

Bushland

Newsletter

AUTUMN 25

GOT A SNAP TO SHARE?

We'd love to share your recent photos of native plants, animals or you - getting out and about in. Please send your photos & stories to bushcare@randwick.nsw.gov.au.

Summer is the season for bugs! A high diversity of invertebrates is a great indicator of ecosystem health as these smaller critters play critical roles as food, recyclers, pollinators, & even as pest control agents. Image captions clockwise from left:

1. Philippa Fourie's orange assassin bug (*Gminatus australis*) on an equally spiny finger lime (*Citrus australasica*).
2. Tiny, incandescent Neon cuckoo wasp (Family: *Chrysididae*) dries its wings after an unexpected dip (ES).
3. Prince Henry Bushcare in February from Eric Ooms.
4. A greengrocer (*Cyclochila australasiae*) emerges by Keat Tang.
5. Peacock carpenter bee (*Xylocopa bombylans*) favours pink spider grevilleas (*Grevillea sericea*) at REP (ES).
6. Floury baker cicada (*Abricta curvica*) from Keat Tang.
7. A friendly Wylies resident, St Johns cross spider (*Argiope keyserlingi*) gets up close with Ian Clarke.

Got a snap to share?

Share your photos of native plants, fungi, animals, or you out enjoying nature. Send your photos and stories to bushcare@randwick.nsw.gov.au.



Enhancing resilience requires plant collaboration



Plants have long been recognized for their essential role in shaping ecosystems, but one of their lesser-known functions is the creation of microclimates. A microclimate refers to the climate conditions within a small, localized area that differ from the surrounding region. This local climate is directly influenced by factors such as temperature, humidity, wind patterns, and sunlight—conditions that plants actively modify and control. Vegetation, especially when dense or diverse, alters the microclimate by providing shade, reducing wind speed, and maintaining soil moisture.

1. Structural interdependence

Look around your neighbourhood or a forest alike and you will see that the healthiest trees grow in collaboration. Trees that grow in clusters are more likely to resist breakages, as they share the impact with those around them that shelters each other from harsh winds,

extreme temperatures, and storm damage. In fact, the density of trees makes a big difference contributing between 12-63% wind reduction in urban areas (Shahidan 2015).

But this structural support isn't just for mature trees. When trees grow together, they form a protective canopy

which protects sensitive saplings from temperature extremes and sunscald. By providing this dense shade, elder trees effectively slow the growth rate of the next generation ensuring that core wood is dense making it far more resistant to breakage or disease later in life.

Coastal extremes of salt, sun, wind and swell make vegetation proximity = survival.



2. Root-based resource sharing

The interconnectedness of trees extends below ground as well. Through mycorrhizal fungi, trees form vast underground networks that allow for the exchange of nutrients, water, and chemical signals. These networks, sometimes referred to as the "Wood Wide Web," enable trees to support one another by sharing resources, especially in times of stress, such as drought.

In close knit vegetation communities' mature trees can transfer water, essential minerals like nitrogen, phosphorus, and potassium, even energy in the form of carbohydrates gained through photosynthesis to younger or weaker trees, ensuring that the overall forest community remains robust. This symbiotic relationship strengthens the forest, fostering a more resilient and adaptive system.

3. Diversity for disease defence

Diversity of both species and genetics enhance resistance to stress, viruses, bacteria, fungi, and parasites. In a monoculture – whether of one species,

or an isolated genetic population – a single pathogen can cause devastation or even extinction.

Densely growing plants share genetic material via cross-pollination, continually enhancing the overall adaptability of the population. This promotes resilience to changing conditions, whether that's shifts in climate, new pest pressures, or the emergence of novel diseases.

Conclusion

Those that stand alone don't stand for long.

Trees and other plants interconnect through root systems and symbiotic relationships with fungi, forming a robust network that enhances nutrient cycling and boosts the overall resilience of the ecosystem.

Fragmented landscapes, on the other hand, can hinder these processes, making ecosystems more vulnerable to disturbances such as drought, pests, and diseases. By fostering diverse, connected plant communities, ecosystems become more adaptive and capable of recovering from environmental stressors.

The importance of plant connections extends to urban environments. Urban green spaces, parks, and green corridors provide more than just aesthetic value—they are key components of a resilient city. In cities, interconnected vegetation can mitigate the effects of air pollution, regulate temperatures, and create more sustainable living conditions for both humans and wildlife.

