living area and provide accommodation for the overseas grandparental generation.

“We wanted to make use of the far end of the patio area, where there was a carport with access from a back lane,” says the homeowner Elaine Rassaby, who lives in London and often visits her daughter's family, resident in the house. “The space couldn't really be used for a car as it was extremely narrow. It had become a dumping area for excess furniture and other detritus. We wanted to use the area to increase the living capacity of the small main house, and also make use of the separate access via the lane.”

Elaine engaged architect Claire McCaughan of Custom Mad to design the modest studio, which includes a

bathroom, kitchenette, flexible living/sleeping area, storage and a laundry tub (to qualify as a secondary dwelling) in a 25-square-metre footprint.

“There were many more constraints than opportunities,” Claire explains. “The valuable opportunity to open the studio on three sides was unusual for inner-city Sydney, so we were able to overcome the usual constraints of building in such a small area. We maximised the ceiling height and squeezed in extra storage above the sliding doors that open up to connect the studio to the courtyard.

“And the bathroom was so compact we had to carefully plan all the in-wall pipework,” she continues. “Our excellent builder, George McGarry from McGarry Construction, was very patient and enjoyed this challenge.”

A more difficult constraint was the

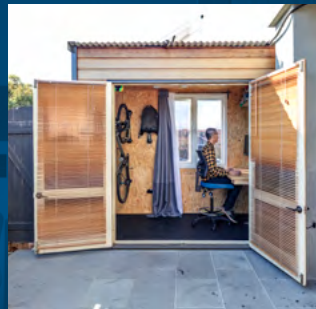
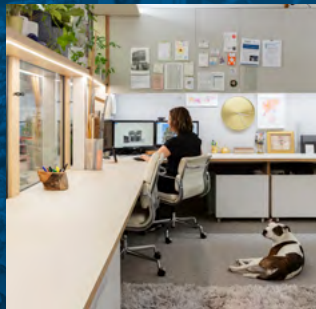
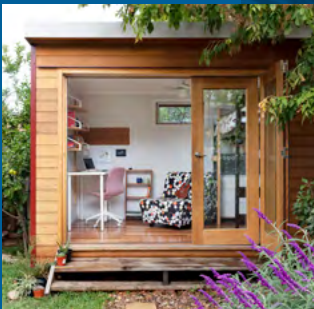
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The compact studio takes the place of an underutilised carport, with access via a rear laneway. Its roof slopes up to accommodate high-level windows facing north-west, and large double-glazed doors open to a courtyard shared with the main house.



Home work

WORDS Anna Cumming • PHOTOGRAPHY Alan Barber



During the first two years of the coronavirus pandemic, the residents of Melbourne endured over 260 days of lockdown – more than anywhere else in Australia. There were various levels of travel restrictions, schools and childcare centres were closed, and even after lockdowns were lifted, work-from-home orders remained in place for months.

This resulted in extra pressure on homes, which suddenly became full-time workplaces and schools as well as living spaces. Desks were shoehorned into bedrooms and dining rooms and multipurpose rooms utilised to their fullest, but as the situation dragged on, many Melburnians devised creative solutions for backyard offices and studios. We visited four of them, ranging from a diminutive DIY ‘Covid cubby’ to an architect couple’s recycled-brick home office with a green roof.



Chelsea's backyard bungalow

Chelsea Candy, who lives in Pascoe Vale South and has flexible shared care of her two teenagers, recently built a multipurpose room in her backyard. "My house only has two bedrooms, and I've been working from home for the past two years," she says. "It's quite a small house with a little living room where everything – craft supplies, musical instruments, Pilates equipment – was crammed onto shelves when it wasn't being used. We had an old wooden caravan that was used as a study space, but it was getting dilapidated. With the repeated Covid lockdowns, it became clear that the extra space was really necessary and if we were going to get rid of the caravan, we needed something else."

