

EUCALYPTS RULE

Deemed unattractive and of poor quality by early settlers, eucalypts define the Australian landscape and form an integral part of the country's identity. By Briar Jensen

ARRIVING IN AUSTRALIA 40 years ago from New Zealand, I initially struggled to see 'beauty' in the Aussie bush.

Unlike New Zealand's lush, moist, fern-filled forests or Europe's dark-green coniferous forests, the eucalypt woodlands of my new home were dry, untidy and sun-bleached. They gave off, as Murray Bail wrote in his 1998 award-winning taxonomic novel *Eucalyptus*, 'an inhospitable, unsympathetic air'.

And what did the term 'Aussie bush' mean exactly? Like 'the outback', it's vague vernacular that often has visitors stumped. Colloquially, it means anywhere beyond major metropolitan areas, but generally it refers to Australia's native forests. What sets Aussie bush apart from other forests of the world, however, is its monopolisation by eucalypts.

Eucalypts Reign

'No other landscape in the world is so dominated by one genus', writes Ashley Hay, author of *Gum: The Story of Eucalypts and Their Champions* (2021).

Commonly known as gum trees (due to sap-like resin oozing from some smooth-barked species), eucalypts have been here for at least 45 million years and make up 77% of our country's native forest trees.

'Most Australians can instinctively identify a eucalypt...by their overall "look, feel and smell"', says self-confessed eucalypt nerd Dean Nicolle, in the introduction to his reference books, *Taller Eucalypts for Planting in Australia* and *Smaller Eucalypts for Planting in Australia* (2016). Yet most

Aussies don't realise there are over 900 species, almost all native to Australia.

They range from scrubby shrubs to towering sentinels (the mountain ash *Eucalyptus regnans* being the world's tallest hardwood). Some species define locales, like sculptural Sydney red gums found in Ku-ring-gai Chase National Park (p137), colourful-trunked snow gums in sub-alpine regions like Kosciuszko National Park (p248) and statuesque river red gums, the most prolific species, tracing water courses across the continent.

All belong to three genera: *Eucalyptus*, *Corymbia* and *Angophora*. Apart from a handful of easily identifiable varieties, trying to differentiate species is like decoding your DNA, involving minute differences in flowers and fruits (called gumnuts).

Single-trunked or multi-trunked (called mallee), their bark can be smooth, rough, mottled, shedding or a combination. There are some helpful descriptive group names, like ghost gums (bone-white trunks), iron-barks (hard, deeply furrowed bark), ribbon gums (bark strips dangling from branches) and scribbly gums (trunks traced with calligraphic etchings by moth larvae).

Internationally, eucalypts are perhaps most famous for the scent of their leaves. They contain oils that release aromas when crushed, from the distinctive eucalyptus scent to peppermint and lemon. Although classed as evergreens, gums lose a third of their leaves annually. The tannins from these leaves are also responsible for the tea-like hue of some of Australia's rivers, lakes and



waterholes, like North Stradbroke Island's aptly named Brown Lake (Bummiera, p301).

The bush isn't entirely muted-toned, though. Eucalypts are the world's tallest flowering plants, with blooms of massed, tightly packed stamens, resembling mini mopheads, mostly in creamy white. ('The colour of beer froth', writes Bail.) Yellow, orange, pink and red flowers are less common but more spectacular.

Tenacious and opportunistic, gums can sprout from rocks, their roots wedged in cracks, trunks oozing over the surface like candle wax for balance. Riverbank dwellers may have root systems exposed by gouging floods, yet they cling on.

Wildfire & Wildlife

It's believed eucalypts evolved in a regime of fire as our continent warmed. Some species need fire to trigger seed release or germinate underground seed. Consequently, eucalypts actively fuel fire with oil-rich leaves, dropped litter and flailing bark.

Post-burning, trees rebound quickly with new shoots sprouting from underground lignotubers (growths of food reserves) and epicormic buds beneath bark. Within weeks, blackened trunks are covered in verdant downy growth resembling fluffy dusters – evidence of this can be seen at spots such as Kangaroo Island (p749), South Australia, and the Blue Mountains (p138), New South Wales, both of which have been affected by bushfires in the last 10 years.

Fire is needed for Australia's landscape to regenerate, but uncontrolled bushfires can have devastating consequences, including on wildlife. One study found more than 320 species of invertebrates on a single river red gum (more than 4000 insects). That's not counting 300-plus vertebrates like possums, gliders, birds, bats and reptiles that shelter in their hollows and feed on their nectar and seeds, or aquatic species that hide and spawn amongst riverbank roots.

Koalas are the cutest eucalypt inhabitants, sleeping up to 18 hours a day wedged in tree forks. Their digestive system has adapted to extract maximum benefit from fibrous, low-nutrient gum leaves, though they must consume 200g to 500g a day.

