



October  
2019

# Australian forest profiles

## Eucalypt



Eucalypts are iconic Australian forest trees. The *Eucalyptus* forest type is by far the most common forest type in Australia covering 101 million hectares, which is 77% of Australia's total native forest area.

The term 'eucalypt' includes approximately 800 species in the three genera *Angophora*, *Corymbia* and *Eucalyptus*. Almost all eucalypt species are native to Australia. Eucalypts

evolved from rainforest ancestors, adapting to an environment in which drought, nutrient-poor soils and fire were increasingly common.

Eucalypts have oil-rich foliage that burns readily, and they display a range of strategies to survive and recover from fire. The majority of eucalypt species are evergreen, retaining their leaves year-round.



River red gum (*Eucalyptus camaldulensis*) forest, Murray River, New South Wales  
Claire Howell

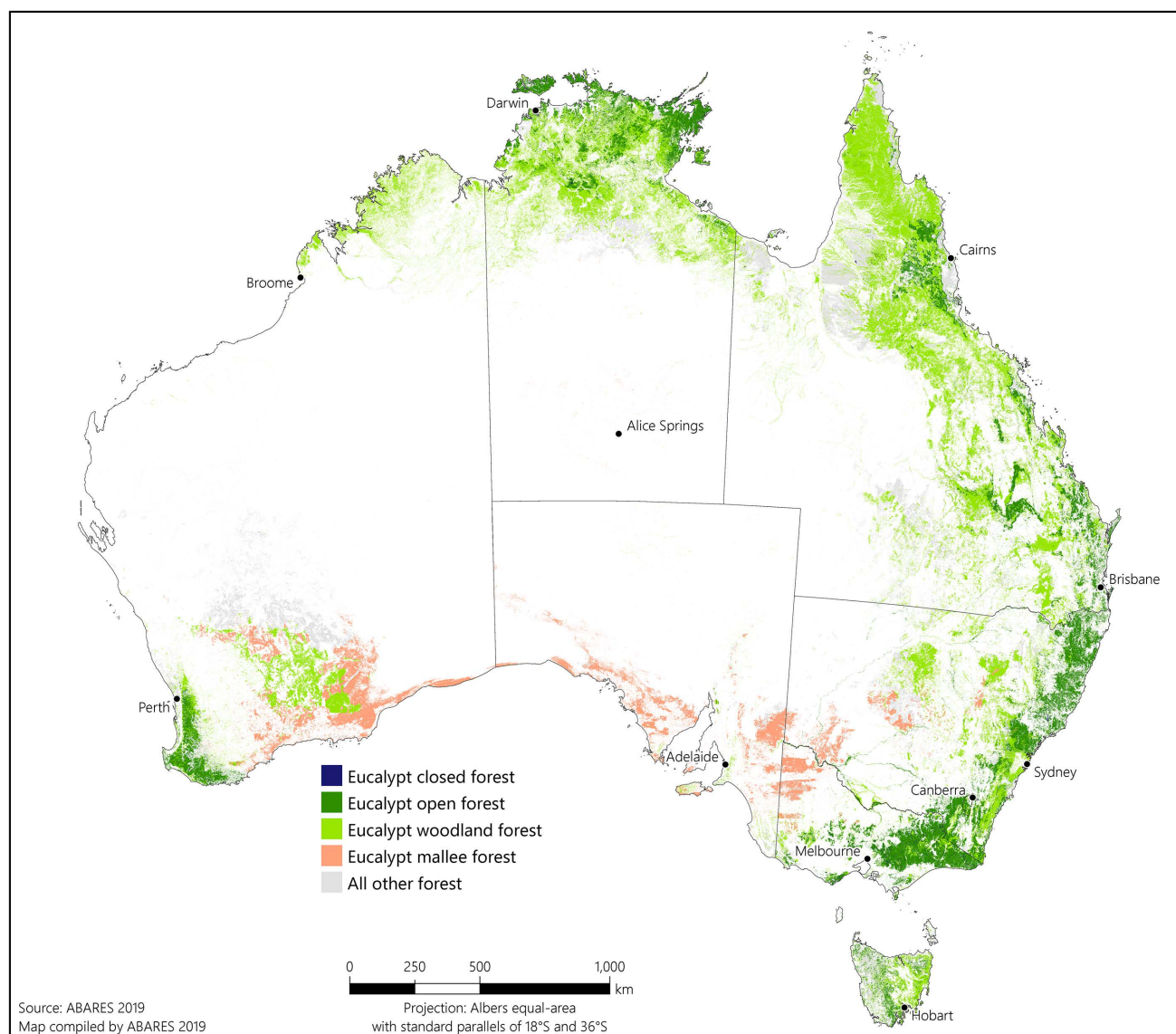
## Distribution and ownership

The Eucalypt forest type is found in all states and territories and across all but the continent's driest regions (Map 1).

A total of 35 million hectares (35%) of the Eucalypt forest type is in Queensland and 20 million hectares (20%) are in the Northern Territory. Thirty-two million hectares (32%) are on leasehold land, a further 32 million hectares (32%) are on private land and 18 million hectares (17%) are on nature conservation reserves (Table 1).