Chelsea chose a kit building from Designer Hideaways, which at 9.9 square metres didn't need a council permit. She engaged a local carpenter to install stumps and construct it, and then insulated and lined it herself with the

help of friends, having sourced insulation and floorboards on Gumtree from people who'd overordered. It's double-glazed throughout, including the generous folding doors across the front that face north for maximum solar gain. With the carefully insulated walls and ceiling, Chelsea says it's thermally much more comfortable than the rest of the house. "I even looked up the reflective value of different Colorbond colours and chose a highly reflective one for the roof, to keep it cooler in summer," she says. An electrician ran a line from the house to power lights, a ceiling fan and a couple of power points. Chelsea considered installing a small solar PV system, but decided against it as there are panels on the house already.

Fitted out with a desk, shelves and a loft bed for occasional guests, the bungalow functions well as a flexible space. "Because of the insulation and double glazing, it's quiet, and it's away from the house so it's private. It's been

really valuable for my kid with sensory overload issues," Chelsea says. "It can be used for music practice, Pilates, work or study, and as a teenager retreat. I feel like my living area had been trying to be many different rooms – craft room, music room, TV room – and by moving some of those functions to the bungalow there's more space in the living area for relaxing." The bungalow has also made the backyard more useable, as on a nice day the big doors can be opened right up to allow activities to spill out onto the grass outside.

Altogether, the build cost around \$18,000. "It's just a tiny space but it's made a big difference to the liveability of our house, particularly while we were all stuck at home," Chelsea says. "Recently my 14-year-old has been using it as a sleepover spot, which has been an unexpected and lovely consequence of opening up after lockdowns."

Elegant downsizer

LOCATION Perth, WA • WORDS Rebecca Krispin • PHOTOGRAPHY Bo Wong



At a glance

- 8.3-Star gas-free house for sustainability-conscious downsizers
- Designed to make a positive contribution to the streetscape
- Verandahs with screens and shutters to modulate shade, sunlight and privacy

This landmark, light-filled Perth home provides energy-efficient and comfortable living for its downsizing owners, with a perfect balance between connection to community and privacy.

The story of Adam and Kerry Mason's award-winning sustainable home started with a dream, a great block and a lot of homework. "We've been serial renovators over the years, but I've always had a dream of building my own home," says Adam. "We wanted to downsize and were looking to the future when our kids left home – which has since happened."

They fell in love with a 350-square-metre corner block located on a roundabout in busy suburban Applecross, not far from central Perth. "It's a small site, adjacent to a shopping village that gives us access to amenities without having to drive anywhere," Adam says. "We started doing our research with three publications: *Sanctuary* and *Renew* magazines, and *Your Home*, the federal government's free guide to environmentally sustainable homes. We

used these as a basis to help our decision-making process for the design. I got quite a lot out of reading case studies about what other people had done."

The couple also completed courses in passive solar design and attended Sustainable House Days in Perth.

Their research led them to local architect Philip Stejskal, who has a reputation for being a "really good communicator and working closely with his clients on their specific desires," as Kerry puts it.

According to Philip, "Kerry and Adam's site is unique in that it's quite public. They bought it specifically because they want that connection with the surroundings, but they also want to have their privacy. It was very much a case of balancing these two needs, along with proper orientation and passive solar principles."

→ Architect Philip Stejskal's sources of inspiration for this striking home included mid-century modern architecture, the work of Finnish architect Alvar Aalto and the traditional Australian homestead with wrap-around verandah.





↑
One of the new bedrooms features a generous north-facing window seat surrounded by built-in storage.

required elevation of nearly 1.5 metres higher than the existing house. The open space beneath the extension allows water and air to flow through, helping to protect a portion of the original house from floodwaters and enabling natural cooling to the subfloor.

The position of the extension is ideal for passive solar design, with windows to the north and east for sunlight and views into the backyard. Its placement and proportions also allow daylight into the kitchen at the rear of the original house and minimise the impact on the existing solar panels. Floor-to-ceiling louvres along the new hallway admit morning light and facilitate cross ventilation through the extension, and external slatted timber screens regulate light, shade and privacy from neighbours.

The pitched ceiling in the bedrooms enhances the sense of space and airiness, and a deep north-facing window recess in the back bedroom – containing an inviting

window seat – provides protection from summer sun and offers a view into the garden. This seat is a favourite spot for the family, especially Jane and Jen's son who has taken to birdwatching from this vantage point. Joinery surrounding the seat provides ample storage and a place to keep precious items well above flood level.