As we face increasing challenges posed by climate change, preserving and enhancing the relationships between plant species can help ensure that ecosystems remain robust, adaptable, and capable of withstanding future environmental pressures.

References

Shahidan, Mohd. (2015). Potential of Individual and Cluster Tree Cooling Effect Performances Through Tree Canopy Density Model Evaluation in Improving Urban Microclimate. *Current World Environment*. 10. 398-413. 10.12944/CWE.10.2.04.

Wohlleben, Peter. (2016). *The Hidden Life of Trees*. Greystone Books, United States.

Networks of she-oaks hold soft riverbanks together





From Sustainability

How trees and vegetation can cool your home

By Natalya Mendelevich - Sustainability Projects Officer

As our climate continues to warm, establishing shade trees on your property has become an essential strategy for maintaining a comfortable and energy-efficient home. In Sydney's eastern suburbs, projections indicate that by 2030, residents will experience an additional month of temperatures exceeding 25°C annually, increasing to an extra three months by 2070. By planting shade trees now, you can mitigate the effects of these longer, hotter summers.

Benefits of Shade Trees

Shade trees and shrubs offer numerous advantages:

- **Temperature Regulation:** By blocking direct sunlight and cooling the air through transpiration,

trees reduce heat gain in homes, leading to decreased reliance on air conditioning and lower energy bills.

- **Environmental Contributions:** Trees sequester carbon, filter pollutants, and provide habitats for wildlife, enhancing biodiversity in urban areas.
- **Aesthetic and Practical Benefits:** Beyond their beauty, trees offer privacy, serve as windbreaks, and can even provide food through fruit-bearing species.

Strategic Planting for Optimal Benefits

To maximise the cooling effects of shade trees while allowing for winter warmth, consider the orientation of your property:

- **North:** Plant deciduous trees or install pergolas with deciduous vines. These will provide shade during the high midday summer sun and permit sunlight during winter months.
- **South:** Evergreen trees are ideal here, as they won't obstruct winter sun and can act as effective windbreaks. Positioning summer outdoor living areas on the southern side can also offer cooler spaces during hot months.
- **East:** Utilise small trees and shrubs to shield against the low-angled morning sun. Both evergreen and deciduous species can be effective.
- **West:** Given the intense heat from the low-angled afternoon sun, tall evergreen trees and shrubs are recommended to provide adequate shade.

Selecting Climate-Resilient Plants

Choosing the right species is crucial for long-term success. Choose local native plants adapted to Sydney's climate, as they typically require less water and maintenance. Incorporating a variety of trees, shrubs, and groundcovers can create a resilient and diverse garden ecosystem.

Water-Wise Gardening Practices

Efficient water use is vital, especially during periods of drought. Consider the following strategies:

- **Mulching and Groundcovers:** Apply mulch and plant groundcovers to reduce soil moisture loss. Enhancing soil with biochar can also improve its water-holding capacity.
- **Rainwater Harvesting:** Install rainwater tanks to collect runoff for garden irrigation.
- **Efficient Irrigation:** Implement drip irrigation systems with smart controllers to deliver water directly to plant roots, minimising waste.

- **Timing:** Water plants early in the morning to ensure they have sufficient moisture to endure the day's heat

Limited Space Solutions

If your property lacks space for trees, consider Request a Street Tree from council. Randwick City Council offers a "Request a Street Tree" service, allowing residents to have appropriate trees planted on the nature strip outside their homes. This initiative enhances the urban canopy and provides communal benefits. <https://www.randwick.nsw.gov.au/about-us/forms-and-publications/forms/community-forms/request-a-tree-form>

Get Involved: Plant with Us 2025 Activities

Engaging with community planting events is a rewarding way to contribute to local greening efforts. Randwick City Council's "Plant with Us" program offers several opportunities in 2025:

- **April 6:** "Meet New Mates or Dates" at Arthur Byrne Reserve, Maroubra.

- **May 11:** Mother's Day celebration at Arthur Byrne Reserve, Maroubra.
- **July 27:** National Tree Day celebration at Bernie Kelly Drive, Maroubra.
- **September 7:** Father's Day celebration at Arthur Byrne Reserve, Maroubra.