River red gum (*Eucalyptus camaldulensis*) is the most widely distributed eucalypt, and is found in all Australian mainland states. The forests of south-eastern Australia contain a wide range of dominant eucalypt species, including major commercial timber species such as mountain ash (*E. regnans*), messmate stringybark (*E. obliqua*), alpine ash (*E. delegatensis*), silvertop ash (*E. sieberi*), blackbutt (*E. pilularis*) and spotted gum (*Corymbia maculata*).

**MAP 1** Distribution of Eucalypt native forest, 2018



[Open a high-resolution version of Map 1 that can be saved as a PNG file](#)



**TABLE 1** Ownership of Eucalypt native forest, by state and territory, 2018 ('000 hectares)

Tenure	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	Australia
Leasehold forest	8	2,832	7,221	19,315	1,127	0	0	1,962	32,464
Multiple-use public forest	5	1,591	0	2,484	18	510	2,953	1,318	8,879
Nature conservation reserve	112	4,799	7	2,339	1,598	924	3,044	4,702	17,525
Other Crown land	4	591	760	946	79	286	231	6,568	9,466
Private forest	0	5,582	11,773	9,731	1,446	742	947	2,052	32,273
Unresolved tenure	0	65	2	368	15	0	0	0	451
<b>Total</b>	<b>129</b>	<b>15,460</b>	<b>19,764</b>	<b>35,184</b>	<b>4,283</b>	<b>2,461</b>	<b>7,175</b>	<b>16,602</b>	<b>101,058</b>

Note: Totals may not tally due to rounding. The six forest tenure categories are defined in *Australia's State of the Forests Report 2018*.

Source: ABARES (2019)

[Download Table 1 data as an Excel workbook](#)

Eucalypt forest in south-western Australia are dominated by jarrah (*E. marginata*) and karri (*E. diversicolor*). Typical eucalypts of northern Australia include Darwin woollybutt (*E. miniata*) and Darwin stringybark (*E. tetradonta*).

Many species of multi-stemmed mallee eucalypts are found across the inland regions of southern Australia. In inland arid zones, eucalypts are confined to the edges of rivers. Eucalypts are generally not found in the tropical and subtropical rainforests in eastern Australia, or in the warm and cool temperate rainforests of Victoria and Tasmania.

## Forest structure

The Eucalypt forest type is divided into 11 forest subtypes based on the form of individual trees, crown cover and tree height. Eucalypts grow in two forms: single-stemmed trees and multi-stemmed mallee.

A total of 60 million hectares (69%) of non-mallee Eucalypt forest is woodland forest and 71 million hectares (81%) are medium-height forest (Figure 1).

Mature mountain ash (*E. regnans*) trees are usually between 55 and 75 metres high, in tall forest. Some mountain ash trees can grow to more than 90 metres, making this the tallest plant species in Australia, one of the world's tallest hardwoods, and one of the world's tallest flowering plants.

A total of 13 million hectares (94%) of mallee Eucalypt forest is woodland forest and 11 million hectares (81%) are low forest (Figure 2).

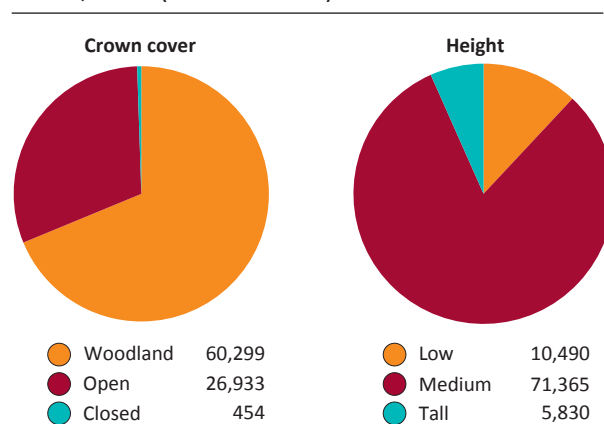
### Native forest structural classes

Native forests are divided into three classes based on crown cover:

- **woodland forest** (20 to 50% crown cover)
- **open forest** (>50 to 80% crown cover)
- **closed forest** (>80 to 100% crown cover).

and three classes based on mature tree height:

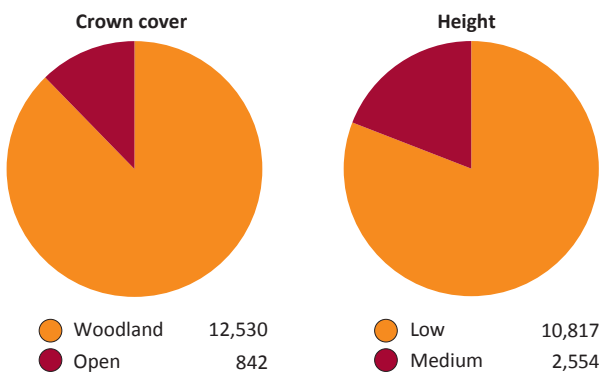
- **low** (2 to 10 metres)
- **medium** (>10 to 30 metres)
- **tall** (>30 metres).