Lisa sourced robust, low-maintenance and cost-effective materials as locally as possible to suit the simple timber-frame construction method, yet provide interest and complement the original house (without matching). “When we started the project we drove around the area to get a good idea of the vernacular in terms of materials,” she says. Fibre cement sheet cladding is painted eucalypt green, with timber battens adding rhythm and covering the joins. “It’s a basic detail, but it harks back to coastal shacks while being a bit more sophisticated.”

Jane and Jen have already made some upgrades to the main house over the years,



↑
The modest extension blends in nicely with the existing house and garden. It was designed not to impede solar access to the solar PV system.

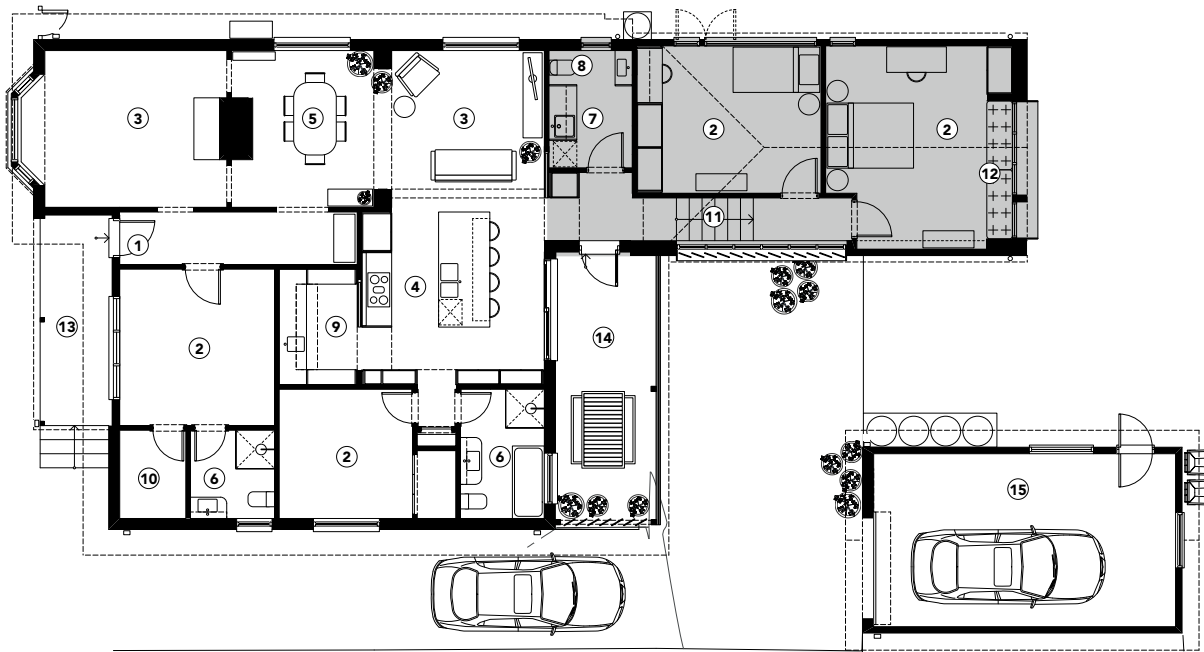
including going all-electric with solar panels connected to a 10-kilowatt-hour battery, solar thermal hot water, rainwater tanks and a ducted reverse-cycle air conditioning system. This existing system was sizeable enough that ductwork could be extended to the new addition without any replacement or major work. The floors and door hardware in the original house were also freshened up as part of this project, and there are plans to renovate the kitchen and bathroom in the future.

At the time of writing this story an intense downpour had just caused the creek to overflow again, with water flooding the driveways between Jen and Jane's house and the neighbours'. "This is why we did the extension. It was its first test and it passed," says Jen. The family can now rest easier knowing they are prepared for flash flooding and have a safe place to retreat to when the worst happens. 5



↑ Slatted timber screens provide shade and privacy to the patio and the east facade of the extension.