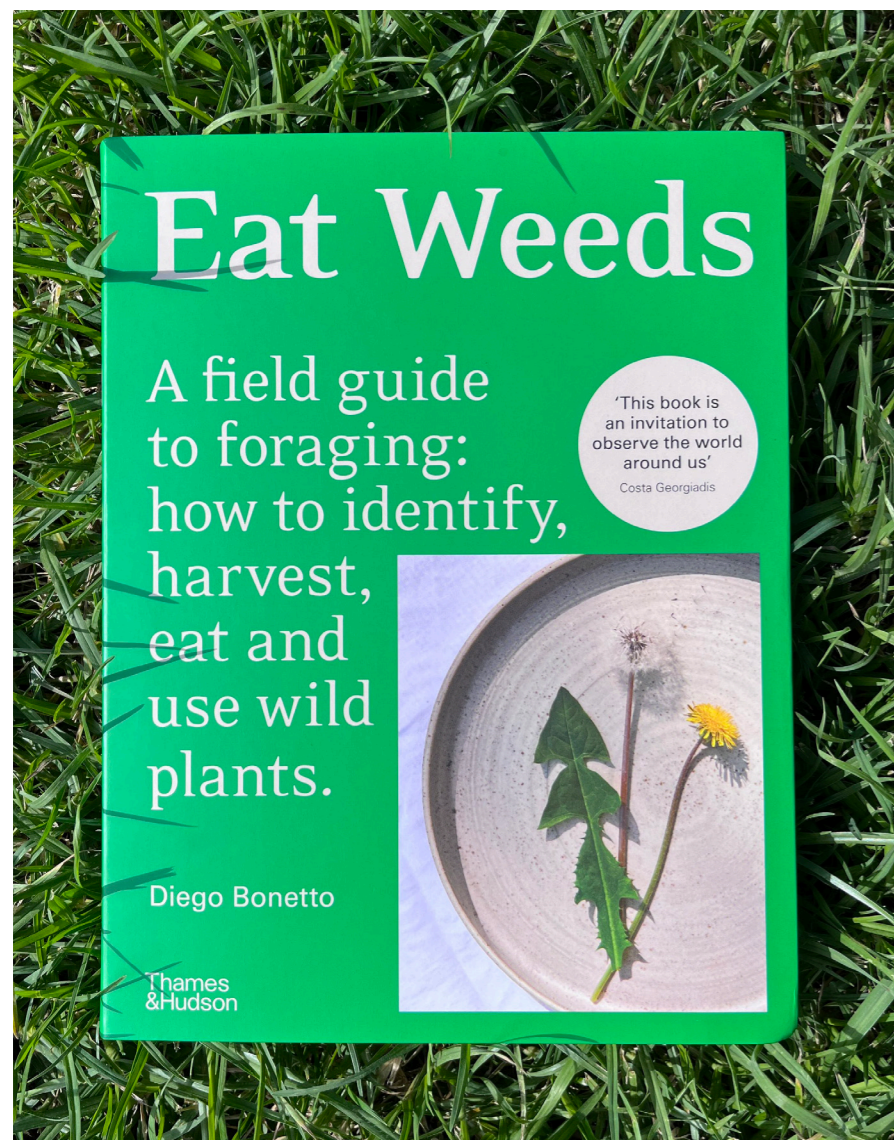
These events aim to increase native and indigenous vegetation across the city. Participants can learn about plant selection and contribute to creating habitats for local wildlife. Remember to wear sturdy shoes, a hat, long sleeves, and long pants, and bring your own gloves and a water bottle. <https://events.humanitix.com/host/601268419527ae000a487272>

By planting shade trees and participating in community greening initiatives, you can play a vital role in creating a cooler, more sustainable environment for yourself and future generations.