**FIGURE 1** Structure of non-mallee Eucalypt native forest, 2018 ('000 hectares)

Source: ABARES (2019)

[Download Figure 1 data as an Excel workbook](#)

**FIGURE 2** Structure of mallee Eucalypt native forest, 2018 ('000 hectares)



Source: ABARES (2019)  
[Download Figure 2 data as an Excel workbook](#)



Tall forest of flooded gum (*Eucalyptus grandis*), mid-north coast, New South Wales  
*Claire Howell*

## Importance and uses

Eucalypt native forests are important for the conservation of Australia’s rich biodiversity. They support many forest-dwelling or forest-dependent species of flora and fauna. This includes species endemic to Australia, and species that are listed as threatened under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

### Red-tailed black-cockatoo: a eucalypt specialist

The red-tailed black-cockatoo (*Calyptorhynchus banksii*) is a forest-dwelling species of parrot that requires large tree hollows for nesting. Two subspecies are listed as threatened: the south-eastern subspecies (*C. b. graptogyne*) and the forest subspecies (*C. b. naso*). The south-eastern red-tailed black-cockatoo is found only in western Victoria and south-east South Australia. It inhabits eucalypt woodlands of varying species, but feeds mainly on seeds from desert stringybark (*E. arenacea*) and brown stringybark (*E. baxteri*). The forest red-tailed black-cockatoo is found only in south-west Australia and feeds mainly on seeds from jarrah (*E. marginata*) and karri (*E. diversicolor*). Both subspecies face threats from habitat loss and limited availability of nesting hollows.



Female and male forest red-tailed black-cockatoo (*Calyptorhynchus banksii naso*) from south-west Western Australia  
*Bill Bell*



Indigenous Australians have traditionally used nearly all parts of eucalypt trees. Leaves and leaf oils have medicinal properties, and saps can be used as adhesive resins. Bark and wood have been used for making vessels, tools and weapons such as spears and clubs.

Because of the size, wood quality and widespread distribution and abundance of eucalypts, eucalypts are a significant source of wood. The variability in wood colour, shape, hardness, weight, strength and durability makes eucalypt useful for many applications. Sawn wood is used in large-scale construction, general building, furniture-making and wood-turning. Engineered wood products such as laminated veneers, fibreboards and particleboards are used for construction and flooring. Eucalypt wood is also used for chipping, paper pulp and fuelwood. Oils distilled from eucalypt leaves are used for aromatherapy and in perfumes.



Sub-alpine eucalypts, Victorian high country  
Tony Hunn

“Y’YES-ou

ABARES 2019, *Forests of Australia (2018)*, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, [agriculture.gov.au/abares/forestsaustralia/forest-data-maps-and-tools/spatial-data/forest-cover](http://agriculture.gov.au/abares/forestsaustralia/forest-data-maps-and-tools/spatial-data/forest-cover).

Boland, D, Brooker, M, Chippendale, G, Hall, N, Hyland, B, Johnston, R, Kleinig, D, McDonald, M & Turner, J 2006, *Forest trees of Australia*, 5th edn, CSIRO Publishing, Melbourne.

Carnahan, JA 1990, *Atlas of Australian resources, vol. 6, Vegetation*, Australian Government Publishing Service, Canberra.

Montreal Process Implementation Group for Australia & National Forest Inventory Steering Committee 2018, *Australia's State of the Forests Report 2018*, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, [agriculture.gov.au/abares/forestsaustralia/sofr/sofr-2018](http://agriculture.gov.au/abares/forestsaustralia/sofr/sofr-2018).

© Commonwealth of Australia 2019

All material in this publication is licensed under a Creative Commons Attribution 4.0 International Licence, except for content supplied by third parties, logos and the Commonwealth Coat of Arms.

The Creative Commons Attribution 4.0 International Licence is a standard form licence agreement that allows you to copy, distribute, transmit and adapt this publication provided you attribute the work. A summary of the licence terms is available from [creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/). The full licence terms are available from [creativecommons.org/licenses/by/4.0/legalcode](http://creativecommons.org/licenses/by/4.0/legalcode). Inquiries about the licence and any use of this document should be sent to [copyright@agriculture.gov.au](mailto:copyright@agriculture.gov.au).

This publication should be attributed as ABARES 2019, *Australian forest profiles: Eucalypt*, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, [www.doi.org/10.25814/5d9167d34241f](https://doi.org/10.25814/5d9167d34241f).

This is one in a series of profiles on Australia's major forest types. It has been compiled using information from the Australia's State of the Forests Report series. The latest report, *Australia's State of the Forests Report 2018*, and the profiles, are available at [agriculture.gov.au/abares/forestsaustralia](http://agriculture.gov.au/abares/forestsaustralia).

The Australian Government, acting through the Department of Agriculture, has exercised due care and skill in preparing and compiling the information and data in this publication. Notwithstanding, the department, its employees and its advisers disclaim all liability, including for negligence and for any loss, damage, injury, expense or cost incurred by any person as a result of accessing, using or relying on information or data in this publication, to the maximum extent permitted by law.