FLOOR PLAN



LEGEND

- | | | | |
|-----------|----------------|---------------|-------------|
| ① Entry | ⑥ Bathroom | ⑪ Stairs | ● New build |
| ② Bedroom | ⑦ Laundry | ⑫ Window seat | |
| ③ Living | ⑧ Toilet | ⑬ Verandah | |
| ④ Kitchen | ⑨ Pantry | ⑭ Patio | |
| ⑤ Dining | ⑩ Walk-in robe | ⑮ Garage | |

ROOFING YOUR ALFRESCO AREA

How to get it right

WORDS Amelia Lee



Alfrescos, or outdoor rooms, are becoming the latest must-have in Australian homes, beloved for extending the living space and connecting indoors and out. However, with the wrong roof they can block sunlight and warmth from your home. Amelia Lee, aka the Undercover Architect and producer of a popular design podcast, explains how to get your roof right.

When renovating or building, it's often a priority to create a functional and fantastic outdoor entertaining area that provides a great indoor-outdoor connection for the home, and an additional living space outside (especially in warmer climates).

However, many covered outdoor living spaces – also known as outdoor rooms or alfrescos – block direct sunlight and breezes to the interior living zones, making the home dark and poorly ventilated.

If you want to design the roof of your outdoor room so this space enhances the performance of your home and your lifestyle overall, you'll need to understand some specific things that are unique to your site and the home you're building or renovating. Here are three things to consider:

ALL DECKED OUT:

Design and material considerations for a long-lasting and sustainable deck

WORDS Allison Fogarty

TECHNICAL ADVISOR Paul Haar



↑
Recycled timber, such as these remilled railway sleepers from Northern Rivers Recycled Timber, is the most sustainable choice for decking.

Essentially an outdoor living room, a well-designed deck offers a place to retreat, relax and entertain and provides connection between indoors and outdoors. As with any building project, careful material selection and detailing is important to ensure a long-lived, sustainable deck.



OUTDOORS

Bees' needs

Creating a native pollinator-friendly garden

WORDS & PHOTOGRAPHY Emma Cutting

Native bees are like the canary in the coalmine for our ecosystems. Under pressure from habitat loss, pesticides and climate change, native bees are disappearing fast, a sign that our local ecosystems are under stress. What's to be done?

The Heart Gardening Project (THGP) is a community initiative that brings humans and nature together through street gardening and public planting. Its current main focus is the Melbourne Pollinator Corridor, an eight-kilometre-long wildlife corridor for native bees and other native pollinating insects connecting Westgate Park to the Royal Botanic Gardens Melbourne, bringing barren and undernourished pieces of public and private land back to life.

With the help of numerous scientists and other experts, THGP founder Emma Cutting has written the Melbourne Pollinator Corridor Handbook: the ultimate guide to attracting native pollinating insects to your nature strip and garden. Although Melbourne-focused, much of the information in the handbook can be applied to gardens across Australia. Here are some tips from it that will help you get started with your own pollinator-nourishing garden.

←

A native blue-banded bee (*Amegilla* species) roosting on a dried flower stem. Remember to leave a little bit of 'wild' in your garden, as it provides important habitat.

WHY ARE NATIVE BEES IMPORTANT?

Native bees are a vital (and gorgeous!) part of our ecosystem and have co-evolved with our native flora over millions of years, developing relationships that are very complex and sometimes exceedingly specialised. In addition, native bees help pollinate our vegies and therefore are really important for our food security. There are approximately 1,650 recorded species of native bees in Australia, with perhaps another 1,000 species waiting to be discovered, named and documented.

Creating gardens for native bees, other pollinating insects and flower-visiting insects is a fundamental step to having a wonderful, thriving ecosystem around us, and will also help many other critters including insects, birds, frogs, lizards, microbats and other mammals.