The loudest forest-dwellers, though, are Australia's birds, renowned for their volume. Whipbirds pierce the air with namesake

whip-cracking whistles and lyrebirds perform mimicry arias with operatic projection. Kookaburras cackling in unison resemble a laughter therapy session, while squawking parrots, caterwauling corellas and screeching cockatoos are as raucous as tanked-up footy fans at a Grand Final game.

But the iconic summer Aussie bush sound is millions of cicadas clacking a sonic Mexican wave so loud it reverberates inside your eardrums.

Indigenous Culture vs Settler Economy

If you take a tour during your time in Australia, you may hear Indigenous guides explaining how eucalypt forests were their supermarket, hardware store and pharmacy, providing food and material for shelters, tools, weapons, instruments and transport. It's no surprise to learn that eucalypts appear in Creation stories and are integral to spiritual practices, such as smoking ceremonies to cleanse, ward off bad spirits and provide protection.

They had myriad medicinal uses, too, from antiseptics and pain relief to treatments for infections and fevers. Australia's First Nations people understood that river red gums indicate underground water and knew which species' roots could be squeezed for drinking water.

Respecting nature's provisions, they harvested sustainably, taking only what was needed. Living 'scar trees' seen along the banks of the Murray River (p617), SA, show how carefully removed sections of bark for canoes or coolamons (bowls) didn't sacrifice the trees.

In contrast, within 24 hours of the First Fleet arriving in 1788, tradesmen and convicts were set to work felling trees for buildings, roads, bridges and jetties. Swathes of forest were cleared for farmland and fencing, and later for mine shafts, railway sleepers and steam engines.

Yet, as leisure-seekers explored the bush and pride in the fledgling colony grew, so too did their love for eucalypts. Gum leaves, flowers and nuts appeared as decorative motifs on furniture, pottery, jewellery, souvenirs, stamps and the \$5 note.

Twentieth-century artists Hans Heysen and Albert Namatjira (p869), whose paintings hang in galleries around Australia, popularised landscapes highlighting eucalypts.

Meanwhile, photographer Harold Cazneaux immortalised their tenacity in a 1937 black-and-white image of a river red gum titled *The Spirit of Endurance* taken in the Ikara-Flinders Ranges (p786), SA, where the tree still stands today.

Aussie bush formed the backdrop for colonial-era writers Banjo Paterson ('Waltzing Matilda' bush ballad) and Henry Lawson, and more recently Tim Winton, Mark Tredinnick and Inga Simpson. May Gibbs' children's book about gumnut babies, *Tales of Snugglepoot and Cuddlepootie*, published in 1918 and never out of print, has become a gift-shop staple and her Sydney home, Nutcote, is now a museum.

Eucalypts make cameos in numerous lyrics, but the catchy folk song 'Home Among the Gum Trees' popularised by John Williamson is the most recognisable patriotic earworm. However, some international travellers may be more familiar with the opening words of a popular children's song, 'Kookaburra Sits in the Old Gum Tree'.

Conservation Is a Work in Progress

This love, however, came with negative side effects. Forestry flourished unregulated for many years as Australia became the world's leading producer of eucalyptus oil until the 1950s.

Today, Australia has one of the highest land clearance rates in the developed world, primarily for agriculture, mining and logging. It's demolished nearly 44% of forests and woodlands in the 200-odd years since settlement, which has increased soil salinity, affected biodiversity and fast-tracked extinctions.

Yet, thanks to passionate nature lovers, we have one of the world's oldest national parks, Royal National Park in NSW, established in 1879. Willing protestors from all walks of life

have chained themselves to bulldozers and camped in treetops to protect forests from logging, dams and development, perhaps most famously in Tasmania (p633).

Recognition of the importance of gum trees is gradually increasing with National Eucalypt Day, public voting for Eucalypt of the Year and not-for-profit Eucalypt Australia offering fellowships for researchers, writers and artists.

Climate change may be their biggest threat, though. Increased bush-fire frequency threatens some species by reducing the window for them to grow from seed to maturity and therefore reproduce.

Author Stephen J Pyne offers hope in his 1991 book *Burning Bush: A Fire History of Australia*. 'Eucalyptus is not only the universal Australian,' he writes, 'it is the ideal Australian – versatile, tough, sardonic, contrary, self-mocking, with a deceptive complexity amid the appearance of massive homogeneity; an occupier of disturbed environment; a fire creature.'

You need to walk among eucalypts to understand them: feel their magnitude, admire their painterly bark, caress their cool trunks, inhale their hot scent, hear their shivering leaves.

I've met matriarchal Sydney red gums, fulsome, dimpled and shedding bark like menopausal women in a hot flush, sticky red resin dribbling sweat-like down ochre-orange bark. I've been dwarfed, physically and historically, by ancient river red gums growing since before European settlement. And I've pressed my ear to a sapling gum and heard life-giving water gurgling through its vascular system.

It's been a slow smoulder getting to know the Aussie bush, but now my love of eucalypt forests burns as strong as the summer wildfires needed for their survival.



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Koala, Kangaroo Island (p749)

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