[Learn more](#)

Three books to get you thinking differently about the plants around you



Eat Weeds – a field guide to foraging: how to identify, harvest, eat and use wild plants

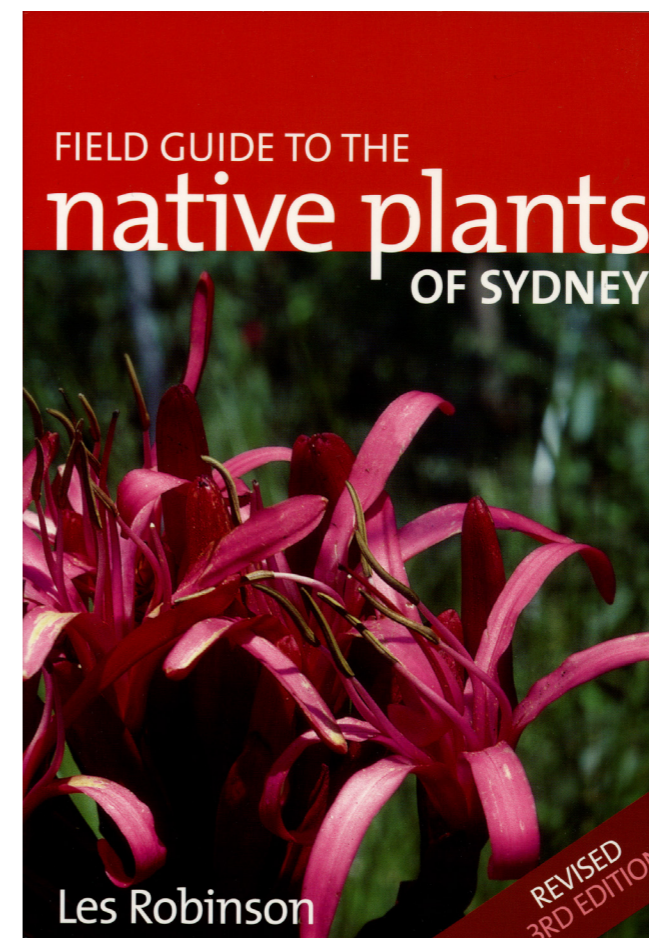
By **Diego Bonetto**

There is food within 3 metres of your front door.

Three generations ago it was common practice all over the world to collect this wild food; knowledge of what, where and when to forage was a necessary part of daily life. We still had lived experience of harvesting wild food with our own hands. But with the advent of supermarket culture the knowledge associated with foraging has mostly been lost.

Today, we want this knowledge back. From forest to seaside, riverbank to city street – even your own yard – there is wild food and medicine available to those who know where to look. In the face of global challenges such as climate change, food insecurity and pandemics, we seek to empower ourselves with the information and skills that enable self-reliance and equip us to care for our families and communities.

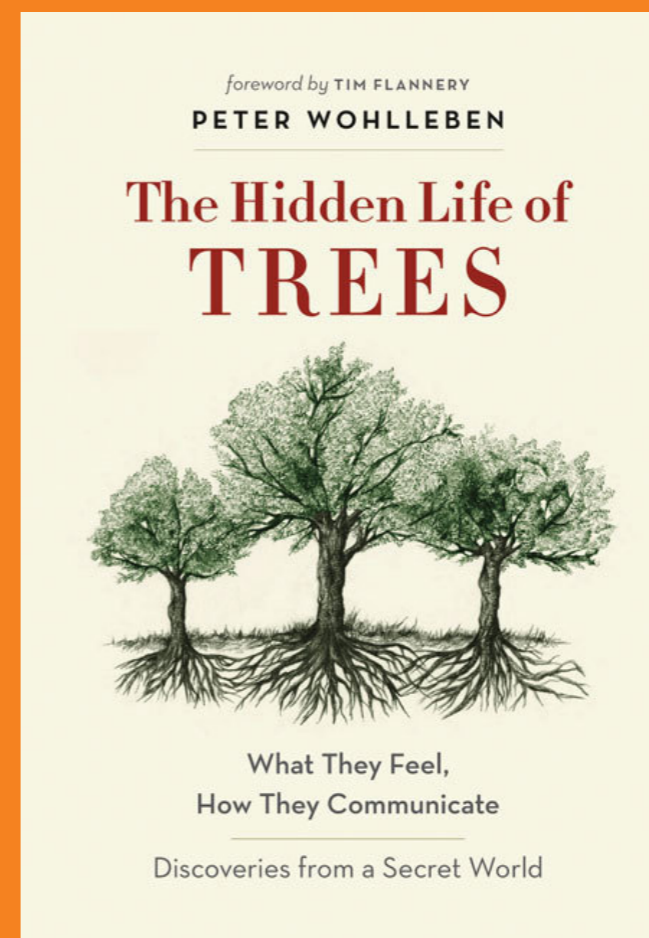
Eat Weeds shows you how to engage with wild food sources, transforming your neighbourhood into an edible adventure.