PLANNING YOUR GARDEN

Full sun or part shade is great

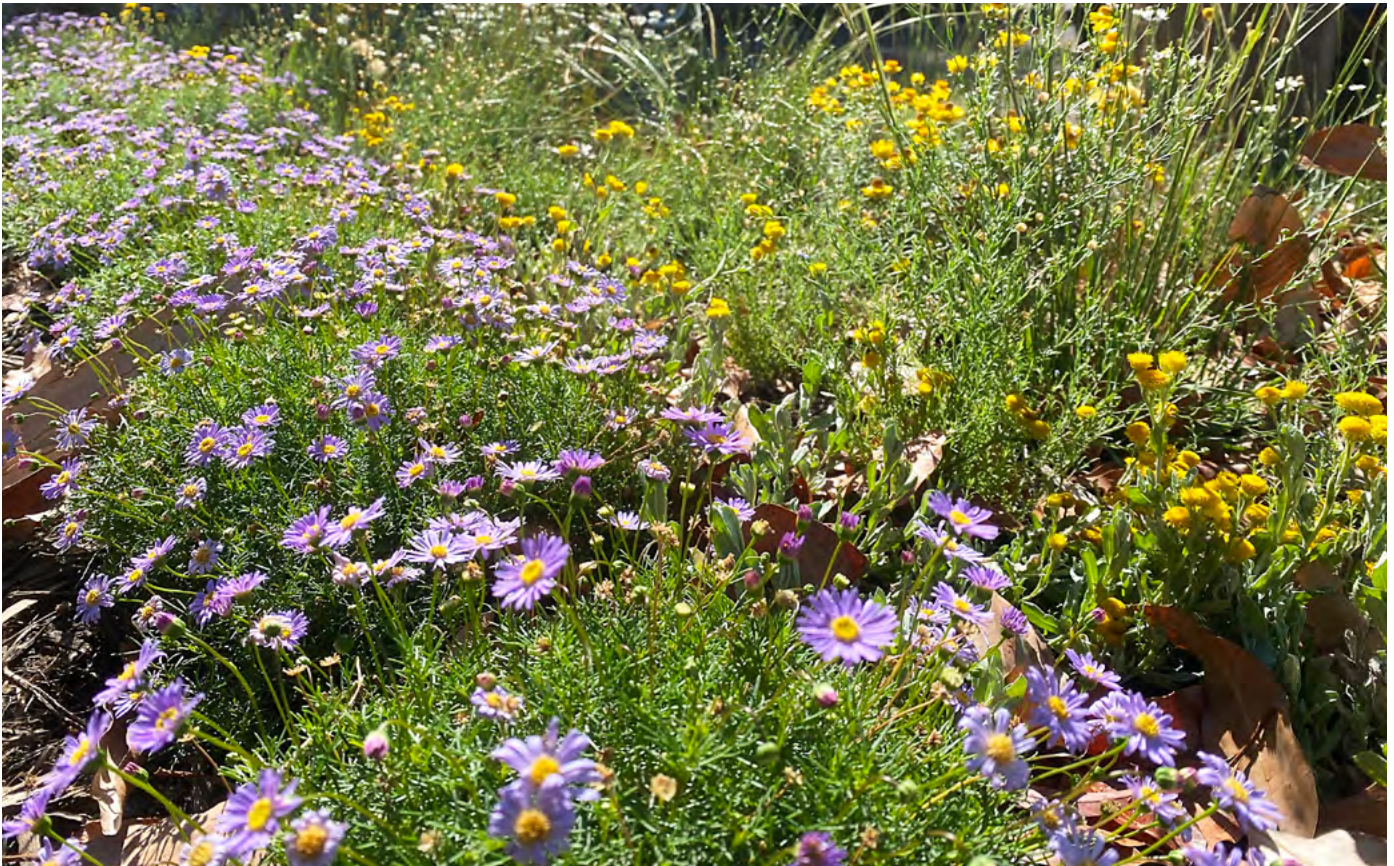
Our native pollinators need as much sun as possible as they are ectotherms: animals that source their internal heat primarily from the environment. Honey bees become active at temperatures around 12 degrees Celsius, but native bees often need higher temperatures to get going. They love to feed and zip around in the sun, getting faster as they warm up.

Rooftops

Ground level is ideal, but our native pollinators might fly a little higher if enticed. Home rooftops are often really great for city gardens as they can get so much sun.

Connect your garden up to another

If you can, join up your patch of habitat to a neighbour's garden, a verge garden or a piece of parkland to increase general health and genetic strength in our wildlife and plants.



↑

Indigenous wildflowers planted in a South Melbourne nature strip to attract native bees and other pollinators, including cut leaf daisy (*Brachyscome multifida*) and common everlasting (*Chrysocephalum apiculatum*).