Field guide to the native plants of Sydney

By **Les Robinson**

Sydney's best-known and invaluable field guide to native plants. This third editions is become an indispensable guide providing accessible information on the history, ecology, Aboriginal and European uses of each plant, together with references to literature and the journals of explorers. This field guide opens up Sydney's extraordinary rich flora to plant lovers, students, bushwalkers, gardeners and environmentalists, in fact to anyone who wants to identify a plant in the bush.



The Hidden Life of Trees

By **Peter Wohlleben**

Are trees social beings? In *The Hidden Life of Trees* forester and author Peter Wohlleben convincingly makes the case that, yes, the forest is a social network. He draws on groundbreaking scientific discoveries to describe how trees are like human families: tree parents live together with their children, communicate with them, support them as they grow, share nutrients with those who are sick or struggling, and even warn each other of impending dangers. Wohlleben also shares his deep love of woods and forests, explaining the amazing processes of life, death, and regeneration that he has observed in his woodland.

Working bee calendar

BUSHCARE

GROUP	LOCATION	DAY	TIME	MAR	APR	MAY
Alison Road	Corner of Alison Rd and Beach St, Coogee	4th Thursday	1pm-3pm	27	24	22
Clovelly Bay	Opposite 18 Eastbourne Ave, Clovelly	4th Friday	9am-12pm	28	Public Holiday	23
Dunningham Reserve	Adjacent 5-7 Major St, Coogee	4th Thursday	9am-11am	27	24	22
Fred Hollows Reserve	Bligh Place entrance, Randwick	2nd Wednesday	9am-12pm	12	9	14
Gordons Bay	Access via UNSW Cliffbrook Campus Grounds: 45 Beach St, Coogee	1st Sunday	9am-12pm	2	6	4
Grant Reserve	Coogee Surf Life Saving Club car park (south of the beach)	3rd Wednesday	9am-11am	19	16	21
Ladies Pool (Women Only)	At the entrance to the Ladies Pool, McIver's Rock Baths, Coogee	3rd Thursday	9am-12pm	20	17	15
Malabar Foreshore	Opposite 9 Bay Pde, Malabar (near Malabar Ocean Pool)	1st Saturday	9am-1pm	1	5	3
Malabar Wetland	End of Manwaring Ave, Maroubra	3rd Wednesday	1pm-4pm	19	16	21
Maroubra Dunes	The South Maroubra SLSC car park	1st Thursday	9am-12pm	6	3	7
Old Tramline	The reserve between Dudley St and Carrington Rd, Randwick	2nd Thursday	9am-12pm	13	10	8
Prince Henry	Alternate between the corner of Jennifer & Harvey St, 5R Brodie Ave or opposite 2 Millard Dr, Little Bay	2nd Saturday	9am-1pm	8	12	10
Randwick Environment Park	Access via corner of Dooligah Ave and Burragulung St, Randwick. Works take place within fenced area on the far side of the oval.	1st Wednesday and 2nd Sunday	9am-12pm	5 & 9	2 & 13	7 & 11
Wylie's Baths	At the picnic tables above Wylie's Baths, Neptune St, Coogee	3rd Tuesday	9am-12pm	18	15	20

NON-COUNCIL RUN GROUPS

Friends of Malabar Headland*	Contact Therese Weiss on 0403 532 655 or via malabarheadland@gmail.com for details.	2nd, 3rd and 4th Thursday	9am-12pm	13, 20 & 27	10, 17 & 24	8, 15, 22 & 29
Little Bay Landcare*	Access between 119 and 121 Bilga Crescent, Malabar. Contact Kerry Gordon on 0411 245 985.	1st Saturday	8am-12pm	1	5	3
Kamay Botany Bay National Park*	Contact National Park Rangers for details. https://www.nationalparks.nsw.gov.au/things-to-do/volunteer-activities/bush-regeneration-at-kamay-botany-bay	Every Tuesday & 4th Saturday	Tues: 9am-12pm Sat: 8am-11am	4, 11, 18, 25 & 22	1, 8, 15, 22, 29 & 26	6, 13, 20, 27 & 24

For more information contact the Bushcare Officer via: bushcare@randwick.nsw.gov.au

*For non-council run groups please contact organisers directly.